

FINAL ENVIRONMENTAL ASSESSMENT/ TRIBAL ENVIRONMENTAL IMPACT REPORT

AGUA CALIENTE BAND OF CAHUILLA INDIANS CATHEDRAL CITY FEE-TO-TRUST CASINO PROJECT

JULY 2019

LEAD AGENCY:

U.S. Department of the Interior
Bureau of Indian Affairs
Pacific Region Office
2800 Cottage Way # W2820
Sacramento, CA 95825

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TABLE OF CONTENTS

AGUA CALIENTE BAND OF CAHUILLA INDIANS
CATHEDRAL CITY FEE-TO-TRUST CASINO PROJECT
FINAL ENVIRONMENTAL ASSESSMENT

1.0 INTRODUCTION 1
- 1.1 Summary of the Proposed Action and Environmental Review Process 1
- 1.2 Purpose and Need for Proposed Action 1
- 1.3 Background 2
- 1.4 Overview of the Environmental Review Process 3
  - 1.4.1 National Environmental Policy Act 3
  - 1.4.2 Tribal-State Compact Environmental Review Requirements 3
- 1.5 Coordination with the City of Cathedral City 4
- 1.6 Regulatory Requirements and Approvals 4

2.0 ALTERNATIVES 6
- 2.1 Site Location 6
- 2.2 Proposed Project Alternative 6
  - 2.2.1 Fee-to-Trust Transfer 6
  - 2.2.2 Casino Development 6
  - 2.2.3 Protective Measures and Best Management Practices 10
- 2.3 Reduced Intensity Alternative 14
- 2.4 Non-Gaming Alternative 14
- 2.5 No Action Alternative 15
- 2.6 Comparison of the Alternatives 15
- 2.7 Alternatives Eliminated from Further Analysis 16
  - 2.7.1 South Site Alternative 16
  - 2.7.2 Other Alternative Sites 16

3.0 AFFECTED ENVIRONMENT 18

4.0 ENVIRONMENTAL CONSEQUENCES 22
- 4.1 Land Resources 22
  - 4.1.1 Proposed Project Alternative 22
  - 4.1.2 Reduced Intensity Alternative 23
  - 4.1.3 Non-Gaming Alternative 23
  - 4.1.4 No Action Alternative 23
- 4.2 Water Resources 24
  - 4.2.1 Proposed Project Alternative 24
  - 4.2.2 Reduced Intensity Alternative 25
  - 4.2.3 Non-Gaming Alternative 25
  - 4.2.4 No Action Alternative 26
- 4.3 Air Quality 26
  - 4.3.1 Methodology 26
  - 4.3.2 Proposed Project Alternative 28
  - 4.3.3 Reduced Intensity Alternative 29
  - 4.3.4 Non-Gaming Alternative 30
  - 4.3.5 No Action Alternative 31

4.4 Biological Resources 31
4.4.1 Proposed Project Alternative 31
4.4.2 Reduced Intensity Alternative 32
4.4.3 Non-Gaming Alternative 32
4.4.4 No Action Alternative 32
4.5 Cultural Resources 32
4.5.1 Proposed Project Alternative 32
4.5.2 Reduced Intensity Alternative 33
4.5.3 Non-Gaming Alternative 33
4.5.4 No Action Alternative 33
4.6 Socioeconomic Conditions/Environmental Justice 33
4.6.1 Proposed Project Alternative 33
4.6.2 Reduced Intensity Alternative 36
4.6.3 Non-Gaming Alternative 36
4.6.4 No Action Alternative 37
4.7 Transportation/Circulation 37
4.7.1 Proposed Project Alternative 38
4.7.2 Reduced Intensity Alternative 39
4.7.3 Non-Gaming Alternative 39
4.7.4 No Action Alternative 39
4.8 Land Use 39
4.8.1 Proposed Project Alternative 39
4.8.2 Reduced Intensity Alternative 40
4.8.3 Non-Gaming Alternative 40
4.8.4 No Action Alternative 40
4.9 Public Services and Utilities 41
4.9.1 Proposed Project Alternative 41
4.9.2 Reduced Intensity Alternative 43
4.9.3 Non-Gaming Alternative 44
4.9.4 No Action Alternative 44
4.10 Visual Resources 44
4.10.1 Proposed Project Alternative 44
4.10.2 Reduced Intensity Alternative 45
4.10.3 Non-Gaming Alternative 45
4.10.4 No Action Alternative 45
4.11 Noise 45
4.11.1 Proposed Project Alternative 46
4.11.2 Reduced Intensity Alternative 49
4.11.3 Non-Gaming Alternative 49
4.11.4 No Action Alternative 49
4.12 Hazardous Materials 49
4.12.1 Proposed Project Alternative 49
4.12.2 Reduced Intensity Alternative 50
4.12.3 Non-Gaming Alternative 50
4.12.4 No Action Alternative 50
4.13 Cumulative Impacts and Indirect Effects 50
4.13.1 Cumulative Setting 50
4.13.2 Cumuative Impacts 52
4.13.3 No Action Alternative 59
4.13.4 Indirect Effects 59

5.0 MITIGATION MEASURES 61

6.0 CONSULTATION AND COORDINATION 64

7.0 BIBLIOGRAPHY **66**

8.0 PREPARERS **73**

LIST OF TABLES

1-1 Potential Permits and Approvals Required 5
2-1 Proposed Project Alternative Components 7
2-2 Proposed Project Alternative Best Management Practices 11
2-3 Reduced Intensity Alternative Components 14
2-4 Non-Gaming Alternative Components 15
3-1 Environmental Setting 18
4-1 Unmitigated (Mitgated) Construction Emissions from Project Alternatives 28
4-2 Proposed Project Alternative Unmitigated Operational Emissions 29
4-3 Reduced Intensity Alternative Unmitigated Operational Emissions 30
4-4 Non-Gaming Alternative Unmitigated Operational Emissions 31
4-5 Proposed Project Alternative Trip Generation 38
4-6 Proposed Project Alternative Solid Waste Generation 42
4-7 Typical Construction Noise Levels 46
4-8 Vibration Levels for Construction Equipment 47
4-9 Planned Development Projects within the Region 51
4-10 Project-Related Unmitigated Annual GHG Emissions – All Alternatives 54
4-11 Compliance with State Emissions Reduction Strategies 54
5-1 Proposed Mitigation Measures for the Proposed Project Alternative, Reduced Intensity Alternative, and Non-Gaming Alternative 61

LIST OF APPENDICES

Appendix A Off-Site Alternatives Evaluation Report
Appendix B Scoping Memorandum
Appendix C Off-Reservation Environmental Impact Analysis Checklist
Appendix D Figures
Appendix E Economic & Community Impact Analysis
Appendix F Water and Wastewater Report
Appendix G Grading and Drainage Report
Appendix H Expanded Affected Environment
Appendix I Biological Resources Documents and Species Lists
Appendix J Cultural Resources Survey
Appendix K Traffic Impact Analysis
Appendix L Noise Measurement Files
Appendix M Hazardous Materials Documentation
Appendix N Air Quality Inputs and Output Files
Appendix O Draft Conformity Determination
Appendix P Response to Comments

LIST OF ACRONYMS

AB Assembly Bill
ADT average daily trips
AES Analytical Environmental Services
AF acre-feet
AFY acre-feet per year

AMR	American Medical Response
APE	Area of Potential Effects
APN	Assessor's Parcel Number
BIA	Bureau of Indian Affairs
BMPs	Best Management Practices
CAA	Clean Air Act
CalEEMod	California Emissions Estimator Model
CAP	criteria air pollutant
CARB	California Air Resources Board
CBC	California Building Code
CCCAP	Cathedral City Climate Action Plan
CCFD	Cathedral City Fire Department
CCPD	Cathedral City Police Department
CDFW	California Department of Fish and Wildlife
CEQ	Council on Environmental Quality
CEQA	California Environmental Quality Act
CFH	cubic feet per hour
CFR	Code of Federal Regulations
CNDDB	California Natural Diversity Database
CNEL	community noise equivalent level
CNPS	California Native Plant Society
CO	carbon monoxide
CO_2	carbon dioxide
CO_2e	carbon dioxide equivalents
CPSC	California Public Safety Code
CURC	City Urban Revitalization Corporation
CVWD	Coachella Valley Water District
CWA	Clean Water Act
cy	cubic yards
dBA	A-weighted decibels
DPM	diesel particulate matter
DRN	Downtown Residential Neighborhood
DTC	Downtown Commercial
DWA	Desert Water Agency
EA	Environmental Assessment
EMS	emergency medical services
EO	Executive Order
ESA	Environmental Site Assessment
EV	electric vehicle
FEMA	Federal Emergency Management Agency
FESA	Federal Endangered Species Act
FHWA	Federal Highway Administration
FICON	Federal Interagency Committee on Noise
FONSI	Finding of No Significant Impact
FTA	Federal Transportation Administration
GHG	greenhouse gas
gpd	gallons per day

HAP	hazardous air pollutant
HREC	historical recognized environmental condition
HVAC	heating, ventilation, and air conditioning
IAM	Indian Affairs Manual
IFC	International Fire Code
IGRA	Indian Gaming Regulatory Act
IPCC	International Panel on Climate Change
IRA	Indian Reorganization Act
ISO	Independent System Operator
ITE	Institute of Transportation Engineers
Leq	equivalent noise level
LID	Low Impact Development
LOS	level of service
MGD	million gallons per day
MVA	megavolt-amperes
MXC	Mixed Use Commercial
NAAQS	National Ambient Air Quality Standards
NAGPRA	Native American Graves Protection and Repatriation Act
NAHC	Native American Heritage Commission
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NOP	Notice of Preparation
NO_x	nitrogen oxides
NPDES	National Pollutant Discharge Elimination System
NSR	New Source Review
O_3	ozone
PCE	passenger car equivalence
$PM_{2.5}$	particulate matter smaller than 2.5 microns in diameter
PM_{10}	particulate matter smaller than 10 microns in diameter
PSD	Prevention of Significant Deterioration
PSUSD	Palm Springs Unified School District
REC	recognized environmental condition
ROG	reactive organic gas
SCAQMD	South Coast Air Quality Management District
SCE	Southern California Edison
sf	square feet
SHPO	State Historic Preservation Officer
SO_2	Sulfur Dioxide
SoCalGas	Southern California Gas Company
SSAB	Salton Sea Air Basin
SWPPP	Stormwater Pollution Prevention Plan
TBSC	Tribal Building Safety Code
TEIR	Tribal Environmental Impact Report
THPO	Tribal Historic Preservation Officer
TIA	Traffic Impact Analysis

TPH	Total Petroleum Hydrocarbon
tpy	tons per year
TUMF	Transportation Uniform Mitigation Fee
USC	United States Code
USEPA	United States Environmental Protection Agency
USFWS	United States Fish and Wildlife Service
v/c	volume to capacity
VdB	vibration decibels
WRP-10	Water Reclamation Plant 10

SECTION 1.0

INTRODUCTION

1.1 SUMMARY OF THE PROPOSED ACTION AND ENVIRONMENTAL REVIEW PROCESS

This Environmental Assessment (EA)/Tribal Environmental Impact Report (TEIR), herein referred to as an EA, has been prepared pursuant to the requirements of the National Environmental Policy Act (NEPA; 42 United States Code [USC] §4321 et seq.) and the Tribal-State Gaming Compact (Compact) between the State of California and the Agua Caliente Band of Cahuilla Indians (Tribe) with an effective date of October 31, 2016. The EA assesses the environmental impacts of taking approximately 13.6 acres contiguous to the Tribe's reservation in the City of Cathedral City (City), in Riverside County (County), California (North Site or Section 33 Parcel), into federal trust status for the Tribe for gaming purposes (Proposed Action). The Tribe subsequently proposes to develop the contiguous trust parcel with a casino, parking, bars, restaurants, retail, mixed-use space, and tribal government office space (Proposed Project).

The statutory authority for acquiring lands in trust status for Indian tribes is provided in the Indian Reorganization Act of 1934 (IRA; 25 USC §5108), with regulations codified at 25 Code of Federal Regulations (CFR) §151 *et seq*. Pursuant to 25 CFR Part 151, the Assistant Secretary of Indian Affairs, as an authorized representative of the Secretary of the Interior (Secretary), is charged with reviewing and approving tribal applications to take land into federal trust status. The Tribe is seeking to acquire land contiguous to the Agua Caliente Indian Reservation (Reservation) into trust for gaming purposes; thus, to be eligible for gaming land must comply with Section 20 of the Indian Gaming Regulatory Act (IGRA; 25 USC §2719[a][1]). Under Section 20 of IGRA (25 USC §2701 *et seq.*), gaming on lands acquired in trust by the Secretary after October 17, 1988, is prohibited, with some exceptions. Here, the relevant exception is that the North Site is located contiguous to the boundaries of the reservation of the Tribe on October 17, 1988 (25 USC § 2719 [a][1]).

This EA has been completed in accordance with NEPA; the Council on Environmental Quality's (CEQ) Guidelines for Implementing NEPA (40 CFR §1500 *et seq.*); and the Bureau of Indian Affairs' (BIA's) NEPA Guidebook (59 Indian Affairs Manual [IAM] 3-H). For the purpose of this EA, the BIA serves as the Lead Agency for compliance with NEPA. This EA provides a detailed description of the Proposed Action and an analysis of the potential environmental consequences associated with the Proposed Action. This EA also includes a discussion and analysis of alternatives, including a Reduced Intensity Alternative, Non-Gaming Alternative, and No Action Alternative. The Off-site Alternatives Evaluation Report, **Appendix A**, provides an analysis of the eliminated South Site Alternative, as well as a description of other off-site alternatives eliminated from consideration within this EA, as described in **Section 2.7**.

Additionally, this EA has been prepared to comply with the requirements of the Compact. Section 11.0 of the Compact requires the Tribe to prepare a TEIR assessing the off-Reservation environmental impacts of the Proposed Project. To reduce paperwork and eliminate redundancy, this EA and the required Compact TEIR have been prepared in coordination, resulting in a joint EA/TEIR, hereinafter referred to as an EA.

1.2 PURPOSE AND NEED FOR PROPOSED ACTION

The federal Proposed Action is the acquisition of the 13.6-acre North Site in trust for gaming purposes for the Tribe pursuant to the Secretary's authority under the Indian Reorganization Act, 25 USC 5108 and the Indian Gaming Regulatory Act (IGRA), 25 U.S.C. § 2719 (a)(1). The purpose of the Proposed Action is to facilitate tribal self-sufficiency, self-determination, and economic development, thus, satisfying both the Department's land acquisition policy as articulated in the Department's trust land regulations at 25 C.F.R. Part 151, and the principle goal of IGRA as articulated in 25 U.S.C. § 2701. The need for the Department to act on the Tribe's application is established by the Department's regulations at 25 C.F.R. §§ 151.10(h) and 151.12, and the Tribe's needs related to facilitation of tribal self-sufficiency, self-determination, and economic development are described further in **Section 1.3**.

1.3 BACKGROUND

The Tribe is a federally-recognized Tribe with an approximately 30,000-acre Reservation in Riverside County, California. In 1876 and 1877, executive orders established the Tribe's Reservation to comprise, in a checkerboard pattern, all of the even-numbered sections in three townships, with some exceptions. With some exceptions, the odd numbered sections were granted to the Southern Pacific Railroad in fee, who sold the bulk of its grant to others who, over time, formed the three primary local municipalities of Palm Springs, Cathedral City, and Rancho Mirage. In the past 75 years, the Tribe has acquired various other parcels within the Reservation and surrounding vicinity as both tribal trust land and fee simple holdings.

Within the Reservation, approximately 4,000 acres are held in trust for the Tribe, approximately 18,000 acres are held in trust for individual Indian allottees, and approximately 9,300 acres are in fee simple. The Tribe also owns 5,800 acres off-Reservation, with approximately 3,700 of those acres held in trust. Since establishment of the Reservation, the Tribe itself has lost approximately 27,000 acres due to allotment and assimilation policies with over 9,000 acres having passed into fee simple ownership. The Tribe continuously seeks to re-establish its historic land base with a particular focus on acquiring parcels with cultural significance and parcels that can be used for tribal economic development or governmental purposes, as well as to mitigate the effects of checkerboard jurisdiction caused by the legacy of federal allotment policies.

Due to high acquisition costs and the location of several desirable resort communities within the Reservation boundaries, it is extremely difficult for the Tribe to re-acquire lands on or contiguous to the Reservation. The median price per acre in Palm Springs in 2012 was $2,387,097, which is significantly higher than the average price per acre of the Section 33 Parcel of $507,300. Although the Reservation encompasses over 30,000 acres, the total amount of tribally-owned land that is available for development of any kind is extremely limited, and the total amount of tribally-owned land that is available for gaming development is even smaller (refer to the Tribe's fee-to-trust application and **Section 2.7** for additional information).

The Tribe submitted a fee-to-trust application for the Section 33 Parcel (North Site), which is contiguous to the Tribe's Reservation land in Cathedral City, to help ameliorate the historical loss of tribal lands and enable the Tribe to utilize its own resources to remedy the continuing impacts of allotment and assimilation, and to generate revenue to provide essential governmental services and consolidate existing trust allotments within the Reservation. The Tribe requires additional revenues to allow the tribal government to provide a wider variety of essential governmental services to its tribal members and more effectively exercise jurisdiction over tribal members and Indian lands. The Tribe anticipates that revenues from the Proposed Project will be used to develop a much needed tribal court system, create a robust tax commission, and to address the growing homelessness problem on the Reservation. Acquisition of the Section 33 Parcel will also further the Tribe's goal of re-establishing its historic land base, and generate funding to re-acquire more of the tens of thousands of acres divested from the Tribe as a result of the previous allotment policy.

Additionally, as described further in **Section 1.5** below, the Proposed Action is needed to strengthen the Tribe's partnership with the City, as a significant portion of the Tribe's lands are located within the City boundaries. The Tribe, City of Cathedral City, and the City Urban Revitalization Corporation (CURC) have worked cooperatively to share a common goal to redevelop the Section 33 Parcel with gaming, retail and mixed use development. This site is within the City's long blighted downtown area, which is slated for redevelopment. The development of a gaming facility at the Section 33 Parcel is envisioned to serve as an anchor that would promote growth of a walkable Cathedral City entertainment district adjacent to the existing Cathedral City Civic Center, which houses the City Police Department and City Hall buildings, restaurants, theaters, and retail.

In summary, the Tribe's need for requesting the Proposed Action is to promote the Tribe's long-term economic vitality and self-governance capability by providing and sustaining essential government services for current and future generations, including a tribal court system, a tax commission, and to address the growing homelessness problem on the Reservation. In addition, the Tribe's need for the Proposed Action is to help achieve the Tribe's goal of re-establishing its historic land base through funding generated by the facility.

1.4 OVERVIEW OF THE ENVIRONMENTAL REVIEW PROCESS

As mentioned above in **Section 1.1**, this document has been prepared to meet NEPA and Compact environmental review requirements. A brief overview of both processes is provided below.

1.4.1 NATIONAL ENVIRONMENTAL POLICY ACT

Notice of Preparation (NOP) and Scoping

Although not required by NEPA for the preparation of an EA, the BIA as Lead Agency elected to conduct a 30-day scoping comment period and to hold a scoping meeting to solicit input from the public and agencies regarding the scope of the EA.

Pursuant to the Compact, a Notice of Preparation (NOP) describing the Proposed Project and announcing a 30-day scoping period and the date and location of a public scoping meeting was prepared and circulated for public and agency review on December 29, 2017. The NOP was published in the *Desert Sun*, posted online at on www.cathedralcitycasino.com, filed with the State Clearinghouse for distribution to state agencies, and was sent to various federal and local agencies through direct mailings, including Riverside County. A public scoping meeting was conducted at 6:00 pm on January 18, 2018, at the Doubletree by Hilton, located at 67967 Vista Chino, Cathedral City, to provide project information and to solicit public input on the EA scope and alternatives. Approximately 10 people attended the public meeting; of these, one provided oral comments.

The issues that were raised during the scoping period have been summarized within the *NEPA Scoping Process Summary Report for the Agua Caliente Band of Cahuilla Indians Cathedral City Casino Fee-to-Trust Project*, dated June 2018 (**Appendix B**). This EA addresses the issues and concerns summarized in the scoping report.

Environmental Assessment

This EA was prepared in accordance with NEPA to analyze and document the environmental consequences of constructing a casino and associated facilities subsequent to the transfer of 13.6 acres into federal trust status for the Tribe. Preparation of this EA included consultation with the BIA, Tribe, City, and others (see **Section 6.0**). The BIA will use this EA to determine whether or not the Proposed Action would result in adverse effects to the environment and to satisfy the environmental review process of 59 IAM 3-H, 40 CFR § 1501.3 and 40 CFR § 1508.9. The Draft EA was released for a 45-day comment period pursuant to Section 11.3 of the Compact. The comments received and responses thereto are provided in **Appendix P**. Comments will be considered by the BIA, and either a Finding of No Significant Impact (FONSI) will be prepared, or additional environmental analysis will be conducted. After the NEPA process is complete, the BIA may issue a determination on the Tribe's fee-to-trust application for gaming.

1.4.2 TRIBAL-STATE COMPACT ENVIRONMENTAL REVIEW REQUIREMENTS

The Tribe entered into a new Class III gaming compact with the State of California in 2016. Pursuant to Section 11.0 of the Compact, the Tribe is required to prepare a TEIR to analyze the potential off-Reservation environmental impacts of the Proposed Project. The TEIR checklist included as Appendix B of the Compact is provided in **Appendix C**. This EA has been prepared to address all relevant checklist items.

As described above, an NOP for the joint EA/TEIR was submitted to the State Clearinghouse and Riverside County on December 29, 2017, pursuant to Section 11.2 of the Compact. Concerns raised in response to the NOP were considered during preparation of this EA.

The joint Draft EA/TEIR was been released for a 45-day comment period pursuant to Section 11.3 of the Compact. Comments received and responses are provided within this Final TEIR as Appendix P, and show good faith, reasoned analysis of the significant environmental points raised. This Final TEIR and mitigation recommendations will be considered by the Tribal Council in its decision to proceed with the Proposed Project. In accordance with Section 11.7 of the Compact, prior to the commencement of the Proposed Project and no later than the issuance of the Final TEIR, the Tribe shall offer to commence negotiations with the County and/or City and, upon acceptance of the Tribe's offers, shall negotiate with the County and/or City and enter into enforceable written agreements with respect to the matters set forth below:

"(1) The timely mitigation of any Significant Effect on the Off- Reservation Environment (which effects may include, but are not limited to, aesthetics, agricultural resources, air quality, biological resources, cultural resources, geology and soils, hazards and hazardous materials, water resources, land use, mineral resources, traffic, noise, utilities and service systems, and cumulative effects), where such effect is attributable, in whole or in part, to the Project unless the parties agree that the particular mitigation is infeasible, taking into account economic, environmental, social, technological, or other considerations.

(2) Compensation for law enforcement, fire protection, emergency medical services and any other public services to be provided to the Tribe for the purposes of the Gaming Operation, including the Gaming Facility, as a consequence of the Project.

(3) Reasonable compensation for programs designed to address and treat gambling addiction.

(4) Mitigation of any effect on public safety attributable to the Project, including any compensation to the County and/or city as a consequence thereof."

1.5 COORDINATION WITH THE CITY OF CATHEDRAL CITY

The Tribe has worked in cooperation with the CURC, and the City to realize a common vision for redevelopment of the City's downtown area, which includes the alternative sites analyzed in this EA. Ordinance No. 624 was adopted in 2006, which stated that the purpose of redeveloping the downtown area was "to eliminate conditions of blight by: providing needed public improvements, encouraging rehabilitation of deteriorating structures, and facilitating land assembly and development which will result in employment opportunities…." The Tribe, CURC, and City share a common goal to redevelop a site in the downtown area for gaming, retail, and mixed-use development. The CURC and City have emphasized the importance of the proposed facility including a gaming component as an anchor to enable further growth of a walkable Downtown/Art and Design Village.

CURC received proceeds from the land acquisition transaction, which CURC is now utilizing to design and construct a much needed new fire station (411) for the City. The new fire station will be located immediately north of the North Site. This new station will provide improved off-Reservation and on-Reservation fire protection services, and is being sized to accommodate future development of the downtown area.

The City supported the 2016 Compact between the Tribe and the State of California with full knowledge that the Tribe intended to develop the North Site with a casino and related commercial development.

1.6 REGULATORY REQUIREMENTS AND APPROVALS

The Proposed Project, as described in **Section 2.0**, may require federal, State, and local approvals and actions. **Table 1-1** identifies each responsible agency and the potential permit or approval required. Additionally, approval of the Proposed Project by the Tribal Council would also be required prior to implementation of the Proposed Project.

Table 1-1
POTENTIAL PERMITS AND APPROVALS REQUIRED

Agency	Permit or Approval	Alternatives
Federal/State		
Secretary of the Interior	Transfer of alternative site into federal trust status for the Tribe	PP, RI, NG
United States Environmental Protection Agency (USEPA)	Verification of project coverage under the National Pollutant Discharge Elimination System (NPDES) General Permit for Stormwater Discharges from Construction Activities as required by the Clean Water Act (CWA)	PP, RI, NG
	General Conformity Determination review	NG
California Office of Historic Preservation	Consultation under Section 106 of the National Historic Preservation Act (NHPA)	PP, RI, NG
Local		
City of Cathedral City	Approval of water, wastewater, and/or drainage connections	PP, RI, NG
	Approval of off-site road improvements	PP, RI, NG
	Issuance of encroachment permits for frontage and access improvements, and traffic mitigations	PP, RI, NG
Notes: PP – Proposed Project Alternative; NA – No Action Alternative; RI – Reduced Intensity Alternative; NG – Non-Gaming Alternative		

SECTION 2.0
ALTERNATIVES

This section describes the alternatives that are analyzed within this EA. A reasonable range of alternatives has been selected based on consideration of the purpose and need of the Proposed Action and opportunities for potentially reducing environmental effects. These alternatives include the Proposed Project Alternative, the No Action Alternative, the Reduced Intensity Alternative, and the Non-Gaming Alternative. Consistent with CEQ guidelines (40 CFR §1502.14), this section summarizes and compares the potential environmental consequences, benefits, and/or detriments of the project alternatives (**Section 2.6**). Alternatives that were considered but are not analyzed in this EA are also described (**Section 2.7**).

2.1 SITE LOCATION

The development site location considered in this EA is the North Site, or Section 33 Parcel, which is the 13.6-acre property contemplated in the Tribe's fee-to-trust application. As described in **Section 2.7** and **Appendix A**, off-site alternatives were considered but eliminated from detailed analysis within this EA. The Proposed Project Alternative, Reduced Intensity Alternative, and Non-Gaming Alternative, if selected, would be built on the North Site. As shown on **Figures 2-1** and **2-2** of **Appendix D**, the North Site is located within the City, in Riverside County, California and shares its eastern border with the Agua Caliente Reservation. The approximately 13.6-acre North Site is bordered by East Palm Canyon Drive/Highway 111 on the south, Date Palm Drive on the east, Buddy Rogers Avenue on the north, and commercial and vacant parcels within the City to the west (**Figure 2-2** of **Appendix D**). Table 1 of **Appendix B** provides the County Assessor Parcel Numbers (APNs) and acreage for the North Site.

2.2 PROPOSED PROJECT ALTERNATIVE

The Proposed Project Alternative consists of the following components: (1) transfer of the 13.6-acre North Site into federal trust status for the benefit of the Tribe for gaming purposes; and (2) the subsequent development by the Tribe of a casino, mixed use facilities, and associated infrastructure on the trust property.

2.2.1 FEE-TO-TRUST TRANSFER

The Tribe has submitted an application to the BIA for the transfer of the 13.6-acre North Site into federal trust for the development of a casino and related facilities (Proposed Action). The proposed trust parcel boundaries are shown in **Figure 2-2** of **Appendix D**. The BIA will make its determination regarding the proposed fee-to-trust acquisition in accordance with the procedures set forth in 25 CFR Part 151. The regulations in 25 CFR Part 151 implement Section 5 of the IRA, codified at 25 USC §5108, which is the general statute that provides the Secretary with authority to acquire lands in trust status for tribes and individual Indians. The Tribe and the federal government would exercise civil regulatory jurisdiction over the site once it is taken into trust.

2.2.2 CASINO DEVELOPMENT

The Tribe proposes to develop a casino and ancillary facilities on the North Site after it is conveyed into federal trust status. A conceptual site plan for the Proposed Project Alternative is shown in **Figure 2-3** of **Appendix D**. Proposed facilities include a casino with 40,000 square feet (sf) of gaming floor space, parking, and mixed-use facilities, including a combination of tribal government office space, restaurants, and retail uses totaling 125,000 sf of development. A breakdown of the components of the Proposed Project Alternative is provided in **Table 2-1**.

The casino would be open 24 hours a day, 7 days a week. The Proposed Project Alternative would create a total of 556 direct employment opportunities at the casino and mixed-use facilities within the North Site (**Appendix E**). The casino would have approximately 500 Class III gaming devices, and 8 table games.

Table 2-1
PROPOSED PROJECT ALTERNATIVE COMPONENTS

Component	Units	Approximate Square Footage
Casino		
Gaming Floor	500 Class III gaming devices and 8 table games	40,000
Back of House/Support		17,500
Restaurants		5,000
Retail		2,500
	Total	***65,000***
Mixed-Use		
Building A		6,800
Building B		4,000
Building C		6,500
Building D		13,000
Building E		25,000
Building F		4,500
	Total	***60,000***
	Overall Project Total	**125,000**
Parking	~1,000 spaces	
Source: Allen+Philp Partners, 2018.		

Mixed use space is anticipated to be developed within a combination of office, restaurants, and retail facilities. Tribal governmental office space is anticipated to be located within Building A as shown on **Figure 2-3** of **Appendix D** and would be occupied by several tribal governmental departments that are currently located in non-tribal leased office space or have outgrown their existing space at the Tribal Administration Plaza, including Tribal Realty, Emergency Services, the Tribal Historic Preservation Officer (THPO), and Tribal Education Services. Although the exact uses have not been established, it is anticipated that retail development would occupy approximately 40 percent of the remaining space with restaurant uses occupying approximately 60 percent.

Architecture, Signage, Lighting, and Landscaping

The buildings architecture and exterior signage would enhance the natural characteristics of the site and vicinity by incorporating native materials and colors. Illuminated signs would be designed to blend with the light levels of the building and landscape lighting in both illumination levels and color characteristics. The exterior lighting of the Proposed Project would be integrated into components of the architecture and would be strategically positioned to minimize off-site lighting and any direct site lines to the public. The architectural design of the Proposed Project would be enhanced by landscaping using drought tolerant plants native to the region.

Parking

Approximately 1,000 surface-level parking spaces would be constructed to accommodate patrons and employees. The development of a parking deck may be necessary if the 1,000 surface parking spaces are not adequate to serve patrons of the Proposed Project Alternative. This two-level parking deck would provide an additional 240 parking stalls, and would be constructed with a maximum height of 28 feet above grade for light poles on the top level. The deck would be located within the planned parking area on the site, in the approximate location shown on **Figure 2-3** of **Appendix D**.

Construction

Construction of the casino and adjoining mixed use facilities is conservatively assumed to occur in one phase starting in 2019. Construction of the parking lot, on-site utilities, and landscaping would occur simultaneously

with construction of the casino. In accordance with the Compact, the proposed facilities would conform to the applicable building code requirements of the California Building Code (CBC) and California Public Safety Code (CPSC), including building, electrical, energy, mechanical, plumbing, fire protection, and safety as adopted under the Tribal Building and Safety Code (Tribal Ordinance No. 26). An indoor sprinkler system would be installed to provide fire protection.

Water Supply

Water supply for existing (and historical) uses within the North Site is provided through the Desert Water Agency (DWA). The estimated average daily water usage for the Proposed Project Alternative would be approximately 33,929 gallons per day (gpd), with an annual consumption of approximately 38 acre-feet (AF; **Appendix F**). As described in **Section 4.9**, DWA anticipates it will have a sufficient water supply to serve the Proposed Project Alternative and existing users.

While there are several existing DWA water mains on and in the immediate vicinity of the North Site, these mains in their current layout would be insufficient to accommodate the projected potable water demand and fire flow requirement of the Proposed Project Alternative (**Appendix F**). Therefore, the Proposed Project Alternative includes the construction of a new 12-inch main that would run west along the southern boundary of the North Site within East Palm Canyon Drive from an existing water main at the intersection of East Palm Canyon Drive and Date Palm Drive, and would then run north through the North Site along Allen Avenue, terminating at the existing water main running east-to-west in Buddy Rogers Avenue. This proposed main would provide adequate fire flow to the North Site under the Proposed Project Alternative (**Appendix F**). The Proposed Project Alternative would also require the removal or abandonment of the existing water mains on the North Site that are between Allen Avenue and Date Palm Drive. The remaining existing water mains located west of Allen Avenue would be connected to the new water main and would remain in service, though they may be relocated within the site to accommodate new construction and/or follow new roadway alignments. All water supply infrastructure improvements would occur within or immediately adjacent to the North Site.

Wastewater Treatment

All wastewater generated within the North Site is currently conveyed by DWA sewer lines and treated at the Coachella Valley Water District's (CVWD) Water Reclamation Plant 10 (WRP-10) facilities. As described in **Section 4.9.1**, CVWD's treatment facilities would have sufficient excess capacity to accommodate the increase in wastewater flows resulting from the Proposed Project Alternative. While there are several sewer mains and branch lines on and in the vicinity of the North Site, these lines are inadequate in their current layout to serve the Proposed Project Alternative. Therefore, the Proposed Project Alternative involves the construction of a new 8-inch sewer main that would run west along the northern site boundary within Buddy Rogers Avenue from the existing lift station at the intersection of Buddy Rogers Avenue and Date Palm Drive and then south through the North Site along Allen Avenue to the point where Allen Avenue currently intersects with Grove Street. The portion of the existing sewer main in Grove Street between Allen Avenue and Date Palm Drive would need to be removed or abandoned, while the portion west of Allen Avenue would be connected to the new sewer line and remain in service, though it may be relocated on-site to accommodate construction activities or the realignment of roadways. All wastewater infrastructure improvements would occur within or immediately adjacent to the North Site, and no improvements to other downline components of the DWA or CVWD conveyance and treatment infrastructure would be required.

Grading and Drainage

Construction would involve grading and excavation for building pads and parking lots. Grading of the North Site to accommodate the Proposed Project Alternative is anticipated to require the net import of a maximum of 91,933 cubic yards (cy) of fill (**Appendix G**). Structural fill would be transported in accordance with State and County requirements during normal construction hours (6 a.m. to 5 p.m.), and dust suppression Best Management Practices (BMPs) would be used for roadways and trucks.

On the North Site there is currently a 26-foot difference in elevation from southwest corner to northeast corner. Because the casino building is anchored at the southeast corner, a slope of less than 2 percent down to the East

Palm Canyon Drive curb was used. However, there is a more than 16-foot difference in elevation remaining from the low end of East Palm Canyon Drive to the northeast corner. Going west on East Palm Canyon Drive the buildings were placed at street grade, and the other buildings were stepped down from one to the next to the maximum extent without introducing stairs and ramps at all the entrances. This grading strategy resulted in a conservatively high level of fill material required for development of the North Site. Imported fill volumes may be reduced during final design of the Proposed Project Alternative. The final design phase of the Proposed Project Alternative will also include finalization of the grading plan for the site.

The North Site currently has a total impervious area of approximately 3.1 acres. An existing 48-inch storm drain pipe runs underground through the North Site beneath Allen Avenue from Date Palm Drive to the North Cathedral Channel, but is not able to directly receive stormwater flows from the North Site. Development of the Proposed Project Alternative would increase the total impervious acreage on the North Site to approximately 12.24 acres (**Appendix G**). City standards require the on-site retention of 100 percent of stormwater flows resulting from a 100-year, 3-hour storm event. To provide the necessary 137,244 cubic feet of storage required to accommodate flows from such an event, the Proposed Project Alternative involves the installation of approximately 2,010 linear feet of 96-inch perforated corrugated metal pipe surrounded by porous stone beneath the proposed parking areas in the northeast portion of the North Site (**Appendix G**). These pipes, which would provide approximately 138,166 cubic feet of storage, would contain stormwater flows and allow them to infiltrate slowly into the underlying aquifer. Grates and filter bags would also be installed around drainage inlets to remove trash, debris, and sediment from the runoff before it flows to the retention facilities. Runoff to off-site drainage facilities would not occur.

Other Low Impact Development (LID) features designed to reduce impacts to surface waters and filter stormwater runoff that may be incorporated into the design of the Proposed Project Alternative include bio-retention facilities, vegetated filter strips, and possibly permeable pavement. Bio-retention facilities are low points that store runoff and allow it to infiltrate; these would be incorporated between rows of vehicles in the parking lots. Proposed vegetated filter strips are areas of landscaped vegetation adjacent to impervious areas that would reduce the velocity of runoff and allow pollution to be deposited into the vegetated areas. Permeable pavement, which is an option being considered by the Tribe for parking lot areas, would have a high infiltration rate while accommodating heavy vehicle loads.

The Proposed Project Alternative would comply with the NPDES general construction permit and implement stormwater discharge management controls that effectively reduce or prevent the discharge of pollutants into receiving waters during construction in accordance with the CWA. In accordance with NPDES general permit requirements, a Stormwater Pollution Prevention Plan (SWPPP) would be prepared prior to construction. The SWPPP would include BMPs to minimize storm water effects to water quality during construction.

Roadway Access

The Proposed Project would be accessible via one full-access driveway on East Palm Canyon Drive, with secondary access along Buddy Rogers Avenue (as shown in **Figure 2-3** of **Appendix D**). Parking lot access would also be provided to the northeastern lot, which includes the loading docks and service entry. This area would be primarily used for employees and service vehicles.

The design of the Proposed Project Alternative includes the construction of full width improvements on all internal roadways, including traffic calming measures in parking lots and internal roadways. The Proposed Project Alternative contemplates construction of roadway improvements and appropriate signage and striping adjacent to the North Site's boundary to provide three westbound lanes on East Palm Canyon Drive, three southbound lanes on Date Palm Drive, and one eastbound lane on Buddy Rogers Avenue. Additionally, modifications at existing traffic signals adjacent to the North Site will be constructed as needed.

The driveway for the Proposed Project Alternative at Buddy Rogers Avenue would be restriped with a one-way stop control to provide one left turn and one shared through-right turn northbound lanes; one shared left-through-right southbound lane; one shared left-through-right eastbound lane; and one shared left-through-right westbound

lane. The driveway for the Proposed Project Alternative at East Palm Canyon Drive would be restriped with signalized control to provide one left turn and one right turn southbound lanes; one left turn, two through, and one right turn eastbound lanes; and one left turn, three through, and one right turn westbound lanes. Further, sight distances at these driveways will be reviewed with respect to Riverside County sight distance standards at the time of preparation of final grading, landscape, site development, and street improvement plans.

Law Enforcement, Fire Protection, and Emergency Medical Services

The Cathedral City Police Department (CCPD) provides law enforcement services to the area of Cathedral City in which the North Site is located and would be the primary agency responsible for law enforcement associated with the Proposed Project Alternative. Tribe-managed security personnel and security cameras would provide surveillance of proposed structures, parking areas, and ancillary facilities.

The Cathedral City Fire Department (CCFD) currently serves the North Site and vicinity and would provide fire protection services to the project under the Proposed Project Alternative. CCFD's Station 411 is currently located in the northeast corner of the North Site, but the City is planning to move Station 411 to a location immediately north of its existing location, north of Buddy Rodgers Avenue and east of Second Street Park. Station 411 will continue to serve the vicinity of the North Site following its relocation. Building plans and specifications would comply with the International Fire Code (IFC) requirements as adopted under the Tribal Building and Safety Code for commercial structures, including requirements for sprinkler systems and fire extinguishers. CCFD would also be the primary provider of EMS to the Proposed Project Alternative. In the event that the CCFD EMS team is unable to respond to a service call at the Proposed Project Alternative, American Medical Response (AMR) or Riverside County EMS, both based in the City of Riverside, may also be contacted.

As described in **Section 1.4.2**, Section 11.7 of the Compact requires that if it is determined that law enforcement, fire protection, emergency medical services (EMS), and any other public services will be burdened as a result of the Proposed Project despite the mitigation measures identified in this EA and the voluntary payment of the development impact fees identified in Chapter 3.17 of the City's Municipal Code, prior to commencement of the Proposed Project Alternative, and no later than the issuance of the Final TEIR to the County, the Tribe shall offer to commence negotiations with the City and if necessary, the County. These negotiations would allow for all parties to enter into enforceable intergovernmental agreements with respect to the matters set forth in Section 11.7(a) of the Compact to ensure that the mitigation contemplated herein is sufficient.

Electricity and Natural Gas

Southern California Edison (SCE) provides electrical services to the North Site and vicinity and would provide electricity to the Proposed Project Alternative. There are existing underground and overhead electrical lines on and adjacent to the North Site which may need to be reoriented to accommodate and serve the development of the Proposed Project Alternative.

Southern California Gas Company (SoCalGas) provides natural gas services to the North Site and vicinity and would provide natural gas to the Proposed Project Alternative. There are existing high pressure distribution lines running immediately adjacent to the southern and eastern boundaries of the North Site beneath East Palm Canyon Drive and Date Palm Drive.

The Proposed Project Alternative is estimated to have an electrical load of approximately 7.33 megavolt-amperes (MVA), and a natural gas load of approximately 21,800 cubic feet per hour (CFH; MSA Engineering Consultants, 2018).

2.2.3 PROTECTIVE MEASURES AND BEST MANAGEMENT PRACTICES

Protective measures and BMPs, including regulatory requirements, green construction methods as adopted under the Tribal Building and Safety Code, and voluntary measures that would be implemented by the Tribe, have been incorporated into the design of the Proposed Project Alternative. Where applicable, these measures will be incorporated into any design or construction contracts to eliminate or substantially reduce environmental consequences from the Proposed Project Alternative. These measures are discussed below in **Table 2-2**.

TABLE 2-2
PROPOSED PROJECT ALTERNATIVE BEST MANAGEMENT PRACTICES

Resource Area	Best Management Practices
Land Resources	▪ A grading report will be prepared and submitted with the working design plans. All recommendations of the report will be adhered to. ▪ All site clearing, removal of all unsuitable soil, proper moisture conditioning, review of imported fill material, fill placement, observation of foundation excavations, and other site grading will be verified during construction to ensure compliance with standard engineering practices. ▪ All structures will meet CBC and CPSC requirements as adopted under the Tribal Building and Safety Code. ▪ Erosion control measures will implemented during construction as described further under the Water Resources BMPs.
Water Resources	The Tribe shall comply with the NPDES General Construction Permit from the USEPA, for construction site runoff during the construction phase in compliance with the CWA. A SWPPP shall be prepared, implemented, and maintained throughout the construction phase of the development, consistent with Construction General Permit requirements. The SWPPP prepared for the site would include, but would not be limited to, the following BMPs: ▪ To the extent feasible, grading activities shall be limited to the immediate area required for construction and remediation. ▪ Temporary erosion control measures (such as silt fences, fiber rolls, vegetated swales, a velocity dissipation structure, staked straw bales, temporary re-vegetation, rock bag dams, erosion control blankets, and sediment traps) shall be employed for disturbed areas. ▪ Construction activities shall be scheduled to minimize land disturbance during peak runoff periods. ▪ Disturbed areas shall be paved or re-vegetated following construction activities. ▪ Construction area entrances and exits shall be stabilized with large-diameter rock. ▪ A spill prevention and countermeasure plan shall be developed which identifies proper storage, collection, and disposal measures for potential pollutants (such as fuel, fertilizers, pesticides, etc.) used on site. ▪ Petroleum products shall be stored, handled, used, and disposed of properly in accordance with provisions of the CWA (33 USC §1251 to 1387). ▪ Construction materials, including topsoil and chemicals, shall be stored, covered, and isolated to prevent runoff losses and contamination of surface and groundwater. ▪ Fuel and vehicle maintenance areas shall be established away from all drainage courses and designed to control runoff. ▪ Sanitary facilities shall be provided for construction workers. ▪ Disposal facilities shall be provided for soil wastes, including excess asphalt during construction. ▪ Wheel wash or rumble strips and sweeping of paved surfaces shall be used to remove any and all tracked soil. ▪ LID methods shall be implemented that would help store, infiltrate, evaporate, and detain stormwater runoff. Techniques that may be included in the design of the Proposed Project include: bio-retention facilities, vegetated filter strips, and permeable pavement.
Air Quality Construction	The following dust suppression measures will be implemented to control the production of fugitive dust (PM_{10}) and prevent wind erosion of bare and stockpiled soils: ▪ Spray exposed soil with water or other suppressant twice a day or as needed to suppress dust. ▪ Use non-toxic chemical or organic dust suppressants on unpaved roads and traffic areas. ▪ Minimize dust emissions during transport of fill material or soil by wetting down loads, ensuring adequate freeboard (space from the top of the material to the top of the truck bed) on trucks, cleaning the interior of cargo compartments on emptied haul trucks before leaving a site, and/or covering loads. ▪ Promptly clean up spills of transported material on public roads. ▪ Restrict traffic speeds on site to 15 miles per hour to reduce soil disturbance. ▪ Provide wheel washers to remove soil that would otherwise be carried off site by vehicles to decrease deposition of soil on area roadways. ▪ Cover dirt, gravel, and debris piles as needed to reduce dust and wind-blown debris. The following measures will be implemented to reduce emissions of criteria pollutants, greenhouse gases (GHGs), and diesel particulate matter (DPM) from construction: ▪ The Tribe shall control criteria pollutants and GHG emissions from the facility by requiring all diesel-powered equipment be properly maintained and minimize idling time to five minutes when construction equipment is not in use, unless per engine manufacturer's specifications or for safety reasons more time is required. Since these emissions would be generated primarily by construction equipment, machinery engines shall be kept in good mechanical condition to minimize exhaust emissions. The Tribe shall employ periodic and unscheduled inspections to accomplish the above measures. ▪ Require all construction equipment with a horsepower rating of greater than 50 be equipped with diesel particulate filters, which would reduce approximately 85 percent of DPM.

Resource Area	Best Management Practices
	▪ Require all construction equipment with a horsepower rating of greater than 50 be equipped with CARB-rated Tier 3 engines, with the exception of scrapers. ▪ Require the use of low reactive organic gases (ROG; 150 grams per liter or less) for architectural coatings to the extent practicable. ▪ Environmentally preferable materials, including recycled materials, shall be used to the extent readily available and economically practicable for construction of facilities.
Air Quality Operation	The Tribe will reduce emissions of criteria air pollutants and GHGs during operation of the Proposed Project through the following actions: ▪ The Tribe shall use clean fuel vehicles in the vehicle fleet where practicable, which would reduce criteria pollutants and GHG emissions. ▪ The Tribe shall provide preferential parking for employee vanpools, carpools, and or other rideshare vehicles (such as ZIP car) which would reduce criteria pollutants and GHGs. ▪ The Tribe shall consider and to the extent feasible will incorporate preferential parking for Plug-In Electric Vehicles, along with the installation of corresponding electric vehicle (EV) charging stations into the design of the Proposed Project. ▪ Shuttle service to and from population centers shall be provided as feasible, which would reduce criteria pollutants and GHGs. ▪ Water consumption shall be reduced through low-flow appliances, drought resistant landscaping, and the incorporation of "Save Water" signs near water faucets throughout the development. ▪ The Tribe shall control criteria pollutants, GHG, and diesel particulate matter (DPM) emissions during operation of the Proposed Project by requiring all diesel-powered vehicles and equipment be properly maintained and minimizing idling time to five minutes at loading docks when loading or unloading food, merchandise, etc. or when diesel-powered vehicles or equipment are not in use; unless per engine manufacturer's specifications or for safety reasons more time is required. The Tribe shall employ periodic and unscheduled inspections to accomplish the above mitigation. ▪ All buildings within the Proposed Project site will be constructed generally consistent with Title 24 requirements and green building standards as adopted under the Tribal Building and Safety Code, and thus will incorporate energy efficiency features. The Tribe may elect to participate in the SCE Savings by Design Program to identify further energy saving measures. These may include: o Use of energy-efficient lighting, appliances, and heating and cooling systems o Reflective roofing o Use of automatic temperature and lighting controls ▪ The Tribe shall install recycling bins throughout the casino for glass, cans, and paper products. Trash and recycling receptacles shall be placed strategically outside to encourage people to recycle. In addition, the Tribe will promote the use of non-polystyrene take-out containers and encourage food waste composting programs at all restaurants that serve more than 100 meals per day. The Tribe will reduce solid waste stream of the facility by at least 50 percent. ▪ The Tribe shall plant trees and vegetation on site or fund such plantings off site. The addition of photosynthesizing plants would reduce atmospheric carbon dioxide (CO_2), because plants use CO_2 for elemental carbon and energy production. Trees planted near buildings would result in additional benefits by providing shade to the building; thus reducing heat absorption, reducing air conditioning needs and saving energy. ▪ The Tribe shall discourage buses from idling for extended periods during operation of the Proposed Project. ▪ On-site pedestrian facility enhancements such as walkways, benches, proper lighting, and building access will be provided, which are physically separated from parking lot traffic. ▪ Adequate ingress and egress at entrances will be provided to minimize vehicle idling and traffic congestion.
Cultural Resources	▪ Any inadvertent discovery of archaeological resources shall be subject to Section 106 of the National Historic Preservation Act as amended (36 CFR § 800), the Native American Graves Protection and Repatriation Act (NAGPRA; 25 USC § 3001 et seq.), and the Archaeological Resources Protection Act of 1979 (16 USC § 470aa-mm). Specifically, procedures for post review discoveries without prior planning pursuant to 36 CFR § 800.13 shall be followed. The purpose of the following BMPs is to minimize the potential adverse effect of construction activities to previously unknown archaeological or paleontological resources in the case of inadvertent discovery: o All work within 50 feet of the find shall be halted until a professional archaeologist meeting the Secretary of the Interior's qualifications (36 CFR §61), or paleontologist if the find is of a paleontological nature, can assess the significance of the find in consultation with the BIA, other appropriate agency and the Tribe. o If any archaeological find is determined to be significant by the archaeologist or paleontologist, the THPO shall meet with the archaeologist, or paleontologist, to determine the appropriate course of action, including the development of a Treatment Plan and implementation of appropriate provisions, if necessary.

Resource Area	Best Management Practices
	○ All significant cultural or paleontological materials recovered shall be subject to scientific analysis, professional curation, and a report prepared by the professional archaeologist, or paleontologist, according to current professional standards. ○ If human remains are discovered during ground-disturbing activities on Tribal lands, pursuant to NAGPRA, the THPO and a BIA representative shall be contacted immediately, and shall determine whether the remains are Native American. If Native American, the provisions of NAGPRA shall apply. No further disturbance shall occur until the THPO and BIA representative have made the necessary findings as to the origin and disposition.
Public Services and Utilities Fire Safety	▪ The Tribe will voluntarily pay development impact fees to the City, as identified in Chapter 3.17 of the City's Municipal Code, to provide compensation for public services to be provided to the proposed development. ▪ Areas surrounding the gaming facilities will have "No Loitering" signs in place, be well lit and be patrolled regularly by roving security guards. This will aid in the prevention of auto theft and other similar criminal activity. ▪ The Tribe will conduct background checks of all gaming employees, as that term is defined in Section 2.11 of the Compact, and ensure that all gaming employees meet licensure requirements established by IGRA, National Indian Gaming Commission regulations, the Tribe's Gaming Ordinance, and the Compact. ▪ The Tribe will comply with Section 12.8 of the Compact, which specifically requires that the purchase, sale, and service of alcoholic beverages by or to patrons be subject to California alcoholic beverage laws. ▪ Construction equipment will contain spark arrestors, as provided by the manufacturer. ▪ Staging areas, welding areas, or areas slated for development using spark-producing equipment will be cleared of dried vegetation or other materials that could serve as fire fuel.
Visual Resources	▪ Placement of floodlights on buildings will be designed so as to not cast light off site. ▪ Outdoor light fixtures shall be fully or partially shielded and filtered consistent with the City Municipal Code §9.89.050. ▪ Perimeter lighting shall be installed consistent with the City Municipal Code §8.34.110.
Noise	▪ Unless an early work permit is issued by the Tribe in consultation with the City, construction activities will be limited to daytime hours consistent with the City's Municipal Code 11.96.070: ○ October 1 through April 30: Monday through Friday 7:00 am to 5:30 pm; Saturday: 8:00 am to 5:00 pm; Sunday: none; State holidays: none. ○ May 1 through September 30: Monday through Friday: 6:00 am to 7:00 pm; Saturday: 8:00 am to 5:00 pm; Sunday: none: State holidays: none. ▪ All powered equipment will comply with applicable federal regulations and all such equipment will be fitted with adequate mufflers according to the manufacturer's specifications to minimize construction noise effects. ▪ Heating, ventilation, and air conditioning (HVAC) equipment will be shielded to reduce noise. ▪ Pile driving will not occur prior to 9:00 a.m. or after 5:00 p.m.
Hazardous Materials	▪ Personnel shall follow BMPs for filling and servicing construction equipment and vehicles. BMPs that are designed to reduce the potential for incidents/spills involving the hazardous materials include the following: ○ To reduce the potential for accidental release, fuel, oil, and hydraulic fluids shall be transferred directly from a service truck to construction equipment. ○ Catch-pans shall be placed under equipment to catch potential spills during servicing. ○ Refueling shall be conducted only with approved pumps, hoses, and nozzles. ○ All disconnected hoses shall be placed in containers to collect residual fuel from the hose. ○ Vehicle engines shall be shut down during refueling. ○ No smoking, open flames, or welding shall be allowed in refueling or service areas. ○ Refueling shall be performed away from bodies of water to prevent contamination of water in the event of a leak or spill. ○ Service trucks shall be provided with fire extinguishers and spill containment equipment, such as absorbents. ○ Should a spill contaminate soil, the soil shall be put into containers and disposed of in accordance with local, state, and federal regulations. ○ All containers used to store hazardous materials shall be inspected at least once per week for signs of leaking or failure. ▪ In the event that contaminated soil and/or groundwater is encountered during construction related earth-moving activities, all work shall be halted until a professional hazardous materials specialist or other qualified individual assesses the extent of contamination. If contamination is determined to be hazardous, the Tribe shall consult with the USEPA to determine the appropriate course of action, including development of a Sampling and Remediation Plan if necessary. Contaminated soils that are determined to be hazardous shall be disposed of in accordance with federal regulations.

Resource Area	Best Management Practices
Transportation/ Circulation	▪ The Tribe or the Tribe's contractor will contact SunLine Transit Agency at least thirty days in advance of work commencing so that arrangements can be made to remove, replace, and/or relocate the existing bus stop facilities within the site (bench and waste container for bus stops #234 and #46). ▪ The Tribe will remove, replace, and/or relocate bus stops #234 and #46 in coordination with SunLine Transit Agency. The relocated and/or replaced bus stops will be designed to meet the needs of all passengers, including the disabled, seniors, and children.

2.3 REDUCED INTENSITY ALTERNATIVE

The Reduced Intensity Alternative consists of the transfer of the North Site into federal trust status for gaming purposes for the benefit of the Tribe and the subsequent development of a casino on the site. Under the Reduced Intensity Alternative, the casino would include 40,000-sf of gaming floor space, parking, and mixed-use facilities, including a combination of tribal government office space, restaurants, and retail uses totaling 103,000 sf of development. The Reduced Intensity Alternative is similar to the Proposed Project, except that mixed-use facilities would be reduced in size when compared to the Proposed Project Alternative as described within the EA. A breakdown of the facilities proposed under the Reduced Intensity Alternative is provided in **Table 2-3**, and the proposed site plan is provided as **Figure 2-4** of **Appendix D**.

TABLE 2-3
REDUCED INTENSITY ALTERNATIVE COMPONENTS

Component	Units	Approximate Square Footage
Casino		
Gaming Floor	500 Class III gaming devices and 8 table games	40,000
Back of House/Support		17,500
Restaurants		5,000
Retail		2,500
	Total	***65,000***
Mixed-Use		
Building D		13,000
Building E		25,000
	Total	***38,000***
	Overall Project Total	**103,000**
Parking (surface only)	~850 spaces	
Source: Allen+Philp Partners, 2018.		

As with the Proposed Project Alternative, the Reduced Intensity Alternative would be open 24 hours a day, 7 days a week. The Reduced Intensity Alternative would employ fewer people (480 direct employment opportunities) and attract fewer patrons than the Proposed Project Alternative. The casino would have approximately 500 Class III gaming machines devices, and 8 table games. Water supply, wastewater treatment and disposal, grading and drainage, roadway access, public health and safety standards, fire protection, and law enforcement under the Reduced Intensity Alternative would be similar to the Proposed Project Alternative (**Section 2.2.2**) but with a reduced demand for services due to the smaller development size. The construction methods and BMPs for the Reduced Intensity Alternative would be identical to those described for the Proposed Project Alternative (**Section 2.2.3**).

In addition to the roadway access design construction described for the Proposed Project Alternative (refer to **Section 2.2.2**), the eastern project driveway contemplated under the Reduced Intensity Alternative at Buddy Rogers Avenue would be restriped with a one-way stop control to provide one shared left-right turn northbound lane; one shared through-right eastbound lane; and one shared left-through westbound lane.

2.4 NON-GAMING ALTERNATIVE

The Non-Gaming Alternative consists of the transfer of the North Site into federal trust status for the benefit of the Tribe and the subsequent development of commercial uses on the site, including a combination of tribal government office space, restaurants, and retail uses totaling 90,000 sf of development. A breakdown of the facilities proposed under the Non-Gaming Alternative is provided in **Table 2-4**, and the proposed site plan is provided as **Figure 2-5** of **Appendix D**.

TABLE 2-4
NON-GAMING ALTERNATIVE COMPONENTS

Component	Units	Approximate Square Footage
Mixed-Use		
Building A		9,500
Building B		4,500
Building C		6,500
Building D		12,500
Building E		20,000
Building F		5,000
Building G		5,000
Building H		10,000
Building I		12,000
Building J		5,000
Overall Project Total		**90,000**
Parking	~700 spaces	
Source: Allen+Philp Partners, 2018.		

The Non-Gaming Alternative would employ fewer people (313 direct employment opportunities) and attract fewer patrons than the Proposed Project Alternative as described within the EA. Water supply, wastewater treatment and disposal, grading and drainage, roadway access, public health and safety standards, fire protection, and law enforcement under the Non-Gaming Alternative would be similar to the Proposed Project Alternative (**Section 2.2.2**), but with a reduced demand for services due to the smaller development size. The construction methods and BMPs for the Non-Gaming Alternative would be identical to those described for the Proposed Project Alternative (**Section 2.2.3**).

In addition to the roadway access design construction described for the Proposed Project Alternative (refer to **Section 2.2.2**), the eastern project driveway contemplated under the Non-Gaming Alternative at Date Palm Drive would be restriped with a one-way stop control to provide three through northbound lanes; two through and one shared through-right southbound lanes; and one right turn eastbound lane.

2.5 NO ACTION ALTERNATIVE

Under the No Action Alternative, none of the development alternatives would be implemented. No land would be placed in federal trust for the benefit of the Tribe, and no development would occur.

2.6 COMPARISON OF THE ALTERNATIVES

- **Proposed Project Alternative.** Among the project alternatives considered, the Proposed Project Alternative, which is fully evaluated in **Section 4.0**, would best meet the Tribe's objectives and would provide the greatest socioeconomic benefit to the Tribe and City.
- **Reduced Intensity Alternative.** This alternative would result in similar effects to the environment as the Proposed Project Alternative but would provide the Tribe and the community with less economic benefit than the Proposed Project Alternative. Potential effects associated with traffic, air, and noise would be

less due to the smaller sized mixed use development that would be constructed under the Reduced Intensity Alternative.

- **Non-Gaming Alternative.** This alternative would result in similar effects to the environment as the Proposed Project Alternative but would provide the Tribe and the community with less economic benefit than the Proposed Project Alternative. Potential effects associated with traffic, air, and noise would be greater due to the higher volume of traffic generated by the retail and restaurants uses under the Non-Gaming Alternative.
- **No Action Alternative.** Under the No Action Alternative, the North Site would remain in its existing condition and would not be taken into trust. No environmental effects would occur. Under the No Action Alternative, the Tribe would not achieve any of the economic benefit that would be achieved with development of the Proposed Project Alternative. Moreover, the Tribe would not be able to utilize its landholdings in a manner that would most benefit its members. This alternative would be less preferable than the Proposed Project Alternative since it would not meet the stated purpose and need of facilitating tribal self-sufficiency, self-determination, and economic development.

2.7 ALTERNATIVES ELIMINATED FROM FURTHER ANALYSIS

The intent of the analysis of alternatives in the EA is to present to decision makers and the public a reasonable range of alternatives that are both feasible and sufficiently different from each other in critical aspects. Alternatives were considered and excluded from full EA analysis either because these alternatives were deemed infeasible, would not fulfill the stated purpose and need of the Proposed Action, and/or were not sufficiently distinguishable from the project alternatives that the analysis would offer additional information to assist the BIA in its consideration of impacts under NEPA. A number of potential off-site alternatives were considered but ultimately eliminated due to either the infeasibility of acquiring new off-site properties, the unavailability of off-site properties currently owned by the Tribe for development, or inability of these alternatives to lessen the environmental consequences of the Proposed Project Alternative. These eliminated alternatives are discussed in detail below.

2.7.1 SOUTH SITE ALTERNATIVE

The South Site Alternative would develop a 13.9-acre property located immediately south of the North Site with development sized similarly to the Proposed Project Alternative. A detailed description of this alternative is provided within **Appendix A**, as well as a full analysis of the potential environmental effects of the South Site Alternative. This alternative was ultimately eliminated based on the conclusion that it would not eliminate any of the significant effects of the Proposed Project Alternative (as shown in the analysis provided in **Alternative A**), and would not as effectively meet the purpose and need (as stated in **Section 1.2**) because the Tribe does not currently own the site. The South Site is identified within the figures provided in **Appendix D** and **Appendix H**, and the full analysis prior to elimination is included in **Appendix A**.

2.7.2 OTHER ALTERNATIVE SITES

In addition to the South Site, off-site alternatives were considered that would involve a gaming development on (1) trust land already owned by the Tribe, (2) fee land already owned by the Tribe, or (3) land purchased for use. As described in **Section 1.3**, although the Tribe's Reservation encompasses over 30,000 acres, the total amount of tribally-owned land that is available for development of any kind is extremely small. The total amount of tribally-owned land that is available for gaming development is even smaller. The Tribe's total inventory of land that could be developed for any non-residential commercial purpose is approximately 480 acres. Of these 480 acres, approximately 214 acres is not eligible for a gaming project because it is land acquired in trust after 1988 that does not currently meet any of the exceptions provided in the IGRA; approximately 243 acres are either already developed or is subject to a development plan that does not contemplate a gaming use; approximately 10 acres house the existing Tribal cemetery including planned future expansion; and approximately 13.6 acres is the North Site, analyzed as the Proposed Project Alternative, above.

Further, the cost of re-acquiring new parcels that are located in Palm Springs, Cathedral City, and Rancho Mirage is extremely high, compared to other parts of the country. Due to high acquisition costs and the location of

several desirable resort communities within the Reservation boundaries, it is extremely difficult for the Tribe to re-acquire lands on the Reservation. The median price per acre in Palm Springs has climbed from a recession low in 2009 of $1,011,236 per acre to almost pre-recession levels. The median price per acre in 2017 year-to-date is now at $2,387,097. The pre-recession median price per acre in 2007 was $2,477,632. Generally speaking, these prices far outpace real estate prices on and near Indian reservations in other parts of the country.

In addition to the land restrictions described above, the majority of tribal trust and fee land located on (and off) the Reservation is not suitable for development of this kind for one or more of the following reasons: (1) it has already been developed, (2) it is subject to land planning agreements between the Tribe and other jurisdictions or habitat conservation limitations which do not support such a land use, (3) it is not suitable for development because of its size or its location in inaccessible and/or rugged mountain terrain, (4) it lacks infrastructure necessary for development, or (5) some combination of these issues. The majority (approximately 8,640 acres) of tribally-owned trust and fee lands are located within the Santa Rosa and San Jacinto National Monument and are undevelopable. In total, development restrictions apply to approximately 14,718 acres of tribal trust and tribal fee land, located both on and off-Reservation, making those lands unsuitable for the proposed gaming development.

As described above, additional off-site alternatives are not feasible for a variety of reasons, including restrictions on existing tribally-owned lands, high acquisition costs of new parcels in the vicinity, and suitability for development on existing tribally-owned lands. Further, any off-site alternatives outside of the area identified by the City would not fulfill the joint vision of the City, Tribe, and CURC to redevelop and eliminate conditions of blight in downtown. As noted in **Section 1.5**, the CURC and City have emphasized the importance of the proposed facility including a gaming component as an anchor to enable further growth of a walkable Downtown/Art and Design Village.

Moreover, as described in detail in other sections of this EA, the Tribe's preferred trust site (the North Site), is an infill site that has previously been developed and lacks sensitive resources. All environmental effects of the Proposed Project Alternative can be reduced to less than significant levels with mitigation. Thus, the consideration of a third alternative site would be unlikely to substantially reduce or lessen the environmental effects of the project, and thus would not aid the BIA in its consideration of a reasonable range of alternatives under NEPA.

SECTION 3.0
AFFECTED ENVIRONMENT

A detailed description of the Affected Environment, including applicable regulations and the environmental setting of the North Site (Proposed Project Alternative, Reduced Intensity Alternative, and Non-Gaming Alternative) is provided in **Appendix H**. Please note that **Appendix H** also includes the environmental setting for the South Site, which was ultimately eliminated from consideration, as described in **Section 2.7** and **Appendix A**. **Table 3-1** summarizes key characteristics of the potentially affected environmental setting on the North Site. The following environmental issue areas are described: Land Resources, Water Resources, Air Quality, Biological Resources, Cultural Resources, Socioeconomic Conditions/Environmental Justice, Transportation/Circulation, Land Use, Public Services and Utilities, Visual Resources, Noise, and Hazardous Materials.

TABLE 3-1
ENVIRONMENTAL SETTING

Resource Area	Summary of Environmental Setting
Land Resources	▪ Relatively level topography on the North Site, with a gradual slope down to northeast corner. ▪ North Site is approximately 300 feet above mean sea level. ▪ Nearest mapped fault is the Garnet Hill fault, located 5 miles north of the North Site. ▪ Lateral spreading and other earthquake-induced ground failures are unlikely on the North Site. ▪ Soils on the North Site include Carsitas gravelly sand and Carsitas cobbly sand, which both are excessively drained and have a high hydraulic conductivity, low erosion potential, and high wind erosion potential. These soils are not expansive and have a low shrink-swell potential. ▪ Soils have low liquefaction susceptibility; high seismically-induced settlement susceptibility; unlikely lateral spreading and ground failures; deep, excessively-drained soils with low runoff potential; high susceptibility to wind erosion; high rate of water transmission; moderate to near-severe wind erosion hazard zone; low shrink-swell potential; moderate corrosivity to steel; flooding and ponding not probable; high saturated hydraulic conductivity.
Water Resources	▪ Located within Flood Zone X (outside 100-year floodplain, within 500-year floodplain). ▪ The North Site is within the Cathedral Canyon-Whitewater River Subwatershed of the Upper Whitewater River Watershed, within the Whitewater River Subbasin of the Salton Sea Basin. ▪ The nearest surface water body is the Whitewater River, approximately 0.1 mile northeast of the site. ▪ Nearest 303(d) impaired surface water body is 10.2 miles east of the North Site; contaminants of concern in the groundwater subbasin include mineral concentration, salinity, total dissolved solids, arsenic, chromium-6, uranium, nitrate, and perchlorate. ▪ Drainage is by overland sheet flow on site to the northern and northeastern boundaries, and existing gutters and storm drains convey stormwater to the North Cathedral Channel (**Appendix G**). An existing storm drain runs south-to-north through the North Site beneath Allen Avenue from Date Palm Drive to the North Cathedral Channel. ▪ The underlying groundwater subbasin (Indio Subbasin, located within the Coachella Valley Groundwater Basin) is overdrafted; DWA and CVWD use imported water to supplement the groundwater supply. ▪ Recharge to the groundwater subbasin occurs primarily from surface runoff and subsurface inflow. ▪ Contaminants of concern within the groundwater subbasin include mineral concentration, salinity, total dissolved solids (TDS), arsenic, chromium-6, uranium, nitrate, and perchlorate.
Air Quality	▪ The North Site is within the Riverside County – Coachella Valley region of the Salton Sea Air Basin (SSAB), which is designated by the USEPA as nonattainment for ozone and PM_{10} National Ambient Air Quality Standards (NAAQS). ▪ Emissions of criteria air pollutants (CAPs) in the vicinity of the site are primarily from mobile transportation sources. ▪ Sensitive air quality receptors include children, the elderly, people with illnesses, or others sensitive to the effects of air pollutants. This includes hospitals, schools, convalescent facilities, and residential areas. ▪ Air quality sensitive receptors in the vicinity of the site include: residential areas (440 feet northwest and 500 feet southwest), and parks (25 feet north). The nearest school is 4,000 feet north of the site.
Biological Resources	▪ North Site and surrounding areas are entirely disturbed/developed in an urban area, including structures, paved parking areas, remnant bisecting roadways, power poles, hydrants, manhole covers, roofing tile fragments, plowed soil, and gravel.

Resource Area	Summary of Environmental Setting
	▪ Minimal vegetation consists of ornamental species along roadsides and sidewalks, including palms, and non-managed areas dominated by immature non-native ruderal species; no wildlife was observed during the biological site survey. ▪ Surrounding areas are also highly disturbed by development, including commercial and residential buildings, roadways, sidewalks, and fencing. ▪ No sensitive habitat types, critical habitat, wetlands, or Waters of the U.S. occur on or adjacent to the site. ▪ No federally-listed special-status species have the potential to occur on site. ▪ One state-listed special-status species has the potential to occur: western yellow bat (**Appendix I**). ▪ Migratory birds may forage and nest on or near the site.
Cultural Resources	▪ A record search with the Eastern Information Center identified 72 previously recorded cultural resources within 1.0 mile of the North Site, 22 of which were recorded within the North Site. ▪ A total of 45 cultural resource inventories have been completed within 1.0 mile of the North Site, 2 of which include a portion of the project footprint. ▪ A pedestrian field survey by a qualified archaeologist identified residual features of historic properties; however, all properties identified in the records search, including residential and commercial historic age structures, had been removed. ▪ No eligible or potentially-eligible historic properties are located within the North Site; no paleontological resources have been discovered and recorded within 5 miles of the site. ▪ Analytical Environmental Services (AES) consulted the Native American Heritage Commission (NAHC), which identified no cultural resources and two individuals to contact for information about the area (**Appendix J**).
Socioeconomic Conditions/ Environmental Justice	▪ The City had a labor force of 24,805 and an unemployment rate of 9.9 percent in 2016. ▪ In 2017, the City's population was 54,596, which is a 6.52 percent increase from the City's 2010 population level. ▪ In 2016, the City had a 19 percent vacancy rate, which is expected to decline in the next five years. ▪ The assessed value of the North Site for FY 17-18 is $8,515,491.00, with collected property taxes of $105,367 (**Appendix E**). ▪ The two closest gaming facilities are owned by the Tribe. The next nearest is 15 miles southeast, owned by the Cabazon Band of Mission Indians. Four additional facilities are located within 50 miles of the site. ▪ The North Site is within the Palm Springs Unified School District (PSUSD) service boundary, which enrolled 10,625 students in the 2017-18 school year; the closest public school is 4,000 feet north of the site. ▪ The closest library is 1.6 miles north of the site. ▪ The closest park is located adjacent to the northern boundary of the site. ▪ The Census tract that encompasses the site is contains a minority population (55.0 percent); members of the Tribe are also considered a minority population. Several adjacent Census tracts also contain substantial minority populations. ▪ No low-income communities are located in the vicinity of the North Site.
Transportation/ Circulation	▪ 29 intersections and 10 roadway segments were analyzed in the Traffic Impact Analysis (TIA; **Appendix K**). ▪ The peak hour periods were determined to be the PM peak hour (4:00 to 5:00 pm) and the Saturday midday peak hour (1:00 to 2:00 pm) based on traffic counts conducted at similar casinos. ▪ Level of service (LOS) D is considered to be acceptable based on local General Plan documents. ▪ Cathedral Canyon Drive and Paseo Real does not operate acceptably in existing conditions; all other study intersections and roadway segments do operate acceptably. ▪ There are two bus stops adjacent to the North Site on East Palm Canyon Drive at Allen Avenue and Date Palm Drive at Grove Street, which are served by Sunline Transit Agency Routes 30 and 111. ▪ Sidewalks are generally located nearby, including along Date Palm Drive and East Palm Canyon Drive. ▪ Bike lanes are not generally located along study area roadways, except along certain roadways, including Frank Sinatra Drive.
Land Use	▪ The North Site is designated for Downtown Commercial (DTC) land uses (City General Plan), and for Downtown/Art and Design Village development (Date Palm Drive Corridor Connector Plan, Date Palm Drive Specific Plan). ▪ The North Site is zoned by the City for Mixed Use Commercial (MXC) and Downtown Residential Neighborhood (DRN). ▪ City Council Resolution 2017-44 supports the Tribe's use of the North Site for gaming purposes. ▪ The North Site is located within the incorporated boundaries of the City of Cathedral City, in Riverside County. ▪ The North Site is adjacent to East Palm Canyon Drive (Highway 111), which provides local access to the City, along with Interstate 10 (I-10).

Resource Area	Summary of Environmental Setting
	▪ The North Site is comprised of 66 County tax parcels, and is bound by Buddy Rogers Avenue to the north, Date Palm Drive to the east, and East Palm Canyon Drive to the south. Adjacent parcels are to the west. ▪ The entire North Site has been previously developed, however, most structures have been demolished. Existing roadways and infrastructure remain within the site, including paved roadways, utilities, and gravel lots. Two buildings remain on the North Site: the fire station at the northeast corner (which the City is relocating to parcels north of the site) and a fast food restaurant (Carl's Jr) at the southeast corner of the site. ▪ Adjacent land uses include commercial, park, and undeveloped land; zoned MXC and DRN, with some Open Space, Planned Community Commercial, and Commercial Tourist and Recreation east of the site.
Public Services and Utilities	▪ The North Site contains or is adjacent to existing water supply infrastructure (12-inch mains run along the north and east boundaries of the North Site beneath Buddy Rogers Avenue and Date Palm Drive, with 6- and 8-inch mains located within the site), wastewater collection infrastructure (12-inch main along Date Palm Drive, with 8-inch branch lines from this main running west along Grove Street through the site and north along Monty Hall Drive to the North Cathedral Channel, and east to a lift station near the intersection of Date Palm Drive and Buddy Rogers Avenue), electricity infrastructure (underground utility lines run through the site, and electrical poles are located along Allen Avenue, Buddy Rogers Avenue, Grove Street, and Dawes Street), and natural gas infrastructure (high pressure distribution lines beneath East Palm Canyon Drive and Date Palm Drive). ▪ DWA would provide water services to the North Site with 95 percent groundwater. DWA uses imported surface water to recharge the groundwater aquifer. ▪ DWA projects it has sufficient water supply to accommodate estimated demand through 2040. ▪ CVWD is responsible for wastewater collection and treatment in the region. WRP-10 would treat wastewater from the site; this plant has a capacity of 18.0 million gallons per day (MGD), and treated 9.5 MGD in 2015. ▪ Burrtec provides private solid waste service to the vicinity of the North Site. Solid waste is conveyed to the Edom Hill Transfer Station (7.5 miles north of the site) and then the Lamb Canyon Landfill (31.5 miles west of the site, with a permitted capacity of 5,000 tons per day and estimated maximum capacity of 38,935,653 cubic yards). The Lamb Canyon Landfill is a Class III landfill, permitted to receive construction and demolition waste, green materials, and mixed municipal waste. ▪ No recreational activities occur on the North Site. The nearest parks (Second Street Park and Cathedral City Dog Park) are located 25 feet north of the site. ▪ SCE provides electricity to the site, from SCE's Sumac 12kV Circuit and the Tamarisk 115/12 kV Substation (1.1 miles northeast of the site), which has a total generation capacity of 112.0 MW. ▪ SoCalGas provides natural gas service to the site. ▪ The North Site is within the service area of the CCPD (headquarters located less than 0.2 miles from the site). CCPD's patrol division includes 1 lieutenant, 3 sergeants, and 25 patrol officers; and responds to an average of 42,500 calls per year. ▪ CCFD serves the site, with the closest CCFD station currently located on the North Site to be moved across Buddy Rogers Avenue immediately adjacent to the site. CCFD employs 40 individuals, 36 of which work in fire suppression or paramedic units. In 2016, CCFD responded to 5,660 incidents, including fire and medical emergency calls. ▪ The closest 24-hour medical facility is the Eisenhower Medical Center 3.0 miles east of the site, which has plans for expansion.
Visual Resources	▪ The North Site consists of empty gravel lots (with two remaining structures at the northeast and southeast corners of the site) located within downtown Cathedral City. ▪ The North Site is visible in the background from an apartment building located 440 feet to the northwest and single-family homes 500 feet southwest. Vehicles along local roadways can also view the site. ▪ There are no scenic resources immediately adjacent to or within the North Site. ▪ Viewsheds of the site include from Date Palm Drive and Palm Canyon Drive and along Buddy Rogers Drive, as shown in **Figures 3.10-1** and **3.10-2** of **Appendix D**. ▪ No state scenic highways are adjacent to or in the vicinity of the site. ▪ No significant existing sources of lighting, shadow, or glare are currently present on the site.
Noise	▪ The City General Plan Noise Element has the following standards: 55 A-weighted decibels (dBA) community noise equivalent level (CNEL) for residences, 62.5 dBA CNEL for parks, and 62.5 dBA CNEL for commercial developments. ▪ Existing traffic is the primary source of ambient noise at the site. Noise measurement data is included in **Appendix L** and summarized in **Appendix H**. 24-hour ambient noise measures taken in the vicinity of the site ranged between 55.0 to 67.2 dBA Leq. ▪ No existing sources of vibration are located near the North Site. ▪ Noise-sensitive land uses include residential housing, schools, and health care facilities. ▪ The nearest noise sensitive receptors include residences 440 feet northwest and 500 feet southwest, parks 25 feet north, and commercial facilities adjacent to the western boundary and 100 feet east.

Resource Area	Summary of Environmental Setting
	▪ Peak particle velocity (PPV) is the maximum instantaneous peak (inches per second) of the vibration signal, which is used to estimate Lv or VdB levels (vibration decibels with a reference velocity of one micro-inch per second). ▪ The Federal Transportation Administration's (FTA's) guideline vibration damage criteria for buildings is 90 VdB. ▪ The FTA's guideline for maximum vibration at sensitive receptors is 70 VdB. ▪ Background vibration velocity in residential areas is usually 50 VdB or lower.
Hazardous Materials	▪ No visible signs of gross contamination, odors indicative of hazardous materials releases, or asbestos-containing materials observed during the December 2017 site visit; but concrete water lines and crushed in-place concrete septic tanks may contain asbestos. ▪ A Phase I Environmental Site Assessment (ESA) identified one historical recognized environmental conditions (HREC) and five potential recognized environmental conditions (RECs) within the North Site. The HREC former leaking underground storage tank (LUST) case was closed in 2006. The five potential RECs included three historic auto stations, one gasoline service station, and the existing fire station. These five sites were recommended to be evaluated for potential petroleum hydrocarbon contamination. (**Appendix M**) ▪ A Limited Phase II Environmental Evaluation, conducted in 2017, identified underground storage tanks (USTs) and/or remnants of UST excavation. One former UST excavation site was identified and recommended for subsurface assessment for petroleum hydrocarbon soil residues, and the remaining four sites were not considered RECs. (**Appendix M**) ▪ The 2018 Phase of the Limited Phase II collected 12 soil boring samples to test for total petroleum hydrocarbons (TPH), lead, and pH in January 2018. All samples' results were below the screening level for TPH, lead was not detected in any of the samples, and pH was determined to be moderately to strongly alkaline. No further testing was recommended. (**Appendix M**)

SECTION 4.0
ENVIRONMENTAL CONSEQUENCES

This section assesses the environmental consequences of the Proposed Project Alternative, Reduced Intensity Alternative, Non-Gaming Alternative, and No Action Alternative, described in **Section 2.0**. Effects are measured against the environmental baseline, which is briefly summarized in **Section 3.0** and described in detail in **Appendix H**. Indirect and cumulative effects are identified in **Section 4.13**. Measures to mitigate for adverse impacts identified in this section are presented in **Section 5.0**.

4.1 LAND RESOURCES

4.1.1 PROPOSED PROJECT ALTERNATIVE

Topography

The topography of the North Site is relatively flat and only interrupted by an elevated pad that lies between Dawes Street and East Palm Canyon Drive (Highway 111). The majority of the structures proposed for development under the Proposed Project Alternative would be built north of East Palm Canyon Drive and east of Allen Avenue, bridging the elevated pad, but overall on levelled ground (see **Figure 2-3** of **Appendix D**).

The Proposed Project Alternative would involve grading within the project footprint discussed in **Section 2.2** and would require an import of 91,933 cy of fill material. Topographic features of the site would be altered by earthwork. However, changes to topography resulting from leveling the site would not affect significant existing topographic features on the North Site, as there are none. The final grading plan would be in compliance with standard engineering practices. The site has no topographic problems that would affect the grading of the site, such as shallow bedrock, wetlands, or high groundwater conditions. With preparation of and adherence to the measures within a grading plan, development of the Proposed Project Alternative would not result in an adverse impact to topography. No mitigation is required.

Geology/Soils

Soils within the North Site have low shrink-swell potential, which indicates that soil reclamation or special design measures should not be required (NRCS, 2018). Given that the site was formerly developed primarily as a residential community, it is likely that existing soils on the site are capable and suitable for the proposed uses. With preparation of and adherence to measures within the final grading plan prepared by a qualified engineer (refer to **Section 2.2.2**), these soils would not preclude development of the site and impacts would be less than significant.

The soils on the areas of the North Site that will be developed have been characterized as moderately corrosive to steel, as well as moderately corrosive to concrete (NRCS, 2018). In anticipation of these soil limitations, the final project design will incorporate protective measures to minimize adverse impacts relative to soil corrosivity. These measures include non-corrosive materials and/or protective coatings for buried facilities to be used for construction in corrosive soils per CBC requirements. With incorporation of these protective measures, impacts resulting from corrosive soils will be less than significant.

The Proposed Project Alternative could affect soils due to erosion during construction, operation, and maintenance activities. Such construction activities could include clearing, grading, trenching, and backfilling. Site grading would further expose soils on the North Site to erosion by water and wind. Under the Proposed Project Alternative, approximately 12.24 acres of the North Site will become impervious.

Table 3-1 of **Section 3.0** describes the soil types, erosion potential, permeability, and general gradients for the soil units mapped on the site. The Carsitas gravelly sand and cobbly sand soil types are only slightly susceptible to water erosion, while the entire North Site is susceptible to wind erosion.

Sediment discharge into navigable (surface) Waters of the U.S. is regulated by the CWA, which establishes water quality goals for sediment control and erosion prevention for any project that would disturb more than 1 acre of soil. One of the mechanisms for achieving the goals of the CWA is the NPDES permitting program, administered by the USEPA. As part of the NPDES General Construction Permit, a SWPPP must be prepared and implemented. The SWPPP must make provisions for (1) erosion prevention and sediment control and (2) control of other potential pollutants. Construction of the Proposed Project Alternative would disturb more than one (1) acre; therefore, the Tribe is required by the CWA to obtain coverage under, and comply with the terms of, the NPDES General Construction Permit for construction activities subsequent to federal trust property acquisition of the North Site.

The NPDES General Construction Permit requirements would reduce any potential adverse impacts to less-than-significant levels. With regulatory requirements and BMPs described in **Section 2.2.3**, impacts from implementation of the Proposed Project Alternative on soils and geology would be minimal and, therefore, less than significant.

Seismic Hazards

The North Site is not located on any known active fault trace; thus, the risk of fault rupture is low. The Garnet Hill fault, the nearest fault, is located approximately five miles north of the North Site (DOC, 2007). As described in **Section 2.2.2**, all structures would conform to the applicable building code requirements of the CBC and CPSC, including building, electrical, energy, mechanical, plumbing, fire protection, and safety as adopted under the Tribal Building and Safety Code (Tribal Ordinance No. 26). Use of the CBC, CPSC, and Tribal Building and Safety Code design and construction standards would allow ground shaking-related hazards to be managed from a geologic, geotechnical, and structural standpoint such that adverse impacts to the health or safety of workers or members of the public would be minimized. Therefore, no adverse impacts due to geologic or seismic conditions on site would occur.

4.1.2 REDUCED INTENSITY ALTERNATIVE

Impacts to land resources under the Reduced Intensity Alternative would be the same as under the Proposed Project Alternative (refer to **Section 4.1.1**). Fewer structures would be built, but the remaining portions of the North Site would then be used for parking, resulting in the same amount of soil and topography manipulation as the Proposed Project Alternative. The Reduced Intensity Alternative would comply with the applicable NPDES General Construction Permit requirements and BMPs described in **Section 2.2.3**, which would ensure that the Reduced Intensity Alternative would have minimal impacts on soils within the North Site. Therefore, impacts resulting from seismic conditions would be the same as under the Proposed Project Alternative.

4.1.3 NON-GAMING ALTERNATIVE

Impacts to land resources under the Non-Gaming Alternative would be the same as under the Proposed Project Alternative (refer to **Section 4.1.1**). The entire North Site would be developed, and the same amount of soil and topography manipulation would be required for this alternative when compared to the Proposed Project Alternative. The Non-Gaming Alternative would comply with the applicable NPDES General Construction Permit requirements and BMPs described in **Section 2.2.3**, which would ensure that this alternative would have minimal impacts on soils within the North Site. Therefore, impacts resulting from seismic conditions would be the same as under the Proposed Project Alternative.

4.1.4 NO ACTION ALTERNATIVE

Under the No Action Alternative, the North Site would not be taken into trust and no development would occur. The site would remain in its current state. Therefore, topographic features and soils would remain undisturbed and the No Action Alternative would have no adverse impacts related to land resources.

4.2 WATER RESOURCES

4.2.1 PROPOSED PROJECT ALTERNATIVE

Surface Water

Construction Impacts

Construction impacts under the Proposed Project Alternative would include ground-disturbing activities such as grading and excavation, which could lead to erosion of topsoil. Erosion from construction sites can increase sediment discharge to surface waters during storm events, thereby degrading downstream water quality. Construction activities would also include the routine use of potentially hazardous construction materials such as concrete washings, oil, and grease, which may spill onto the ground and be dissolved in stormwater. Discharges of pollutants, including grease, oil, fuel, and sediments, to surface waters from construction activities and accidents are a potentially significant impact. Regulated construction activities in excess of one (1) acre are required to apply for coverage under the NPDES General Construction Permit. The provisions of this permit include preparation of a SWPPP, which would be developed prior to any ground disturbance and would include BMPs to reduce potential surface water contamination during storm events. A list of BMPs that may be included in the SWPPP and that would be implemented during construction of the Proposed Project is presented in **Section 2.2.3**. These BMPs would minimize adverse impacts to the local and regional watershed from construction activities associated with the Proposed Project Alternative by reducing detachment of soil particles from bare soil or by preventing movement of loose soil into waterways. With adherence to the NPDES permitting program and implementation of the SWPPP, impacts to surface water quality from construction activities would be less than significant.

Operation

Water Supply

The water supply for the Proposed Project Alternative would be provided through the DWA, which, as described in **Appendix H** derives the majority of its water supply from groundwater. Based on the analysis provided in **Appendix F**, the operational potable water demand of the Proposed Project Alternative would not have a significant impact on any regional surface water supplies. Refer to the *Groundwater – Water Supply* subheading below for an analysis of the Proposed Project Alternative's impacts on the regional groundwater supply. Refer to **Section 4.9** for an analysis of impacts to water providers.

Stormwater Runoff

Pollutants that accumulate in dry periods, such as oil and grease, asbestos, pesticides, and herbicides, may adversely affect water quality because of their presence in high concentrations during the first storm event of the season. Development of the casino, mixed-used, and parking facilities would result in a greater area of impervious surfaces, approximately 12.24 total acres, potentially increasing stormwater runoff flow rates. An increase in impervious surfaces reduces infiltration of stormwater through the soil, and can cause an increase in on-site or off-site flooding or erosion by directing water towards areas that typically do not receive concentrated surface water runoff. As described in **Section 2.2.2**, in order to retain 100 percent of the stormwater flows associated with a 100-year, 3-hour storm event, the Proposed Project Alternative includes the installation of a total of approximately 2,010 linear feet of 96-inch perforated corrugated metal pipe surrounded by porous stone beneath the proposed parking lots in the northeast portion of the North Site. This retention facility would provide approximately 138,166 cubic feet of storage, which would be adequate to retain the approximately 137,244 cubic feet of flows associated with a 100-year, 3-hour storm event (**Appendix G**). Because all stormwater would be retained on site, impacts to surface water would not occur, and no mitigation is required.

Flooding

Impacts to the floodplain or floodplain management could occur if construction of the Proposed Project Alternative were to place people or structures in a floodplain or change flood elevations. The North Site is outside of a 100-flood zone as designated by the Federal Emergency Management Agency (FEMA; FEMA, 2017). Construction and operation of the Proposed Project Alternative would not alter the 100-year floodplain boundaries or flooding elevations. The North Site is located in Zone X, a 500-year floodplain designated by FEMA; however, there are no additional design or construction requirements for buildings in this zone (FEMA,

2005). Therefore, no adverse impact associated with flooding or floodplain management would occur as a result of the Proposed Project Alternative.

Groundwater

Water Supply

As described in **Section 2.2.2** and **Appendix F**, the Proposed Project Alternative has a projected average day potable water demand of approximately 33,929 gpd, or approximately 38 acre-feet per year (AFY). Potable water would be supplied to the Proposed Project Alternative by DWA, which, as stated above and in **Appendix H**, derives the vast majority of its potable water supply from groundwater pumped from the Indio (Whitewater) Subbasin. According to CVWD, in 2020, the western portion of the Coachella Valley Groundwater Basin (which encompasses the portion of the Indio Subbasin that underlies the North Site) is projected to experience total outflows of 177,400 AFY (CVWD, 2011). Operational water demand under the Proposed Project Alternative would constitute only approximately 0.02 percent of the total projected outflows in 2020. Therefore, operational water demand under the Proposed Project Alternative would have a less-than-significant impact on regional groundwater levels, and no mitigation is required.

The introduction of impervious surfaces to the North Site under the Proposed Project Alternative could prevent water from percolating to the underlying aquifer, resulting in lower rates of groundwater recharge. However, the stormwater features that have been incorporated into the project design would include perforated corrugated metal pipes surrounded by porous stone designed to capture and retail 100 percent of the stormwater flows associated with a 100-year, 3-hour storm event, which would allow stormwater to slowly permeate into the underlying groundwater aquifer, as described in **Section 2.2.2**. Therefore, with the incorporation of these features, no adverse effects due to groundwater recharge would occur.

Water Quality

Contaminated runoff from project facilities could infiltrate through the soil and potentially affect groundwater. As described in in **Section 2.2.2** and **Appendix G**, design of the Proposed Project Alternative includes the installation of grates and filter bags at the entrances to drainage inlets, which would remove trash, debris, and sediment from stormwater runoff. These features and the other potential LID techniques described (including bio-retention facilities, vegetated filter strips, and permeable pavement) would adequately filter runoff before it enters the groundwater table, assuring that the impact to groundwater quality from stormwater runoff would be less than significant.

4.2.2 REDUCED INTENSITY ALTERNATIVE

The location and size of the stormwater retention facilities developed under the Reduced Intensity Alternative would be the same as under the Proposed Project Alternative (refer to **Section 4.2.1**). Further, the Reduced Intensity Alternative would comply with the applicable NPDES General Construction Permit requirements and BMPs described therein (refer to **Section 2.2.3**). Therefore, impacts to surface water resources and groundwater quality from the development and operation of the Reduced Intensity Alternative would be less than significant, similar to the Proposed Project Alternative. Additionally, the Reduced Intensity Alternative would not place people or structures in a floodplain or change flood elevations; therefore, as with the Proposed Project Alternative, no adverse impact associated with flooding or floodplain management would occur as a result of the Reduced Intensity Alternative. In regards to groundwater supply, the Reduced Intensity Alternative would require approximately 5 percent less potable water than the Proposed Project Alternative, with an approximate average daily water demand of 32,159 gpd, or approximately 36 AFY. As described in **Section 4.2.1**, the Proposed Project Alternative would not have a significant adverse impact on groundwater levels; therefore, the Reduced Intensity Alternative, which would be supplied by the same source and has a lower water demand, would have a further reduced impact.

4.2.3 NON-GAMING ALTERNATIVE

The location and size of the stormwater retention facilities developed under the Non-Gaming Alternative would be the same as under the Proposed Project Alternative (refer to **Section 4.2.1**). Further, the Non-Gaming Alternative would comply with the applicable NPDES General Construction Permit requirements and BMPs

described therein. Therefore, impacts to surface water resources and groundwater quality from the development and operation of the Non-Gaming Alternative would be less than significant, similar to the Proposed Project Alternative. Additionally, the Non-Gaming Alternative would not place people or structures in a floodplain or change flood elevations; therefore, as with the Proposed Project Alternative, no adverse impact associated with flooding or floodplain management would occur as a result of the Non-Gaming Alternative. In regards to groundwater supply, the Non-Gaming Alternative would require approximately 29 percent less potable water than the Proposed Project Alternative, with an approximate average daily water demand of 24,134 gpd, or approximately 27 AFY. As described in **Section 4.2.1**, the Proposed Project Alternative would not have a significant adverse impact on surface or groundwater levels; therefore, the Non-Gaming Alternative, which would be supplied by the same source and has a lower water demand, would have a further reduced impact.

4.2.4 NO ACTION ALTERNATIVE

Under the No Action Alternative, the North Site would not be taken into trust, and no development would occur. The site would remain in its current state. Therefore, the No Action Alternative would have no adverse impacts related to surface water or groundwater resources.

4.3 AIR QUALITY

4.3.1 METHODOLOGY

Development and operation of the Proposed Project Alternative would emit CAPs, hazardous air pollutants (HAPs), and GHGs. This section presents the methodology used to assess the affected environment and to evaluate the potential air quality effects of the project alternatives.

Assessment Criteria

Adverse effects to ambient air quality could result if either construction or operation would result in violations of the federal Clean Air Act (CAA) provisions, or if emissions would impede a state's ability to meet NAAQS.

While the North Site is located within the SSAB and the South Coast Air Quality Management District's (SCAQMD) jurisdictional boundaries, SCAQMD thresholds do not apply to federal actions. The effects of proposed federal actions on SCAQMD air quality management are assessed under General Conformity as required under the CAA.

Construction Analysis

Construction would entail mass earthwork, fine grading, and building, road, and parking lot construction. A variety of heavy equipment, including trucks, scrapers, excavators, and graders, would be used to complete each phase. A detailed list of the proposed equipment and emissions resulting from the equipment is located in **Appendix N**. Effects on air quality during construction were evaluated by estimating the amount of criteria pollutants that would be emitted over the duration of the construction period (for each phase of construction where applicable). Particulate matter 10 microns in diameter (PM_{10}) and ozone (O_3) precursors (NO_x and reactive organic gases [ROG]) are the primary pollutant of concern resulting from operation of construction equipment, earth-moving activities, and soil hauling. Soil hauling trips, which are included in the 11,492 hauling trips for grading work, were calculated assuming the maximum 91,933 cy of fill material is required (**Appendix G**, **Appendix N**).[1] This provides for a conservative analysis.

ROG, nitrogen oxides (NO_x), sulfur dioxide (SO_2), carbon monoxide (CO), and DPM emissions from construction would primarily be produced by diesel-fueled equipment use from on and off-road construction equipment and truck use. Emissions from construction equipment were calculated using the USEPA approved 2016 California Emissions Estimator Model, Version 2016.3.2 (CalEEMod; CalEEMod, 2016). The majority of PM_{10} and Particulate matter 2.5 microns in diameter ($PM_{2.5}$) emissions would result from fugitive dust generated during earth-moving activities, such as site grading. CalEEMod was used to estimate PM_{10} and $PM_{2.5}$ project-related

[1] Note these values are for the Proposed Project Alternative. The Reduced Intensity Alternative included 9,082 hauling trips during grading, calculated from the maximum 72,653 cy of fill material; and the Non-Gaming Alternative included 12,327 hauling trips during grading, calculated from the maximum 98,965 of fill material (**Appendix G**, **Appendix N**).

emissions and precursors from equipment exhaust and fugitive dust. CAP emissions were estimated assuming that construction would begin in January 2019 and continue at an average rate of 22 days per month for all project alternatives. The construction duration for project alternatives is conservatively assumed to be approximately 12 months[2]. Emissions results are summarized below and included in **Appendix N**.

Operational Analysis

CalEEMod was also used to estimate emissions associated with operation of the project alternatives. Input values for the CalEEMod included data from the TIA provided in **Appendix K**, water/wastewater estimates from **Appendix F**, and solid waste generation estimates from **Section 4.9**. Trip generation specific to each of the project alternatives provided in the TIA was incorporated into CalEEMod, including internal capture rates. The TIA estimated approximately 61 percent of retail patrons would patronize the casino or restaurant and 62 percent of restaurant patrons would patronize the casino or retail. Default trip length values included in CalEEMod were used for all land uses.

Appendix N includes additional details regarding CalEEMod inputs as well as the CalEEMod output files.

- **Federal General Conformity**. Conformity regulations apply to Federal actions that would cause emissions of CAPs to occur in locations designated as non-attainment or maintenance areas for the emitted pollutants. As discussed in **Appendix H**, the North Site is located in an area that is classified as severe nonattainment for ozone (NO_x and ROG, ozone precursors) and PM_{10} under the NAAQS; therefore, if project emissions are equal to or exceed applicable *de minimis* levels for any CAP provided in 40 CFR §93.153 (b)(1) and (2), then a federal general conformity determination analysis would be required.
- **Carbon Monoxide Hot Spot Analysis**. Implementation of the project alternatives would result in emissions of CO. Because CO disperses rapidly with increased distance from the source, emissions of CO are considered localized pollutants of concern rather than regional pollutants, and can be evaluated by Hot Spot Analysis. "Hot Spots" include high traffic volume intersections with poor operating conditions resulting in extensive idling time for cars and subsequently can be concentrated areas with elevated CO levels. Refer to **Appendix H** for additional details related to Hot Spot analysis and screening criteria. The North Site is not in an area or category of site that has been identified in a CO plan. As shown in the TIA, provided as **Appendix K**, no intersection after mitigation would operate at LOS E or F. The North Site is not located in a CO nonattainment or maintenance area. Therefore, in accordance with 40 CFR §93.123, no further quantitative analysis is required.
- **Climate Change**. This EA considers whether project emissions have individual or cumulative effects on climate change. Given the global nature of climate change impacts, individual project impacts are most appropriately addressed in terms of the incremental contribution to a global cumulative impact; therefore, refer to in **Section 4.13**, cumulative effects, for the analysis of impacts related to climate change. This approach is consistent with the view articulated by the *Intergovernmental Panel on Climate* (IPCC) *Change Fifth Assessment Report* (IPCC, 2014).
- **Federal Class I Areas**. If any alternative emits greater than the Prevention of Significant Deterioration (PSD) threshold of 250 tons per year (tpy) of any one criteria pollutant from stationary sources during construction or operation then a best available control technology analysis will be conducted. San Gorgonio Wilderness, San Jacinto Wilderness, and Joshua Tree NP are within the preconstruction review distance of the North Site and analysis is required.
- **Tribal New Source Review (NSR)**. The Tribe would be required to apply for a permit under the newly implemented NSR requirements of the CAA if stationary source operational emissions of regulated pollutants would exceed the thresholds presented in Table 3 of **Appendix H**. For this analysis, stationary source project-related operational emissions will be quantified and compared to the applicable threshold.

[2] While actual construction activities associated with the alternatives may be phased over a longer period, assuming that all construction would take place within a one-year condensed time frame results in a higher concentration of daily emission estimates, and thus is a conservative assumption.

4.3.2 PROPOSED PROJECT ALTERNATIVE

Construction Emissions

Construction of the Proposed Project Alternative would emit PM_{10}, NO_x, SO_2, CO, ROG, and HAPs (primarily in the form of DPM) from the operation of construction equipment and earth-moving grading activities. Emissions from construction equipment have the potential to increase the concentration of DPM in the close vicinity (within approximately 500 feet) of the construction site, if control measures are not implemented.

Construction is assumed to occur 8 hours a day, 5 days a week. Unmitigated construction emission totals for the Proposed Project Alternative are shown in **Table 4-1**, and mitigated construction emission totals after the implementation of BMPs listed in **Section 2.2.3** are shown in parentheses (also see **Appendix N** model output files).

TABLE 4-1
UNMITIGATED (MITIGATED) CONSTRUCTION EMISSIONS FROM THE PROJECT ALTERNATIVES

Construction Year – 2019	Criteria Pollutants (tpy)					
	ROG	**NO_x**	**CO**	**SO_x**	**PM_{10}**	**$PM_{2.5}$**
Proposed Project Alternative	1.7 (1.5)	5.3 (4.3)	3.1 (3.2)	0.0 (0.0)	0.6 (0.4)	0.3 (0.2)
Reduced Intensity Alternative	1.5 (1.3)	5.0 (4.0)	3.1 (3.3)	0.0 (0.0)	0.6 (0.4)	0.3 (0.2)
Non-Gaming Alternative	1.6 (1.4)	5.4 (4.4)	3.1 (3.2)	0.0 (0.0)	0.6 (0.4)	0.3 (0.2)
De Minimis Levels	*25*	*25*	*N/A*	*N/A*	*70*	*N/A*
Exceed Level?	**No**	**No**	**N/A**	**N/A**	**No**	**N/A**

Notes: N/A = Not Applicable; levels are not applicable due to attainment status (refer to **Appendix H**).
Mitigated emission levels after the implementation of BMPs in **Section 2.2.3** are shown in parenthesis.
Source: CalEEMod, 2016.

As shown in **Table 4-1**, emissions of individual criteria pollutants from construction of the Proposed Project Alternative would not exceed applicable *de minimis* levels; therefore, a conformity determination is not required. However, to further reduce project-related construction criteria pollutants and DPM emissions, BMPs would be implemented by the Tribe and are listed in **Section 2.2.3**. These measures would reduce DPM emissions from construction equipment by approximately 85 percent, avoiding potentially adverse effects to nearby sensitive receptors. Therefore, construction of the Proposed Project Alternative would not result in significant adverse effects associated with the regional air quality environment.

Operational Emissions

Buildout of the Proposed Project Alternative would result in the generation of mobile emissions from patron, employee, and delivery vehicles, as well as area and energy criteria pollutant emissions from combustion of natural gas in boilers, stoves, heating units, and other equipment. Unmitigated operational emission totals for the Proposed Project Alternative are shown in **Table 4-2**. It should be noted that stationary and area sources are exempt under conformity regulations and therefore not subject to *de minimis* levels. Detailed calculations of vehicle and area emissions are included as **Appendix N**.

As shown in **Table 4-2**, operational emissions of individual criteria pollutants from the Proposed Project Alternative would not exceed applicable *de minimis* levels and emissions of individual criteria pollutants from stationary sources (area and stationary) would not exceed the Tribal NSR thresholds shown in Table 3 of **Appendix H**. Therefore, a conformity determination is not required and a Tribal NSR permit would not be required. Further, **Table 4-2** shows that the Proposed Project Alternative would not result in stationary source emissions (under the categories of Area and Stationary sources) of any one pollutant in excess of the Federal Class I Areas major source threshold of 250 tpy. Therefore, operation of the Proposed Project Alternative would not result in significant adverse effects associated with the regional air quality environment.

TABLE 4-2
PROPOSED PROJECT ALTERNATIVE UNMITIGATED OPERATIONAL EMISSIONS

Sources	Criteria Pollutants (tpy)					
	ROG	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
Exempt Conformity Emissions						
Area	1	0	0	0	0	0
Stationary	0	1	1	0	0	0
Total Exempt Emissions	**1**	**1**	**1**	**0**	**0**	**0**
Non-Exempt Conformity Emissions						
Mobile	2	16	20	0	5	2
Energy	0	2	1	0	0	0
Total Non-Exempt Emissions	2	18	21	0	5	2
Total Emissions	**3**	**19**	**22**	**0**	**5**	**2**
De Minimis Levels[1]	*25*	*25*	*N/A*	*N/A*	*70*	*N/A*
Exceed Level?	**No**	**No**	**N/A**	**N/A**	**No**	**N/A**

Notes: N/A = Not Applicable; levels are not applicable due to attainment status (refer to **Appendix H**, Table 3-8).
1 - Only applies to Non-Exempt Emissions.
Source: CalEEMod, 2016.

However, to further reduce project-related operational criteria pollutants, BMPs are provided in **Section 2.2.3**. These measures would minimize CAP emissions from operation of the Proposed Project Alternative through the reduction of on-site area emissions, vehicle idling, and mobile emissions.

4.3.3 REDUCED INTENSITY ALTERNATIVE

Construction Emissions

As with the Proposed Project Alternative (refer to **Section 4.3.2**), construction of the Reduced Intensity Alternative is assumed to occur 8 hours a day, 5 days a week. Construction emission totals for the Reduced Intensity Alternative are shown in **Table 4-1**. As shown in **Table 4-1**, emissions of individual criteria pollutants from construction of the Reduced Intensity Alternative would not exceed *de minimis* levels; therefore, no conformity determination is required and project-related emissions would be less than significant. However, to further reduce project-related construction criteria pollutants and DPM, BMPs are provided in **Section 2.2.3**.

Operational Vehicle and Area Emissions

Buildout of the Reduced Intensity Alternative would result in the generation of operational emissions similar to the Proposed Project Alternative. Unmitigated operational emission totals for the Reduced Intensity Alternative are shown in **Table 4-3** for detailed estimates).

As shown in **Table 4-3**, emissions of individual criteria pollutants from operation of the Reduced Intensity Alternative would not exceed applicable *de minimis* levels and emissions of individual criteria pollutants from stationary sources (area, energy, and stationary) would not exceed the Tribal NSR threshold of 2 tpy for ROG and NO_x. Therefore, a conformity determination is not required and no Tribal NSR permit would be required. Further, **Table 4-3** shows that the Reduced Intensity Alternative would not result in stationary source emissions of any one pollutant in excess of the Federal Class I Areas major source threshold of 250 tpy. Therefore, operation of the Reduced Intensity Alternative would not result in significant adverse effects associated with the regional air quality environment. However, to further reduce project-related operational criteria pollutants, BMPs are provided in **Section 2.2.3**. These measures would minimize CAP emissions from operation of the Reduced Intensity Alternative through the reduction of on-site area emissions, vehicle idling, and mobile emissions.

TABLE 4-3
REDUCED INTENSITY UNMITIGATED OPERATIONAL EMISSIONS

Sources	Criteria Pollutants					
	ROG	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
	tons per year (tpy)					
Exempt Conformity Emissions						
Area	0	0	0	0	0	0
Stationary	0	1	1	0	0	0
Total Exempt Emissions	*0*	*1*	*1*	*0*	*0*	*0*
Non-Exempt Conformity Emissions						
Mobile	2	14	17	0	5	1
Energy	0	1	1	0	0	0
Total Non-Exempt Emissions	*2*	*15*	*18*	*0*	*5*	*1*
Total Emissions	**2**	**16**	**19**	**0**	**5**	**1**
De Minimis Levels[1]	25	25	N/A	N/A	70	N/A
Exceed Level?	***No***	***No***	***N/A***	***N/A***	***No***	***N/A***

Notes: N/A = Not Applicable; levels are not applicable due to attainment status (refer to **Appendix H**).
1 - Only applies to Non-Exempt Emissions.
Source: CalEEMod, 2016.

4.3.4 NON-GAMING ALTERNATIVE

Construction Emissions

Construction of the Non-Gaming Alternative would emit PM_{10}, NO_x, SO_2, CO, ROG, and HAPs (primarily in the form of DPM) from the operation of construction equipment and grading activities. Construction is assumed to occur 8 hours a day, 5 days a week. Unmitigated construction emission totals for the Non-Gaming Alternative are shown in **Table 4-1**, and mitigated construction emission totals are shown in parentheses (also see **Appendix N** for model output files). As shown in **Table 4-1**, emissions of individual criteria pollutants from construction of the Non-Gaming Alternative would not exceed *de minimis* levels; therefore, no general conformity determination would be required and project-related emissions would be less than significant. However, to further reduce project-related construction criteria pollutant emissions, BMPs are provided in **Section 2.2.3**.

Operational Vehicle and Area Emissions

The Non-Gaming Alternative proposes less development than the Proposed Project Alternative (refer to **Section 4.3.2**), consisting of all components of the Proposed Project Alternative with the exception of the casino. However, fewer trips from retail and recreational land uses are internally captured due to the absence of a casino from this alternative, therefore increasing total vehicle miles traveled and emissions from mobile sources. Buildout of the Non-Gaming Alternative would result in the generation of mobile emissions from patron, employee, and delivery vehicles, as well as area and energy criteria pollutant emissions from combustion of natural gas in boilers, stoves, heating units, and other equipment. Unmitigated operational emission totals for the Non-Gaming Alternative are shown in **Table 4-4**. Detailed estimated emissions are provided in **Appendix N**.

As shown in **Table 4-4**, without mitigation, non-exempt emissions of the ozone precursor NO_x from operation of the Non-Gaming Alternative would exceed applicable levels by approximately 2 tpy. Therefore, this would be a significant adverse impact. BMPs provided in **Section 2.2.3** would minimize CAP emissions from operation of the Non-Gaming Alternative through the implementation of measures intended to reduce on-site area emissions, vehicle idling, and mobile emissions. Additionally, mitigation in **Section 5.0** requires the purchase of credits to fully offset NO_x emissions to below *de minimis* levels. After mitigation, impacts to the regional air quality environment resulting from operation of the Non-Gaming Alternative would be reduced to less-than-significant.

TABLE 4-4
NON-GAMING ALTERNATIVE UNMITIGATED OPERATIONAL EMISSIONS

Sources	Criteria Pollutants					
	ROG	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
	tons per year (tpy)					
Exempt Conformity Emissions						
Area	1	0	0	0	0	0
Stationary	0	1	1	0	0	0
Total Exempt Emissions	*1*	*1*	*1*	*0*	*0*	*0*
Non-Exempt Conformity Emissions						
Mobile	3	26	32	0	8	2
Energy	0	1	1	0	0	0
Total Non-Exempt Emissions	*3*	*27*	*33*	*0*	*8*	*2*
Total Emissions	**4**	**28**	**34**	**0**	**8**	**2**
De Minimis Levels[1]	25	25	N/A	N/A	70	N/A
Exceed Level?	***No***	***Yes***	***N/A***	***N/A***	***No***	***N/A***

Notes: N/A = Not Applicable; levels are not applicable due to attainment status (refer to **Appendix H**).
1 - Only applies to Non-Exempt Emissions.
Source: CalEEMod, 2016.

As shown in **Table 4-4**, emissions of individual criteria pollutants from stationary sources (area, energy, and stationary) would not exceed the Tribal NSR threshold of 2 tpy for ROG and NO_x; therefore, no Tribal NSR permit would be required. Further, **Table 4-4** shows that the Non-Gaming Alternative would not result in stationary source emissions (under the categories of Area and Stationary sources) of any one pollutant in excess of the Federal Class I Areas major source threshold of 250 tpy.

4.3.5 NO ACTION ALTERNATIVE

Under the No Action Alternative, the North Site would not be taken into trust and no development would occur. No construction or operational mobile or stationary criteria pollutants or DPM emissions would be generated under this alternative.

4.4 BIOLOGICAL RESOURCES

4.4.1 PROPOSED PROJECT ALTERNATIVE

Sensitive Communities

No unique or sensitive ecosystems or biological communities occur within the North Site, as discussed in **Appendix H**. The North Site is comprised of disturbed/developed land formerly utilized for residential uses, and is designated as "urban" in the City General Plan (City of Cathedral City, 2009). Existing development includes several structures, paved parking areas, roadways, and utilities. Vegetation is minimal and consists of ornamental species planted along roadsides and sidewalks, including palms and non-managed areas dominated by immature non-native ruderal species. No wildlife was observed on the North Site. The North Site does not contain sensitive or natural communities that could be adversely affected during development associated with the Proposed Project Alternative. Therefore, the Proposed Project Alternative would result in no effect to sensitive communities.

Special-Status Species

For the purposes of this assessment, "special-status" has been defined to include those species that are listed as endangered or threatened under the Federal Endangered Species Act (FESA), formally listed by the state and/or recognized by state agencies, the California Native Plant Society (CNPS), or other local jurisdictions due to rarity, vulnerability to habitat loss, or population decline. If adverse effects to special-status species are determined to potentially occur, this would be considered a significant effect and would require mitigation.

As discussed in **Appendix H**, the North Site provides potential habitat for one special-status species: the western yellow bat. The western yellow bat is a state species of special concern. Potential roosting habitat on the North Site occurs within palm skirts located on the outer perimeter of the site along roadways and sidewalks. Occurrence potential is low due to highly disturbed surrounding areas and heavy vehicular traffic on the adjacent East Palm Canyon Drive. Additionally, the nearest documented occurrence of this species was observed approximately 5.5 miles from the North Site in 1998 (CDFW, 2018b). Mitigation measures are presented in **Section 5.0** to ensure that potential impacts to the western yellow bat are avoided, should this species occur within the North Site. With implementation of mitigation measures, this alternative may affect, but is not likely to adversely affect, special-status wildlife species.

Migratory Birds and Other Birds of Prey

Construction of the Proposed Project Alternative has the potential to disturb migratory birds and other birds of prey that may forage or nest on and near the North Site. The nesting season ranges from February 15 through September 15. Trees and vegetation are minimal on the North Site; however, palms occur around the perimeter and near sidewalks. Mitigation measures are presented in **Section 5.0** to ensure that potential impacts to migratory birds and other birds of prey are avoided. With implementation of mitigation measures, this alternative may affect, but is not likely to adversely affect, migratory birds and other birds of prey.

Wetlands and Waters of the U.S.

The North Site does not contain potentially jurisdictional wetlands or Waters of the U.S. Therefore, the Proposed Project Alternative would result in no effect to wetlands or Waters of the U.S.

4.4.2 REDUCED INTENSITY ALTERNATIVE

Potential impacts of the Reduced Intensity Alternative are similar to those discussed in **Section 4.4.1**. Therefore, the Reduced Intensity Alternative would result in no effect to sensitive communities or wetlands and Waters of the U.S. Mitigation measures are presented in **Section 5.0** to ensure that potential impacts to the western yellow bat, and migratory birds and other birds of prey are avoided. With implementation of mitigation measures, this alternative may affect, but is not likely to adversely affect, special-status wildlife species, and migratory birds and other birds of prey.

4.4.3 NON-GAMING ALTERNATIVE

Potential impacts of the Non-Gaming Alternative are similar to those discussed in **Section 4.4.1**. Therefore, the Non-Gaming Alternative would result in no effect to sensitive communities or wetlands and Waters of the U.S. Mitigation measures are presented in **Section 5.0** to ensure that potential impacts to the western yellow bat, and migratory birds and other birds of prey are avoided. With implementation of mitigation measures, this alternative may affect, but is not likely to adversely affect, special-status wildlife species, and migratory birds and other birds of prey.

4.4.4 NO ACTION ALTERNATIVE

Under the No Action Alternative, the North Site would not be taken into trust, and no development would occur. Therefore, the No Action Alternative would not result in adverse impacts to biological resources.

4.5 CULTURAL RESOURCES

4.5.1 PROPOSED PROJECT ALTERNATIVE

As discussed in **Appendix H** and **Appendix J**, no historic properties, known archaeological sites or cultural materials are currently located within the Area of Potential Effects (APE) for the North Site under the Proposed Project. The North Site was once the location of a 1920s-1940s residential community; however, those structures have been demolished. No known historic, cultural, religious, or archaeological resources or paleontological resources would be affected by the Proposed Project Alternative, and the degree of disturbance to the site suggests a low probability for buried cultural resources. There is always a possibility, however, that previously unknown archaeological or paleontological resources could be encountered during construction. Any inadvertent discovery of archaeological resources would be subject to Section 106 of the NHPA as amended (36 CFR § 800), NAGPRA

(25 USC § 3001 *et seq.*), and the Archaeological Resources Protection Act of 1979 (16 USC § 470aa-mm). BMPs listed in **Section 2.2.3** outline procedures for compliance with these applicable regulations in the event of an unanticipated discovery of archaeological materials, human remains or paleontological resources. With adherence to applicable laws and the implementation of BMPs in **Section 2.2.3**, no adverse effects to previously unknown cultural resources would occur.

4.5.2 REDUCED INTENSITY ALTERNATIVE

As discussed in Section 3.5 of **Appendix H**, no historic properties, known archaeological sites, cultural materials, or paleontological resources are located within the APE for the North Site under the Reduced Intensity Alternative. There is always a possibility, however, that previously unknown archaeological or paleontological resources could be encountered during construction. Adherence to applicable laws and implementation of BMPs discussed in **Section 2.2.3** would reduce potential adverse impacts to cultural resources to a less-than-significant level.

4.5.3 NON-GAMING ALTERNATIVE

As discussed in Section 3.5 of **Appendix H**, no historic properties, known archaeological sites, cultural materials, or paleontological resources are located within the APE for the North Site under the Non-Gaming Alternative. There is always a possibility, however, that previously unknown archaeological or paleontological resources could be encountered during construction. With adherence to applicable laws and the implementation of BMPs in **Section 2.2.3**, no adverse effects to previously unknown cultural resources would occur.

4.5.4 NO ACTION ALTERNATIVE

Under the No Action Alternative, the North Site would not be taken into trust and no development would occur in the near-term. No change in land use is proposed, and the site would remain in its current state. No significant cultural or paleontological resource effects would occur as a result of the No Action Alternative. Therefore, no impacts would occur, and no mitigation is required.

4.6 SOCIOECONOMIC RESOURCES/ENVIRONMENTAL JUSTICE

4.6.1 PROPOSED PROJECT ALTERNATIVE

Economy and Employment

As described in the *Economic & Community Impact Analysis* (**Appendix E**) study developed by The Innovation Group, the Proposed Project Alternative would result in a variety of benefits to the regional economy, including increases in overall economic output, and employment opportunities. Construction and operation of the Proposed Project Alternative would generate substantial temporary and ongoing employment opportunities and wages that would be primarily filled by the available labor force in Riverside County.

New one-time employment opportunities would be generated during the construction phase of the project. These include an estimated 474 direct jobs, 62 indirect jobs, and 145 induced jobs, for a total of 680 jobs that would accrue to Riverside County residents. Operation of the Proposed Project Alternative would generate a total of approximately 556 new direct employment positions, with an additional 139 indirect and 113 induced jobs also created as a result of the Proposed Project Alternative. Total labor income is estimated to exceed $27.6 million annually and the total increase in spending (or value of industry production) in Riverside County is expected to be $93.2 million (**Appendix E**). Employment opportunities generated at the proposed casino would include entry-level, mid-level, and management positions. Average salaries offered are expected to be consistent with those of other tribal gaming facilities and competitive in the local labor market.

The anticipated increase in employment opportunities throughout the City could result in employment and wages for persons previously unemployed, which would increase the ability of the population to obtain health and safety services and would contribute to the alleviation of poverty among lower income households. However, a significant impact to the local unemployment rate would not be anticipated to occur. Nonetheless, overall, the Proposed Project Alternative would result in beneficial impacts to the regional economy. For additional details

regarding the economic impacts anticipated to be generated by the construction and operation of the Proposed Project Alternative, please refer to **Appendix E**.

Tax Impacts

The Proposed Project Alternative would result in a variety of fiscal impacts. The Tribe would not pay corporate income taxes on revenue or property taxes on tribal trust land. However, potential effects on state and federal tax revenues resulting from the operation of the Proposed Project Alternative are expected to be positive as a result of increased local, state, and federal tax revenues resulting from construction and operation of the Proposed Project Alternative. Tax revenues would be generated for federal, state, and local governments from activities including secondary economic activity generated by tribal gaming (i.e., the indirect and induced effects of the economic impact analysis). The taxes on secondary economic activity include corporate profits tax, income tax, sales tax, excise tax, property tax, and personal non-taxes, such as motor vehicle licensing fees, fishing/hunting license fees, other fees, and fines. However, the Proposed Project Alternative's increase in demand for public services would result in increased costs for local governments to provide these services (refer to **Section 4.9** for an analysis of these impacts). The estimated net fiscal impact to the City would be a decrease of $119,885 under the Proposed Project Alternative (**Appendix E**). As discussed in **Section 2.2.3**, the Tribe intends to voluntarily pay development impact fees to the City. Based on the size of the proposed development and the fees contained in Chapter 3.17 of the City's Municipal Code, the anticipated development impact fee for the Proposed Project Alternative would be $18,750. This would reduce the estimated net fiscal impact to the City to $101,135. This is a potentially significant impact. Mitigation measures are provided in **Section 5.0** to avoid this potential fiscal impact to the City. As described in **Section 1.4.2**, Section 11.7 of the Compact requires that if it is determined that law enforcement, fire protection, emergency medical services, and any other public services will be burdened as a result of the Proposed Project despite the mitigation measures identified in this EA and the voluntary payment of the development impact fees identified in Chapter 3.17 of the City's Municipal Code, prior to commencement of the Proposed Project, and no later than the issuance of the Final TEIR to the County, the Tribe will offer to commence negotiations with the City and if necessary, the County. These negotiations would allow for all parties to enter into enforceable intergovernmental agreements with respect to the matters set forth in Section 11.7(a) of the Compact to ensure that the mitigation contemplated herein is sufficient. After mitigation, fiscal impacts would be less-than-significant.

Housing

Based on the information presented in **Appendix E**, the City's housing market has a 19 percent vacancy rate (U.S. Census Bureau, 2016c). As indirect and induced employment opportunities would be dispersed among a variety of different businesses throughout the region, it is expected that available employees would already be located near these locations and would not require relocation. It is estimated that the increase in employment generated by the Proposed Project Alternative would result in approximately 60 new employees relocating to the City. It is anticipated that sufficient vacant homes would be available to accommodate any potential increase in population resulting from impacts to the regional labor market under the Proposed Project Alternative (**Appendix E**). Therefore, the Proposed Project Alternative is not expected to stimulate regional housing development. A significant impact to the housing market would not occur. Potential indirect effects resulting from growth inducement are discussed further in **Section 4.13**.

Social Effects

Pathological and Problem Gambling

Approximately 86 percent of Americans report having gambled at least once during their lifetimes, with 0.4 to 1.6 percent being classified as pathological gamblers. A three-level metric for types of gambling can be used, which includes recreational gambling (no appreciable harmful effects), problem gambling (urge to gamble despite harmful negative consequences or a desire to stop), and pathological gambling (compulsive gambling; periodic loss of control over gambling; irrational thinking) (**Appendix E**).

Residents of the City and County have already been exposed to many forms of gambling, including from the existing casinos described in **Section 3.0**, **Appendix H**, and **Appendix E**. Prevention and treatment programs already exist in the vicinity of the site, and are funded by the State. The Proposed Project Alternative would not

substantially increase the prevalence of problem gamblers as several existing gaming facilities are already established within relatively short driving distances from the site, and is therefore not expected to increase costs to the surrounding community of treatment programs for compulsive gambling.

Furthermore, a portion of payments to the State of California pursuant to the Compact would be dedicated to funding problem gambling treatment programs. These payments made by the Tribe would further reduce the already less-than-significant impacts to problem gambling. Therefore, the impact is less than significant and no further mitigation measures are warranted.

Crime

There is a general belief that the introduction of legalized gambling into a community increases crime. However, this argument is based more on anecdotal evidence rather than empirical evidence. Whenever large volumes of people are introduced into an area, the volume of crime would also be expected to increase. This is true of any large-scale development. Given the availability of gaming in the region, the addition of gaming in the City is not expected to lead to a material increase in crime rates in the area.

The Proposed Project Alternative would result in an increased number of patrons and employees traveling/commuting into the community on a daily basis. As a result, under the Proposed Project Alternative, criminal incidents may increase in the vicinity of the project, as with any other development of this size. This may result in an increase in the calls for law enforcement service. See **Section 4.9** for an analysis of effects to law enforcement services. Mitigation measures are provided in **Section 5.0** to avoid potential fiscal impacts to the City that would offset the increased cost of law enforcement services to the Proposed Project Alternative. Therefore, with mitigation, the Proposed Project Alternative would not result in significant adverse effects associated with crime.

Tribal Casino Gaming Market Substitution Effects

Appendix E provides a detailed review of competitive gaming facilities based on identification of local and regional gaming facilities. Based on this review, potential substitution effects of the Proposed Project Alternative on other gaming facilities were calculated. Existing regional gaming facilities with the greatest potential to be affected by the Proposed Project Alternative include the two other facilities owned and operated by the Tribe (which would experience a decrease in revenue between 6.2 and 8.5 percent). The Proposed Project Alternative would result in a less than 2.0 percent decrease in revenue at three other nearby casinos (Fantasy Springs Resort Casino, Augustine Casino, and Spotlight 29 Casino), and a less than 1.0 percent decrease at seven casinos located at further distances from the North Site. Anticipated decreases in revenue at existing casinos are not considered to be significant.[3] Therefore, the operation of the Proposed Project Alternative would not cause a significant impact, as it would not affect the ability of the Tribe or any other tribal government to provide essential services and facilities to its membership, or result in the closure of any of the competing gaming facilities.

Further, given the extensive supply of gaming facilities already operating in the area, no substantial substitution effects to local business is projected. It is anticipated that the Proposed Project Alternative would have a beneficial impact to local businesses and local hotels from increased patronage to the area, as the project is designed as an anchor for development in the surrounding area.

Environmental Justice for Minority and Low Income Populations

As discussed in **Section 3.0** and **Appendix E**, there are no identified low-income Census tracts in the vicinity of the North Site; however, minority communities, including the Tribe, are located within the Census tract that contains the site as well in one adjacent Census tract. As described throughout this section of this EA, after mitigation, all environmental impacts of the Proposed Project Alternative would be reduced to a less-than-significant level. Furthermore, the Proposed Project Alternative would not displace any residential populations in the vicinity of the North Site. Effects to minority populations would include positive impacts from the Proposed

[3] The decrease in revenue at the Tribe's existing casino will be offset by the increase in revenue from the Proposed Project Alternative.

Project Alternative's beneficial impacts to the local economy (including the creation of permanent jobs). Impacts include an increased revenue base for strengthening the Tribe's government and tribal services, as discussed further below. Therefore, the Proposed Project Alternative would not result in disproportionately high and adverse environmental effects to minority or low-income communities, including the Tribe.

Effects to the Agua Caliente Band of Cahuilla Indians

As discussed in **Section 1.3**, the Proposed Project Alternative would provide important economic and social benefits to the Tribe by generating the revenues needed to fund government services, including the creation of a tribal court system, development of a robust tax commission, and address homelessness on the Reservation. Further, the Tribe aims to re-establish its historic land base, which requires substantial revenues due to high acquisition costs. Revenue from the Proposed Project Alternative would have a long-term beneficial impact on the Tribe.

4.6.2 REDUCED INTENSITY ALTERNATIVE

The gaming component of the Reduced Intensity Alternative is identical to the Proposed Project Alternative; refer to **Section 4.6.1** and **Appendix E** for socioeconomic impacts related to the Reduced Intensity Alternative gaming facility. However, as a result of the smaller non-gaming component, the Reduced Intensity Alternative would generate fewer employment opportunities, less revenue, less off-site tax revenue, and lower construction costs than that under the Proposed Project Alternative. Socioeconomic effects, such as social effects and effects to the tribal casino gaming market would be reduced proportionally to the size of the development. Therefore, the Reduced Intensity Alternative would still have beneficial socioeconomic effects; however, these effects would be reduced from the Proposed Project Alternative.

The net fiscal impact to the City would be a decrease of $109,383 under the Reduced Intensity Alternative (**Appendix E**). As discussed in **Section 2.2.3**, the Tribe intends to voluntarily pay development impact fees to the City. Based on the size of the proposed development and the fees contained in Chapter 3.17 of the City's Municipal Code, the anticipated development impact fee for the Reduced Intensity Alternative would be $15,450. This would reduce the estimated net fiscal impact to the City to $93.933. This is a potentially significant impact. Mitigation measures are provided in **Section 5.0** to avoid this potential fiscal impact to the City. As described in **Section 1.4.2**, Section 11.7 of the Compact requires that prior to commencement of the Reduced Intensity Alternative, and no later than the issuance of the Final TEIR to the County, if it is determined that law enforcement, fire protection, emergency medical services, and any other public services will be burdened as a result of the Reduced Intensity Alternative despite the mitigation measures identified in this EA and the voluntary payment of the development impact fees identified in Chapter 3.17 of the City's Municipal Code, the Tribe shall offer to commence negotiations with the City and if necessary, the County. These negotiations would allow for all parties to enter into enforceable intergovernmental agreements with respect to the matters set forth in Section 11.7(a) of the Compact. After mitigation, fiscal impacts would be less than significant.

4.6.3 NON-GAMING ALTERNATIVE

The Non-Gaming Alternative does not include a gaming component, but has expanded mixed-use facilities when compared to the Proposed Project Alternative (refer to **Section 4.6.1**). See **Appendix E** for specific socioeconomic effects, such as the number of jobs created and economic activity anticipated under the Non-Gaming Alternative. Compared with the gaming facility under the Proposed Project Alternative, the increase in size of the mixed-use facilities would create less economic and employment benefits because the lack of a gaming component would result in fewer new jobs and less economic activity. Certain socioeconomic effects, such as social effects and effects to the tribal casino gaming market would be reduced. The Non-Gaming Alternative would still have beneficial socioeconomic effects; however, these effects would be smaller than those of the Proposed Project Alternative. The Non-Gaming Alternative would result in competitive effects to local retailers. However, such effects would be less than significant due to the existence of spare capacity or "gap" in the local retail market (**Appendix E**).

The net fiscal impact to the City would be a decrease of $145,480 under the Non-Gaming Alternative (Appe**ndix E**). As discussed in **Section 2.2.3**, the Tribe intends to voluntarily pay development impact fees to the City.

Based on the size of the proposed development and the fees contained in Chapter 3.17 of the City's Municipal Code, the anticipated development impact fee for the Non-Gaming Alternative would be $13,500. This would reduce the estimated net fiscal impact to the City to $131,980. This is a potentially significant impact. Mitigation measures are provided in **Section 5.0** to avoid this potential fiscal impact to the City, including requiring the Tribe to enter into a Municipal Services Agreement with the City, which would require compensation for law enforcement and fire protection services utilized by the Non-Gaming Alternative.

4.6.4 NO ACTION ALTERNATIVE

Under the No Action Alternative, the North Site would not be taken into trust, and no development would occur. Therefore, none of the potential effects identified under the Proposed Project Alternative would occur.

4.7 TRANSPORTATION/CIRCULATION

METHODOLOGY

Study Intersections and Roadway Segments

A TIA was conducted by Webb Associates in July 2018 to determine the effects the proposed development would have on study intersections and roadway segments, review the available access to the development, and provide recommendations for improvements that may be necessary to accommodate the traffic expected to be generated by the development. The TIA is provided as **Appendix K** to this EA.

To assess project-related impacts on the transportation system, opening year background traffic conditions were estimated for the year 2020. As described in **Appendix K**, the 2020 background traffic conditions were determined by applying an average annual growth rate of 2 percent to the 2018 existing traffic described in Section 3.7 of **Appendix H**. Table 5-1 of **Appendix K** shows the study intersections under 2020 baseline conditions.

The study area intersections were analyzed using procedures published in the 2010 Highway Capacity Manual and PTV Vistro 5.00, a computer-based traffic analysis program (**Appendix K**). Estimated traffic generated by the project was added to the 2020 opening year background traffic to determine whether the project would cause the study intersections or roadways to operate at an unacceptable LOS. For the purposes of this analysis, an overall intersection LOS of D or better is considered acceptable (**Appendix K**). If an intersection operates at LOS E or F without the addition of the project, a significant impact would occur if the project would add 50 or more trips to the intersection or if the vehicle-to-capacity ratio of a roadway segment exceeds 1.0. These thresholds apply to all study intersections and roadways. For roadways or intersections operating unacceptably without the addition of the project, an increase in the volume to capacity (v/c) ratio of 0.05 or greater as a result of the project would result in a significant impact.

Trip Generation Rates

Trip generation relates land uses to the number of vehicles entering or exiting the site and the directional splits of inbound/outbound traffic. A trip is defined as a vehicle either entering or exiting the site. The trip generation rates were derived for the project based on information published in the *Institute of Transportation Engineers (ITE) 10th Edition of Trip Generation Manual* (**Appendix K**). The ITE Manual does not provide a standard trip generation rate for casino land uses; therefore, counts at nearby existing casinos of a similar size were utilized to determine the casino trip generation rate. The ITE standard trip rates were used for the restaurants and shopping center land uses, as described in **Appendix K**. Due to the close proximity of the casino, restaurant, and retail facilities, and their shared access, there would be internal capture between these land uses and, therefore, a trip reduction was applied to account for this internal capture. Tables 4-1 and 4-2 of **Appendix K** provide a summary of the trip generation rates used for the proposed casino and mixed use facilities.[4]

[4] Note that the tribal governmental land use was included in the square footage for Building A and analyzed at the mixed-use rate assumed for Building A. This resulted in a conservative estimate of generated trips, as office uses generate fewer trips than mixed-use buildings.

Trip Distribution

Estimated traffic generated by the Proposed Project Alternative was distributed on the surrounding street system based on anticipated site use. Figures 4-A through 4-D of **Appendix K** show the traffic volumes and distribution for the Proposed Project Alternative.

4.7.1 PROPOSED PROJECT ALTERNATIVE

Study Intersections and Roadway Segments

Trip generation and trip distribution are provided in **Table 4-5** below and in Figure 4-A of **Appendix K**, respectively, for the Proposed Project Alternative. Tables 5-1 and 5-5 of **Appendix K** provide a summary of the future LOS at each study intersection and roadway segment with the addition of traffic from the Proposed Project Alternative. With the addition of traffic generated by the Proposed Project Alternative, all intersections and roadway segments would operate acceptably, with the exception of:

- Date Palm Drive/Buddy Rogers Avenue (increased from LOS C to LOS E/F);
- Cathedral Canyon Drive/Paseo Real (increased from LOS E to LOS F);
- East Palm Canyon Drive between Cathedral Canyon Drive and Date Palm Drive (LOS F; v/c ratio increase from 1.00 to 1.04); and
- East Palm Canyon Drive between Date Palm Drive and Frank Sinatra Drive (LOS E; v/c ratio increase from 0.82 to 0.85).

TABLE 4-5
PROPOSED PROJECT ALTERNATIVE TRIP GENERATION

Land Use	PM Peak Hour			Saturday MD Peak Hour			Daily
	Total	In	Out	Total	In	Out	
Casino	**289**	**125**	**164**	**306**	**169**	**138**	**5,224**
Shopping Center	189	91	98	200	118	82	2,278
Internal Capture – Retail to Restaurant	*-82*	*-50*	*-32*	*-86*	*-52*	*-34*	*-98*
Internal Capture – Retail to Casino	*-64*	*-24*	*-40*	*-68*	*-39*	*-29*	*-1,308*
Shopping Center Subtotal	**43**	**17**	**26**	**46**	**26**	**19**	**872**
High-Turnover Sit-Down Restaurant	137	85	52	157	80	77	1,571
Quality Restaurant	109	73	36	150	89	62	1,174
Fast Casual Restaurant	85	47	38	204	112	92	1,891
Coffee/Donut Shop	73	37	36	118	58	60	1,510
Internal Capture – Restaurant to Retail	*-97*	*-36*	*-61*	*-151*	*-56*	*-95*	*-113*
Internal Capture – Restaurant to Casino	*-184*	*-123*	*-61*	*-287*	*-170*	*-117*	*-3,620*
Restaurant Subtotal	**122**	**82**	**40**	**191**	**113**	**78**	**2,413**
Project Total	***445***	***224***	***230***	***543***	***308***	***235***	***8,509***

Source: **Appendix K**.

However, the segment of East Palm Canyon Drive between Cathedral Canyon Drive and Date Palm Drive would not increase the v/c ratio by 0.05 or greater; therefore, this does not constitute a significant impact. Further, because the segment between Date Palm Drive and Frank Sinatra Drive would not increase above a v/c ratio of 1.0, it is not considered a significant impact. Mitigation provided in **Section 5.0** would ensure that impacts to the intersections listed above are reduced to less-than-significant levels.

Transit, Bicycle, and Pedestrian Facilities

As described in **Section 3.0** and **Appendix K**, transit, bicycle, and pedestrian facilities are generally present in the vicinity of the North Site. The project incorporates design features to ensure the site meets the City's walkability goal for the downtown area (City of Cathedral City, 2012). An increase in transit ridership may be experienced as

a result of the Proposed Project Alternative. Mitigation is included in **Section 5.0** to ensure potential impacts are less than significant by contributing to transit development funds.

4.7.2 REDUCED INTENSITY ALTERNATIVE

Study Intersections and Roadway Segments

Trip generation and trip distribution are provided in Table 4-4 and Figure 4-B of **Appendix K** for the Reduced Intensity Alternative. Tables 5-2 and 5-6 of **Appendix K** provide a summary of the future LOS at each study intersection and roadway segment with the addition of traffic from the Reduced Intensity Alternative. The same intersections and roadway segments would operate unacceptably under the Reduced Intensity Alternative and the Proposed Project Alternative; refer to **Section 4.7.1** and mitigation provided in **Section 5.0**. Therefore, the Reduced Intensity Alternative would not result in a significant impact to LOS.

Transit, Bicycle, and Pedestrian Facilities

Similar to the Proposed Project Alternative, the Reduced Intensity Alternative would have no adverse impacts on local transit systems or bicycle and pedestrian facilities after mitigation provided in **Section 5.0**.

4.7.3 NON-GAMING ALTERNATIVE

Study Intersections and Roadway Segments

Trip generation and trip distribution are provided in Table 4-5 and Figure 4-C of **Appendix K** for the Non-Gaming Alternative. Tables 5-3 and 5-7 of **Appendix K** provide a summary of the future LOS at each study intersection and roadway segment with the addition of traffic from the Non-Gaming Alternative. The same intersections and roadway segments would operate unacceptably under the Non-Gaming Alternative and the Proposed Project Alternative; refer to **Section 4.7.1** and mitigation provided in **Section 5.0**. Therefore, the Non-Gaming Alternative would not result in a significant impact to LOS.

Transit, Bicycle, and Pedestrian Facilities

Similar to the Proposed Project Alternative, the Non-Gaming Alternative would have no adverse impacts on local transit systems or bicycle and pedestrian facilities after mitigation provided in **Section 5.0**.

4.7.4 NO ACTION ALTERNATIVE

Under the No Action Alternative, the North Site would not be taken into trust and no development would occur in the near term. No change in land use is proposed, and the site would remain in its current state. The traffic conditions under the No Action Alternative would continue as described in **Section 3.0** and **Appendix K** for the baseline without project conditions, and no traffic would be added to local intersections. Therefore, no significant traffic effects would occur, and no mitigation is required.

4.8 LAND USE

4.8.1 PROPOSED PROJECT ALTERNATIVE

As described in **Section 2.1**, the Proposed Project Alternative includes the transfer of the approximately 13.6-acre North Site from fee to trust status, and the subsequent development of a casino, restaurants, retail, and ancillary infrastructure, including parking lots. Once the federal government acquires the North Site in trust for the Tribe, the parcels would no longer be subject to City land use regulations but would be under the civil regulatory jurisdiction of the Tribe and the federal government.

Land Use Plans

City planning documents currently in effect for the North Site include the City General Plan, Date Palm Drive Specific Plan, and City Zoning Ordinance. The proposed land uses within the site would be compatible with the Land Use Map provided in the City General Plan, which identifies the entirety of the North Site as DTC, which is a land use designation that specifically allows for commercial and entertainment uses. The North Site is zoned as MXC and DRN. The Proposed Project Alternative would develop the land with entertainment and commercial mixed uses, which would be compatible with the City's MXC designation, but not with the DRN designation;

however, when multiple parcels are developed together with mixed MXC or DRN zoning, the provisions of either zone can apply to the entire development (City Municipal Code § 9.31.040). Additionally, the Proposed Project Alternative would be consistent with the City's plan for its downtown area as described by the Downtown/Art and Design Village designation within the Date Palm Drive Specific Plan, which specifies the North Site for the development of a major retail anchor. It should also be noted that Cathedral City Council Resolution 2017-14, which is included as Exhibit H to the Fee-to-Trust Application, supports the Tribe's use of the North Site for gaming purposes. Overall, development of the Proposed Project Alternative is consistent with the existing and planned uses of the North Site. Therefore, the Proposed Project Alternative would result in less-than-significant impacts associated with conflicts with local land use plans.

Land Use Compatibility

The areas immediately adjacent to the North Site are either empty lots that were previously developed, contain commercial uses, or are a public park. The North Site and the surrounding areas are planned for DTC development by the City, which the Proposed Project Alternative would be compatible with. The proposed development would not physically disrupt neighboring land uses, prohibit access to neighboring parcels, or otherwise significantly conflict with neighboring land uses. The fire station currently located at the northeastern corner of the North Site would be relocated across Buddy Rogers Avenue to the adjacent parcel that is part of the existing public park; however, this is not a part of the project and would occur regardless of the implementation of the Proposed Project Alternative. While the proposed uses within the site are generally compatible with the commercial nature of the area and adjacent restaurant and shopping centers, the increase in intensity of development within the site as a result of the Proposed Project Alternative could result in conflicts with nearby sensitive land uses (including the apartment complex 440 feet to the northwest, Second Street Park 25 feet to the north, and single family residential neighborhood approximately 500 feet to the southwest); potential conflicts may include air quality and noise impacts from construction activities and the increase in traffic (**Sections 4.3** and **4.11**, respectively), and an increase in lighting (**Section 4.10**). Implementation of protective measures and BMPs identified in **Section 2.2.3** and mitigation measures identified in **Section 5.0** would reduce potential adverse impacts to less-than-significant levels. Therefore, the Proposed Project Alternative would result in less-than-significant impacts associated with land use compatibility.

4.8.2 REDUCED INTENSITY ALTERNATIVE

The Reduced Intensity Alternative would result in the development of four fewer structures than the Proposed Project Alternative on the North Site (refer to **Section 4.8.1**). The land use compatibility of the Reduced Intensity Alternative would be similar to the Proposed Project Alternative, with regards to the City's land use and zoning designations. Refer to **Sections 2.2.3**, **4.3**, **4.8.1**, **4.11**, **4.10**, and **5.0** for related impacts, BMPs, and mitigation measures. Therefore, the Reduced Intensity Alternative would result in less-than-significant impacts associated with land use conflicts.

4.8.3 NON-GAMING ALTERNATIVE

The Non-Gaming Alternative would result in a similarly-sized development on the North Site, with no casino proposed, as compared with the Proposed Project Alternative (refer to **Section 4.8.1**). The land use compatibility of the Non-Gaming Alternative would be similar to the Proposed Project Alternative, with regards the City's land use and zoning designations; refer to **Sections 2.2.3**, **4.3**, **4.8.1**, **4.11**, **4.10**, and **5.0** for related impacts, BMPs, and mitigation measures. Therefore, the Non-Gaming Alternative would result in less-than-significant impacts associated with land use conflicts.

4.8.4 NO ACTION ALTERNATIVE

Under the No Action Alternative, the North Site would not be taken into trust and would remain in its current condition. No project-related development would take place on any part of the site in the near term, although it is possible the land would be eventually developed in accordance with the City General Plan. No land use conflicts would occur under the No Action Alternative. Therefore, the No Action Alternative would not result in adverse impacts related to land use.

4.9 PUBLIC SERVICES AND UTILITIES

4.9.1 PROPOSED PROJECT ALTERNATIVE

Water Supply

The estimated average daily water usage for the Proposed Project Alternative would be approximately 33,929 gpd, or approximately 38 AFY (**Appendix F**).[5] Water to serve the casino development would be supplied by DWA. As described in **Section 2.2.2**, while DWA water mains exist on and adjacent to the North Site, these mains are inadequate to serve the Proposed Project Alternative. Therefore, the Proposed Project Alternative includes the placement of a 12-inch water main along the southern boundary of the North Site within East Palm Canyon Drive from an existing water main at the intersection of East Palm Canyon Drive and Date Palm Drive, and would then run north through the project site along Allen Drive, terminating at the existing water main running east-to-west in Buddy Rogers Avenue (refer to **Figure 4.9-1** of **Appendix D**). As described in **Appendix F**, this new main would provide sufficient fire flows to meet the Proposed Project Alternative demands. The Proposed Project Alternative would also involve the removal or abandonment of the existing water mains on the North Site to accommodate construction of the project. These improvements would occur on or immediately adjacent to the North Site. Refer to **Section 4.13.4** regarding the potential impacts of the off-site water infrastructure improvements.

The total water demand experienced by DWA in 2017 (the most recent year for which actual use data are available) was approximately 34,689 AFY (DWA, 2018d); demand is anticipated to increase to 42,708 AFY by 2020 (DWA, 2016). Therefore, the estimated annual water demand of the Proposed Project Alternative represents only 0.1 percent of DWA's actual total demand in 2015 and less than 0.1 percent of DWA's projected total demand in 2020. Additionally, as described in **Appendix F**, the DWA water supply infrastructure in the vicinity of the North Site was constructed based on an assumption that future development on the site would demand significantly more water (a total of approximately 76,320 gpd) than is projected under the Proposed Project Alternative. Therefore, with the exception of the water main improvements described above, DWA has an adequate water supply and regional supply infrastructure to serve the Proposed Project Alternative and impacts on water service providers would be less than significant.

Wastewater Service

Under the Proposed Project Alternative, wastewater generated by the project would be collected by DWA sewer lines and treated at CVWD facilities. As described in **Section 2.2.2**, there are existing DWA sewer mains and branch lines on and in the immediate vicinity of the North Site. However, because these existing sewer mains and branch lines would be inadequate and improperly positioned to serve the Proposed Project Alternative, the project involves the construction of a new 8-inch sewer main along the northern site boundary within Buddy Rogers Avenue and then south through the project site along Allen Avenue to the point where Allen **A**venue currently intersects with Grove Street (refer to **Figure 4.9-1** of **Appendix D**). As with the existing water mains, the existing sewer mains on the North Site would need to be removed or abandoned to accommodate construction of the Proposed Project Alternative. These improvements would occur on or immediately adjacent to the North Site, and no improvements to other downline components of the DWA or CVWD conveyance and treatment infrastructure would be required. Refer to **Section 4.13.4** regarding the potential impacts of the off-site wastewater infrastructure improvements.

The Proposed Project Alternative would generate average daily wastewater flows of approximately 17,892 gpd (**Appendix F**). As described in **Section 3.0** and **Appendix H**, WRP-10 currently has a significant excess capacity of approximately 17 MGD, which would be more than sufficient to accommodate the flows generated by the Proposed Project Alternative. Furthermore, as described in **Appendix F**, the regional DWA wastewater conveyance infrastructure was constructed under the assumption that significantly more wastewater flows would be generated by future development on the North Site (a total of approximately 40,068 gpd) than would occur

[5] The casino water demand rate was based on the supermarket water demand rate established by the AWWA Research Foundation, because no standardized casino water demand rates exist. This rate is considered to be conservative, as it is greater than the water demand rates used for other similar facilities owned and operated by the Tribe, including the rates used in the 2017 Master Plan Draft Tribal Environmental Impact Report for the Tribe's Spa Resort Casino expansion project.

under the Proposed Project Alternative. Therefore, with the on-site improvements to the wastewater conveyance infrastructure, operational impacts to wastewater treatment service providers would be less than significant, and no mitigation or additional off-site improvements are required.

Solid Waste Service

Construction of the Proposed Project Alternative would result in a temporary increase in waste generation. The waste stream would consist of excess construction materials. Waste that cannot be recycled would be disposed of at the Lamb Canyon Landfill. Therefore, the minimal adverse effects on solid waste services during construction would be considered less than significant.

As shown in **Table 4-6**, based on similar facilities, the operation of the Proposed Project Alternative would generate an estimated 1.03 tons of solid waste per day, or 375.95 tpy. Under the Proposed Project Alternative, the Tribe would contract with Burrtec to provide solid waste collection, transfer, and recycling services for solid waste generated at the Proposed Project Alternative. The daily amount of solid waste generated by the Proposed Project Alternative is equivalent to approximately 0.02 percent of Lamb Canyon Landfill's permitted daily disposal capacity of 5,000 tons per day, which is a negligible increase to the solid waste stream that the facility could easily accommodate. Fees paid to Burrtec pursuant to the contract would compensate for expansion of services to the North Site. Therefore, the impacts to solid waste services would be less than significant.

TABLE 4-6
PROPOSED PROJECT ALTERNATIVE SOLID WASTE GENERATION

Waste Generation Source	Waste Generation Rate	Units	Value	Total Waste (lb/day)
Casino (other services)[1]	3.12	lb/100 sf/day	57,500 sf	1,794.00
Restaurant[2]	0.005	lb/sf/day	41,000 sf	205.00
Retail[3]	2.5	lb/1,000 sf/day	26,500 sf	66.25
			Total lb/day	**2,065.25**
			Total ton/day	**1.03**
			Total ton/year	**375.95**

Note:
1 – To be conservative, back of house square footage is included.
2 – Assumes 60% of the mixed-use development is restaurants.
3 – Assumes 40% of the mixed-use development is retail.
Source: CalRecycle, 2016.

Recreation

Because the Proposed Project Alternative would not result in a substantial increase in population or housing, as discussed in **Section 4.6.1**, demand for additional recreation facilities would not increase substantially under the Proposed Project Alternative. While the Proposed Project Alternative would be located in close proximity to the existing Second Street Park and Cathedral City Dog Park, the construction and operation of the Proposed Project Alternative would not impede access to these facilities. Therefore, the minimal impacts to recreational facilities would be less than significant.

Electricity and Natural Gas

Under the Proposed Project Alternative, electricity would be obtained from SCE. The Proposed Project Alternative would have an estimated electrical load of approximately 7.33 megavolt-amperes (MVA; MSA Engineering Consultants, 2018). The most recent transmission plan prepared by the California Independent System Operator (ISO) Corporation did not identify a need for any transmission upgrades to satisfy projected electricity demand in the SCE service region that includes the North Site (California ISO, 2017). Additionally, SCE's ongoing West of Devers Upgrade Project, which is projected to be completed in 2021, would further improve the reliability of the electricity supply in the Palm Springs area (SCE, 2017c). Thus, it is not anticipated that implementation of the Proposed Project Alternative alone would require upgrades to SCE's transmission infrastructure. Payment for electrical service and for any distribution infrastructure upgrades or renovations necessary to provide service to the North Site would be negotiated through an agreement with SCE. Therefore, no significant impacts would occur.

Natural gas service would be obtained from SoCalGas under the Proposed Project Alternative. The Proposed Project Alternative would have an estimated natural gas load of approximately 21,800 CFH (MSA Engineering Consultants, 2018). SoCalGas currently has extensive distribution infrastructure in the immediate vicinity of the North Site, and under the Proposed Project Alternative, natural gas services would continue to be provided to the North Site by SoCalGas. Any improvements to or reorientations of natural gas supply infrastructure required by the development of the Proposed Project Alternative would abide by all California Environmental Quality Act (CEQA) regulations and other applicable federal, State, and local laws. Therefore, the Proposed Project Alternative would not result in significant adverse effects to natural gas services or the physical environment.

Law Enforcement

An analysis of the impact of casino gambling on local crime rates is included in **Section 4.6**. As described in **Section 2.2.2**, the CCPD would provide law enforcement services to the Proposed Project Alternative. Tribe-managed security cameras and security personnel would provide surveillance of the Proposed Project Alternative structures, parking areas, and ancillary facilities. Security guards would patrol the facilities to reduce and prevent criminal and civil incidents. Security guards would carry two-way radios to request and respond to back up or emergency calls. Because CCPD currently provides law enforcement services to the North Site, it is not anticipated that CCPD would require additional facilities to continue to provide services subsequent to the development of the Proposed Project Alternative. However, operation of the Proposed Project Alternative has the potential to increase the number of calls for service placed to CCPD. As discussed in the Economic and Community Impact Analysis prepared for the Proposed Project Alternative (**Appendix E**), the Casino is projected to generate approximately 164 to 269 annual calls for law enforcement services beginning in 2021 (its first year of operation), between a 0.3 and 0.5 percent increase over CCPD's most recent (2017) annual call volume. This would constitute a potentially significant impact. The BMPs described in **Section 2.2.3** and the mitigation measures described in **Section 5.0**, which include the voluntary payment of the development impact fees identified in Chapter 3.17 of the City's Municipal Code and the possible implementation of an intergovernmental agreement, respectively, would reduce potential impacts to law enforcement services to less than significant.

Fire Protection and Emergency Medical Services

Equipment and vehicles used during construction activities may create sparks, which could ignite vegetation on the North Site. The use of power tools and acetylene torches may also increase the risk of fire during construction. BMPs listed in **Section 2.2.3** would ensure that construction of the Proposed Project Alternative would not create a substantial fire hazard.

Structural fire protection would be provided through voluntary compliance with IFC requirements as adopted under the Tribal Building and Safety Code for commercial structures, including requirements for fire flow as described in **Section 2.2.2**, sprinkler systems, and fire extinguishers. CCFD would provide both fire protection and emergency medical services to the Proposed Project Alternative. As discussed in the *Economic and Community Impact Analysis* prepared for the Proposed Project Alternative (**Appendix E**), the casino is projected to generate approximately 17 annual calls for fire protection services beginning in 2021 (its first year of operation), an approximately 0.3 percent increase over CCFD's most recent (2017) annual call volume. While the minimal increase in demand for fire protection and emergency medical services is not anticipated to trigger the need to construct new facilities, this would nonetheless constitute a potentially significant impact. The BMPs described in **Section 2.2.3** and the mitigation measures described in **Section 5.0**, which include the voluntary payment of the development impact fees identified in Chapter 3.17 of the City's Municipal Code and the possible implementation of an intergovernmental agreement, respectively, would ensure impacts to fire protection and emergency medical services remain less than significant.

4.9.2 REDUCED INTENSITY ALTERNATIVE

The Reduced Intensity Alternative involves the construction and operation of similar project components as the Proposed Project Alternative (refer to **Section 4.9.1**), but the components would be approximately 18 percent smaller than under the Proposed Project Alternative. Service providers for the Reduced Intensity Alternative would be the same as those under the Proposed Project Alternative and similar water and wastewater line improvements would also be required. Refer to **Figure 4.9-2** of **Appendix D** regarding the location of water and

wastewater infrastructure improvements under the Reduced Intensity Alternative. As the Reduced Intensity Alternative would have reduced demand for services due to the smaller scale of development, impacts would be similar to those described under **Section 4.9.1** for water supply, wastewater supply, solid waste service, recreation, electricity and natural gas providers, law enforcement, and fire protection and emergency medical services, though to a lesser extent. With incorporation of the BMPs provided in **Section 2.2.3** and mitigation provided in **Section 5.0**, public services impacts under the Reduced Intensity Alternative would be less than significant.

4.9.3 NON-GAMING ALTERNATIVE

The Non-Gaming Alternative involves the construction and operation of similar project components as the Proposed Project Alternative (refer to **Section 4.9.1**), but the components would be approximately 28 percent smaller than under the Proposed Project Alternative. Service providers for the Non-Gaming Alternative would be the same as those under the Proposed Project Alternative and similar water and wastewater line improvements would also be required. Refer to **Figure 4.9-3** of **Appendix D** regarding the location of water and wastewater infrastructure improvements under the Non-Gaming Alternative. As the Non-Gaming Alternative would have reduced demand for services due to the smaller scale of development, impacts would be similar to those described under **Section 4.9.1** for water supply, wastewater supply, solid waste service, recreation, electricity and natural gas providers, law enforcement, and fire protection and emergency medical services, though to a lesser extent. With incorporation of the BMPs provided in **Section 2.2.3** and mitigation provided in **Section 5.0**, public services impacts under the Non-Gaming Alternative would be less than significant.

4.9.4 NO ACTION ALTERNATIVE

Under the No Action Alternative, the North Site would not be taken into trust, and no development would occur. No additional public services would be extended to the site. Therefore, no increase in demand for any public services would occur under the No Action Alternative.

4.10 VISUAL RESOURCES

4.10.1 PROPOSED PROJECT ALTERNATIVE

Aesthetics

Implementation of the Proposed Project Alternative would result in development of a casino and multi-use buildings on the North Site, which would constitute a change to the existing visual setting. An architectural rendering of the Proposed Project Alternative is provided as **Figure 4.10-1** of **Appendix D**. In general, views of undeveloped, gravel lots and abandoned utilities infrastructure would change to views of more modern commercial development. The tallest proposed building height for the casino would be 60 feet and the tallest multi-use building height would be 36 feet. This is consistent with the heights of nearby commercial development, and would not substantially block scenic views of the mountains surrounding the valley. While the buildings would be highly visible to travelers on Date Palm Drive and East Palm Canyon Drive, the development would not be highly visible from roadways not adjacent to the North Site.

The nearest residential development to the North Site is an apartment building located approximately 400 feet northwest of the site. However, the closest proposed building is more than 700 feet from this residential development, and the intervening land within the North Site will include landscaping and trees surrounding and within the parking area in the western portion of the site (refer to **Figure 2-3** of **Appendix D**). The proposed development would not block views of scenic resources in the vicinity of the North Site. Therefore, the Proposed Project Alternative would not result in significant adverse impacts associated with visual resources.

Lighting

The Proposed Project Alternative would introduce new sources of light to the North Site, for aesthetic and security purposes at the facility and throughout the parking lots, similar to the sources of light from nearby commercial developments. This lighting associated with the Proposed Project Alternative would constitute an increase over the existing ambient light levels on the North Site; however, lighting would be consistent with the

designated commercial use of the North Site. Even so, BMPs included in **Section 2.2.3**, including shielded and filtered lighting, ensure no significant adverse impacts associated with lighting would occur.

4.10.2 REDUCED INTENSITY ALTERNATIVE

The Reduced Intensity Alternative would develop fewer buildings than the Proposed Project Alternative (refer to **Figure 2-4** of **Appendix D**); therefore, visual impacts related to development under the Reduced Intensity Alternative would be similar to those described above for the Proposed Project Alternative, but would be diminished in scope due to the smaller size of the proposed facilities. An architectural rendering of the Reduced Intensity Alternative is identical to the rendering of the Proposed Project Alternative provided as **Figure 4.10-1** of **Appendix D**. Therefore, the Reduced Intensity Alternative would not result in significant adverse impacts associated with visual resources, and BMPs included in **Section 2.2.3** would also apply to the Reduced Intensity Alternative.

4.10.3 NON-GAMING ALTERNATIVE

The Non-Gaming Alternative would result in a similar intensity of development as the Proposed Project Alternative (refer to **Figure 2-5** of **Appendix D**); therefore, visual impacts related to development under the Non-Gaming Alternative would be similar to those described above for the Proposed Project Alternative. Refer to **Section 4.10.1**. An architectural rendering of the Non-Gaming Alternative is provided as **Figure 4.10-2** of **Appendix D**. The tallest proposed building height would be 36 feet. This is consistent with the heights of nearby commercial development, and would not substantially block scenic views of the mountains surrounding the valley. Therefore, the Non-Gaming Alternative would not result in significant adverse impacts associated with visual resources, and BMPs included in **Section 2.2.3** would also apply to the Non-Gaming Alternative.

4.10.4 NO ACTION ALTERNATIVE

Under the No Action Alternative, the North Site would not be taken into trust, and no development would occur. The site would remain in its current state. Therefore, the No Action Alternative would have no impact related to visual resources.

4.11 NOISE

ASSESSMENT CRITERIA AND METHODOLOGY

The assessment of project effects is based on the Federal Highway Administration (FHWA) construction noise level thresholds in its 2006 Construction Noise Handbook, City General Plan, and Federal Interagency Committee on Noise (FICON) noise guidance. The assessment of vibration noise is based on the Federal Transportation Administration (FTA) standards. Adverse noise-related effects would occur during construction and operation if the following occurs:

- Project construction results in an increase in the ambient noise environment of greater than 78 dBA, equivalent noise level (Leq), or a 5-dBA increase in the ambient noise level above the existing noise level for daytime residential receptors, or an increase of greater than 83 dBA Leq or a 5-dBA increase for daytime commercial receptors (FHWA, 2006).
- Project operation causes ambient noise levels to exceed noise standards adopted by the City, including 55 dBA CNEL for residential receptors, and 62.5 dBA CNEL for public parks and commercial development (City of Cathedral City, 2009).
- If the ambient noise level exceed City standards under existing conditions, increases in the ambient noise level will be analyzed based on FICON guidance, where an increase of +5 dB is significant for ambient levels less than 60 dB, an increase of + 3 dB is significant for ambient levels between 60 and 65 dB, and an increase of + 1.5 dB is significant for ambient levels greater than 65 dB (FICON, 1992).
- Construction or operation of the project exceeds the FTA vibration standards of 90 vibration decibels (VdB) for structures and 70 VdB for annoyance of people (FTA, 2006).

4.11.1 PROPOSED PROJECT ALTERNATIVE

Noise-sensitive receptors are land uses associated with indoor and outdoor activities that may be subject to stress or significant interference from noise, including educational, health care, and residential areas. The nearest noise-sensitive receptors to the North Site are a public park located 25 feet north, a residential apartment complex located approximately 440 feet northwest, and commercial buildings located adjacent to the western boundary.

Construction Noise

Construction noise at the North Site would result from construction equipment and activities and vehicle traffic, which consists of trucks hauling materials and workers entering and exiting the North Site. Construction would result in temporary periods of elevated noise levels, typically generating maximum noise levels up to 85 dBA at a distance of 50 feet, as indicated in **Table 4-7**. These noise levels may vary depending on the particular type, number, and duration of use of various pieces of construction equipment.

TABLE 4-7
TYPICAL CONSTRUCTION NOISE LEVELS

Construction Equipment	Maximum Noise Level at 50 feet (dBA)	Construction Equipment	Maximum Noise Level at 50 feet (dBA)
Crane (mobile or stationary)	85	Tractor	84
Dozer	85	Generator (more than 25 kVA)	82
Excavator	85	Backhoe	80
Grader	85	Compressor (air)	80
Paver	85	Front end loader	80
Scraper	85	Pickup truck	55
Source: FHWA, 2006.			

During construction, a maximum of approximately 303 worker and vendor truck trips would occur per day. Material haul trips have the potential to raise ambient noise levels along haul routes, depending on the number of haul trips made and the types of vehicles used. It is estimated that 384 material hauling trips would occur each day during construction. Because trucks are louder than passenger cars, a passenger car equivalence (PCE) multiplier of 10 cars per truck was used to assume 3,840 PCE material hauling trips per day. With the addition of worker vehicle trips, the total trips added to area roadways would be 4,143 vehicle trips. The majority of these trips would occur outside the traffic peak hours, when traffic noise would be greatest. The existing traffic volumes on Date Palm Drive (19,500 average daily traffic [ADT]) and East Palm Canyon Drive (39,900 ADT) are greater than the 4,143 ADT added by the Proposed Project Alternative construction; therefore, as construction trips would less than double traffic on nearby roadways, the increase in ambient noise levels would be less than 1.0 dBA. Therefore, construction traffic would not result in a significant increase in the existing ambient noise level.

Noise from stationary point sources attenuates (lessens) at a rate of 6 to 9 dBA per doubling of distance from the source, depending on environmental conditions (e.g., atmospheric conditions, noise barriers). An attenuation factor of 6.0 dBA per doubling of distance is appropriate for the North Site given the relatively flat topography and lack of ground cover on the site. Based on the estimates of construction noise described above, the maximum construction noise level at the North Site would be 85 dBA at 50 feet. Using an attenuation factor of 6.0 dBA, the noise level at the nearest sensitive noise receptor located approximately 440 feet from the North Site, would be less than 67 dBA. This noise level would be below the federal noise construction threshold of 78 dBA for residences. The noise level at the nearest commercial receptor located adjacent to the western boundary of the North Site would be 85 dBA, which would be above the federal noise construction threshold of 83 dBA for commercial facilities. Mitigation provided in **Section 5.0** would require the erection of a temporary sound barrier during construction to reduce noise levels at this commercial receptor. Additionally, the majority of construction will occur at least 100 feet from the western boundary of the site; therefore, temporary construction noise would not have a significant effect on nearby commercial buildings.

Construction noise BMPs identified in **Section 2.2.3** would further reduce noise during construction activities and would limit construction to daytime hours to reduce the potential for sleep disturbance, which is consistent with the City's Noise Ordinance as codified in Municipal Code Chapter 11.96. Therefore, because of the distance of sensitive noise receptors to North Site, short-term and temporary nature of construction noise, and implementation of mitigation and BMPs to reduce construction noise levels to the extent feasible, there would not be a significant adverse impact due to construction noise.

Construction Vibration

The vibration levels of typical construction equipment at a distance of 25 feet from the equipment are shown in **Table 4-8**. As shown in **Table 4-8**, with the exception of vibratory rollers, vibrations associated with construction equipment are below the thresholds for structural damage (90 VdB) at a distance of 25 feet; however, vibration levels associated with all the equipment in **Table 4-8** are above the threshold for annoyance of humans at a distance of 25 feet. The nearest building is approximately adjacent to the western boundary of the North Site. At this distance, the vibration amplitude of a vibratory roller would be greater than 90 VdB, which exceeds the threshold for structural damage (90.0 VdB). Mitigation provided in **Section 5.0** would restrict the use of vibratory equipment in the vicinity of this commercial building, which would reduce this impact to a less-than-significant level. The nearest residential receptor to on-site construction is located approximately 440 feet from the North Site. Construction vibration from a vibratory roller at this receptor would be approximately 56.6 VdB, which is lower than the thresholds for structural damage (90.0 VdB) and the annoyance of people (70.0 VdB). Therefore, vibration associated with on-site construction under the Proposed Project Alternative would not have a significant adverse impact on neighboring receptors.

TABLE 4-8
VIBRATION LEVELS FOR CONSTRUCTION EQUIPMENT

Vibration Source	Approximate Lv (VdB) at 25 ft
Vibratory Roller	94
Large Bulldozers	87
Loaded Trucks	86
Jackhammer	79
Source: FTA, 2006.	

Operational Noise

The Proposed Project Alternative would result in an increase of on-site operational noise, primarily resulting from traffic and parking-related activities in parking lots; use of fans for HVAC; and truck loading and unloading.

Traffic Noise

The level of traffic noise depends on three things: (1) the volume of the traffic, (2) the speed of the traffic, and (3) the number of trucks in the flow of the traffic. It is not anticipated that traffic speed or the mix of trucks in project-area traffic would change during the operational phase; however, implementation of the Proposed Project Alternative would increase traffic volumes. As discussed in **Section 3.0** and **Appendix H**, the primary source of noise in the project area is traffic on East Palm Canyon Drive and Date Palm Drive. The estimated ambient noise level along these roadways in the vicinity of the North Site is approximately 67.2 dBA Leq (**Appendix L**).

Date Palm Drive

Date Palm Drive experiences approximately 19,500 ADT adjacent to the North Site (City of Cathedral City, 2009). Operation of the Proposed Project Alternative would add approximately 2,102 ADT to the existing traffic volume on this roadway (**Appendix K**). The ambient noise level along Date Palm Drive is 62.8 dBA Leq (**Appendix L**), which exceeds the City's ambient noise level standards for residential uses, parks, and commercial receptors. The increase in traffic from operation of the Proposed Project Alternative would result in a 0.44 dBA Leq ambient noise level increase, which is below the FICON threshold for ambient noise increases. Therefore, the Proposed Project Alternative would not result in significant adverse effects associated with traffic noise levels for sensitive noise receptors located along Date Palm Drive.

East Palm Canyon Drive

East Palm Canyon Drive experiences approximately 39,900 ADT adjacent to the North Site (City of Cathedral City, 2009). Operation of the Proposed Project Alternative would add approximately 2,872 ADT to the existing traffic volume on this roadway (**Appendix K**). The ambient noise level along East Palm Canyon Drive is 67.2 dBA Leq (**Appendix L**), which exceeds the City's ambient noise level standards for residential uses, parks, and commercial receptors. The increase in traffic from operation of the Proposed Project Alternative would result in a 0.30 dBA Leq ambient noise level increase, which is below the FICON threshold for ambient noise increases. Therefore, the Proposed Project Alternative would not result in significant adverse effects associated with traffic noise levels for sensitive noise receptors located along East Palm Canyon Drive.

Buddy Rogers Avenue

Buddy Rogers Avenue experiences approximately 66 PM peak hour trips adjacent to the North Site (**Appendix K**). Operation of the Proposed Project Alternative would add approximately 99 PM peak hour trips to the existing traffic volume on this roadway (**Appendix K**). The ambient noise level along Buddy Rogers Avenue is 63.4 dBA Leq (**Appendix L**), which exceeds the City's ambient noise level standards for parks. The increase in traffic from operation of the Proposed Project Alternative would result in a 4 dBA Leq ambient noise level increase, which is above the FICON threshold for ambient noise increases. Therefore, the Proposed Project Alternative would result in significant adverse effects associated with traffic noise levels at Second Street Park and the Cathedral City Dog Park located along Buddy Rogers Avenue. Mitigation provided in **Section 5.0** would reduce the ambient noise levels at these parks to below the existing ambient noise level measurements; therefore, impacts would be less than significant.

Other Roadways

The increase in traffic along other study area roadways and intersections would be no greater than 20 percent of the total project trip generation. The anticipated increases in traffic along these roadways would not double traffic volumes along these roadways and would not increase ambient noise levels by more than 3 dBA. Therefore, noise impacts along other roadways would be less than significant and no mitigation would be required.

Operational Vibration and Other Noise Sources

Noise due to traffic in parking lots is limited by low speeds and, as a result, is not expected to represent a significant source of noise. Human activity in parking lots can also produce noise, including talking, yelling, and opening and closing of car doors and trunk lids. Such activities can occur any time, but frequently occur in the daytime and evening. The noise level in parking lots is generally dominated by slow-moving vehicles; thus, the ambient noise level in parking structures and parking lots is approximately 60.0 dBA (Illingworth & Rodkin, Inc., 2014), which is lower than the existing ambient noise level of 63.4 dBA.

Buildings would be equipped with HVAC units that would most likely be mounted on the roof. The HVAC equipment would have noise shielding and other industry-standard noise abatement measures installed. The noise levels produced by HVAC systems vary substantially with the capacities of the units, as well as with individual unit design, but generally result in a noise level of 60.0 dBA Leq at a distance of 20 feet (Berger et al., 2015). HVAC noise would be less than 48 dBA at the nearest commercial and residential receptors from the site, which is below the City's noise thresholds for operational noise.

Loading docks are potential noise sources. Although trucks on site would be moving at low speeds, the engine noise could be audible at nearby locations. As discussed in **Section 2.2** and shown on **Figure 2-4** of **Appendix D**, loading docks would be located on the north side of the casino building, approximately 1,200 feet from the nearest residence and approximately 250 feet from the nearest commercial facility. Based on similar commercial projects, idling trucks at loading docks have the potential to generate a noise level of up to 63.0 dBA Leq at a distance of 100 feet from the source (j.c. brennan, 2010). Loading dock noise would be less than 57 dBA at the nearest commercial receptor, and less than 45 dBA at the nearest residential receptor, both of which are below the City's acceptable noise levels. Noise levels from truck movements at the loading docks would be also shielded by the surrounding proposed buildings, further reducing the noise levels at the nearest sensitive receptors.

Commercial uses do not include sources of perceptible vibration. Therefore, because the Proposed Project Alternative would not result in vibration and noise levels at nearby sensitive receptors and would not exceed the federal noise abatement criteria, no significant adverse impacts would occur.

4.11.2 REDUCED INTENSITY ALTERNATIVE

The Reduced Intensity Alternative would result in operational noise levels lower than those presented for the Proposed Project Alternative (refer to **Section 4.11.1**) because the scope of the Reduced Intensity Alternative is smaller than the Proposed Project Alternative and the increase in traffic volumes would be approximately 87 percent of those for the Proposed Project Alternative (refer to **Appendix K**). Additionally, construction duration and activities would be similar but reduced because the Reduced Intensity Alternative is approximately 82 percent of the size and intensity of the Proposed Project Alternative. Therefore, implementation of the Reduced Intensity Alternative would not result in significant adverse impacts to the ambient noise environment.

4.11.3 NON-GAMING ALTERNATIVE

Construction duration and activities would be similar to the Proposed Project Alternative (refer to **Section 4.11.1**) but reduced because the Non-Gaming Alternative's development footprint is approximately 72 percent of the size and intensity of the Proposed Project Alternative. The construction worker and vendor trips would be lesser than under the Proposed Project Alternative. However, the hauling trips would be greater, resulting in a total of 4,406 PCE construction trips per day, which would still result in an increase of less than 1.0 dBA from construction traffic noise. However, the mix of land uses under the Non-Gaming Alternative would result in greater operational noise levels than those presented for the Proposed Project Alternative, as the increase in traffic volumes would be approximately 60 percent greater than those for the Proposed Project Alternative (refer to **Appendix K**). The Non-Gaming Alternative would add approximately 3,487 ADT to Date Palm Drive, and approximately 4,765 ADT to East Palm Canyon Drive. This would result in noise increases along these roadways of 0.71 dBA and 0.49 dBA, respectively, which is below the FICON noise thresholds. Further, the operational vibration and other noise sources from the Non-Gaming Alternative would be similar to the Proposed Project Alternative. Therefore, implementation of the Non-Gaming Alternative would not result in significant adverse impacts to the ambient noise environment.

4.11.4 NO ACTION ALTERNATIVE

Under the No Action Alternative, the North Site would not be taken into trust and no development would occur. No construction or operational noise from mobile or stationary sources would occur; therefore, no adverse impacts would occur.

4.12 HAZARDOUS MATERIALS

4.12.1 PROPOSED PROJECT ALTERNATIVE

Incidents associated with hazardous materials that would be most likely to occur during construction include the incidental release of fuels, oil, and grease during the operation of construction equipment, as well as accidental releases associated with handling and transferring hazardous material-containing substances. Typical construction management practices limit the incidence of such accidental releases. In addition, the CWA requires that stormwater management BMPs be implemented during construction in accordance with a SWPPP. The SWPPP would further ensure that incidental releases of hazardous materials would not migrate off site during a storm event.

Although no hazardous materials issues are known to be associated with the North Site, the possibility exists that undiscovered contaminated soil and/or groundwater is present on the site due to the migration of hazardous materials from off-site properties or unknown hazardous materials dumping, or that construction personnel could encounter concrete piping from previous development that may contain asbestos. This could pose a risk to human health and/or the environment. BMPs presented in **Section 2.2.3** and mitigation measures provided in **Section 5.0** would minimize or eliminate adverse effects from undiscovered contaminated materials.

During operation of the Proposed Project Alternative, small quantities of cleaning materials, solvents, pesticides, herbicides, fuels, and paints would be stored and used throughout the proposed facilities. These materials are

common to most commercial operations and do not pose any unusual or substantial threat to public health and safety, even if stored or used improperly, because of the relatively small quantities involved. Therefore, with proper handling and storage, operation of the Proposed Project Alternative would not result in significant adverse effects associated with hazardous materials.

4.12.2 REDUCED INTENSITY ALTERNATIVE

The Reduced Intensity Alternative would be similar to the Proposed Project Alternative (refer to **Section 4.12.1**) with regards to construction-related hazardous materials impacts; however, these impacts would be somewhat diminished in scope due to the reduced size of development proposed under this alternative. The recommended measures presented in **Section 2.2.3** and mitigation measures provided in **Section 5.0** would minimize or eliminate adverse effects from the unanticipated discovery of hazardous materials during construction of the Reduced Intensity Alternative.

The types of hazardous materials that would be stored, used, and generated during the operation of the Reduced Intensity Alternative would be similar to those described under the Proposed Project Alternative; however, the amount would be smaller due to the reduction in size of development components under the Reduced Intensity Alternative. As discussed for the Proposed Project Alternative, with proper handling and storage, operation of the Reduced Intensity Alternative would not result in significant adverse effects associated with hazardous materials.

4.12.3 NON-GAMING ALTERNATIVE

The Non-Gaming Alternative would be similar to the Proposed Project Alternative (refer to **Section 4.12.1**) with regards to construction-related hazardous materials impacts; however, these impacts would be somewhat diminished in scope due to the reduced size of development proposed under this alternative. The BMPs presented in **Section 2.2.3** and mitigation measures provided in **Section 5.0** would minimize or eliminate adverse effects from the unanticipated discovery of hazardous materials during construction of the Non-Gaming Alternative.

The Non-Gaming Alternative would be similar to the Proposed Project Alternative in most aspects related to potential operational impacts from hazardous materials. Therefore, as with the Proposed Project Alternative, no significant impact associated with hazardous materials would occur during construction or operation of the Non-Gaming Alternative.

4.12.4 NO ACTION ALTERNATIVE

Under the No Action Alternative, neither of the North Site would be taken into trust, and no development would occur in the near-term. Therefore, no significant effects from the use, storage, or handling of hazardous materials would result from this alternative.

4.13 CUMULATIVE IMPACTS AND INDIRECT EFFECTS

4.13.1 CUMULATIVE SETTING

Cumulative impacts are defined by the CEQ as effects "on the environment which result from the incremental effect of the action when added to other past, present, and reasonably foreseeable future actions" (40 CFR §1508.7). There are several major development projects proposed, planned, and/or currently being constructed in the region. A listing of the projects, including the acreage and status of the development, is provided in **Table 4-9**. As shown in **Table 4-9**, within approximately 10 miles of the North Site, there are approximately 158 acres of planned and ongoing development within the region. Additionally, the Tribe is currently planning several development projects, including an expansion of the Agua Caliente Resort Spa in Rancho Mirage (including 310 hotel rooms, 41,000 sf of meeting space, 120,000 sf of commercial space, 25,000 sf of restaurant, and 58,000 sf of gaming floor), a large-scale cultural center and spa complex in downtown Palm Springs (48,000 sf gallery), and an expansion of the Agua Caliente Spa Resort Casino in Palm Springs (including 68,000 sf of gaming floor, 350 hotel rooms, 60,000 sf of meeting space, 50,000 sf of mixed use/retail space, and a 40,000-sf spa/fitness center).

TABLE 4-9
PLANNED DEVELOPMENT PROJECTS WITHIN THE REGION

Project Name	Acres	Distance to North Site (miles)	Project Location	Project Description	Project Status as of June 2018
City of Cathedral City					
Pending Downtown Development	13.5	<1	East Palm Canyon Drive and Van Fleet Avenue	Mixed-use development to include a lifestyle retail center, hotel, and residences.	Pending
Quick Quack Car Wash	1.63	3.3	Ramon Rd. and Avenida Ximino	Full service car wash facility with outdoor vacuums.	Pending
Carlos Campos Pest Control	<1	3.4	68761 Aliso Rd.	Pest control building, parking lot, outdoor storage area for vehicles.	Approved
CCBC Resort Runway Restaurant	<1	<1	68300 Gay Resort Drive	Restaurant with outdoor patio dining area within an existing resort hotel.	Approved
Cathedral City Senior Living	4.96	2.1	67670 Carey Rd.	Senior living facility with 140 living units.	Approved
Ramon 19	19.14	4.3	69375 Ramon Rd.	Medical cannabis cultivation and production facility to be constructed in two phases over the next three years.	Under Construction
Best Western Plus Hotel	9	6.4	I-10/Bob Hope intersection	91-room hotel joined by adjacent fast food options.	Under Construction
The District	7	2	Cree Rd. and Carey Rd.	47 single-family units with common areas including recreational amenities.	Under Construction
Ecoplex Park	2.8	1.5	67905 East Palm Canyon Drive	Construction of two warehouse-style buildings that will house a medical cannabis cultivation operation.	Under Construction
Horizon Gardens	--	--	Cathedral City	Addition of 28 units to a senior living facility.	Under Construction
Alchemy Works	6.51	1.3	67575 Canyon Plaza	Cannabis cultivation facility	Pending
City of Rancho Mirage					
Estilo Tract 34227	0.43	5.1	72-277 Victory Drive	Single family housing	Under Construction
Bella Clancy	--	4.2	Rancho Palmeras east of Follansbee Rd.	Modification to allow 15 ft. setbacks for side entry garages. Construction of 20 single family homes	Under Construction
Mirada Villas	27	1.8	North of Frank Sinatra Dr across from The Ritz	Single family housing - 46 units	Under Construction
Ken Catanzarite	--	1.5	South of Mirage Cove Dr. at Highway 111	Single family housing - 20 units	Approved
Horizon pacific, Rancho Cove, MSA Consulting	13.05	0.8	Highway 111 & One Mirage Place	Hotel & single family housing	Under Review
RMSW LLC	23.71	1.3	W. Side Highway 111/Frank Sinatra & Mirage Cove	Resort and Condominium	Approved
Rancho Mirage Rehabilitation Hospital, Inc.	9.69	3.6	Ramon Rd. and DaVall Dr.	Rehabilitation center	Under Construction

Project Name	Acres	Distance to North Site (miles)	Project Location	Project Description	Project Status as of June 2018
City of Palm Springs					
Canyon View / Summit Project	14.83	2.4	SW corner of East Palm Canyon Dr. & Matthew Dr.	Single family housing	Approved
Porsche Car Dealership	2.7	3.1	3737 East Palm Canyon Dr.	Auto Sales	Approved
Source: Cathedral City Economic Development Department, 2018; **Appendix K**; City of Rancho Mirage, 2018.					

In addition to the buildout of the projects listed above, the cumulative impact analysis within this EA and associated technical studies conservatively assumed a 1.5 percent annual growth rate for the population of the surrounding region until 2040 (**Appendix K**). Cumulative impacts for each environmental issue area are discussed below.

4.13.2 CUMULATIVE IMPACTS

Unless otherwise specified below, the following analysis applies to the Proposed Project Alternative, Reduced Intensity Alternative, and the Non-Gaming Alternative, referred to collectively as project alternatives or the development alternatives.

Land Resources

The principal effects to land resources associated with any future development in the vicinity of the North Site would include localized, minor topographical changes and soil attrition. Other projects in the area would be required to implement measures consistent with local permitting requirements for construction to address any regional geotechnical, seismic, or mining hazards. It is anticipated that approved developments would follow appropriate permitting procedures; therefore, implementation of the development alternatives would not contribute to cumulatively considerable adverse impacts to land resources.

Water Resources

Effects related to water supply for the development alternatives are discussed in **Section 4.2**. The projected water demands for the Proposed Project Alternative and Reduced Intensity Alternative are approximately 38 AFY and 36 AFY, respectively, which represents only approximately 0.02 percent of the 189,700 AFY of total outflows anticipated to occur from the western portion of the Coachella Valley Groundwater Basin in 2045 (CVWD, 2011); the Non-Gaming Alternative's demand of 27 AFY represents only approximately 0.01 percent. Therefore, the demand associated with the development alternatives and future developments would not significantly affect surface or groundwater levels in the vicinity of the North Site. Furthermore, projects that may be constructed in the vicinity of the North Site are required to comply with the CWA as it relates to stormwater and point source discharges. Compliance with USEPA's stormwater pollution prevention requirements, adherence to the BMPs listed in **Section 2.2.3**, and the fact that 100 percent of stormwater flows associated with a 100-year, 3-hour storm event would be retained on site would prevent development associated with the development alternatives from contributing to cumulatively considerable adverse stormwater-related effects. Therefore, implementation of the development alternatives would not contribute to cumulatively considerable adverse impacts to water resources.

Air Quality

Operational Emissions

Past, present and future development projects contribute to a region's air quality conditions on a cumulative basis; therefore by its very nature, air pollution is largely a cumulative impact. No single project is sufficient in size to, by itself, result in nonattainment of the NAAQS. If a project's individual emissions contribute toward exceedance of the NAAQS, then the project's cumulative impact on air quality would be significant. In developing attainment designations for criteria pollutants, the USEPA considers the relevant region's past, present and future emission levels. As stated in **Section 3.0** and **Appendix N**, the USEPA has designated the SSAB as nonattainment (Severe 15) for O_3 and nonattainment (serious) for $PM_{2.5}$. All other NAAQS are designated as unclassified or in attainment. The main source of CAP emissions from foreseeable development is mobile

sources from automobiles, the generation of which will be reduced as fuel efficiency increases. As automobiles use less, or even run without gasoline, emissions of CAPs per mile will decrease.

Emission estimates for the development alternatives in the cumulative year 2040 were estimated using the CalEEMod air quality modeling program and are included in **Appendix N**. Increased gas mileage and improved fleet emission controls of trucks and vehicles in the future are accounted for in CalEEMod. The increase in future gas mileage is attributed to improved fuel efficiency technology and stricter federal and state regulations. Therefore, under future year conditions, emissions resulting from the development alternatives are expected to be less than opening year, and would continue to be below *de minimis* thresholds. The development alternatives would not cumulatively adversely impact the region's air quality, and BMPs listed in **Section 2.2.3** as well as mitigation measures provided in **Section 5.0** would further reduce project-related emissions.

Climate Change

Methodology

Climate change is a global issue that is not being caused by any single development project, but by global cumulative increases in atmospheric GHG concentrations. Thus, global warming is most effectively addressed on a global or regional level. California's global warming policies and legislation (most notably Executive Order [EO] S-3-05 and Assembly Bill [AB] 32) are intended to be regional approaches to ensure that statewide emissions are reduced substantially in the future (to levels much lower than existing levels).

No project-specific quantitative limits have been established by Riverside County, the California Air Resources Board (CARB), USEPA, or any other state or federal agency for climate change or GHG emissions. While there is no federal guidance memo related to the consideration of climate change impacts in NEPA documents (a former 2016 CEQ guidance memorandum was withdrawn with issuance of EO 13783), this EA includes a quantification of GHG emissions resulting from the development alternatives (in carbon dioxide equivalents [CO_2e]) and a discussion of reduction measures to address comments received during scoping.

In addition to quantification of GHG emissions and recommended reduction measures, this EA considers the impacts of the development alternatives in relation to the GHG reduction targets established by the state of California and compliance with Cathedral City's Climate Action Plan (CCCAP). Due to the inherent nature of climate change, GHG impacts are considered to be exclusively cumulative impacts. Therefore, assessment of significance is based on a determination of whether the GHG emissions from a project represent a cumulatively considerable contribution to the global atmosphere and conforms to the applicable CARB, CAT, and CCCAP measures.

Impact Assessment

Development of the project alternatives would result in an increase in GHG emissions related to construction, mobile sources (trips generated by the project), stationary sources (components of the development alternatives that directly emit GHGs from the combustion of natural gas or diesel in boilers, emergency generators, and HVAC units), and indirect sources related to electricity (combustion of fuels use to produce electricity), solid waste (solid waste decomposition at the landfill and haul trucks), wastewater processing (decomposition of waste and electric and diesel pumps), and water transport (electricity and diesel pumps).

USEPA- and CARB-approved CalEEMod.2016.3.2 was used to estimate construction, area, energy, mobile, stationary, water and wastewater, and solid waste project-related GHG emissions. Model input and output files are provided in **Appendix N**. The trip generation rates used to estimate GHG emissions are derived from the TIA (**Appendix K**). **Table 4-10** provides a breakdown of project-related GHG emissions for the development alternatives.

GHG emissions resulting from the development alternatives are primarily indirect (either indirect mobile emissions from delivery, patron, and employee vehicles or indirect off-site electricity generation, waste pickup, water and wastewater transport, etc.). The federal government has enacted measures that would reduce GHG emissions from mobile sources, some of which have been accounted for in the air quality model used to estimate

mobile emissions. BMPs have been incorporated into the project design to reduce project-related GHG emissions and are listed in **Section 2.2.3**. Construction BMPs include reduced idling of heavy equipment, thereby, reducing CO_2 during the construction of the development alternatives. Operational BMPs would reduce indirect GHG emissions from electricity use, water and wastewater transport, and waste transport through the installation of energy efficient lighting, heating and cooling systems, low-flow appliances, drought resistant landscaping, and recycling receptacles. Operational BMPs would also reduce indirect mobile GHG emissions by requiring adequate ingress and egress to minimize vehicle idling and preferential parking for vanpools and carpools to reduce project-related trips. Therefore, with the implementation of all GHG reduction measures into the project design, the development alternatives would not result in a significant adverse cumulative impact associated with climate change.

TABLE 4-10
PROJECT-RELATED UNMITIGATED ANNUAL GHG EMISSIONS – ALL ALTERNATIVES

Emission Source	GHG Emissions (MT CO_2e)		
	Proposed Project Alternative	**Reduced Intensity Alternative**	**Non-Gaming Alternative**
Construction[1]			
Construction	986	922	1,011
Operation			
Area	0	0	0
Mobile (Vehicle Trips)	7,044	6,110	11,375
Stationary Sources	802	802	802
Energy Usage	2,467	2,030	1,793
Solid Waste	339	286	219
Water/Wastewater	189	161	115
Operation Subtotal	*10,841*	*9,389*	*14,304*
Total Project-Related GHG Emissions	**11,827**	**10,311**	**15,315**

Notes: 1 – Construction is based on a 12-month schedule and will only occur during the year 2019.
Source: CalEEMod, 2016.

As discussed in **Appendix N**, CARB identifies the GHG reduction targets of the state and the types of measures that will be used to reach them in California's adopted Climate Change Scoping Plan. Of the approximately 126 strategies and measures identified in the Scoping Plan that would achieve a statewide reduction in GHG emissions, only two would apply to the development alternatives (refer to **Table 4-11**). The other policies do not apply to the development alternatives because they either apply to state entities, such as CARB, are planning-level measures, or they apply to particular industries, such as the auto repair industry. In addition to the State's GHG reduction targets, CCCAP identifies strategies to reduce GHG emissions. As shown in **Table 4-11**, the development alternatives would comply with California's and Cathedral City's applicable emission reduction strategies.

TABLE 4-11
COMPLIANCE WITH STATE EMISSIONS REDUCTION STRATEGIES

Regulation or Policy	Project Compliance
EO S-3-05 / AB 32 Strategy	
Diesel Anti-Idling: In July 2004, CARB adopted a measure to limit diesel-fueled commercial motor vehicle idling.	The development alternatives would be located on trust land and thus not subject to CARB restrictions on on-site diesel-fueled commercial vehicle idling. BMPs provided in **Section 2.2.3** would make the project consistent with this strategy.
Achieve 50 percent statewide Recycling Goal: Achieving the State's 50 percent waste diversion mandate as established by the Integrated Waste Management Act of 1989, (AB 939, Sher, Chapter 1095, Statutes of 1989), will reduce climate change emissions associated with energy intensive material extraction and	Solid waste services are expected to be provided by Burrtec, which is subject to the state's recycling requirements. The development would not affect County diversion goals as waste from tribal land is classified as

Regulation or Policy	Project Compliance
production as well as methane emission from landfills. A diversion rate of 48 percent has been achieved on a statewide basis. Therefore, a 2 percent additional reduction is needed.	out-of-state waste and is not calculated in local waste diversion statistics. Although the diversion stream will not be affected, the waste stream would increase. BMPs provided in **Section 2.2.3** would make the project consistent with this strategy.
Water Use Efficiency: Approximately 19 percent of all electricity, 30 percent of all natural gas, and 88 million gallons of diesel are used to convey, treat, distribute and use water and wastewater. Increasing the efficiency of water transport and reducing water use would reduce GHG emissions.	With implementation of BMPs provided in **Section 2.2.3**, water use would be reduced through installation of low-flow appliances and the installation of drought-tolerant landscaping, which would make the project consistent with this strategy.
Cathedral City CAP	
Solid Waste ▪ **Diversion:** Increase solid waste diversion to achieve an average annual goal of 65 percent through 2020. ▪ **Food Waste Composting at Restaurants:** Restaurant composting program for food waste with a goal to reach all restaurants that serve more than 100 meals a day. ▪ **Recyclable Take-Out Containers:** Promote/mandate take-out alternative containers with a goal to eliminate the use of polystyrene packaging.	The Cathedral City CAP identifies the solid waste diversion strategy as a residential measure; therefore, the retail and recreational land uses that would be developed as a result of the development alternatives would not be subject to this reduction strategy. However, the project would work to achieve City waste diversion goals through the implementation of the 50 percent statewide recycling goal as discussed above. In addition, all restaurants developed under the development alternatives serving greater than 100 meals per day would be encouraged to implement a composting program for food waste, and the Tribe will promote/mandate the use of non-polystyrene take-out containers. These measures are included as BMPs in **Section 2.2.3**.
Water ▪ **Conservation Ordinance:** ▪ Build on and exceed current CVWD water conservation ordinance by 15% community-wide by 2020. ▪ Build on ordinance with goal to exceed current commercial-sector water conservation ordinance by 20 percent community-wide by 2020. ▪ **Drought Tolerant Planting**: Promote and augment City, DWA and CVWD rebates for drought tolerant planting, turf replacement and buy-back.	The Tribe will implement the BMPs provided in **Section 2.2.3**, including the installation of low-flow appliances and drought-tolerant landscaping. These measures will help achieve the City's water conservation goals.
Commercial Buildings ▪ **Peak Demand Reduction:** Collaborate with SCE and encourage 200 businesses to enroll in Energy Efficiency and Demand Response programs such as the Summer Discount Program. ▪ **Energy-Efficient, Commercial-Sector Lighting:** With DCEP promote and leverage existing incentives for efficient lighting with special local focus on building owner education and action with goal to eliminate any remaining T-12 lamps in commercial buildings. ▪ **"The Temperature Club":** Promote community partnership through policies to adjust indoor temperatures to save/degree. ▪ **Lighting Controls:** Promote SCE programs to encourage energy-efficient lighting linked to building controls and occupancy sensors. ▪ **"Cool Roofs":** Promote the installation of reflective roofing on commercial properties in the community with recognition for first ten early adopters.	All proposed facilities would be designed to be energy efficient, consistent with the BMPs incorporated into the project design listed in **Section 2.2.3**.
Governmental Initiatives ▪ **Commercial PACE Program:** Partner and aggressively promote commercial PACE program to provide commercial property owners —from retail to resorts— with property-secured funding for 100% of the cost of energy efficiency upgrades/renewable energy installations. ▪ **Green Building Program**. Promote Voluntary Green Building Program to prepare for enhanced Title 24 requirements and green building standards. ▪ **Green Building Support Services**. Advance the Voluntary Green Building Program to mandatory green building requirement with technical support services. ▪ **New and Efficient Construction**. Promote the Savings by Design Program from SCE for new commercial buildings.	The Tribe shall install energy efficient appliances in all buildings in accordance with the BMPs provided in **Section 2.2.3**. The buildings will be constructed generally consistent with Title 24 requirements and green building standards as adopted under the Tribal Building and Safety Code.

Regulation or Policy	Project Compliance
Transportation ▪ **Car-Pooling and Mass Transit:** Promote "Shared Vehicle at Work" programs with a goal to increase carpooling and mass transit by 20% with a "guaranteed-ride home". ▪ **Charging Stations:** Foster public/private partnerships to promote 10 additional public access EV charging stations for existing EV and NEV fleets. ▪ **Van Pools:** Partner and recognize all CC major employers with over 50 employees for van pools. ▪ **Car Sharing:** Promote ZIP and/or other Car Share programs through preferential parking and promotion with signage with a goal to serve 5% of existing drivers who each reduce their driving by 25%. ▪ **Plug-In Electric Vehicle Charging Stations:** Seek grant funding to install 10 EV charging stations on public and private property and promote Plug-In Electric Vehicles for public use. ▪ **Visitor Shuttles:** Collaborate with local hotels and resorts to support and establish effective point-to-point transportation for visitors, e.g. shuttles to airports, hotels, and business districts.	All workplaces shall promote employee rideshare programs and the use of nearby mass transit. Preferential parking for ZIP cars and other rideshare vehicles shall be implemented in accordance with the BMPs outlined in **Section 2.2.3** to further promote workplace and consumer ridesharing. The Tribe shall consider and to the extent feasible will incorporate preferential parking for Plug-In Electric Vehicles, along with the installation of corresponding EV charging stations into the project design. In addition, the Tribe shall provide shuttle service to and from population centers as feasible.
Notes: EO = Executive Order; AB = Assembly Bill. Source: CARB, 2017; City of Cathedral City, 2013.	

The effect of climate change on the development alternatives is also considered in this EA. Average temperature in County could increase, resulting in projected extreme heat days and a greater chance of extreme weather conditions. The intensity of these effects is uncertain and will depend on future GHG emissions worldwide (CEC, 2012).

No characteristics of the development alternatives are unique or especially vulnerable to the impacts from climate change. The effects of increasing temperatures and frequency of extreme heat days or extreme weather conditions will be dampened by the use of on-site HVAC. The North Site is located at approximately 300 feet above mean sea level and thus are not susceptible to impacts from sea level rise. The North Site is located in a primarily urban area, which is adequately served by emergency services and, therefore, is not uniquely sensitive to increased extreme weather conditions as a result of climate change.

Biological Resources

The North Site does not contain unique or sensitive ecosystems or biological communities. No federally-listed special-status species have the potential to occur on the North Site. One state-listed special-status species has the potential to occur on or in the vicinity of the site: the western yellow bat, a state-listed species of special concern. Mitigation measures discussed in **Section 5.0** require preconstruction surveys prior to construction activities for the western yellow bat as well as for migratory nesting birds, should construction activities occur during the migratory bird breeding season. The North Site does not contain potentially jurisdictional wetlands or Waters of the U.S. Therefore, implementation of the development alternatives would not contribute to cumulatively considerable adverse impacts to biological resources.

Cultural Resources

BMPs have been included in **Section 2.2.3** to address unknown cultural resources found during project construction, and similar measures would be required for any development in the vicinity of the North Site. With implementation of these BMPs, no cumulatively considerable adverse impacts to cultural resources would occur as a result of construction of the development alternatives.

Socioeconomic Conditions

Cumulative socioeconomic effects could occur in the project area as the result of developments that affect the lifestyle and economic well-being of residents. When considered with other growth in the City, particularly the Tribe's planned expansions of its other two casino resorts in Palm Springs and Rancho Mirage, there may be cumulative socioeconomic effects including impacts to economy, employment, housing availability, problem gambling, and crime. The development alternatives, in addition to the Tribe's other proposed projects in the

region, would result in beneficial impacts to economic output, tax revenues, and employment, as well as various beneficial impacts to the Tribe. Further, planning documents for the region will continue to designate land uses for businesses, industry, and housing, as well as plan public services to anticipate and accommodate growth in the region. Therefore, no significant cumulative socioeconomic effects would occur.

Transportation/Circulation

2040 Baseline Traffic Volumes

Cumulative baseline traffic volumes include the forecasted traffic from the Cathedral City General Plan traffic model, which utilizes a refined version of the Coachella Valley Area Transportation Study forecasting model (**Appendix K**). To calculate 2040 volumes from the 2035 traffic model predictions, a 1.5 percent per year increase in traffic volume was assumed. Tables 5-13 and 5-17 of **Appendix K** shows traffic volumes at study intersections and roadway segments for cumulative baseline conditions (2040) without implementation of the development alternatives. The following study intersections and roadway segments are expected to operate at unacceptable levels of service in the cumulative year:

- Date Palm Drive/Buddy Rogers Avenue;
- Cathedral Canyon Drive/Paseo Real;
- East Palm Canyon Drive between Golf Club Drive and Perez Road;
- East Palm Canyon Drive between Perez Road and Cathedral Canyon Drive;
- East Palm Canyon Drive between Date Palm Drive and Frank Sinatra Drive; and
- East Palm Canyon Drive between Frank Sinatra Drive and Country Club Drive.

2040 Cumulative Year Plus Project Alternatives

Tables 5-13 through 5-15 and 5-17 through 5-19 of **Appendix K** provide a summary of the LOS at each study intersection and roadway segment, respectively, under cumulative baseline (2040) conditions with implementation of the development alternatives. These tables show that two study intersections and four roadway segments are projected to operate unacceptably in cumulative year 2040 (refer to **Section 4.7** for acceptable operation criteria). With the installation of traffic signals and reconfiguration of turning lanes at Date Palm Drive/Buddy Rogers Avenue and Cathedral Canyon Drive/Paseo Real (refer to **Section 5.0**), the development alternatives would have a less-than-significant impact on study area intersections, as shown in Tables 5-21 through 5-23 of **Appendix K**. However, because the segments of East Palm Canyon Drive between Golf Club Drive and Canyon Plaza Drive would not increase the v/c ratio by 0.05 or greater, this does not constitute a significant impact. Further, the segments between Date Palm Drive and Country Club Drive are projected to already exceed a v/c ratio of 1.0 under baseline cumulative conditions without project-related traffic. Contributions to traffic funds for roadway improvements, as described in **Section 5.0**, will reduce roadway segment impacts to less-than-significant levels.

Land Use

If taken into federal trust, the North Site would not be subject to state or local land use jurisdiction. However, development on the North Site would not disrupt neighboring land uses or prohibit access to neighboring parcels. Further, the development alternatives are generally consistent with land use designations within the City's General Plan. As such, the project would not result in changes to local land use patterns. Future cumulative developments would be subject to City and County land use and zoning restrictions and would be required to comply with General Plan policies. Therefore, no cumulatively considerable adverse land use impacts would occur.

Public Services

Water Supply

The projected water demands for the Proposed Project Alternative, Reduced Intensity Alternative, and Non-Gaming Alternative are approximately 38 AFY, 36 AFY, and 27 AFY, respectively, which represents only approximately 0.02 percent, 0.02 percent, and 0.01 percent, respectively, of the 189,700 AFY of total outflows anticipated to occur from the western portion of the Coachella Valley Groundwater Basin in 2045 (CVWD, 2011). As described in detail in **Appendix F**, the water supply infrastructure in the vicinity of the North Site was

constructed under the assumption that future development on the site would demand significantly more water than is projected under the development alternatives. Additionally, other permitted developments in the region would be required to pay service fees to DWA and fund any infrastructure improvements or modifications required by those developments. Therefore, the construction and operation of the development alternatives in conjunction with other reasonably foreseeable regional development would not result in a cumulatively significant adverse impact to water supply providers.

Wastewater Service

As described in **Section 4.9.1**, under the development alternatives wastewater generated at the North Site would be conveyed by DWA sewage lines to CVWD's WRP-10 treatment facility, which currently has a significant surplus capacity of approximately 8.5 MGD (compared to the total capacity of 18.0 MGD) to treat wastewater flows from the development alternatives and other future developments in the region. As with the water supply infrastructure, the wastewater conveyance infrastructure in the vicinity of the North Site was sized to accommodate significantly higher wastewater flows than is anticipated to occur under the development alternatives (**Appendix F**). Furthermore, future development projects would be required to pay service fees to DWA and/or CVWD and fund any improvements or modifications to existing wastewater conveyance and treatment infrastructure necessary to serve these projects. Therefore, development of the project alternatives in conjunction with other reasonably foreseeable projects in the region would not result in a significant cumulative impact to wastewater service providers.

Solid Waste Service

Due to the likely excess capacity at Lamb Canyon Landfill (refer to **Section 4.9.1**), the development of the project alternatives, in conjunction with the other planned development projects listed in **Section 4.13.1**, would not result in a cumulatively considerable adverse effect to solid waste service.

Schools

Implementation of the development alternatives would not substantially increase enrollment or otherwise adversely affect public or private schools. Therefore, development of the project alternatives, in conjunction with the other planned development projects listed above, would not result in a cumulatively adverse effect to school facilities.

Recreation

As described in **Section 4.9.1**, development and operation of the development alternatives would not adversely affect any recreational activities. Therefore, no cumulatively considerable adverse effects would occur.

Electricity and Natural Gas

As described in **Section 3.0**, **Appendix H**, and **Section 4.9.1**, there is considerable existing electricity and natural gas infrastructure on and in the vicinity of the North Site, and the development alternatives would not result in significant adverse impacts to electricity or natural gas service providers. The individual planned projects listed above would be responsible for paying development, connection, or user fees to the utility if necessary, to receive services, and the utilities would be compensated for any capital improvements through user rates. Therefore, implementation of the development alternatives would not result in cumulatively considerable adverse effects to electricity or natural gas providers.

Law Enforcement

Increased demand for law enforcement services resulting from cumulative developments may require additional facilities, equipment, or employees. New development, including the cumulative projects listed above, would fund in part City services, including law enforcement, through development fees and property tax. In addition, as described in **Section 1.4.2**, Section 11.7 of the Compact requires that if it is determined that law enforcement, fire protection, emergency medical services, and any other public services will be burdened as a result of the development alternatives despite the mitigation measures identified herein and the voluntary payment of the development impact fees identified in Chapter 3.17 of the City's Municipal Code, prior to commencement of the development alternatives, and no later than the issuance of the Final TEIR the County, the Tribe will offer to commence negotiations with the City and if necessary, the County. These negotiations would allow for all parties

to enter into enforceable intergovernmental agreements with respect to the matters set forth in Section 11.7(a) of the Compact to ensure that the mitigation contemplated herein is sufficient to address cumulative impacts.

Fire Protection and Emergency Medical Services

New development, including the cumulative projects listed above, would be required to fund City services, including fire protection and emergency medical services, through development fees and property taxes. Although it is not expected that the development alternatives would require additional fire protection services or emergency medical services from the CCFD that would trigger the need to construct new facilities, as described in **Section 1.4.2**, Section 11.7 of the Compact requires that if it is determined that law enforcement, fire protection, emergency medical services, and any other public services will be burdened as a result of the development alternatives despite the mitigation measures identified herein and the voluntary payment of the development impact fees identified in Chapter 3.17 of the City's Municipal Code, prior to commencement of the development alternatives, and no later than the issuance of the Final TEIR to the County, the Tribe will offer to commence negotiations with the City and if necessary, the County. These negotiations would allow for all parties to enter into enforceable intergovernmental agreements with respect to the matters set forth in Section 11.7(a) of the Compact to ensure that the mitigation contemplated herein is sufficient to address cumulative impacts.

Visual Resources

New development, including cumulative projects listed in **Section 4.13.1**, would be consistent with local land use regulations, including associated design guidelines. Cumulative effects would include a shift from open, undeveloped lots to views of developed areas, as well as an increase in the density of urban uses within the City and County. However, the development alternatives would be visually compatible with urban land uses in the project vicinity and would be generally consistent with local policies related to design, landscaping, and signage. Additionally, with the implementation of BMPs outlined in **Section 2.2.3**, the development alternatives would not contribute towards adverse cumulative impacts to visual resources.

Noise

Approved projects in the vicinity of the North Site would be required to comply with any applicable noise regulations during construction and operation. In the cumulative year 2040, the development alternatives would not increase traffic volumes over the projected maximum of 4,782 vehicles per day in the opening year (**Section 4.11.1**); however, there would be an increase in background traffic volumes on local roadways, as captured in the estimated 1.5 percent annual growth rate (**Appendix K**). The development alternatives' contribution to traffic volumes under cumulative conditions would not double the current traffic on local roadways and thus would not result in an audible increase in ambient noise levels at nearby sensitive receptors (refer to **Section 4.11.1**). Therefore, the development alternatives' contribution to cumulative noise impacts would be less than significant.

Hazardous Materials

Any future cumulative development projects in the vicinity of the North Site would be required to comply with applicable federal and state regulations concerning hazardous materials management. With the implementation of BMPs outlined in **Section 2.2.3**, no cumulatively considerable adverse impacts related to hazardous materials would occur as a result of the development alternatives.

4.13.3 NO ACTION ALTERNATIVE

Under the No Action Alternative, it is reasonably foreseeable that under year 2040 cumulative conditions, the North Site would be developed consistent with the current land uses and zoning designations for the properties. Therefore, under cumulative conditions, the No Action Alternative would likely result in similar cumulative effects as those described above for the development alternatives.

4.13.4 INDIRECT EFFECTS

According to CEQ regulations, indirect effects are removed in time or in distance from a project, but are caused by the project and are reasonably foreseeable. These include growth-inducing effects, as well as changes in land use, population density, and related effects on natural systems (40 CFR §1508.8).

Construction of Off-Site Traffic Mitigation Improvements

Implementation of the development alternatives would require roadway improvements at the following intersections: Buddy Rogers Avenue/Date Palm Drive and Cathedral Canyon Drive/Paseo Real. These intersections consist of previously disturbed areas with only landscaped vegetation present. Further, the restriping of the intersections does not require widening of the roadway, and installation of traffic signals will result in minimal ground disturbance. No historic properties or known archaeological sites or cultural materials are located within the intersection improvement areas (refer to **Appendix J**). As no road widening is required, intersection improvements will result in no net loss of habitat, and will not result in adverse impacts to biological resources. Construction of the off-site mitigation improvements would require lane or shoulder closures; however, the closures would be temporary and would not cause a significant traffic impact. Adherence to federal and state environmental regulations during construction of intersection improvements would avoid any potentially significant indirect effects from off-site intersection improvements.

Construction of Off-Site Infrastructure Improvements

Implementation of the development alternatives would require additional water and sewer lines, as shown on **Figure 4.9-1** of **Appendix D**. This includes the placement of an 8-inch sewer main along Buddy Rogers Avenue and a 12-inch water main along East Palm Canyon Drive. No portions of the proposed pipelines would be placed outside of previously disturbed roadways. No historic properties or known archaeological sites or cultural materials are located within the proposed pipeline route (refer to **Appendix J**). The proposed pipelines pass through ruderal/disturbed habitat. Once construction is complete, the pipeline corridor will be repaved. Utility improvements will result in no net loss of habitat, and will not result in adverse impacts to biological resources. Construction of the off-site infrastructure improvements would require lane or shoulder closures; however, the closures would be temporary and would not cause a significant traffic impact. Adherence to federal and state environmental regulations during utility construction would avoid any potentially significant indirect effects from off-site utility construction.

Growth-Inducing Effects

Although the project is considered an anchor for downtown development within the City, construction and operation of the development alternatives would not in itself induce growth. The number of new employees requiring new facilities (including housing and schools) would not be significant (refer to **Section 4.6**); as such, no new housing, schools, or other facilities would be constructed as a result of development on the North Site. The project's contribution to the planned development of the City's Downtown/Art and Design Village has the potential to induce economic growth within the City. This output would be generated from direct, indirect, and induced economic activity. Indirect and induced output could stimulate further commercial growth; however, such demand would be diffused and distributed among a variety of different sectors and businesses in the City. As such, significant regional commercial growth inducing impacts would not be anticipated to occur under the project. Furthermore, if the project were not approved, similar levels of economic growth in the Downtown/Art and Design Village would still be likely to occur in the future. The construction of the development alternatives would only induce economic growth sooner than if the project were not approved. The development of the City's downtown area is subject to the City General Plan policies as well as environmental review requirements pursuant to CEQA. Therefore, no significant adverse growth-inducing effects relevant to any environmental issue area would occur.

SECTION 5.0
MITIGATION MEASURES

NEPA requires that, if a project would have significant adverse effects on the environment, mitigation for those impacts must be identified. Mitigation consists of:

(a) Avoiding the impact altogether by not taking a certain action or parts of an action.
(b) Minimizing impacts by limiting the degree or magnitude of the action and its implementation.
(c) Rectifying the impact by repairing, rehabilitating, or restoring the affected environment.
(d) Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action.
(e) Compensating for the impact by replacing or providing substitute resources or environments. (40 CFR 1508.20)

Mitigation measures to be implemented during construction and operation of the Proposed Project Alternative, Reduced Intensity Alternative, and Non-Gaming Alternative are summarized in **Table 5-1** below. All mitigation is enforceable because it is 1) inherent to the project design; and/or 2) required through provisions of the Tribal-State Compact, or federal or state statute, where applicable.

TABLE 5-1
PROPOSED MITIGATION MEASURES FOR THE PROPOSED PROJECT ALTERNATIVE, REDUCED INTENSITY ALTERNATIVE, AND NON-GAMING ALTERNATIVE

Resource Area	Proposed Mitigation
Air Quality Operation	As shown in Table 3 of **Appendix N**, operational emissions would exceed *de minimis* levels for NOx for the Non-Gaming Alternative. Therefore, in addition to the operational air quality BMPs outlined in **Section 2.2.3**, the following mitigation is recommended for the Non-Gaming Alternative in accordance with CAA General Conformity requirements: A. The Tribe shall purchase 27 tons of nitrogen oxides (NOx) emission reduction credits (ERCs) as specified in the Conformity Determination in **Appendix O** to fully offset NOx emissions with the development of the Non-Gaming Alternative. Because the air quality effects are associated with operation of the facility and not with construction of the facility, real, surplus, permanent, quantifiable, and enforceable ERCs will be purchased prior to the opening day of the facility. ERCs shall be purchased in accordance with the 40 CFR 93 Subpart B, conformity regulations. With the purchase of the ERCs the project would conform to the applicable SIP and result in a less than adverse effect to regional air quality. B. Implement ride sharing programs at the North Site. C. Use 100 percent electric vehicles at the North Site. D. Implement other feasible mitigation measures that are at the North Site, which would reduce project-related NOx and ROG emissions.
Biological Resources	To prevent violation of state regulations related to state listed special status species imposed for the protection of the environment (40 CFR 1508.27b(10)), the following measures are recommended for the Proposed Project Alternative, Reduced Intensity Alternative, and Non-Gaming Alternative to avoid and/or reduce impacts to the western yellow bat: A. A qualified biologist shall conduct a habitat assessment of palms within the North Site no more than three days prior to the start of construction occurring within 100 feet of palms. If the habitat assessment reveals suitable palm skirts large enough to accommodate roosting bats, the qualified biologist shall conduct a sunset fly-out survey on palms with skirts. Should bats be detected, identified palms shall be flagged and buffered by 100 feet. B. Should the avoidance of identified bat-roosting palms not be feasible, replacement of suitable bat roosting habitat shall occur at a 1:1 ratio elsewhere on the North Site outside clearing limits. Replacement habitat may consist of bat boxes or similar structures. A qualified biologist shall determine bat box placement and a 100-foot avoidance buffer will be placed around each box. C. Palms identified to contain roosting bats that are proposed for removal shall be removed as late in the day as possible to reduce the likelihood of potential bat mortality. On the first day, limbs may be removed as late in the day as possible. This amount of disturbance should cause roosting bats to seek other roosting habitat. The rest of the palm can then be harvested on the afternoon of the second day. A qualified biologist shall be present for the removal of these palms in the event that bats are found to have been roosting.

Resource Area	Proposed Mitigation
	The following measures are recommended for the Proposed Project Alternative, Reduced Intensity Alternative, and Non-Gaming Alternative to avoid and/or reduce impacts to potentially nesting migratory birds and other birds of prey in accordance with the federal MBTA: D. If construction activities (e.g., building, grading, ground disturbance, removal of vegetation) are scheduled to occur during the nesting season (February 15-September 15), a preconstruction nesting bird survey shall be conducted by a qualified biologist throughout the areas of suitable habitat within 500 feet of proposed construction activity. The surveys shall occur no more than 14 days prior to the scheduled onset of construction. If construction is delayed or halted for more than 14 days, another preconstruction survey for nesting bird species shall be conducted. If no nesting birds are detected during the preconstruction survey, no additional surveys or mitigation measures are required. E. If nesting bird species are observed within 500 feet of construction areas during the surveys, appropriate "no construction" buffers shall be established. The size and scale of nesting bird buffers shall be determined by a qualified biologist and shall be dependent upon the species observed and the location of the nest. Buffers shall be established around active nest locations. The nesting bird buffers shall be completely avoided during construction activities. The qualified biologist shall also determine an appropriate monitoring plan and decide whether construction monitoring is necessary during construction activities. Monitoring requirements are dependent upon the species observed, the location of the nests, and the number of nests observed. The buffers may be removed when the qualified biologist confirms that the nest(s) is no longer occupied and all birds have fledged. F. If impacts (i.e., take) to migratory nesting bird species are unavoidable, consultation with the United States Fish and Wildlife Service shall be initiated. Through consultation, an appropriate and acceptable course of action shall be established.
Transportation/ Circulation	To prevent violation of federal, state and local policies related to traffic operations imposed for the protection of the environment (40 CFR 1508.27b(10)), the following traffic mitigation measures shall be implemented as identified within the Traffic Impact Analysis for the project alternatives (Appendix K). Prior to the initiation of project construction, the Tribe shall complete the traffic mitigation measures identified below or make an in lieu fair share contribution equivalent to the cost of the mitigation measures identified below to fund completion of the mitigation measures. Notwithstanding the foregoing, the Tribe may complete one of the mitigation measures identified below and contribute its fair share contribution to fund the other mitigation measure, complete both of the mitigation measures, or contribute its fair share contribution to fund completion of both the mitigation measures. The following mitigation measures are proposed for study intersections under the Proposed Project Alternative, Reduced Intensity Alternative, and Non-Gaming Alternative: A. **Buddy Rogers Avenue/Date Palm Drive**: On the eastbound approach, restripe to include one left turn lane and one right turn lane. On the northbound approach, restripe to include one left turn lane and three through lanes. On the southbound approach, restripe to include two through lanes and one shared through-right lane. Install a traffic signal. The percentage of any mitigation cost to the Tribe for the Proposed Project Alternative, Reduced Intensity Alternative, and Non-Gaming Alternative is 100 percent. B. **Cathedral Canyon Drive/Paseo Real**: On the eastbound and westbound approaches, restripe to include one shared left-through-right lane. On the northbound and southbound approaches, restripe to include one left turn lane, one through lane, and one shared through-right turn lane. Install a traffic signal. The percentage for any mitigation cost to the Tribe for the Proposed Project Alternative is 16 percent, for the Reduced Intensity Alternative is 15 percent, and for the Non-Gaming Alternative is 21 percent. C. The Tribe shall contribute an equivalent mitigation payment for the Transportation Uniform Mitigation Fee (TUMF), Transit Development Fee, and City Facilities Impact Fees, current at the time of construction.
Public Services and Utilities	The following measure is recommended for the Proposed Project Alternative and Reduced Intensity Alternative: A. In accordance with Section 11.7 of the Compact, prior to commencement of the project, and no later than the issuance of the Final TEIR to the County, the Tribe shall offer to commence negotiations with the City and if necessary, the County, related to the provision of public services to meet the increase in demands resulting from the project. These negotiations would occur if it is determined by the City that law enforcement, fire protection, emergency medical services, and any other public services will be burdened as a result of the project despite the voluntary payment of the development impact fees identified in Chapter 3.17 of the City's Municipal Code as well as other identified mitigation measures. These negotiations would allow for all parties to enter into enforceable intergovernmental agreements with respect to the matters set forth in Section 11.7(a) of the Compact to address the estimated $101,135 net impact anticipated under the Proposed Project Alternative and the estimated $93,933 net impact under the Reduced Intensity Alternative. The following measure is recommended for the Non-Gaming Alternative: B. Prior to operation the Tribe shall enter into a Municipal Services Agreement with the City of Cathedral City to reimburse the Cathedral City Police Department (CCPD) and the Cathedral City Fire Department (CCFD) for

Resource Area	Proposed Mitigation
	quantifiable direct and indirect costs incurred in conjunction with providing law enforcement and fire protection services to address the estimated $131,980 net impact anticipated under the Non-Gaming Alternative.
Noise	The following mitigation measures will be implemented for the Proposed Project Alternative, Reduced Intensity Alternative, and Non-Gaming Alternative during to prevent violation of the Federal Noise Abatement Criteria (NAC) standards used by the FHWA and City and FTA's guideline vibration damage criteria imposed for the protection of the environment (40 CFR 1508.27b(10)): A. The use of vibrational construction equipment shall be restricted such that vibration levels will not exceed 90 VdB at commercial building adjacent to the North Site. Should any vibrational construction equipment be required for construction of the parking lot that results in vibration decibel levels that would exceed 90 VdB at the adjacent commercial building, a buffer or set back may be utilized. The Tribe may elect to establish a landscaped area within this buffer in place of parking facilities. B. Prior to construction, it shall be determined if the commercial building adjacent to the western boundary of the North Site is vacant. If it is occupied, or should it become occupied during construction, a temporary sound barrier shall be erected during construction on the western boundary of the North Site to reduce noise levels at adjacent commercial receptors by at least 2 dBA. C. In coordination with the City, the Tribe shall fund mutually acceptable noise reduction measures along Buddy Rogers Avenue adjacent to the existing parks (Second Street Park and the Cathedral City Dog Park). This may include the construction of a noise wall, additional landscaping, or other noise reduction techniques to attenuate traffic noise levels within the parks. Noise reduction measures should achieve a noise reduction of at least 4 dBA at the parks from traffic along Buddy Rogers Avenue. Should a noise wall be acceptable to the City, the material and height of the wall would be determined in consultation with the City and it is anticipated that the noise wall would need to be at least 4 feet in height.
Hazardous Materials	The following measures are recommended for the Proposed Project Alternative, Reduced Intensity Alternative, and Non-Gaming Alternative as recommended in the Phase I ESA (Appendix M) to prevent violation of federal and state regulations related to hazardous material imposed for the protection of the environment (40 CFR 1508.27b(10)): A. Concrete piping/crushed concrete encountered during grading/development should be evaluated by an asbestos consultant prior to removal from the site and subsequent off-site disposal. Any discolored soils, noxious odors, and/or buried objects/debris encountered during clearing and grubbing or future grading and development should be left in place until an experienced environmental professional has had the opportunity to evaluate the conditions, and provide recommendations if needed. An experienced environmental professional should monitor excavation and removal of buried concrete structures and/or debris.

SECTION 6.0

CONSULTATION AND COORDINATION

This section lists persons and agencies consulted during the preparation of this EA. Persons consulted for this EA that are associated with an agency or organization are listed underneath their agency or organization.

AGENCIES, ORGANIZATIONS, AND INDIVIDUALS CONSULTED

United States Department of the Interior, Bureau of Indian Affairs (BIA), Pacific Regional Office

Summary of Consultation and Coordination:

The BIA was consulted regarding the scope and content of this EA.

State Historic Preservation Officer (SHPO)

Native American Heritage Commission (NAHC)

Summary of Consultation and Coordination:

The NAHC was consulted to obtain a list of federally-recognized tribes culturally affiliated with the project area. A copy of the search results is included in Appendix A of Appendix J.

United States Fish and Wildlife Service (USFWS)

Summary of Consultation and Coordination:

USFWS was consulted to obtain a list of federally-listed special status species with the potential to occur in the project area. A copy of the search results is included in Appendix I.

City of Cathedral City (City)

Summary of Consultation and Coordination:

The City was consulted to determine the intersections and roadways that may be impacted as a result of the project, for inclusion within the Traffic Impact Analysis (TIA; refer to Appendix K). Additionally, the City was consulted to determine the appropriate growth rate for 2020 Opening Year Conditions within the TIA.

California Department of Fish and Wildlife (CDFW)

Summary of Consultation and Coordination:

CDFW's California Natural Diversity Database (CNDDB) was consulted to obtain a list of state-listed special status species with the potential to occur in the project area. A copy of the results of the CNDDB search is included in Appendix I.

California Native Plant Society (CNPS)

Summary of Consultation and Coordination:

CNPS's Inventory of Rare and Endangered Plants list was consulted to obtain a list of state-listed special status species with the potential to occur in the project area. A copy of the search results is included in Appendix I.

Desert Water Agency (DWA)

Summary of Consultation and Coordination:

DWA's 2015 Urban Water Management Plan and online information on the system overview, pipelines, and imported water were consulted to obtain the water service information for the district.

Coachella Valley Water District (CVWD)

Summary of Consultation and Coordination:

CVWD's Coachella Valley Water Management Plan Update, 2015 Urban Water Management Plan, Development Design Manual, and stormwater protection and flood control online information were consulted to obtain the water service information for the district.

Palm Springs Unified School District (PSUSD)

Summary of Consultation and Coordination:

PSUSD's Current Attendance Boundaries map and 2015-16 School Accountability Report Card were consulted to obtain the public school service information for the district.

Southern California Edison (SCE)

Summary of Consultation and Coordination:

SCE's Workpapers for the 2015 General Rate Case Application, online webpage, online distribution system interactive map, and West of Devers Upgrade Project Overview were consulted to obtain the electrical service information for the company.

Southern California Gas Company (SoCalGas)

Summary of Consultation and Coordination:

SoCalGas's Transmission Pipeline Interactive Map and Pipeline Basics document were consulted to obtain the natural gas service information for the company.

Cathedral City Police Department (CCPD)

Summary of Consultation and Coordination:

CCPD's website was consulted to obtain the law enforcement service information for the department.

Cathedral City Fire Department (CCFD)

Summary of Consultation and Coordination:

CCFD's 2016 Annual Report was consulted to obtain the fire protection service information for the department.

SECTION 7.0
BIBLIOGRAPHY

Baldwin, B.G., Goldman, D., Keil, D.J., Patterson, R., Rosatti, T., 2012. *The Jepson Manual*. Vascular Plants of California. UC Press, Berkeley, CA. 2nd Ed.

Berger, Elliot, Rick Neitzel, and Cynthia A. Kladden, 2015. *Noise Navigator Sound Level Database Version 1.8*. Available online at: http://multimedia.3m.com/mws/media/888553O/noise-navigator-sound-level-hearing-protection-database.pdf. Accessed January 31, 2018.

Bureau of Land Management (BLM), 2017a, b. GLO Records. Available at: http://www.glorecords.blm.gov/default.aspx. Accessed November 2017.

Burrtec, 2018. Landfill / Transfer. Available online at: http://www.burrtec.com/landfill. Accessed January 2018.

California Air Resources Board (CARB). 2007. *Expanded List of Early Action Measures to Reduce Greenhouse Gas Emissions in California Recommended for Board Consideration*. Available online at: https://www.arb.ca.gov/cc/ccea/meetings/ea_final_report.pdf. Accessed August 8, 2017.

California Air Resource Board (CARB), 2016. 2016 SIP Emission Projection Data; 2020 Estimated Annual Average Emissions for Riverside County. Available online at: https://www.arb.ca.gov/app/emsinv/2017/emseic1p_query.php. Accessed June 15, 2018.

CARB, 2017. California's 2017 Climate Change Scoping Plan. Available online at: https://www.arb.ca.gov/cc/scopingplan/scoping_plan_2017.pdf. Accessed May 5, 2018.

California Department of Conservation (DOC), 2007. *Geologic Atlas of California – Santa Ana Sheet*. Available online at: http://www.quake.ca.gov/gmaps/GAM/santaana/santaana.html. Accessed February, 2018.

California Department of Education (CDE), 2018. *2017-18 Enrollment by Grade: Palm Springs Unified District Report (33-67173)*. Available online at: https://dq.cde.ca.gov/dataquest/dqcensus/EnrGrdLevels.aspx?cds=3367173&agglevel=313district&year=2017-18. Accessed May 30, 2018.

California Department of Fish and Wildlife (CDFW), 2002. General Rare Plant Survey Guidelines. Available online at: https://www.fws.gov/sacramento/es/Survey-Protocols-Guidelines/Documents/rare_plant_protocol.pdf. Accessed December 1, 2018.

CDFW, 2018b. California Natural Diversity Database (CNDDB). Available online at: https://map.dfg.ca.gov/find/view/RareFind.aspx. Accessed January 5, 2018.

California Department of Resources Recycling and Recovery (CalRecycle), 2016. Estimated Solid Waste Generation Rates. Available online at: https://www2.calrecycle.ca.gov/WasteCharacterization/General/Rates. Accessed January 2018.

CalRecycle, 2018. Facility/Site Summary Details: Salton City Solid Waste Site (13-AA-0011). Available online at: http://www.calrecycle.ca.gov/SWFacilities/Directory/13-AA-0011/Detail/. Accessed February 2018.

California Department of Transportation (Caltrans), 2013. *Technical Noise Supplement to the Traffic Noise Analysis Protocol*. September 2013. Available online at: http://www.dot.ca.gov/hq/env/noise/pub/TeNS_Sept_2013A.pdf. Accessed January 29, 2018.

Caltrans, 2018a. Water Quality Planning Tool. Available online at: http://svctenvims.dot.ca.gov/wqpt/wqpt.aspx. Accessed February 2017.

Caltrans, 2018b. *California Scenic Highway Mapping System: Riverside County*. Available online at: http://www.dot.ca.gov/hq/LandArch/16_livability/scenic_highways/. Accessed January 26, 2018.

California Department of Water Resources (DWR), 2004. Coachella Valley Groundwater Basin, Indio Subbasin. Available online at: http://www.water.ca.gov/pubs/groundwater/bulletin_118/basindescriptions/7-21.01.pdf. Accessed February 2018.

DWR, 2018a. Water Data Library Station Map. Available online at: http://www.water.ca.gov/waterdatalibrary/index.cfm. Accessed February 2018.

DWR, 2018b. Groundwater Levels for Station 337850N1164647W001. Available online at: http://www.water.ca.gov/waterdatalibrary/groundwater/hydrographs/brr_hydro.cfm?CFGRIDKEY=49818. Accessed February 2018.

California Energy Commission (CEC), 2012. *Our Changing Climate 2012 – Vulnerability & Adaptation to the Increasing Risks from Climate Change in California*. Available online at: http://www.energy.ca.gov/2012publications/CEC-500-2012-007/CEC-500-2012-007.pdf. Accessed June 15, 2018.

California Geological Survey (CGS), 1974. *Cathedral City Quadrangle, Special Studies Zones*. Available online at: http://gmw.conservation.ca.gov/SHP/EZRIM/Maps/CATH_CTY.PDF. Accessed February, 2018.

California Independent System Operator Corporation (California ISO), 2017. 2016-2017 Transmission Plan. Available online at: http://www.caiso.com/Documents/Board-Approved_2016-2017TransmissionPlan.pdf. Accessed February 2018.

California Native Plant Society (CNPS), 2001. CNPS Botanical Survey Guidelines. Available online at: https://www.cnps.org/wp-content/uploads/2017/08/botanical-survey-guidelines_6-2-01.pdf. Accessed January 5, 2018.

CNPS, 2018. Inventory of Rare and Endangered Plants. Available online at: http://www.rareplants.cnps.org/. Accessed January 5, 2018.

California State Water Resources Control Board (SWRCB), 2017. Final 2014 and 2016 integrated Report (CWA Section 303(d) List/305(b) Report). Available online at: https://www.waterboards.ca.gov/water_issues/programs/tmdl/2014_16state_ir_reports/category5_report.shtml. Accessed January 2018.

Cathedral City Fire Department (CCFD), 2017. Cathedral City Fire – Annual Report, 2016. Available online at: http://docs.wixstatic.com/ugd/8eb484_0719fa6d3bb94e9aab94fd9d9fa9266a.pdf. Accessed January 2018.

Cathedral City Police Department (CCPD), 2018a. Departments – Patrol. Available online at: http://www.cathedralcitypolice.com/departments/patrol/. Accessed February 2018.

CCPD, 2018b. Departments. Available online at: http://www.cathedralcitypolice.com/departments/. Accessed February 2018.

City of Cathedral City, 2009. *Comprehensive General Plan*. Available online at: http://www.cathedralcity.gov/services/planning/documents/general-plan. Accessed January 25, 2018.

City of Cathedral City, 2010a. *City of Cathedral City Zoning Map*. December 10, 2010. Available online at: http://www.cathedralcity.gov/home/showdocument?id=5350. Accessed January 25, 2018.

City of Cathedral City, 2010b. *Date Palm Drive Corridor Connector Plan Compass Blueprint Demonstration Project*. June 9, 2010. Available online at: http://www.cathedralcity.gov/home/showdocument?id=3855. Accessed February 1, 2018.

City of Cathedral City, 2012. *Date Palm Drive Specific Plan*. June 2012. Available online at: http://sustain.scag.ca.gov/Documents/Date%20Palm%20Specific%20Plan_REDUCED.pdf. Accessed February 1, 2018.

City of Cathedral City, 2013. Cathedral City Climate Action Plan. May 2013. Available online at: http://www.cathedralcity.gov/home/showdocument?id=5048. Accessed June 12, 2018.

City of Cathedral City, 2017. Local Hazard Mitigation Plan. Available online at: http://www.cathedralcity.gov/home/showdocument?id=6670. Accessed February 2018.

City of Cathedral City, 2018. *The State of Cathedral City is Bright, Hopeful, and Trendsetting*. Available online at: http://www.ccedd.org/the-state-of-cathedral-city-is-bright-hopeful-and-trendsetting/. Accessed May 31, 2018.

City of Palm Springs, 2015. *Palm Springs International Airport Master Plan*. Available online at: http://www.palmsprings-ca.gov/government/departments/planning/specific-plans/airport-master-plan. Accessed January 25, 2018.

City of Rancho Mirage, 2018. Development Activity Summary. Available online at: https://www.ranchomirageca.gov/wp-content/uploads/2018/04/Development-Activity-Summary-Rtp-4-4-18.pdf. Accessed May 23, 2018.

Climate Action Team (CAT). 2007. *Proposed Early Actions to Mitigate Climate Change in California*. Available online at: http://www.climatechange.ca.gov/climate_action_team/reports/2007-04-20_CAT_REPORT.PDF. Accessed August 8, 2017.

Coachella Valley Water District (CVWD), 2011. Coachella Valley Water Management Plan 2010 Update Administrative Draft Subsequent Program Environmental Impact Report. SCH No. 2007091099.Available online at: https://www.water.ca.gov/LegacyFiles/irwm/grants/docs/Archives/Prop84/Submitted_Applications/P84_2014Drought/Indio%20Water%20Authority%20(201498760026)/Attachment%203%20-%20References%20(provided%20by%20CD)/References/CVWD_2011_Draft%20EIR%20CVWMP%202010%20Update.pdf. Accessed June 2018.

CVWD, 2012. Coachella Valley Water Management Plan 2010 Update. Available online at: http://www.water.ca.gov/wateruseefficiency/sb7/docs/2014/plans/CoachellaValley%20WD%202013_10_01_WaterManagementPlanFinalReport.pdf. Accessed February 2018.

CVWD, 2016. 2015 Urban Water Management Plan Final Report. Available online at: http://www.cvwd.org/ArchiveCenter/ViewFile/Item/516. Accessed June 2018.

CVWD, 2017. CVWD Development Design Manual – Section 6: Design Criteria Sanitation Facilities. Available online at: https://www.cvwd.org/DocumentCenter/View/930/DDM---Section-6---Design-Criteria-Sanitation-Facilities-PDF. Accessed June 2018.

CVWD, 2018a. Stormwater Protection and Flood Control. Available online at: http://www.cvwd.org/165/Stormwater-Protection-Flood-Control. Accessed January 2018.

CVWD, 2018b. Engineer's Report on Water Supply and Replenishment Assessment – 2018-2019. Available online at: http://www.cvwd.org/ArchiveCenter/ViewFile/Item/664. Accessed June 2018.

Colorado River Regional Water Quality Control Board (CRRWQCB), 2017. Water Quality Control Plan, Colorado River Basin – Region 7. Available online at: https://www.waterboards.ca.gov/coloradoriver/water_issues/programs/basin_planning/docs/bp032014/entire_basinplan_combined.pdf. Accessed February 2018.

Desert Sun, 2014. Salton City Landfill Clears legal Hurdle. Available online at: https://www.desertsun.com/story/news/environment/2014/11/14/salton-city-landfill-expansion/19049207/. Accessed January 2018.

Desert Water Agency (DWA), 2016. 2015 Urban Water Management Plan. Available online at: https://dwa.org/board-meeting-agenda/urban-water-management-plan/183-2015-urban-water-management-plan/file. Accessed February 2018.

DOC. 2016a. *The Alquist-Priolo Earthquake Fault Zoning Act*. Available online at: http://www.conservation.ca.gov/cgs/rghm/ap. Accessed August 8, 2017.

DOC, 2016b. *Seismic Hazards Mapping Act*. Available online at: http://www.conservation.ca.gov/cgs/shzp/Pages/prc_shmact.aspx. Accessed August 8, 2017.

DWA, 2018a. Overview – Our Local Water System. Available online at: https://dwa.org/about-us/our-system/overview. Accessed February 2018.

DWA, 2018b. Pipelines. Available online at: https://dwa.org/about-us/our-system/pipelines. Accessed February 2018.

DWA, 2018c. Imported Water. Available online at: https://dwa.org/about-us/water-supply/imported-water. Accessed February 2018.

DWA, 2018d. Engineer's Report, Groundwater Replenishment and Assessment Program for the West Whitewater River Subbasin, Mission Creek Subbasin, and Garnet Hill Subbasin Areas of Benefit. Available online at: https://dwa.org/board-meeting-agenda/groundwater-replenishment-assessment-report/325-2018-2019-groundwater-replenishment-report-all-basins/file. Accessed July 2018.

Eisenhower Medical Center (EMC), 2018. Eisenhower Emergency Department at Eisenhower Medical Center. Available online at: https://www.eisenhowerhealth.org/health-services/other-health-services/tennity-emergency-department-at-eisenhower-medical-center/. Accessed February 2018.

Federal Emergency Management Agency (FEMA), 2017. FEMA Flood Map Service Center, Map 06065C1589G. Available online at: https://msc.fema.gov/portal. Accessed January 2018.

Federal Highway Administration (FHWA), 2006. *Construction Noise Handbook*. Available online at: https://www.fhwa.dot.gov/environment/noise/construction_noise/handbook/. Accessed January 26, 2018.

FHWA, 2011. *Highway Traffic Noise: Analysis and Abatement Guidance*. December 2011. Available online at: https://www.fhwa.dot.gov/environment/noise/regulations_and_guidance/analysis_and_abatement_guidance/revguidance.pdf. Accessed January 26, 2018.

Federal Interagency Committee on Noise (FICON), 1992. *Federal Agency Review of Selected Airport Noise Analysis Issues*. August 1992. Available online at: http://www.gsweventcenter.com/Draft_SEIR_References/1992_08_Federal_Interagency_Committee_on_Noise.pdf. Accessed January 30, 2018.

Federal Transit Administration (FTA), 2006. *Transit Noise and Vibration Impact Assessment*. May 2006. Available online at: https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/FTA_Noise_and_Vibration_Manual.pdf. Accessed January 26, 2018.

Illingworth & Rodkin, Inc., 2014. *Santana Row Parking Structure Project Noise Assessment – San Jose, California*. June 2, 2014. Available online at: https://www.sanjoseca.gov/DocumentCenter/View/41533. Accessed January 31, 2018.

Intergovernmental Panel on Climate Change (IPCC), 2014. Fifth Assessment Report. Climate Change 2014: Impacts, Adaptation, and Vulnerability. Available online at: http://www.ipcc.ch/report/ar5/wg2/. Accessed December 22, 2014.

j.c. brennan & associates, Inc. (j.c. brennan), 2010. *Environmental Noise Assessment*. November 3, 2010. Available online at: https://www.placer.ca.gov/departments/communitydevelopment/envcoordsvcs/eir/timberline. Accessed August 22, 2017.

MSA Engineering Consultants, 2018. Cathedral City Electrical and Natural Gas Load Studies. February 16, 2018.

MWH, 2016. SGMA Alternative GSP – Bridge Document for the Indio Subbasin. Available online at: http://www.cvwd.org/ArchiveCenter/ViewFile/Item/550. Accessed June 2018.

Natural Resources Conservation Service (NRCS), 2018. Custom Soil Resource Report for Riverside County, Coachella Valley Area, California, Agua Caliente.

Palm Springs Bureau of Tourism, 2017. Palm Springs History. Available online at: http://www.visitpalmsprings.com/page/palm-springs-history/8180. Accessed November 2017.

Palm Springs Unified School District (PSUSD), 2017. Current Attendance Boundaries. Available online at: https://docs.google.com/viewerng/viewer?url=https://www.psusd.us//cms/lib/CA02204874/Centricity/Domain/171/PUSDBoundaries_20171103.pdf. Accessed February 2018.

PSUSD, 2018a. School Boundary Maps. Available online at: https://www.psusd.us/Page/4533. Accessed February 2018.

PSUSD, 2018b. School Accountability Report Cards (SARC). Available online at: https://www.psusd.us/site/Default.aspx?PageID=4538. Accessed February 2018.

Pierson, E.D., and W.E. Rainey, 1998. "Western mastiff bat, *Eumops perotis*." In *Terrestrial Mammal Species of Special Concern in California*, edited by B.C. Bolster. Available online at: www.dfg.ca.gov/wildlife/nongame/ssc/docs/mammal/species/17.pdf. Accessed January 25, 2018.

Riverside County, 2004. *Riverside County Airport Land Use Compatibility Plan*. October 14, 2004. Available online at: http://www.rcaluc.org/Plans/New-Compatibility-Plan. Accessed January 25, 2018.

Riverside County, 2016. *Riverside County History*. Available online at: http://www.riversidecountyhistory.org/. Accessed November 2017.

Riverside County, 2017. *General Plan*. Available online at: http://planning.rctlma.org/ZoningInformation/GeneralPlan.aspx. Accessed January 25, 2018.

Riverside County, 2018. *Office of the Treasurer-Tax Collector: Property Tax Payments – Property Tax Details*. Available online at: https://taxpayments.co.riverside.ca.us/taxpayments/Search.aspx. Accessed February 7, 2018.

Rogers, Malcolm, 1939. Early Lithic Industries of the Lower Basin of the Colorado River and Adjacent Desert Areas. San Diego Museum Papers No. 3. San Diego Museum of Man.

Southern California Edison (SCE), 2013. 2015 General Rate Case Application Workpapers. Available online at: http://www3.sce.com/sscc/law/dis/dbattach5e.nsf/0/4211FE938F68D16D88257C220075ADE4/$FILE/APP%20SCE-05%20Vol.%2001%20C.%20I-II%20Pt.%2002.pdf. Accessed April 20, 017.

SCE, 2017a. About Us. Available online at: https://www.sce.com/wps/portal/home/about-us/. Accessed April 5, 2017.

SCE, 2017b. Distributed Energy Resource Interconnection Map (DERiM). Available online at: http://www.arcgis.com/home/webmap/viewer.html?webmap=e62dfa24128b4329bfc8b27c4526f6b7. Accessed May 17, 2017.

SCE, 2017c. West of Devers Upgrade Project – Project Overview, Spring 2017. Available online at: https://www.sce.com/wps/wcm/connect/31cea930-adb7-4bcb-a7a5-46c2601cc251/West_of_Devers_Fact_Sheet.pdf?MOD=AJPERES. Accessed March 2018.

Southern California Gas Company (SoCalGas), 2013. Pipeline Basics. Available online at: https://beea.socalgas.com/documents/news-room/fact-sheets/PipelineBasics.pdf. Accessed April 2017.

SoCalGas, 2018. Gas Transmission Pipeline Interactive Map – Riverside. Available online at: http://socalgas.maps.arcgis.com/apps/webappviewer/index.html?id=aaebac8286ea4e4b8e425e47771b8138. Accessed February 2018.

University of California Museum of Paleontology (UCMP), 2017. Specimen Database. Available online at: http://ucmpdb.berkeley.edu/. Accessed November 2017.

U.S. Census Bureau, 2016a. *Table DP03: Selected Economic Characteristics – 2012-2016 American Community Survey 5-Year Estimates*. Available online at: https://factfinder.census.gov/faces/nav/jsf/pages/guided_search.xhtml. Accessed May 30, 2018.

U.S. Census Bureau, 2016b. *Table DP05: ACS Demographic and Housing Estimates – 2012-2016 American Community Survey 5-Year Estimates*. Available online at: https://factfinder.census.gov/faces/nav/jsf/pages/guided_search.xhtml. Accessed May 30, 2018.

U.S. Census Bureau, 2016c. *Table DP04: Selected Housing Characteristics – 2012-2016 American Community Survey 5-Year Estimates*. Available online at: https://factfinder.census.gov/faces/nav/jsf/pages/guided_search.xhtml. Accessed May 30, 2018.

U.S. Census Bureau, 2017. *Quick Facts: Riverside County, California: Cathedral City city, California*. Available online at: https://www.census.gov/quickfacts/fact/table/riversidecountycalifornia,cathedralcitycitycalifornia/PST040217#viewtop. Accessed May 30, 2018.

U.S. Census Bureau, 2018. *American Fact Finder*. Available online at: https://factfinder.census.gov/faces/nav/jsf/pages/community_facts.xhtml#. Accessed May 24, 2018.

United States Department of Health and Human Services (HHS), 2016. *Computations for the 2016 Poverty Guidelines*. April 25, 2016. Available online at: https://aspe.hhs.gov/computations-2016-poverty-guidelines. Accessed May 30, 2018.

United States Environmental Protection Agency (USEPA), 2012. Benefits of Low Impact Development: How LID Can Protect Your Community's Resources. Available online at https://www.epa.gov/sites/production/files/2015-09/documents/bbfs1benefits.pdf. Accessed August 2017.

USEPA, 2017. Laws & Regulations. Summary of the Comprehensive Environmental Response, Compensation, and Liability Act (Superfund). Available online at: https://www.epa.gov/laws-regulations/summary-comprehensive-environmental-response-compensation-and-liability-act. Accessed July 19, 2018.

USEPA, 2018a. MyWATERS Mapper. Available online at: https://watersgeo.epa.gov/mwm/. Accessed January 2018.

USEPA, 2018b. *Nonattainment Areas for Criteria Pollutants (Green Book)*. Available online at: https://www.epa.gov/green-book. Accessed on June 2018.

United States Fish and Wildlife Services (USFWS), 2018a. Critical Habitat for Threatened and Endangered Species. Available online at: https://fws.maps.arcgis.com/home/webmap/viewer.html?webmap=9d8de5e265ad4fe09893cf75b8dbfb77. Accessed January 23, 2018.

USFWS, 2018b. Information for Planning and Conservation (IPaC) Official Species List. Available online at: https://ecos.fws.gov/ipac/. Accessed January 23, 2018.

USFWS, 2018c. National Wetlands Inventory Wetlands Mapper. Available online at: https://www.fws.gov/wetlands/data/mapper.html. Accessed January 23, 2018.

United States Geological Survey (USGS), 2008. A Tapestry of Time and Terrain. Last updated 2008. Available online at: http://pubs.usgs.gov/imap/i2720/i2720_pamphlet.pdf. Accessed January 2018.

SECTION 8.0

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APPENDICES

APPENDIX A

OFF-SITE ALTERNATIVES EVALUATION REPORT

OFF-SITE ALTERNATIVES EVALUATION REPORT

INTRODUCTION

As described in the EA, the Agua Caliente Band of Cahuilla Indians (Tribe) has submitted an application to the Bureau of Indian Affairs (BIA) for the transfer of approximately 13.6 acres in the City of Cathedral City, California (Section 33 Parcel or North Site) into federal trust for the benefit of the Tribe (Proposed Action). The Nation proposes to subsequently develop the trust parcel with a casino, mixed-use facilities, and associated infrastructure (Proposed Project). The purpose of the Proposed Action is to improve the long-term economic vitality and self-governance capability of the Tribe, as well as assist the Tribe in restoring its historic land base through funding generated by the Proposed Project. This report has been prepared to assist the BIA in the identification of a reasonable range of alternatives to the Proposed Action.

During the NEPA process, federal agencies are required to identify and assess reasonable alternatives to a Proposed Action that will avoid or minimize the adverse effects of the Proposed Action upon the quality of the human environment (40 CFR Part 1500.2). The BIA NEPA Guidebook states that an "EIS must consider a range of reasonable alternatives, including the Proposed Action and No Action alternative, and provide a description of any alternatives eliminated from further analysis with the rationale for elimination (40 CFR 1502.14(a); 43 CFR 46.420(c)). The No Action alternative is the only alternative that must be analyzed in an EIS that does not respond to the purpose and need for the action." The Council on Environmental Quality (CEQ) indicates that "[r]easonable alternatives include those that are practical or feasible from the technical and economic standpoint and using common sense, rather than simply desirable from the standpoint of the applicant" (CEQ, 1981).

Based on the requirements described above, alternatives were screened using four criteria:

1) ability to meet the purpose and need for the Proposed Action;
2) feasibility;
3) ability to avoid or minimize the adverse environmental impacts of the Proposed Action; and
4) ability to contribute towards a reasonable range of alternatives.

This report describes in detail off-site alternatives that were considered but ultimately eliminated from analysis within the Environmental Assessment (EA), including the South Site Alternative, based on the screening criteria described above. Further, the South Site Alternative was more thoroughly analyzed than the other eliminated alternatives, and a more in depth discussion of its components, environmental consequences, and recommended mitigation measures is provided below. Additional figures describing the South Site can be found in Appendices D and H of the EA, and the environmental setting, as described below, can be found in Appendix H of the EA.

A.1 SOUTH SITE ALTERNATIVE

The South Site Alternative would be located on the South Site, which is an approximately 13.9-acre site bordered by East Palm Canyon Drive/Highway 111 on the north, Van Fleet Avenue to the west, D Street to the south, and vacant parcels to the southeast and east (Figure 2-2 of Appendix D of the EA). The South Site is comprised of 15 parcels; Table 3 of Appendix B of the EA provides the Assessor's Parcel Numbers (APNs) and acreage for the South Site. The Tribe does not currently own the South Site parcels, and would need to acquire them prior to development on the South Site.

SOUTH SITE ALTERNATIVE COMPONENTS

The South Site Alternative consists of the transfer of the 13.9-acre South Site into federal trust status for gaming purposes for the benefit of the Tribe and the subsequent development of a casino on the site. The South Site Alternative would include 40,000-sf of gaming floor space, parking, and mixed-use facilities, including a combination of tribal government office space, restaurants, and retail uses totaling 125,000 sf of development. The South Site Alternative is sized the same as the Proposed Project Alternative as described within the EA, except that the casino and associated facilities would be located on the South Site instead of the North Site. A breakdown of the facilities proposed under the South Site Alternative is provided in **Table 1**, and the proposed site plan is provided as **Figure 2-6**.

TABLE 1
SOUTH SITE ALTERNATIVE COMPONENTS

Component	Units	Approximate Square Footage
Casino		
Gaming Floor	500 Class III gaming devices and 8 table games	40,000
Back of House/Support		17,500
Restaurants		5,000
Retail		2,500
Total		***65,000***
Mixed-Use		
Building A		9,500
Building B		6,000
Building C		14,000
Building D		9,500
Building E		21,000
Total		***60,000***
Overall Project Total		**125,000**
Parking	~1,150 spaces	
Source: Allen+Philp Partners, 2018.		

As with the Proposed Project Alternative, the South Site Alternative would be open 24 hours a day, 7 days a week. The South Site Alternative would employ the same number of people (556 direct employment opportunities) and attract the same number of patrons as the Proposed Project Alternative. The casino would have approximately 500 Class III gaming machines devices, and 8 table games.



SOURCE: Allen + Philp Partners, 1/9/2018; AES, 7/27/2018

Figure 2-6
South Site Alternative Site Plan

Roadway access, public health and safety standards, fire protection, and law enforcement under the South Site Alternative would be similar to the Proposed Project Alternative (Section 2.2.2 of the EA) but would be provided to the South Site instead of the North Site. The construction methods and BMPs for the South Site Alternative would be identical to those described for the Proposed Project Alternative (Section 2.2.3 of the EA).

Water Supply and Wastewater Treatment

The existing water and sewer mains along the East Cathedral Channel levee near the southeastern boundary of the South Site would interfere with the proposed development under the South Site Alternative and would need to be removed or abandoned. The existing sewer main within D Street would also require replacement (Appendix F of the EA). The South Site Alternative includes the construction of a new 12-inch sanitary sewer main that would run west from the east end of D Street to Van Fleet Street (where it would be connected to existing 8-inch branch lines) before running north in Van Fleet Street and east in East Palm Canyon Drive to connect with an existing water main near Date Palm Drive. A new 12-inch water main would follow the same route as the new sewer main, except its southern terminus would be a connection to an existing water main at the intersection of Van Fleet Street and D Street. These improvements and removals/abandonments of the sewer and water supply system would occur in the immediate vicinity of the South Site.

Grading and Drainage

Grading of the South Site to accommodate the development of the South Site Alternative would require the net export of a maximum of 140,948 cubic yards of material (Appendix G of the EA). The same construction and fill hauling practices that would be implemented under the Proposed Project Alternative (refer to Section 2.2.2 of the EA) would also be implemented under the South Site Alternative. Development of the South Site Alternative would result in a total of 12.51 acres of impervious surfaces on the South Site. In order to retain the 140,283 cubic feet of stormwater runoff resulting from a 100-year, 3-hour storm event per City standards, the South Site Alternative involves the installation of 2,050 linear feet of 96-inch perforated corrugated metal pipe surrounded by porous stone beneath the proposed parking areas on the northern portion of the South Site (Appendix G of the EA). These facilities would provide 140,901 cubic feet of storage, slightly more than the required volume. As with Proposed Project Alternative, no off-site drainage infrastructure would be utilized. The South Site Alternative would involve the installation of similar additional features to retain and filter stormwater runoff as described under the Proposed Project Alternative in Section 2.2.2 of the EA.

Roadway Access

The South Site Alternative would be accessible via one full-access driveway on East Palm Canyon Drive, with secondary access along Van Fleet Street (as shown in **Figure 2-6**). Loading docks and service entry is provided at the intersection of Date Palm Drive and East Palm Canyon Drive for the casino building, and in the southernmost parking lot for the mixed used buildings. The design contemplated for the South Site Alternative includes the construction of full width improvements on all internal roadways, including traffic calming measures in parking lots and internal roadways. The South Site Alternative contemplates construction of roadway improvements and appropriate signage and striping adjacent to the South Site's boundary to provide three eastbound lanes on East Palm Canyon Drive, one northbound lane on Van Fleet

Street, and one westbound lane on D Street. Additionally, modifications at existing traffic signals adjacent to the South Site will be constructed as needed.

The project driveway at Van Fleet Street and B Street contemplated under the South Site Alternative would be restriped with two-way stop control to provide one left turn and one shared through-right turn northbound lanes; one left and one shared through-right southbound lanes; one shared left-through-right eastbound lane; and one shared left-through-right westbound lane. The project driveway at D Street contemplated under the South Site Alternative would be restriped with one-way stop control to provide one shared left-through-right southbound lane; one shared left-through eastbound lane; and one shared through-right westbound lane. The project driveway at East Palm Canyon Drive contemplated under the South Site Alternative would be restriped with signalized control to provide one left and one shared through-right northbound lane; one shared left-through-right southbound lane; one left, three through, and one right eastbound lanes; and one left, two through, and one right westbound lanes. Further, sight distances at these project driveways will be reviewed with respect to Riverside County sight distance standards at the time of preparation of final grading, landscape, site development, and street improvement plans.

AFFECTED ENVIRONMENT

The South Site is located in close proximity to the North Site, which results in a similar affected environment of both sites. Refer to Appendix H of the EA for a detailed description of the regulatory and environmental setting for the South Site.

ENVIRONMENTAL CONSEQUENCES

This section assesses the environmental consequences of the South Site Alternative, as described above. Effects are measured against the environmental baseline presented in Appendix H of the EA. Indirect and cumulative effects are identified in the *Cumulative Impacts and Indirect Effects* subheading. Measures to mitigate for adverse impacts identified in this section are presented in the **Mitigation Measures** heading below.

Land Resources

Impacts to land resources under the South Site Alternative would be the same as under the Proposed Project Alternative (described within the EA), although the South Site Alternative would require the export of fill material rather than import. The South Site is approximately 13.9 acres (0.3 acres larger than the North Site). Therefore, a similar amount of soil and topography manipulation would be required for this alternative when compared to the Proposed Project Alternative. The South Site Alternative would comply with the applicable NPDES General Construction Permit requirements and BMPs described in Section 2.2.3 of the EA, which would ensure that the alternative would have minimal impacts on soils within the project area. Therefore, impacts resulting from seismic conditions would be the same as under the Proposed Project Alternative.

Water Resources

As described in **Section 2.3**, the South Site Alternative would comply with the applicable NPDES General Construction Permit requirements and BMPs described therein; therefore, impacts to surface

water resources and groundwater quality from the development of the South Site Alternative would be less than significant, similar to the Proposed Project Alternative (described within the EA). Additionally, the South Site Alternative would not place people or structures in a floodplain or change flood elevations; therefore, as with the Proposed Project Alternative, no adverse impact associated with flooding or floodplain management would occur as a result of the South Site Alternative. Impacts from stormwater runoff and groundwater use which are unique to the South Site Alternative are addressed below.

Stormwater Runoff

Development of the South Site Alternative would result in a total of 12.51 acres of impervious surfaces on the South Site and would generate approximately 140,283 cubic feet of stormwater flows as a result of a 100-year, 3-hour storm event, which is slightly more than under the Proposed Project Alternative. As described in **Section 2.3.2**, 2,050 linear feet of 96-inch perforated corrugated metal pipe surrounded by porous stone would be installed under the proposed parking areas in the northern portion of the South Site, which would provide adequate storage volume to contain 100 percent of the flows resulting from a 100-year, 3-hour storm event. Because runoff would be retained entirely on site, no impacts would occur to surface water resources. The South Site Alternative would involve the installation of similar stormwater filtering features as described under the Proposed Project Alternative in Section 4.2.1 of the EA, which would filter debris, trash, and sediment from stormwater runoff before it is retained in the drainage network and ensure that impacts to groundwater quality are less than significant.

Groundwater Supply

The South Site Alternative would require approximately 3 percent more potable water than the Proposed Project Alternative, with an approximate average daily water demand of approximately 34,113 gpd, or approximately 38 AFY. While this is slightly higher than the estimated water demand of the Proposed Project Alternative (due to an approximately 1 AFY increase in projected landscaping water use compared to the Proposed Project Alternative), it nonetheless also represents only approximately 0.02 percent of projected total outflows from the western portion of the Coachella Valley Groundwater Basin in 2020. Therefore, as with the Proposed Project Alternative, the South Site Alternative's operational water demand would not have a significant adverse effect on regional groundwater levels. While the development of the South Site Alternative would increase the amount of impervious surfaces on the South Site, the above-described stormwater infrastructure that would be installed under the South Site Alternative would allow retained stormwater flows to infiltrate to the underlying groundwater, thereby recharging the regional aquifer.

Air Quality

Methodology

Development and operation of the project alternatives would emit criteria air pollutants (CAPs), hazardous air pollutants (HAPs), and greenhouse gases (GHGs). This section presents the methodology used to assess the affected environment and to evaluate the potential air quality effects of the project alternatives.

Assessment Criteria

Adverse effects to ambient air quality could result if either construction or operation would result in violations of the Federal Clean Air Act (CAA) provisions, or if emissions would impede a state's ability to meet National Ambient Air Quality Standards (NAAQS).

While the alternative sites are located within the Salton Sea Air Basin (SSAB) and the South Coast Air Quality Management District's (SCAQMD) jurisdictional boundaries, SCAQMD thresholds do not apply to federal actions. The effects of proposed federal actions on SCAQMD air quality management are assessed under General Conformity as required under the CAA.

Construction Analysis

Construction would entail mass earthwork, fine grading, and building, road, and parking lot construction. A variety of heavy equipment, including trucks, scrapers, excavators, and graders, would be used to complete each phase. A detailed list of the proposed equipment and emissions resulting from the equipment is located in Appendix N of the EA. Effects on air quality during construction were evaluated by estimating the amount of criteria pollutants that would be emitted over the duration of the construction period (for each phase of construction where applicable). Particulate matter 10 microns in diameter (PM_{10}) and ozone precursors (NO_x and reactive organic gases [ROG]) are the primary pollutant of concern resulting from operation of construction equipment, earth-moving activities, and soil hauling.

ROG, nitrogen oxides (NO_x), sulfur dioxide (SO_2), carbon monoxide (CO), and diesel particulate matter (DPM) emissions from construction would primarily be produced by diesel-fueled equipment use from on and off-road construction equipment and truck use. Emissions from construction equipment were calculated using the United States Environmental Protection Agency (USEPA) approved 2016 California Emissions Estimator Model, Version 2016.3.2 (CalEEMod; CalEEMod, 2016). The majority of PM_{10} and $PM_{2.5}$ emissions would result from fugitive dust generated during earth-moving activities, such as site grading. CalEEMod was used to estimate PM_{10} and $PM_{2.5}$ project-related emissions and precursors from equipment exhaust and fugitive dust. CAP emissions were estimated assuming that construction would begin in January 2019 and continue at an average rate of 22 days per month for all project alternatives. The construction duration for project alternatives is conservatively assumed to be approximately 12 months[1]. Emissions results are summarized below and included in Appendix N of the EA.

Operational Analysis

CalEEMod was also used to estimate emissions associated with operation of the project alternatives. Input values for the CalEEMod included data from the Traffic Impact Analysis (TIA) provided in Appendix K of the EA, water/wastewater estimates from Appendix F of the EA, and solid waste generation estimates from Section 4.9 of the EA. Trip generation specific to each of the project alternatives provided in the TIA was incorporated into CalEEMod, including internal capture rates. The TIA estimated approximately 61 percent of retail patrons would patronize the casino or restaurant and 62 percent of restaurant patrons would patronize the casino or retail. Default trip length values included in CalEEMod were used for all land uses.

Appendix N of the EA includes additional details regarding CalEEMod inputs as well as the CalEEMod output files.

- **Federal General Conformity**. Conformity regulations apply to Federal actions that would cause emissions of CAPs to occur in locations designated as non-attainment or maintenance areas for

[1] While actual construction activities associated with the alternatives may be phased over a longer period, assuming that all construction would take place within a one-year condensed time frame results in a higher concentration of daily emission estimates, and thus is a conservative assumption.

the emitted pollutants. As discussed in Section 3.3 of Appendix H of the EA, the alternative sites are located in an area that is classified as severe nonattainment for ozone (NO_x and ROG, ozone precursors) and PM_{10} under the NAAQS; therefore, if project emissions are equal to or exceed applicable *de minimis* levels for any CAP provided in 40 Code of Federal Regulations (CFR) §93.153 (b)(1) and (2), then a federal general conformity determination analysis would be required.

- **Carbon Monoxide Hot Spot Analysis**. Implementation of the project alternatives would result in emissions of CO. Because CO disperses rapidly with increased distance from the source, emissions of CO are considered localized pollutants of concern rather than regional pollutants, and can be evaluated by Hot Spot Analysis. "Hot Spots" include high traffic volume intersections with poor operating conditions resulting in extensive idling time for cars and subsequently can be concentrated areas with elevated CO levels. Refer to Appendix H of the EA for additional details related to Hot Spot analysis and screening criteria. The project alternatives are not in an area or category of site that has been identified in a CO plan. As shown in the TIA, provided as Appendix K of the EA, no intersection after mitigation would operate at level of service (LOS) E or F. The project alternatives are not located in a CO nonattainment or maintenance area. Therefore, in accordance with 40 CFR §93.123, no further quantitative analysis is required.
- **Climate Change**. This EA considers whether project emissions have individual or cumulative effects on climate change. Given the global nature of climate change impacts, individual project impacts are most appropriately addressed in terms of the incremental contribution to a global cumulative impact; therefore, refer below to the *Cumulative Impacts and Indirect Effects* subheading, for the analysis of impacts related to climate change. This approach is consistent with the view articulated by the *Intergovernmental Panel on Climate* (IPCC) *Change Fifth Assessment Report* (IPCC, 2014).
- **Federal Class I Areas**. If any alternative emits greater than the Prevention of Significant Deterioration (PSD) threshold of 250 tons per year (tpy) of any one criteria pollutant from stationary sources during construction or operation then a best available control technology analysis will be conducted. San Gorgonio Wilderness, San Jacinto Wilderness, and Joshua Tree NP are within the preconstruction review distance of the alternative sites and analysis is required.
- **Tribal New Source Review (NSR)**. The Tribe would be required to apply for a permit under the newly implemented NSR requirements of the CAA if stationary source operational emissions of regulated pollutants would exceed the thresholds presented in Table 3-7 of Appendix H of the EA. For this analysis, stationary source project related operational emissions will be quantified and compared to the applicable threshold.

Environmental Consequences

Construction Emissions

Construction of the South Site Alternative would be similar to the Proposed Project Alternative (described within the EA); however the South Site Alternative would be located at the South Site. Construction emission totals for the South Site Alternative are shown in **Table 2** and mitigated construction emission totals are shown in parentheses (also see Appendix N of the EA for model output files). As shown in **Table 2**, emissions of individual criteria pollutants from construction of the South Site Alternative would not exceed applicable *de minimis* levels; therefore, a conformity determination is not required. However, to further reduce project-related construction criteria pollutants and DPM emissions, recommended mitigation measures are provided under the **Mitigation Measures** heading, below. These measures would reduce DPM emissions from construction equipment by approximately 85

percent, avoiding potentially adverse effects to nearby sensitive receptors. Therefore, construction of the South Site Alternative would not result in significant adverse effects associated with the regional air quality environment.

TABLE 2
UNMITIGATED (MITIGATED) CONSTRUCTION EMISSIONS FROM PROJECT ALTERNATIVES

Construction Year – 2019	Criteria Pollutants					
	ROG	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
	tons per year (tpy)					
South Site Alternative	1.8 (1.6)	6.4 (5.4)	3.5 (3.6)	0.0 (0.0)	0.8 (0.5)	0.4 (0.2)
De Minimis Levels	*25*	*25*	*N/A*	*N/A*	*70*	*N/A*
Exceed Level?	**No**	**No**	**N/A**	**N/A**	**No**	**N/A**

Notes: N/A = Not Applicable; levels are not applicable due to attainment status (refer to Appendix H of the EA). Mitigated emission levels after the implementation of BMPs in Section 2.2.3 of the EA are shown in parenthesis.
Source: CalEEMod, 2016.

Operational Emissions

Buildout of the South Site Alternative would be similar to the Proposed Project Alternative. Unmitigated operational emission totals for the South Site Alternative are shown in **Table 3**. It should be noted that stationary and area sources are exempt under conformity regulations and therefore not subject to *de minimis* levels. Detailed calculations of vehicle and area emissions are included as Appendix N of the EA.

TABLE 3
SOUTH SITE ALTERNATIVE UNMITIGATED OPERATIONAL EMISSIONS

Sources	Criteria Pollutants					
	ROG	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
	tons per year (tpy)					
Exempt Conformity Emissions						
Area	1	0	0	0	0	0
Stationary	0	1	1	0	0	0
Total Exempt Emissions	*1*	*1*	*1*	*0*	*0*	*0*
Non-Exempt Conformity Emissions						
Mobile	2	16	20	0	5	2
Energy	0	2	1	0	0	0
Total Non-Exempt Emissions	*2*	*18*	*21*	*0*	*5*	*2*
Total Emissions	**3**	**19**	**22**	**0**	**5**	**2**
De Minimis Levels[1]	25	25	N/A	N/A	70	N/A
Exceed Level?	***No***	***No***	***N/A***	***N/A***	***No***	***N/A***

Notes: N/A = Not Applicable; levels are not applicable due to attainment status (refer to Appendix H of the EA).
1 - Only applies to Non-Exempt Emissions.
Source: CalEEMod, 2016.

As shown in **Table 3**, emissions of individual criteria pollutants from operation of the South Site Alternative would not exceed applicable *de minimis* levels and emissions of individual criteria pollutants from stationary sources (area and stationary) would not exceed the Tribal NSR threshold of 2 tpy for ROG. Therefore, a conformity determination is not required and a Tribal NSR permit would not be

required. Further, **Table 3** shows that the South Site Alternative would not result in stationary source emissions (under the categories of Area and Stationary sources) of any one pollutant in excess of the Federal Class I Areas major source threshold of 250 tpy. Therefore, operation of the South Site Alternative would not result in significant adverse effects associated with the regional air quality environment. However, to further reduce project-related operational criteria pollutants, BMPs are provided in Section 2.2.3 of the EA. These measures would minimize CAP emissions from operation of the South Site Alternative through the reduction of on-site area emissions, vehicle idling, and mobile emissions.

Biological Resources

Potential impacts of the South Site Alternative are similar to those discussed in Section 4.4.1 of the EA; as the South Site is similar to the North Site in its habitat types (including wetlands and Waters of the U.S.), observed wildlife, past uses, and potential for use by special-status species. Therefore, the South Site Alternative would result in no effect to sensitive communities or wetlands and Waters of the U.S. Mitigation measures are presented under the **Mitigation Measures** heading, below, to ensure that potential impacts to the western yellow bat, and migratory birds and other birds of prey are avoided. With implementation of mitigation measures, this alternative may affect, but is not likely to adversely affect, special-status wildlife species, and migratory birds and other birds of prey.

Cultural Resources

As discussed in Section 3.5 of Appendix H of the EA, no historic properties, known archaeological sites, cultural materials or paleontological resources are located within the APE for the South Site under the South Site Alternative. The South Site was once the location of a 1920s-1940s residential community which has been demolished, and the degree of disturbance to the site suggests a low probability for buried cultural resources. There is always a possibility, however, that previously unknown archaeological or paleontological resources could be encountered during construction. With adherence to applicable laws and the implementation of BMPs in Section 2.2.3 of the EA, no adverse effects to previously unknown cultural resources would occur.

Socioeconomic Resources/Environmental Justice

The gaming and retail components of the South Site Alternative are identical to the Proposed Project Alternative (described within the EA); therefore, socioeconomic impacts would be essentially identical. Refer to Section 4.6.1 and Appendix E of the EA for the socioeconomic impacts related to the South Site Alternative. The South Site currently generates less property tax revenue, so a smaller reduction in tax collection would occur under the South Site Alternative.

The net fiscal impact to the City would be a decrease of $108,945 under the South Site Alternative (Appendix E of the EA). As discussed in Section 2.2.3 of the EA, the Tribe intends to voluntarily pay development impact fees to the City. Based on the size of the proposed development and the fees contained in Chapter 3.17 of the City's Municipal Code, the anticipated development impact fee for the South Site Alternative would be $18,750. This would reduce the estimated net fiscal impact to the City to $90,195. This is a potentially significant impact. Mitigation measures are provided below to avoid this potential fiscal impact to the City. As described in Section 1.3.2 of the EA, Section 11.7 of the Compact

requires that prior to commencement of the South Site Alternative, and no later than the issuance of the final EA to the County, if it is determined that law enforcement, fire protection, emergency medical services, and any other public services will be burdened as a result of the South Site Alternative, the Tribe shall offer to commence negotiations with the City and if necessary, the County. These negotiations would occur if it is determined that identified mitigation measures and the voluntary payment of the development impact fees identified in Chapter 3.17 of the City's Municipal Code, are not adequate to off-set the fiscal impacts described above. These negotiations would allow for all parties to enter into enforceable intergovernmental agreements with respect to the matters set forth in Section 11.7(a) of the Compact. After mitigation, fiscal impacts would be less than significant.

Transportation/Circulation

Methodology

Study Intersections and Roadway Segments

A TIA was conducted by Webb Associates in July 2018 to determine the effects the proposed development would have on study intersections and roadway segments, review the available access to the development, and provide recommendations for improvements that may be necessary to accommodate the traffic expected to be generated by the development. The TIA is provided as Appendix K of the EA.

To assess project-related impacts on the transportation system, opening year background traffic conditions were estimated for the year 2020. As described in Appendix K of the EA, the 2020 background traffic conditions were determined by applying an average annual growth rate of 2 percent to the 2018 existing traffic described in Section 3.7 of Appendix K of the EA. Table 5-1 of Appendix K of the EA shows the study intersections under 2020 baseline conditions.

The study area intersections were analyzed using procedures published in the 2010 Highway Capacity Manual (HCM) and PTV Vistro 5.00, a computer-based traffic analysis program (Appendix K of the EA). Estimated traffic generated by the project was added to the 2020 opening year background traffic to determine whether the project would cause the study intersections or roadways to operate at an unacceptable LOS. For the purposes of this analysis, an overall intersection LOS of D or better is considered acceptable (Appendix K of the EA). If an intersection operates at LOS E or F without the addition of the project, a significant impact would occur if the project would add 50 or more trips to the intersection or if the vehicle-to-capacity ratio of a roadway segment exceeds 1.0. These thresholds apply to all study intersections and roadways. For roadways or intersections operating unacceptably without the addition of the project, an increase in the volume to capacity (v/c) ratio of 0.05 or greater as a result of the project would result in a significant impact.

Trip Generation Rates

Trip generation relates land uses to the number of vehicles entering or exiting the site and the directional splits of inbound/outbound traffic. A trip is defined as a vehicle either entering or exiting the site. The trip generation rates were derived for the project based on information published in the *Institute of Transportation Engineers (ITE) 10th Edition of Trip Generation Manual* (Appendix K of the EA). The ITE Manual does not provide a standard trip generation rate for casino land uses; therefore, counts at nearby existing casinos of a similar size were utilized to determine the casino trip generation rate. The ITE standard trip rates were used for the restaurants and shopping center land uses, as described in Appendix K of the EA. Due to the close proximity of the casino, restaurant, and retail facilities, and their

shared access, there would be internal capture between these land uses and, therefore, a trip reduction was applied to account for this internal capture. Tables 4-1 and 4-2 of Appendix K of the EA provide a summary of the trip generation rates used for the proposed casino and mixed use facilities.[2]

Trip Distribution

Estimated traffic generated by the development alternatives was distributed on the surrounding street system based on anticipated site use. Figures 4-A through 4-D of Appendix K of the EA show the traffic volumes and distribution for each of the project alternatives.

Environmental Consequences

Study Intersections and Roadway Segments

Trip generation and trip distribution are provided in Table 4-3 and Figure 4-D of Appendix K of the EA for the South Site Alternative. Tables 5-4 and 5-8 of Appendix K of the EA provide a summary of the future LOS at each study intersection and roadway segment with the addition of traffic from the South Site Alternative. With the addition of traffic generated by the South Site Alternative, all intersections and roadway segments would operate acceptably, with the exception of Cathedral Canyon Drive/Paseo Real and East Palm Canyon Drive between Cathedral Canyon Drive and Date Palm Drive. Mitigation provided under the **Mitigation Measures** heading, below, would ensure these impacts are reduced to a less-than-significant level. Therefore, the South Site Alternative would not result in a significant impact to LOS.

Transit, Bicycle, and Pedestrian Facilities

The South Site Alternative is located on the South Site, immediately adjacent to the North Site. Similar to the Proposed Project Alternative (described within the EA), the South Site Alternative would have no adverse impacts on local transit systems or bicycle and pedestrian facilities after mitigation provided in **Section 5.0**.

Land Use

The South Site Alternative would result in the transfer of the South Site, approximately 13.9 acres, from fee to trust status, as well as the subsequent development of a casino, restaurant, and retail facilities. Similar to the Proposed Project Alternative (described within the EA), the South Site Alternative would not be consistent with the DRN zoning designation of part of the South Site, but would be consistent with the MXC zoning designation and DTC land use designation; however, when multiple parcels are developed together with mixed MXC or DRN zoning, the provisions of either zone can apply to the entire development (City Municipal Code § 9.31.040). The Tribe and the federal government would have jurisdictional authority over the land once it is taken into trust.

The South Site Alternative has the potential to result in land use compatibility impacts with nearby sensitive receptors, particularly the residential receptors to the south and west of the South Site, as discussed in detail in the other topical sections of the EA. Please refer to Sections 2.2.3 and 4.8.1 of the EA; and refer to subheadings *Air Quality*, *Noise*, and *Visual Resources*, as well as the **Mitigation**

[2] Note that the tribal governmental land use was included in the square footage for Building A and analyzed at the mixed-use rate assumed for Building A. This resulted in a conservative estimate of generated trips, as office uses generate fewer trips than mixed-use buildings.

Measures heading of this appendix for related impacts, BMPs, and mitigation measures. The South Site Alternative would not physically disrupt neighboring land uses, prohibit access to neighboring parcels, or otherwise significantly conflict with neighboring land uses. Therefore, the South Site Alternative would result in less-than-significant impacts associated with land use conflicts.

Public Services and Utilities

The South Site Alternative involves the construction and operation of the same or very similar project components as the Proposed Project Alternative (described within the EA), and service providers for the South Site Alternative would be the same as those under the Proposed Project Alternative. As with the Proposed Project Alternative, the South Site Alternative would require the construction of an additional 12-inch water main and 12-inch sewer main (refer to Section 2.2.2 of the EA). These improvements would be constructed in East Palm Canyon Drive, Van Fleet Street, and D Street immediately adjacent to the South Site, as shown in **Figure 4.9-4**. Therefore, the impacts would be similar to or less than those described under Section 4.9.1 of the EA for water supply, wastewater supply, solid waste service, recreation, electricity and natural gas providers, law enforcement, and fire protection and emergency medical services. With incorporation of the BMPs provided in Section 2.2.3 of the EA and mitigation provided under the **Mitigation Measures** heading, below, public services impacts under the South Site Alternative would be less than significant.

Visual Resources

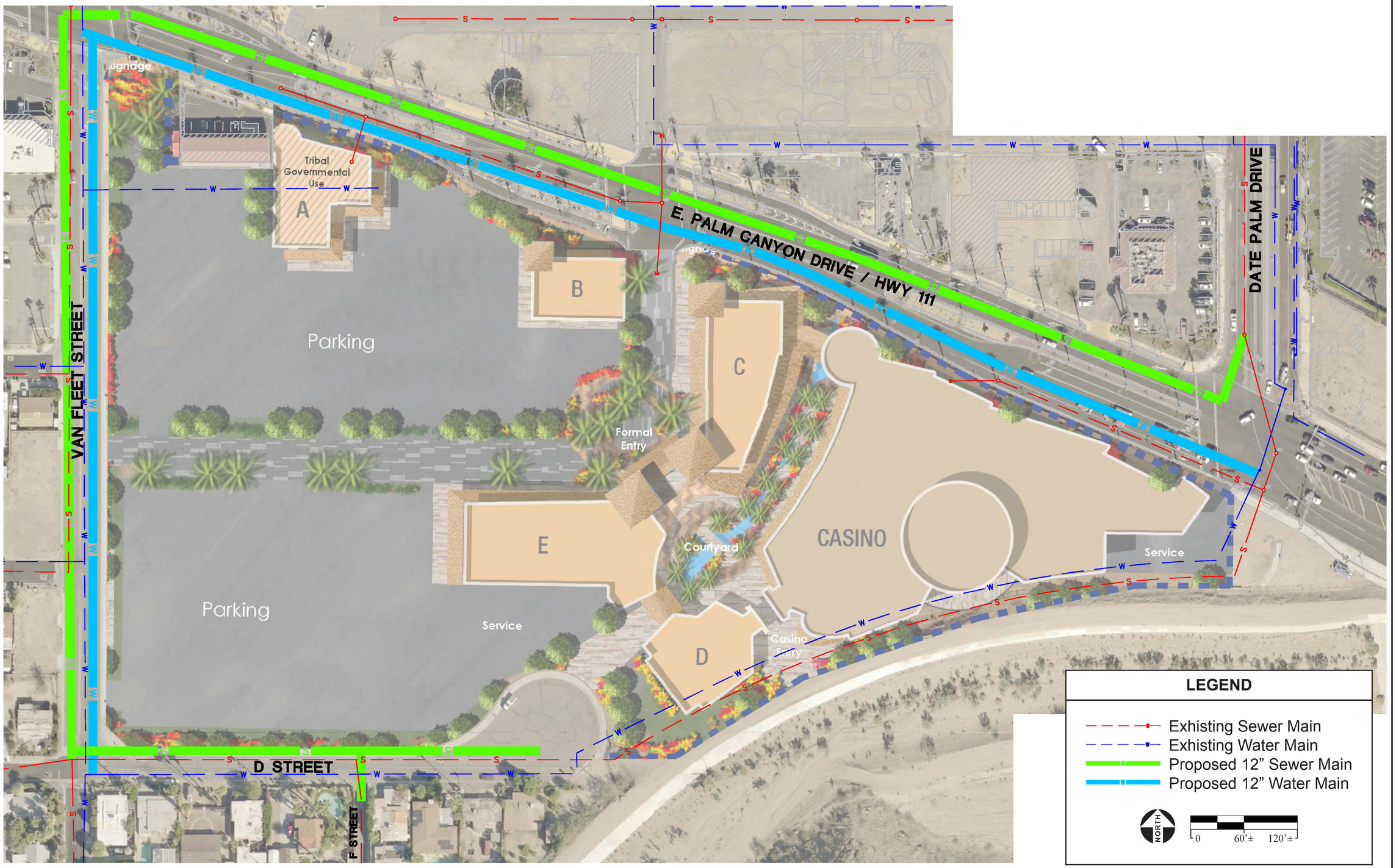
Aesthetics

Implementation of the South Site Alternative would result in development of a casino and multi-use buildings on the South Site, which would constitute a change to the existing visual setting. An architectural rendering of the South Site Alternative is provided as **Figure 4.10-3**. In general, views of undeveloped, gravel lots and abandoned utilities infrastructure would change to views of more modern commercial development. While the buildings would be highly visible to travelers on East Palm Canyon Drive, the development would not be highly visible from roadways not adjacent to the South Site.

The nearest residences to the South Site are single-family homes located approximately 40 feet south of the South Site. However, the closest proposed building is more than 250 feet from these residences, and the intervening land within the South Site will include a landscaped buffer between the existing turnaround and Building D (refer to **Figure 2-6**). The proposed development would not block views of scenic resources in the vicinity of the South Site. Therefore, the South Site Alternative would not result in significant adverse impacts associated with visual resources.

Lighting

The South Site Alternative would introduce new sources of light to the South Site, for aesthetic and security purposes at the facility and throughout the parking lots, similar to the sources of light from nearby commercial developments. This lighting associated with the South Site Alternative would constitute an increase over the existing ambient light levels on the South Site; however, lighting would be consistent with the designated commercial use of the South Site. Even so, BMPs included in Section 2.2.3 of the EA, including downcast and shielded lighting, ensure no significant adverse impacts associated with lighting would occur.



SOURCE: MSA Consulting, Inc., 6/6/2018; AES, 7/27/2018

Figure 4.9-4

South Site Alternative Water and Wastewater Utility Improvements



SOURCE: Allen + Philp Partners, 1/26/2018; AES, 7/27/2018

Figure 4.10-3
South Site Alternative Architectural Rendering

Noise

Assessment Criteria and Methodology

The assessment of project effects is based on the Federal Highway Administration (FHWA) construction noise level thresholds in its 2006 Construction Noise Handbook, City General Plan, and Federal Interagency Committee on Noise (FICON) noise guidance. The assessment of vibration noise is based on the Federal Transportation Administration (FTA) standards. Adverse noise-related effects would occur during construction and operation if the following occurs:

- Project construction results in an increase in the ambient noise environment of greater than 78 A-weighted decibels (dBA), equivalent noise level (Leq), or a 5-dBA increase in the ambient noise level above the existing noise level for daytime residential receptors, or an increase of greater than 83 dBA Leq or a 5-dBA increase for daytime commercial receptors (FHWA, 2006).
- Project operation causes ambient noise levels to exceed noise standards adopted by the City, including 55 dBA Community Noise Equivalency Level (CNEL) for residential receptors, and 62.5 dBA CNEL for public parks and commercial development (City of Cathedral City, 2009).
- If the ambient noise level exceed City standards under existing conditions, increases in the ambient noise level will be analyzed based on FICON guidance, where an increase of +5 dB is significant for ambient levels less than 60 dB, an increase of + 3 dB is significant for ambient levels between 60 and 65 dB, and an increase of + 1.5 dB is significant for ambient levels greater than 65 dB (FICON, 1992).
- Construction or operation of the project exceeds the FTA vibration standards of 90 VdB for structures and 70 VdB for annoyance of people (FTA, 2006).

Environmental Consequences

Unless otherwise noted below, the analysis and noise level estimates under the South Site Alternative are identical to the Proposed Project Alternative (described within the EA).

Construction Noise

Construction of the South Site Alternative would require a maximum of approximately 425 worker and vendor trips and 588 material hauling trips per day during construction (5,880 PCE trips per day), for a total of 6,305 vehicle trips.[3] The existing traffic volumes on Date Palm Drive and East Palm Canyon Drive are at least twice the 6,305 ADT added by the South Site Alternative construction; therefore, construction trips would increase ambient noise levels by less than 1.5 dBA (from 67.2 dBA). Therefore, construction traffic would not result in a significant noise impact.

The maximum noise level at the nearest sensitive noise receptor located approximately 40 feet from the South Site would be greater than 85 dBA, which is above the federal noise construction threshold of 78 dBA for residences. The noise level at the nearest commercial receptor located at the northern boundary of the South Site would also be greater than 85 dBA, which is above the federal noise construction threshold of 83 dBA for commercial facilities. Construction noise BMPs identified in Section 2.2.3 of the EA would reduce noise during construction activities and would limit construction to daytime hours.

[3] Although the proposed building sizes are the same, construction worker trips for the South Site Alternative are not identical the Proposed Project Alternative. Because the South Site is a different acreage and grade, the grading plan requires a different number of material haul trips. Additionally, the total development acreage on the South Site is greater from the North Site, resulting in a greater number of worker trips.

Although construction noise is anticipated to be greater than the noise thresholds, construction is short-term and temporary in nature and would not impact receptors for a significant period of time. Therefore, because of the short-term and temporary nature of construction noise, and implementation of BMPs to reduce construction noise levels to the extent feasible, there would not be a significant adverse impact due to construction noise.

Construction Vibration

The nearest vibration-sensitive commercial receptor is adjacent to the northwestern boundary of the South Site. Construction vibration from a vibratory roller at this receptor would be greater than 90 VdB, which exceeds the threshold for structural damage (90.0 VdB) and is higher than the threshold for annoyance of people (70.0 VdB). Mitigation provided under the **Mitigation Measures** heading, below, would restrict the use of vibratory equipment in the vicinity of this commercial building, which would reduce this impact to a less-than-significant level.

Operational Traffic Noise

Operation of the South Site Alternative would add the same number of traffic trips as the Proposed Project Alternative to study area roadways (refer to Appendix K of the EA).[4] Therefore, the South Site Alternative would not result in significant adverse effects after mitigation associated with traffic noise levels for sensitive noise receptors located along study area roadways.

Operational Vibration and Other Noise Sources

Anticipated parking lot noise (60.0 dBA) would be lower than the existing ambient noise level (66.0 dBA). Heating, ventilation, and air conditioning (HVAC) noise (60.0 dBA at 20 feet) would be approximately 54.0 dBA at the nearest residential receptors, and 60.0 dBA Leq at the nearest commercial building, which are below the City's noise thresholds for commercial land uses.

As discussed in Section 2.2.2 of the EA, loading docks would be located on the southwest side of Building E and on the east side of the casino building, approximately 200 feet from the nearest residence and 425 feet from the nearest commercial facility. Loading dock noise (63.0 dBA Leq at 100 feet) would be less than 51 dBA at the commercial receptor and less than 57 dBA at the residential receptor, which are below the City's noise thresholds. Noise levels from truck movements at the loading docks would be shielded from the nearby residences by the surrounding proposed buildings, further reducing the noise levels at the nearest sensitive receptors.

Commercial uses do not include sources of perceptible vibration. Therefore, because the South Site Alternative would not result in vibration and noise levels at nearby sensitive receptors that would exceed the federal noise abatement criteria, no significant adverse impacts would occur.

Hazardous Materials

No hazardous materials issues are known to be associated with the South Site. The South Site Alternative would be similar to the Proposed Project Alternative (described within the EA) with regards to construction-related hazardous materials impacts. As under the Proposed Project Alternative,

[4] The trip distribution of the South Site Alternative is greater along East Palm Canyon Drive between Date Palm Drive and the project driveway; however, this area does not contain any sensitive receptors along the roadway.

construction personnel could encounter unanticipated contamination during construction-related earth moving activities associated with the South Site Alternative. Therefore, the unanticipated discovery of contaminated soil and/or groundwater is a potentially significant effect. The BMPs presented in Section 2.2.3 of the EA would minimize or eliminate effects associated with unanticipated discovery of contaminated soil and/or groundwater during construction of the South Site Alternative.

The South Site Alternative would be similar to the Proposed Project Alternative in most aspects related to potential operational impacts from hazardous materials. Therefore, as with the Proposed Project Alternative, no significant impact associated with hazardous materials would occur during construction or operation of the South Site Alternative.

Cumulative Impacts and Indirect Effects

Cumulative Setting

Cumulative impacts are defined by the Council on Environmental Quality (CEQ) as effects "on the environment which result from the incremental effect of the action when added to other past, present, and reasonably foreseeable future actions" (40 CFR §1508.7). There are several major development projects proposed, planned, and/or currently being constructed in the region. A listing of the projects, including the acreage and status of the development, is provided in **Table 4**. As shown in **Table 4**, within approximately 10 miles of the North Site, there are approximately 158 acres of planned and ongoing development within the region. Additionally, the Tribe is currently planning several development projects, including an expansion of the Agua Caliente Resort Spa in Rancho Mirage (including 310 hotel rooms, 41,000 sf of meeting space, 120,000 sf of commercial space, 25,000 sf of restaurant, and 58,000 sf of gaming floor), a large-scale cultural center and spa complex in downtown Palm Springs (48,000 sf gallery), and an expansion of the Agua Caliente Spa Resort Casino in Palm Springs (including 68,000 sf of gaming floor, 350 hotel rooms, 60,000 sf of meeting space, 50,000 sf of mixed use/retail space, and a 40,000-sf spa/fitness center).

TABLE 4
PLANNED DEVELOPMENT PROJECTS WITHIN THE REGION

Project Name	Acres	Distance to North Site (miles)	Project Location	Project Description	Project Status as of July 2018
City of Cathedral City					
Pending Downtown Development	13.5	<1	East Palm Canyon Drive and Van Fleet Avenue	Mixed-use development to include a lifestyle retail center, hotel, and residences.	Pending
Quick Quack Car Wash	1.63	3.3	Ramon Rd. and Avenida Ximino	Full service car wash facility with outdoor vacuums.	Pending
Carlos Campos Pest Control	<1	3.4	68761 Aliso Rd.	Pest control building, parking lot, outdoor storage area for vehicles.	Approved
CCBC Resort Runway Restaurant	<1	<1	68300 Gay Resort Drive	Restaurant with outdoor patio dining area within an existing resort hotel.	Approved
Cathedral City Senior Living	4.96	2.1	67670 Carey Rd.	Senior living facility with 140 living units.	Approved
Ramon 19	19.14	4.3	69375 Ramon Rd.	Medical cannabis cultivation and production facility to be constructed	Under

Project Name	Acres	Distance to North Site (miles)	Project Location	Project Description	Project Status as of July 2018
				in two phases over the next three years.	Construction
Best Western Plus Hotel	9	6.4	I-10/Bob Hope intersection	91-room hotel joined by adjacent fast food options.	Under Construction
The District	7	2	Cree Rd. and Carey Rd.	47 single-family units with common areas including recreational amenities.	Under Construction
Ecoplex Park	2.8	1.5	67905 East Palm Canyon Drive	Construction of two warehouse-style buildings that will house a medical cannabis cultivation operation.	Under Construction
Horizon Gardens	--	--	Cathedral City	Addition of 28 units to a senior living facility.	Under Construction
Alchemy Works	6.51	1.3	67575 Canyon Plaza	Cannabis cultivation facility	Pending
City of Rancho Mirage					
Estilo Tract 34227	0.43	5.1	72-277 Victory Drive	Single family housing	Under Construction
Bella Clancy	--	4.2	Rancho Palmeras east of Follansbee Rd.	Modification to allow 15 ft. setbacks for side entry garages. Construction of 20 single family homes	Under Construction
Mirada Villas	27	1.8	North of Frank Sinatra Dr across from The Ritz	Single family housing - 46 units	Under Construction
Ken Catanzarite	--	1.5	South of Mirage Cove Dr. at Highway 111	Single family housing - 20 units	Approved
Horizon pacific, Rancho Cove, MSA Consulting	13.05	0.8	Highway 111 & One Mirage Place	Hotel & single family housing	Under Review
RMSW LLC	23.71	1.3	W. Side Highway 111/Frank Sinatra & Mirage Cove	Resort and Condominium	Approved
Rancho Mirage Rehabilitation Hospital, Inc.	9.69	3.6	Ramon Rd. and DaVall Dr.	Rehabilitation center	Under Construction
City of Palm Springs					
Canyon View / Summit Project by EHOF Canyon View, LLC	14.83	2.4	SW corner of East Palm Canyon Dr. & Matthew Dr.	Single family housing	Approved
Porsche Car Dealership	2.7	3.1	3737 East Palm Canyon Dr.	Auto Sales	Approved

Source: Cathedral City Economic Development Department, 2018; Appendix K of the EA; City of Rancho Mirage, 2018.

Although a development application has not been submitted, it is reasonably foreseeable that the South Site will be built out. The City has a proposed hotel, commercial, and residential development planned for the South Site (see the first row in **Table 4** above).

In addition to the buildout of the projects listed above, the cumulative impact analysis within this EA and associated technical studies conservatively assumed a 1.5 percent annual growth rate for the population of

the surrounding region until 2040 (Appendix K of the EA). Cumulative impacts for each environmental issue area are discussed below.

Environmental Consequences

Land Resources

The principal effects to land resources associated with any future development in the vicinity of the South Site would include localized, minor topographical changes and soil attrition. Other projects in the area would be required to implement measures consistent with local permitting requirements for construction to address any regional geotechnical, seismic, or mining hazards. It is anticipated that approved developments would follow appropriate permitting procedures; therefore, implementation of the South Site Alternative would not contribute to cumulatively considerable adverse impacts to land resources.

Water Resources

Effects related to water supply for the South Site Alternative are discussed in the *Water Resources* subheading, above. The projected water demand for the South Site Alternative is approximately 38 AFY, which represents only approximately 0.02 percent of the 189,700 AFY of total outflows anticipated to occur from the western portion of the Coachella Valley Groundwater Basin in 2045 (CVWD, 2011). Therefore, the demand associated with the South Site Alternative and future developments would not significantly affect surface or groundwater levels in the vicinity of the South Site. Furthermore, projects that may be constructed in the vicinity of the South Site are required to comply with the CWA as it relates to stormwater and point source discharges. Compliance with USEPA's stormwater pollution prevention requirements, adherence to the BMPs listed in Section 2.2.3 of the EA, and the fact that 100 percent of stormwater flows associated with a 100-year, 3-hour storm event would be retained on site would prevent development associated with the South Site Alternative from contributing to cumulatively considerable adverse stormwater-related effects. Therefore, implementation of the South Site Alternative would not contribute to cumulatively considerable adverse impacts to water resources.

Air Quality

Past, present, and future development projects contribute to a region's air quality conditions on a cumulative basis; therefore, by its very nature, air pollution is largely a cumulative impact. No single project is sufficient in size to, by itself, result in nonattainment of the NAAQS. If a project's individual emissions contribute toward exceedance of the NAAQS, then the project's cumulative impact on air quality would be significant. In developing attainment designations for criteria pollutants, the USEPA considers the relevant region's past, present and future emission levels. As stated in Section 3.3.2 of Appendix H of the EA, the USEPA has designated the SSAB as nonattainment (Severe 15) for O_3 and nonattainment (serious) for $PM_{2.5}$. All other NAAQS are designated as unclassified or in attainment. The main source of CAP emissions from foreseeable development is mobile sources from automobiles, the generation of which will be reduced as the fuel efficiency increases. As automobiles use less, or even run without gasoline, emissions of CAPs per mile will decrease.

Emission estimates for the South Site Alternative in the cumulative year 2040 were estimated using the CalEEMod air quality modeling program and are included in Appendix N of the EA. Increased gas mileage and improved fleet emission controls of trucks and vehicles in the future are accounted for in CalEEMod. The increase in future gas mileage is attributed to improved fuel efficiency technology and stricter federal and state regulations. Therefore, under future year conditions, emissions resulting from the South Site Alternative are expected to be less than opening year, and would continue to be below *de*

minimis thresholds. The South Site Alternative would not cumulatively adversely impact the region's air quality, and BMPs listed in Section 2.2.3 of the EA as well as mitigation measures provided under the **Mitigation Measures** heading, below, would further reduce project-related emissions.

Climate Change

Methodology

Climate change is a global issue that is not being caused by any single development project, but by global cumulative increases in atmospheric GHG concentrations. Thus, global warming is most effectively addressed on a global or regional level. California's global warming policies and legislation (most notably Executive Order [EO] S-3-05 and AB 32) are intended to be regional approaches to ensure that statewide emissions are reduced substantially in the future (to levels much lower than existing levels).

No project-specific quantitative limits have been established by Riverside County, the California Air Resources Board (CARB), USEPA, or any other state or federal agency for climate change or GHG emissions. While there is no federal guidance memo related to the consideration of climate change impacts in NEPA documents (a former 2016 CEQ guidance memorandum was withdrawn with issuance of EO 13783), this EA includes a quantification of GHG emissions resulting from the South Site Alternative (in carbon dioxide equivalents [CO_2e]) and discussion of reduction measures to address comments received during scoping.

In addition to quantification of GHG emissions and recommended reduction measures, this EA considers the impacts of the South Site Alternative in relation to the GHG reduction targets established by the state of California and compliance with the City's Climate Act Plan. Due to the inherent nature of climate change, GHG impacts are considered to be exclusively cumulative impacts. Therefore, assessment of significance is based on a determination of whether the GHG emissions from a project represent a cumulatively considerable contribution to the global atmosphere and conforms to the applicable CARB, CAT, and Cathedral City's Climate Action Plan (CCCAP) measures.

Impact Assessment

Development of South Site Alternative would result in an increase in GHG emissions related to construction, mobile sources (trips generated by the project), stationary sources (components of the South Site Alternative that directly emit GHGs from the combustion of natural gas or diesel in boilers, emergency generators, and HVAC units), and indirect sources related to electricity (combustion of fuels use to produce electricity), solid waste (solid waste decomposition at the landfill and haul trucks), wastewater processing (decomposition of waste and electric and diesel pumps), and water transport (electricity and diesel pumps).

USEPA- and CARB-approved CalEEMod.2016.3.2 was used to estimate construction, area, energy, mobile, stationary, water and wastewater, and solid waste project-related GHG emissions. Model input and output files are provided in Appendix N of the EA. The trip generation rates used to estimate GHG emissions are derived from the TIA (Appendix K of the EA). **Table 5** provides a breakdown of project-related GHG emissions for the South Site Alternative.

TABLE 5
PROJECT-RELATED UNMITIGATED ANNUAL GHG EMISSIONS

Emission Source	GHG Emissions (MT CO_2e)		
			South Site Alternative
Construction[1]			
Construction			1,318
Operation			
Area			0
Mobile (Vehicle Trips)			7,044
Stationary Sources			802
Energy Usage			2,474
Solid Waste			339
Water/Wastewater			189
Operation Subtotal			*10,848*
Total Project-Related GHG Emissions			**12,166**

Notes: 1 – Construction is based on a 12-month schedule and will only occur during the year 2019.
Source: CalEEMod, 2016.

GHG emissions resulting from the South Site Alternative are primarily indirect (either indirect mobile emissions from delivery, patron, and employee vehicles or indirect off-site electricity generation, waste pickup, water and wastewater transport, etc.). The federal government has enacted measures that would reduce GHG emissions from mobile sources, some of which have been accounted for in the air quality model used to estimate mobile emissions. BMPs have been incorporated into the project design to reduce project-related GHG emissions and are listed in Section 2.2.3 of the EA. Construction BMPs include reduced idling of heavy equipment, thereby, reducing CO_2 during the construction of the South Site Alternative. Operational BMPs would reduce indirect GHG emissions from electricity use, water and wastewater transport, and waste transport through the installation of energy efficient lighting, heating and cooling systems, low-flow appliances, drought resistant landscaping, and recycling receptacles. Operational BMPs would also reduce indirect mobile GHG emissions by requiring adequate ingress and egress to minimize vehicle idling and preferential parking for vanpools and carpools to reduce project-related trips. Therefore, with the implementation of all GHG reduction measures into the project design, the South Site Alternative would not result in a significant adverse cumulative impact associated with climate change.

As discussed in Appendix H of the EA, CARB identifies the GHG reduction targets of the state and the types of measures that will be used to reach them in California's adopted Climate Change Scoping Plan. Of the approximately 126 strategies and measures identified in the Scoping Plan that would achieve a statewide reduction in GHG emissions, only two would apply to the South Site Alternative (refer to **Table 6**). The other policies do not apply to the South Site Alternative because they either apply to state entities, such as CARB, are planning-level measures, or they apply to particular industries, such as the auto repair industry. In addition to the State's GHG reduction targets, CCCAP identifies strategies to reduce GHG emissions. As shown in **Table 6**, the South Site Alternative would comply with California's and Cathedral City's applicable emission reduction strategies.

TABLE 6
COMPLIANCE WITH STATE EMISSIONS REDUCTION STRATEGIES

Regulation or Policy	Project Compliance
EO S-3-05 / AB 32 Strategy	
Diesel Anti-Idling: In July 2004, CARB adopted a measure to limit diesel-fueled commercial motor vehicle idling.	The South Site Alternative would be located on trust lands and thus not subject to CARB restrictions on on-site diesel-fueled commercial vehicle idling. BMPs provided in Section 2.2.3 of the EA would make the project consistent with this strategy.
Achieve 50 percent statewide Recycling Goal: Achieving the State's 50 percent waste diversion mandate as established by the Integrated Waste Management Act of 1989, (AB 939, Sher, Chapter 1095, Statutes of 1989), will reduce climate change emissions associated with energy intensive material extraction and production as well as methane emission from landfills. A diversion rate of 48 percent has been achieved on a statewide basis. Therefore, a 2 percent additional reduction is needed.	Solid waste services are expected to be provided by Burrtec, which is subject to the state's recycling requirements. The development would not affect County diversion goals as waste from tribal land is classified as out-of-state waste and is not calculated in local waste diversion statistics. Although the diversion stream will not be affected, the waste stream would increase. BMPs provided in Section 2.2.3 of the EA would make the project consistent with this strategy.
Water Use Efficiency: Approximately 19 percent of all electricity, 30 percent of all natural gas, and 88 million gallons of diesel are used to convey, treat, distribute and use water and wastewater. Increasing the efficiency of water transport and reducing water use would reduce greenhouse gas emissions.	With implementation of BMPs provided in Section 2.2.3 of the EA, water use would be reduced through installation of low-flow appliances and the installation of drought-tolerant landscaping, which would make the project consistent with this strategy.
Cathedral City CAP	
Solid Waste • **Diversion:** Increase solid waste diversion to achieve an average annual goal of 65 percent through 2020. • **Food Waste Composting at Restaurants:** Restaurant composting program for food waste with a goal to reach all restaurants that serve more than 100 meals a day. • **Recyclable Take-Out Containers:** Promote/mandate take-out alternative containers with a goal to eliminate the use of polystyrene packaging.	The Cathedral City CAP identifies the solid waste diversion strategy as a residential measure; therefore, the retail and recreational land uses that would be developed as a result of the South Site Alternative would not be subject to this reduction strategy. The project would work to achieve City waste diversion goals through the implementation of the 50 percent statewide recycling goal as discussed above. In addition, all restaurants developed under the South Site Alternative serving greater than 100 meals per day would be encouraged to implement a composting program for food waste, and the Tribe will promote/mandate the use of non-polystyrene take-out containers. These measures are included as BMPs in Section 2.2.3 of the EA.
Water • **Conservation Ordinance:** • Build on and exceed current CVWD water conservation ordinance by 15% community-wide by 2020. • Build on ordinance with goal to exceed current commercial-sector water conservation ordinance by 20 percent community-wide by 2020. • **Drought Tolerant Planting:** Promote and augment City, DWA and CVWD rebates for drought tolerant planting, turf replacement and buy-back.	The Tribe will implement the BMPs provided in Section 2.2.3 of the EA, including the installation of low-flow appliances and drought-tolerant landscaping. These measures will help achieve the City's water conservation goals.
Commercial Buildings • **Peak Demand Reduction:** Collaborate with SCE and encourage 200 businesses to enroll in Energy Efficiency and Demand Response programs such as the Summer Discount Program. • **Energy-Efficient, Commercial-Sector Lighting:** With DCEP promote and leverage existing incentives for efficient lighting with special local focus on building owner education and action with goal to eliminate any remaining T-12 lamps in commercial buildings. • **"The Temperature Club":** Promote community partnership through policies to adjust indoor temperatures to save/degree.	All proposed facilities would be designed to be energy efficient, consistent with the BMPs incorporated into the project design listed in Section 2.2.3 of the EA.

Regulation or Policy	Project Compliance
• **Lighting Controls:** Promote SCE programs to encourage energy-efficient lighting linked to building controls and occupancy sensors. • **"Cool Roofs":** Promote the installation of reflective roofing on commercial properties in the community with recognition for first ten early adopters.	
Governmental Initiatives • **Commercial PACE Program:** Partner and aggressively promote commercial PACE program to provide commercial property owners —from retail to resorts—with property-secured funding for 100% of the cost of energy efficiency upgrades/renewable energy installations. • **Green Building Program**. Promote Voluntary Green Building Program to prepare for enhanced Title 24 requirements and green building standards. • **Green Building Support Services**. Advance the Voluntary Green Building Program to mandatory green building requirement with technical support services. • **New and Efficient Construction**. Promote the Savings by Design Program from SCE for new commercial buildings.	The Tribe shall install energy efficient appliances in all buildings in accordance with the BMPs provided in Section 2.2.3 of the EA. The buildings will be constructed generally consistent with Title 24 requirements and green building standards as adopted under the Tribal Building and Safety Code.
Transportation ▪ **Car-Pooling and Mass Transit:** Promote "Shared Vehicle at Work" programs with a goal to increase carpooling and mass transit by 20% with a "guaranteed-ride home". ▪ **Charging Stations:** Foster public/private partnerships to promote 10 additional public access EV charging stations for existing EV and NEV fleets. ▪ **Van Pools:** Partner and recognize all CC major employers with over 50 employees for van pools. ▪ **Car Sharing:** Promote ZIP and/or other Car Share programs through preferential parking and promotion with signage with a goal to serve 5% of existing drivers who each reduce their driving by 25%. ▪ **Plug-In Electric Vehicle Charging Stations:** Seek grant funding to install 10 EV charging stations on public and private property and promote Plug-In Electric Vehicles for public use. ▪ **Visitor Shuttles:** Collaborate with local hotels and resorts to support and establish effective point-to-point transportation for visitors, e.g. shuttles to airports, hotels, and business districts.	All workplaces shall promote employee rideshare programs and the use of nearby mass transit. Preferential parking for ZIP cars and other rideshare vehicles shall be implemented in accordance with the BMPs outlined in Section 2.2.3 of the EA to further promote workplace and consumer ridesharing. The Tribe shall consider and to the extent feasible will incorporate preferential parking for Plug-In Electric Vehicles, along with the installation of corresponding EV charging stations into the project design. In addition, the Tribe shall provide shuttle service to and from population centers as feasible.
Note: EO = Executive Order; AB= Assembly Bill. Source: CARB, 2017; City of Cathedral City, 2013.	

The effect of climate change on the South Site Alternative is also considered in this EA. Average temperature in County could increase, resulting in projected extreme heat days and a greater chance of extreme weather conditions. The intensity of these effects is uncertain and will depend on future GHG emissions worldwide (CEC, 2012).

No characteristics of the South Site Alternative are unique or especially vulnerable to the impacts from climate change. The effects of increasing temperatures and frequency of extreme heat days or extreme weather conditions will be dampened by the use of on-site HVAC. The South Site is located at approximately 300 feet above mean sea level and thus is not susceptible to impacts from sea level rise. The South Site is located in a primarily urban area, which is adequately served by emergency services and, therefore, is not uniquely sensitive to increased extreme weather conditions as a result of climate change.

Biological Resources

The South Site does not contain unique or sensitive ecosystems or biological communities. No federally-listed special-status species have the potential to occur on the South Site. One state-listed special-status species has the potential to occur on or in the vicinity of the site: the western yellow bat, a state-listed species of special concern. Mitigation measures discussed under the **Mitigation Measures** heading, below, require preconstruction surveys prior to construction activities for the western yellow bat as well as for migratory nesting birds, should construction activities occur during the migratory bird breeding season. The South Site does not contain potentially jurisdictional wetlands or Waters of the U.S. Therefore, implementation of South Site Alternative would not contribute to cumulatively considerable adverse impacts to biological resources.

Cultural Resources

BMPs have been included in Section 2.2.3 of the EA to address unknown cultural resources found during project construction, and similar measures would be required for any development in the vicinity of the South Site. With implementation of these BMPs measures, no cumulatively considerable adverse impacts to cultural resources would occur as a result of construction of the South Site Alternative.

Socioeconomic Conditions

Cumulative socioeconomic effects could occur in the project area as the result of developments that affect the lifestyle and economic well-being of residents. When considered with other growth in the City, particularly the Tribe's planned expansions of its other two casino resorts in Palm Springs and Rancho Mirage, there may be cumulative socioeconomic effects including impacts to economy, employment, housing availability, problem gambling, and crime. The South Site Alternative, in addition to the Tribe's other proposed projects in the region, would result in beneficial impacts to economic output, tax revenues, and employment, as well as various beneficial impacts to the Tribe. Further, planning documents for the region will continue to designate land uses for businesses, industry, and housing, as well as plan public services to anticipate and accommodate growth in the region. Therefore, no significant cumulative socioeconomic effects would occur.

Transportation/Circulation

2040 Baseline Traffic Volumes

Cumulative baseline traffic volumes include the forecasted traffic from the Cathedral City General Plan traffic model, which utilizes a refined version of the Coachella Valley Area Transportation Study forecasting model (Appendix K of the EA). To calculate 2040 volumes from the 2035 traffic model predictions, a 1.5 percent per year increase in traffic volume was assumed. Tables 5-13 and 5-17 of Appendix K of the EA shows traffic volumes at study intersections and roadway segments for cumulative baseline conditions (2040) without implementation of South Site Alternative. The following study intersections and roadway segments are expected to operate at unacceptable levels of service in the cumulative year:

- Date Palm Drive/Buddy Rogers Avenue;
- Cathedral Canyon Drive/Paseo Real;
- East Palm Canyon Drive between Golf Club Drive and Perez Road;
- East Palm Canyon Drive between Perez Road and Cathedral Canyon Drive;
- East Palm Canyon Drive between Date Palm Drive and Frank Sinatra Drive; and
- East Palm Canyon Drive between Frank Sinatra Drive and Country Club Drive.

2040 Cumulative Year Plus the South Site Alternative

Tables 5-16 and 5-20 of Appendix K of the EA provide a summary of the LOS at each study intersection and roadway segment, respectively, under cumulative baseline (2040) conditions with implementation of the South Site Alternative. These tables show that two study intersections and four roadway segments are projected to operate unacceptably in cumulative year 2040 (refer to Section 4.7 of the EA for acceptable operation criteria). With the installation of traffic signals and reconfiguration of turning lanes at Cathedral Canyon Drive/Paseo Real (refer to the **Mitigation Measures** heading, below), the South Site Alternative would have a less-than-significant impact on study area intersections, as shown in Table 5-24 of Appendix K of the EA. However, because the segments of East Palm Canyon Drive between Golf Club Drive and Canyon Plaza Drive would not increase the v/c ratio by 0.05 or greater, it is not considered a significant impact. Further, the segments between Date Palm Drive and Country Club Drive are projected to already exceed a v/c ratio of 1.0 under baseline cumulative conditions without project related traffic. Contributions to traffic funds for roadway improvements, as described in the **Mitigation Measures** heading, below, will reduce roadway segment impacts to less-than-significant levels.

Land Use

If taken into federal trust, the South Site would not be subject to state or local land use jurisdiction. However, development on the South Site would not disrupt neighboring land uses or prohibit access to neighboring parcels. Further, the South Site Alternative is generally consistent with land use designations within the City's General Plan. As such, the project would not result in changes to local land use patterns. Future cumulative developments would be subject to City and County land use and zoning restrictions and would be required to comply with General Plan policies. Therefore, no cumulatively considerable adverse land use impacts would occur.

Public Services

Water Supply

The projected water demands for the South Site Alternative is approximately 38 AFY, which represents only approximately 0.02 percent of the 189,700 AFY of total outflows anticipated to occur from the western portion of the Coachella Valley Groundwater Basin in 2045 (CVWD, 2011). As described in detail in Appendix F of the EA, the water supply infrastructure in the vicinity of the South Site was constructed under the assumption that future development on the site would demand significantly more water than is projected under the South Site Alternative. Additionally, other permitted developments in the region would be required to pay service fees to the Desert Water Agency (DWA) and fund any infrastructure improvements or modifications required by those developments. Therefore, the construction and operation of the South Site Alternative in conjunction with other reasonably foreseeable regional development would not result in a cumulatively significant adverse impact to water supply providers.

Wastewater Service

As described in Section 4.9.1 of the EA, under the South Site Alternative wastewater generated at the South Site would be conveyed by DWA sewage lines to the Coachella Valley Water District's (CVWD's) Water Reclamation Plant 10 (WRP-10) treatment facility, which currently has a significant surplus capacity of approximately 17.1 million gallons per day (MGD; compared to the total capacity of 18.0 MGD) to treat wastewater flows from both the South Site Alternative and other future developments in the region. As with the water supply infrastructure, the wastewater conveyance infrastructure in the vicinity of the South Site was sized to accommodate significantly higher wastewater flows than is

anticipated to occur under the South Site Alternative (Appendix F of the EA). Furthermore, future development projects would be required to pay service fees to DWA and/or CVWD and fund any improvements or modifications to existing wastewater conveyance and treatment infrastructure necessary to serve these projects. Therefore, development of the South Site Alternative in conjunction with other reasonably foreseeable projects in the region would not result in a significant cumulative impact to wastewater service providers.

Solid Waste Service

Due to the likely excess capacity at Salton City Landfill (refer to Section 4.9.1 of the EA), the development of the South Site Alternative in conjunction with the other planned development projects listed in the *Cumulative Setting* subheading, above, would not result in a cumulatively considerable adverse effect to solid waste service.

Schools

Implementation of the South Site Alternative would not substantially increase enrollment or otherwise adversely affect public or private schools. Therefore, development of the South Site Alternative in conjunction with the other planned development projects listed above would not result in a cumulatively adverse effect to school facilities.

Recreation

As described in Section 4.9.1 of the EA, development and operation of the South Site Alternative would not adversely affect any recreational activities. Therefore, no cumulatively considerable adverse effects would occur.

Electricity and Propane

As described in Section 3.9.6 of Appendix H of the EA and Section 4.9.1 of the EA, there is considerable existing electricity and natural gas infrastructure on and in the vicinity of the South Site, and the South Site Alternative would not result in significant adverse impacts to electricity or natural gas service providers. The individual planned projects listed above would be responsible for paying development, connection, or user fees to the utility if necessary, to receive services, and the utilities would be compensated for any capital improvements through user rates. Therefore, implementation of the South Site Alternative would not result in cumulatively considerable adverse effects to electricity or natural gas providers.

Law Enforcement

Increased demand for law enforcement services resulting from cumulative developments may require additional facilities, equipment, or employees. New development, including the cumulative projects listed above, would fund in part City services, including law enforcement, through development fees and property tax. In addition, as described in Section 1.3.2 of the EA Section 11.7 of the Compact requires that if it is determined that law enforcement, fire protection, emergency medical services (EMS), and any other public services will be burdened as a result of the Proposed Project despite the mitigation measures identified in this EA and the voluntary payment of the development impact fees identified in Chapter 3.17 of the City's Municipal Code, prior to commencement of the South Site Alternative, and no later than the issuance of the Final TEIR to the County, the Tribe shall offer to commence negotiations with the City and if necessary, the County. These negotiations would allow for all parties to enter into enforceable

intergovernmental agreements with respect to the matters set forth in Section 11.7(a) of the Compact to ensure that the mitigation contemplated herein is sufficient.

Fire Protection and Emergency Medical Services

New development, including the cumulative projects listed above, would be required to fund City services, including fire protection and emergency medical services, through development fees and property taxes. Although it is not expected that the South Site Alternative would require additional fire protection services or emergency medical services from the Cathedral City Fire Department (CCFD) that would trigger the need to construct new facilities, as described in Section 1.3.2 of the EA Section 11.7 of the Compact requires that if it is determined that law enforcement, fire protection, emergency medical services (EMS), and any other public services will be burdened as a result of the Proposed Project despite the mitigation measures identified in this EA and the voluntary payment of the development impact fees identified in Chapter 3.17 of the City's Municipal Code, prior to commencement of the South Site Alternative, and no later than the issuance of the final EA to the County, the Tribe shall offer to commence negotiations with the City and if necessary, the County. These negotiations would allow for all parties to enter into enforceable intergovernmental agreements with respect to the matters set forth in Section 11.7(a) of the Compact to ensure that the mitigation contemplated herein is sufficient.

Visual Resources

New development, including cumulative projects listed in the *Cumulative Setting* subheading, above, would be consistent with local land use regulations, including associated design guidelines. Cumulative effects would include a shift from open, undeveloped lots to views of developed areas, as well as an increase in the density of urban uses within the City and County. However, the South Site Alternative would be visually compatible with urban land uses in the project vicinity and would be generally consistent with local policies related to design, landscaping, and signage. Additionally, with the implementation of BMPs outlined in Section 2.2.3 of the EA, the South Site Alternative would not contribute towards adverse cumulative impacts to visual resources.

Noise

Approved projects in the vicinity of the South Site would be required to comply with any applicable noise regulations during construction and operation. In the cumulative year 2040, the South Site Alternative traffic volumes would not increase over the projected maximum of 4,782 vehicles per day in the opening year (Section 4.11.1 of the EA); however, there would be an increase in background traffic volume on local roadways, as captured in the estimated 1.5 percent annual growth rate (Appendix K of the EA). The South Site Alternative's contribution to traffic volumes under cumulative conditions would not double the current traffic on local roadways and thus would not result in an audible increase in ambient noise levels at nearby sensitive receptors (refer to Section 4.11.1 of the EA). Therefore, the South Site Alternative's contribution to cumulative noise impacts would be less than significant.

Hazardous Materials

Any future cumulative development projects in the vicinity of the South Site would be required to comply with applicable federal and state regulations concerning hazardous materials management. With the implementation of BMPs outlined in Section 2.2.3 of the EA, no cumulatively considerable adverse impacts related to hazardous materials would occur as a result of the South Site Alternative.

Indirect Effects

According to CEQ regulations, indirect effects are removed in time or in distance from a project, but are caused by the project and are reasonably foreseeable. These include growth-inducing effects, as well as changes in land use, population density, and related effects on natural systems (40 CFR §1508.8).

Construction of Off-Site Traffic Mitigation Improvements

Implementation of the South Site Alternative would require roadway improvements at the following intersections: Buddy Rogers Avenue/Date Palm Drive and Cathedral Canyon Drive/Paseo Real. These intersections consist of previously disturbed areas with only landscaped vegetation present. Further, the restriping of the intersections does not require widening of the roadway, and installation of traffic signals will result in minimal ground disturbance. No historic properties or known archaeological sites or cultural materials are located within the intersection improvement areas (refer to Appendix J of the EA). As no road widening is required, intersection improvements will result in no net loss of habitat, and will not result in adverse impacts to biological resources. Construction of the off-site mitigation improvements would require lane or shoulder closures; however, the closures would be temporary and would not cause a significant traffic impact. Adherence to federal and state environmental regulations during construction of intersection improvements would avoid any potentially significant indirect effects from off-site intersection improvements.

Construction of Off-Site Infrastructure Improvements

Implementation of the South Site Alternative would require additional water and sewer lines, as shown on **Figure 4.9-4**. This includes the placement of a 12-inch sewer main and 12-inch water main along Van Fleet Street and East Palm Canyon Drive, with an additional segment of 12-inch sewer main along D Street. No portions of the proposed pipelines would be placed outside of previously disturbed roadways. No historic properties or known archaeological sites or cultural materials are located within the proposed pipeline route (refer to Appendix J of the EA). The proposed pipelines pass through ruderal/disturbed habitat. Once construction is complete, the pipeline corridor will be repaved. Utility improvements will result in no net loss of habitat, and will not result in adverse impacts to biological resources. Construction of the off-site infrastructure improvements would require lane or shoulder closures; however, the closures would be temporary and would not cause a significant traffic impact. Adherence to federal and state environmental regulations during utility construction would avoid any potentially significant indirect effects from off-site utility construction.

Growth-Inducing Effects

Although the project is considered an anchor for downtown development within the City, construction and operation of the South Site Alternative would not in itself induce growth. The number of new employees requiring new facilities (including housing and schools) would not be significant (refer to the *Socioeconomic Resources/Environmental Justice* subheading, above); as such, no new housing, schools, or other facilities would be constructed as a result of development on the South Site. The project's contribution to the planned development of the City's planned Downtown/Art and Design Village has the potential to induce economic growth within the City. This output would be generated from direct, indirect, and induced economic activity. Indirect and induced output could stimulate further commercial growth; however, such demand would be diffused and distributed among a variety of different sectors and businesses in the City. Furthermore, if the project were not approved, similar levels of economic growth in the Downtown/Art and Design Village would still be likely occur on the South Site in the future. The construction of the South Site Alternative would only induce economic growth sooner than if the project

were not approved. As such, significant regional commercial growth inducing impacts would not be anticipated to occur under the South Site Alternative. The development of the City's downtown area is subject to the City General Plan policies as well as environmental review requirements pursuant to California Environmental Quality Act (CEQA). Therefore, no significant adverse growth-inducing effects relevant to any environmental issue area would occur.

MITIGATION MEASURES

Mitigation measures to be implemented during construction and operation of the South Site Alternative are summarized in **Table 7** below. All mitigation is enforceable because it is 1) inherent to the project design; and/or 2) required through provisions of the Tribal-State Compact, or federal or state statute, where applicable.

TABLE 7

PROPOSED MITIGATION MEASURES FOR THE SOUTH SITE ALTERNATIVE

Resource Area	Proposed Mitigation
Air Quality Construction	The following dust suppression measures are recommended to be implemented to control the production of fugitive dust (PM_{10}) and prevent wind erosion of bare and stockpiled soils: A. Spray exposed soil with water or other suppressant twice a day or as needed to suppress dust. B. Use non-toxic chemical or organic dust suppressants on unpaved roads and traffic areas. C. Minimize dust emissions during transport of fill material or soil by wetting down loads, ensuring adequate freeboard (space from the top of the material to the top of the truck bed) on trucks, cleaning the interior of cargo compartments on emptied haul trucks before leaving a site, and/or covering loads. D. Promptly clean up spills of transported material on public roads. E. Restrict traffic speeds on site to 15 miles per hour to reduce soil disturbance. F. Provide wheel washers to remove soil that would otherwise be carried off site by vehicles to decrease deposition of soil on area roadways. G. Cover dirt, gravel, and debris piles as needed to reduce dust and wind-blown debris. The following measures are recommended to be implemented to reduce emissions of criteria pollutants, greenhouse gases (GHGs), and diesel particulate matter (DPM) from construction. H. The Tribe shall control criteria pollutants and GHG emissions from the facility by requiring all diesel-powered equipment be properly maintained and minimize idling time to five minutes when construction equipment is not in use, unless per engine manufacturer's specifications or for safety reasons more time is required. Since these emissions would be generated primarily by construction equipment, machinery engines shall be kept in good mechanical condition to minimize exhaust emissions. The Tribe shall employ periodic and unscheduled inspections to accomplish the above mitigation. I. Require all construction equipment with a horsepower rating of greater than 50 be equipped with diesel particulate filters, which would reduce approximately 85 percent of DPM. J. Require all construction equipment with a horsepower rating of greater than 50 be equipped with California Air Resources Board (CARB) rated Tier 3 engines, with the exception of scrapers. K. Require the use of low reactive organic gases (ROG; 150 grams per liter or less) for architectural coatings to the extent practicable. L. Environmentally preferable materials, including recycled materials, shall be used to the extent readily available and economically practicable for construction of facilities.
	A.
Biological Resources	The following measures are recommended for the South Site Alternative to avoid and/or reduce impacts to the western yellow bat: A. A qualified biologist shall conduct a habitat assessment of palms within the North Site no more than three days prior to the start of construction occurring within 100 feet of palms. If the habitat assessment reveals suitable palm skirts large enough to accommodate roosting bats, the qualified biologist shall conduct a sunset fly-out survey on palms with skirts. Should bats be detected, identified palms shall be flagged and buffered by 100 feet.

Resource Area	Proposed Mitigation
	B. Should the avoidance of identified bat-roosting palms not be feasible, replacement of suitable bat roosting habitat shall occur at a 1:1 ratio elsewhere on the North Site outside clearing limits. Replacement habitat may consist of bat boxes or similar structures. A qualified biologist shall determine bat box placement and a 100-foot avoidance buffer will be placed around each box. C. Palms identified to contain roosting bats that are proposed for removal shall be removed as late in the day as possible to reduce the likelihood of potential bat mortality. On the first day, limbs may be removed as late in the day as possible. This amount of disturbance should cause roosting bats to seek other roosting habitat. The rest of the palm can then be harvested on the afternoon of the second day. A qualified biologist shall be present for the removal of these palms in the event that bats are found to have been roosting. The following measures are recommended for the South Site Alternative to avoid and/or reduce impacts to potentially nesting migratory birds and other birds of prey: D. If construction activities (e.g., building, grading, ground disturbance, removal of vegetation) are scheduled to occur during the nesting season (February 15-September 15), a preconstruction nesting bird survey shall be conducted by a qualified biologist throughout the areas of suitable habitat within 500 feet of proposed construction activity. The surveys shall occur no more than 14 days prior to the scheduled onset of construction. If construction is delayed or halted for more than 14 days, another preconstruction survey for nesting bird species shall be conducted. If no nesting birds are detected during the preconstruction survey, no additional surveys or mitigation measures are required. E. If nesting bird species are observed within 500 feet of construction areas during the surveys, appropriate "no construction" buffers shall be established. The size and scale of nesting bird buffers shall be determined by a qualified biologist and shall be dependent upon the species observed and the location of the nest. Buffers shall be established around active nest locations. The nesting bird buffers shall be completely avoided during construction activities. The qualified biologist shall also determine an appropriate monitoring plan and decide whether construction monitoring is necessary during construction activities. Monitoring requirements are dependent upon the species observed, the location of the nests, and the number of nests observed. The buffers may be removed when the qualified biologist confirms that the nest(s) is no longer occupied and all birds have fledged. F. If impacts (i.e., take) to migratory nesting bird species are unavoidable, consultation with USFWS shall be initiated. Through consultation, an appropriate and acceptable course of action shall be established.
Transportation/ Circulation	Prior to the initiation of project construction, the Tribe shall complete the traffic mitigation measures identified below or make an in lieu fair share contribution equivalent to the cost of the mitigation measures identified below to fund completion of the mitigation measures. Notwithstanding the foregoing, the Tribe may complete one of the mitigation measures identified below and contribute its fair share contribution to fund the other mitigation measure, complete both of the mitigation measures, or contribute its fair share contribution to fund completion of both the mitigation measures. The following mitigation measures are proposed for study intersections under the South Site Alternative: A. **Buddy Rogers Avenue/Date Palm Drive**: On the eastbound approach, restripe to include one left turn lane and one right turn lane. On the northbound approach, restripe to include one left turn lane and three through lanes. On the southbound approach, restripe to include two through lanes and one shared through-right lane. Install a traffic signal. The percentage of any mitigation cost to the Tribe for the South Site Alternative is 39 percent (Cumulative Year 2040 only). B. **Cathedral Canyon Drive/Paseo Real**: On the eastbound and westbound approaches, restripe to include one shared left-through-right lane. On the northbound and southbound approaches, restripe to include one left turn lane, one through lane, and one shared through-right turn lane. Install a traffic signal. The percentage for any mitigation cost to the Tribe for the South Site Alternative is 16 percent. C. The Tribe shall contribute an equivalent mitigation payment for the Transportation Uniform Mitigation Fee (TUMF), Transit Development Fee, and City Facilities Impact Fees, current at the time of construction.
Public Services and Utilities	The following measures are recommended for the South Site Alternative: A. In accordance with Section 11.7 of the Compact, prior to commencement of the South Site Alternative, and no later than the issuance of the Final TEIR to the County, the Tribe shall offer to commence negotiations with the City and if necessary, the County, related to the provision of public services to meet the increase in demands resulting from the development alternatives. These negotiations would occur if it is determined that law enforcement, fire protection, emergency medical services, and any other public services will be burdened as a result of the project despite voluntary payment of the development impact fees identified in Chapter 3.17 of the City's Municipal Code as well as other identified mitigation measures. These negotiations would allow for all

Resource Area	Proposed Mitigation
	parties to enter into enforceable intergovernmental agreements with respect to the matters set forth in Section 11.7(a) of the Compact to address the estimated $90,195 net impact anticipated under the South Site Alternative. B.
Noise	The following measures are recommended for the South Site Alternative: A. The use of vibrational construction equipment shall be restricted such that vibration levels will not exceed 90 VdB at commercial building adjacent to the North and South Sites. Should any vibrational construction equipment be required for construction of the parking lot that results in vibration decibel levels that would exceed 90 VdB at the adjacent commercial building, a buffer or set back may be utilized. The Tribe may elect to establish a landscaped area within this buffer in place of parking facilities. B. Prior to construction, it shall be determined if the commercial building adjacent to the western boundary of the North Site is vacant. If it is occupied, or should it become occupied during construction, a temporary sound barrier shall be erected during construction on the western boundary of the North Site to reduce noise levels at adjacent commercial receptors by at least 2 dBA. C.
	D.

A.2 OTHER OFF-SITE ALTERNATIVES

Other off-site alternatives were considered that would involve a gaming development on (1) trust land already owned by the Tribe, (2) fee land already owned by the Tribe, or (3) land purchased for use.

TRIBALLY OWNED LAND

Exhibit E of the Tribe's Fee-to-Trust Application for the Section 33 Parcel provides a detailed description of tribally-owned parcels and the possibility for development upon these parcels. This description is herein incorporated by reference. Aside from the Section 33 Parcel (North Site), other tribally-owned lands are unsuitable for development for various reasons, including inaccessible terrain, sizing, proximity to neighborhoods, or other development restrictions.

As described in Section 1.2.2 of the EA, although the Tribe's Reservation encompasses over 30,000 acres, the total amount of tribally-owned land that is available for development of any kind is extremely small. The total amount of tribally-owned land that is available for gaming development is even smaller. The Tribe's total inventory of land that could be developed for any non-residential commercial purpose is approximately 480 acres. Of these 480 acres, approximately 214 acres is not eligible for a gaming project because it is land acquired in trust after 1988 that does not currently meet any of the exceptions provided in the IGRA; approximately 243 acres are either already developed or is subject to a development plan that does not contemplate a gaming use; approximately 10 acres house the existing Tribal cemetery including planned future expansion; and approximately 13.6 acres is the North Site, analyzed as the Proposed Project Alternative within the EA.

In addition to the land restrictions described above, the majority of tribal trust and fee land located on (and off) the Reservation is not suitable for development of this kind for one or more of the following reasons: (1) it has already been developed, (2) it is subject to land planning agreements between the Tribe and other jurisdictions or habitat conservation limitations which do not support such a land use, (3) it is not suitable for development because of its size or its location in inaccessible and/or rugged mountain terrain, (4) it lacks infrastructure necessary for development, or (5) some combination of these issues. The majority (approximately 8,640 acres) of tribally-owned trust and fee lands are located within the

Santa Rosa and San Jacinto National Monument and are undevelopable. In total, development restrictions apply to approximately 14,718 acres of tribal trust and tribal fee land, located both on- and off-Reservation, making those lands unsuitable for the proposed gaming development.

LAND NOT OWNED BY THE TRIBE

The cost of re-acquiring new parcels that are located in Palm Springs, Cathedral City, and Rancho Mirage is extremely high, compared to other parts of the country. Due to high acquisition costs and the location of several desirable resort communities within the Reservation boundaries, it is extremely difficult for the Tribe to re-acquire lands on the Reservation. The median price per acre in Palm Springs has climbed from a recession low in 2009 of $1,011,236 per acre to almost pre-recession levels. The median price per acre in 2017 year-to-date is now at $2,387,097. The pre-recession median price per acre in 2007 was $2,477,632. Generally speaking, these prices far outpace real estate prices on and near Indian reservations in other parts of the country. Despite the potential infeasibility of acquiring new parcels in the area, an evaluation of the South Site, which is not owned by the Tribe, was conducted and is summarized above.

A.3 CONCLUSION

Off-site alternatives are not feasible for a variety of reasons, including restrictions on existing tribally-owned lands, high acquisition costs of new parcels in the vicinity, and suitability for development on existing tribally-owned lands. Further, any off-site alternatives outside of the area identified by the City would not fulfill the joint vision of the City, Tribe, and CURC to redevelop and eliminate conditions of blight in downtown. As noted in Section 1.4 of the EA, the CURC and City have emphasized the importance of the proposed facility including a gaming component as an anchor to enable further growth of a walkable Downtown/Art and Design Village.

Moreover, as described in detail in the EA, the Tribe's preferred trust site (the North Site), is an infill site that has previously been developed and lacks sensitive resources. All environmental effects of the Proposed Project Alternative can be reduced to less than significant levels with mitigation. Thus, the consideration of an alternative site would be unlikely to substantially reduce or lessen the environmental effects of the project, and thus would not aid the BIA in its consideration of a reasonable range of alternatives under NEPA.

As shown in **Section A.1**, the South Site Alternative was subjected to a greater detail of analysis than the additional off-site alternatives described in **Section A.2**. However, the results of this analysis indicate that the South Site Alternative would not eliminate any of the significant effects of the Proposed Project Alternative, and the South Site Alternative would not as effectively meet the purpose and need of the project (as described within the EA) because the Tribe does not own the parcels encompassing the South Site. Therefore, this alternative was eliminated from consideration.

REFERENCES

California Air Resources Board (CARB), 2017. California's 2017 Climate Change Scoping Plan. Available online at: https://www.arb.ca.gov/cc/scopingplan/scoping_plan_2017.pdf. Accessed May 5, 2018.

California Energy Commission (CEC), 2012. *Our Changing Climate 2012 – Vulnerability & Adaptation to the Increasing Risks from Climate Change in California*. Available online at: http://www.energy.ca.gov/2012publications/CEC-500-2012-007/CEC-500-2012-007.pdf. Accessed June 15, 2018.

City of Cathedral City, 2009. *Comprehensive General Plan*. Available online at: http://www.cathedralcity.gov/services/planning/documents/general-plan. Accessed January 25, 2018.

City of Cathedral City, 2013. Cathedral City Climate Action Plan. May 2013. Available online at: http://www.cathedralcity.gov/home/showdocument?id=5048. Accessed June 12, 2018.

City of Rancho Mirage, 2018. Development Activity Summary. Available online at: https://www.ranchomirageca.gov/wp-content/uploads/2018/04/Development-Activity-Summary-Rtp-4-4-18.pdf. Accessed May 23, 2018.

Coachella Valley Water District (CVWD), 2011. Coachella Valley Water Management Plan 2010 Update Administrative Draft Subsequent Program Environmental Impact Report. SCH No. 2007091099. Available online at: https://www.water.ca.gov/LegacyFiles/irwm/grants/docs/Archives/Prop84/Submitted_Applications/P84_2014Drought/Indio%20Water%20Authority%20(201498760026)/Attachment%203%20-%20References%20(provided%20by%20CD)/References/CVWD_2011_Draft%20EIR%20CVWMP%202010%20Update.pdf. Accessed June 2018.

Federal Highway Administration (FHWA), 2006. *Construction Noise Handbook*. Available online at: https://www.fhwa.dot.gov/environment/noise/construction_noise/handbook/. Accessed January 26, 2018.

Federal Interagency Committee on Noise (FICON), 1992. *Federal Agency Review of Selected Airport Noise Analysis Issues*. August 1992. Available online at: http://www.gsweventcenter.com/Draft_SEIR_References/1992_08_Federal_Interagency_Committee_on_Noise.pdf. Accessed January 30, 2018.

Federal Transit Administration (FTA), 2006. *Transit Noise and Vibration Impact Assessment*. May 2006. Available online at: https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/FTA_Noise_and_Vibration_Manual.pdf. Accessed January 26, 2018.

Intergovernmental Panel on Climate Change (IPCC), 2014. Fifth Assessment Report. Climate Change 2014: Impacts, Adaptation, and Vulnerability. Available online at: http://www.ipcc.ch/report/ar5/wg2/. Accessed December 22, 2014.

APPENDIX B

SCOPING MEMORANDUM

AGUA CALIENTE BAND OF CAHUILLA INDIANS
CATHEDRAL CITY FEE-TO-TRUST CASINO PROJECT
NEPA SCOPING PROCESS SUMMARY REPORT

September 2018

1.0 INTRODUCTION

The Bureau of Indian Affairs (BIA) has initiated preparation of an Environmental Assessment (EA) in accordance with the requirements of the National Environmental Policy Act (NEPA) for the Agua Caliente Band of Cahuilla Indians (Tribe) proposed Cathedral City Casino Fee-to-Trust Casino Project in Cathedral City, California. The requested federal action consists of the transfer of 66 Riverside County Assessor's Parcel Numbers (APN) and adjacent right-of-way (ROW) totaling approximately 13.6 acres (North Site) from fee to trust status for purposes of gaming (Proposed Action). Refer to **Table 1** for a summary of the APN and ROW acreages for the North Site. The Tribe proposes to subsequently develop the North Site with a casino and associated facilities (Proposed Project).

TABLE 1
NORTH SITE PARCEL INFORMATION

APN	Acreage	APN	Acreage	APN	Acreage
687-201-005	0.100	687-203-010	0.168	687-206-001	0.110
687-201-006	0.100	687-203-011	0.170	687-206-002	0.113
687-201-007	0.197	687-203-012	0.089	687-206-003	0.113
687-201-008	0.100	687-203-013	0.087	687-206-004	0.114
687-201-009	0.100	687-203-014	0.171	687-206-005	0.040
687-201-010	0.198	687-203-015	0.074	687-206-006	0.079
687-201-011	0.399	687-204-001	0.168	687-206-007	0.060
687-202-001	0.171	687-204-002	0.100	687-206-008	0.045
687-202-002	0.085	687-204-003	0.076	687-206-009	0.110
687-202-003	0.087	687-204-004	0.088	687-206-010	0.112
687-202-004	0.110	687-204-005	0.088	687-206-011	0.066
687-202-005	0.132	687-204-006	0.087	687-206-012	0.049
687-202-006	0.121	687-204-007	0.086	687-206-013	0.111
687-202-007	0.101	687-204-008	0.086	687-206-014	0.063
687-202-008	0.080	687-204-009	0.086	687-206-015	0.052
687-202-009	0.101	687-204-013	0.102	687-206-016	0.114
687-202-010	0.130	687-204-014	0.102	687-208-015	0.363
687-202-011	0.091	687-204-016	0.969	687-208-022	0.688
687-202-012	0.401	687-205-005	0.223	687-208-023	0.212
687-202-015	0.776	687-205-006	0.110	687-208-024	0.057
687-203-008	0.087	687-205-007	0.136	687-208-025	0.019
687-203-009	0.085	687-205-008	0.133	687-208-026	0.037
				ROW	3.5
				North Site Total[1]	**13.6**

Notes: APN = Assessor Parcel Number; ROW = right-of-way
1 – Total may not add due to rounding

Public involvement in an EA is conducted at the discretion of the Lead Agency. For the Proposed Project, the BIA elected to conduct a 30-day scoping comment period and to hold a scoping meeting to solicit input from the public and agencies regarding the scope of the EA. The scoping process was also conducted to meet the requirements of the 2016 Gaming Compact between the Tribe and the State of California (Compact). This memorandum describes the EA scoping process, summarizes the issues raised during scoping, explains the range of alternatives to be addressed in the EA, and discusses the topics eliminated from detailed consideration. As further described in **Section 3.0**, no areas of controversy or concern were identified.

2.0 SCOPING PROCESS

Pursuant to the Compact, a Notice of Preparation (NOP) describing the Proposed Project and announcing a 30-day scoping period was prepared and circulated for public and agency review on December 29, 2017. The NOP, included as **Attachment A**, also announced the date and location of a public scoping meeting, described further in **Section 2.0**. The NOP was published in the *Desert Sun*, posted online at www.cathedralcitycasino.com, filed with the State Clearinghouse for distribution to state agencies, and was sent to various federal and local agencies through direct mailings (**Attachment B**). All comments received during the scoping process are included as **Attachment C**, and a transcript of the public scoping meeting is provided as **Attachment D**.

3.0 SCOPING MEETING

A public scoping meeting was conducted at 6:00 pm on January 18, 2018, at the Doubletree by Hilton, located at 67967 Vista Chino, Cathedral City, to provide information on the Proposed Action, Proposed Project, and to solicit public input on the EA scope and alternatives. A court reporter/stenographer was available at the public scoping meeting to record oral comments, and the transcript is included in **Attachment D**. Approximately 10 people attended the public meeting; of these, one provided oral comments. Sign-in sheets for the public meeting are also included in **Attachment D**. Comment forms were available for attendees to provide input during the scoping meeting or to take home and mail later; none were returned.

4.0 ISSUES IDENTIFIED DURING SCOPING

Comments received during the scoping period are shown in **Table 2**, and the issues that were raised during the scoping period have been summarized below. No areas of controversy were identified.

TABLE 2
SCOPING COMMENTS RECIEVED

Number	First Name	Last Name	Organization	Date
Agencies				
A-1	Gayle	Totton, MA, PhD	Native American Heritage Commission	1/5/2018
A-2	Johnson P.	Abraham	California Department of Toxic Substances Control	1/10/2018
A-3	Lijin	Sun, JD	South Coast Air Quality Management District	1/24/2018
A-4	Anita M.	Petke	SunLine Transit Agency	1/17/2018
A-5	Anita	Petke	SunLine Transit Agency	1/26/2018
Private Individuals				
P-1	Donald	Damron		1/24/2018
Public Hearing				
PH-1	Stone	James	City of Cathedral City	1/18/18

COMMENTS

A-1: Gayle Totton, MA, PhD, Native American Heritage Commission

- Follow tribal consultation requirements pursuant to Section 106 of the National Historic Preservation Act (NHPA).
- Consult with Native American tribes.
- Follow Native American Heritage Commission (NAHC) procedures for identifying cultural resources, including contacting the appropriate regional California Historical Research Information System (CHRIS) Center for a records search, and contacting the NAHC for a Sacred Lands File search and a Native American Tribal Consultation List.
- Note that a lack of surface evidence of archaeological resources does not preclude their subsurface existence.
- The environmental document should include a separate section for tribal cultural resources and conduct AB 52 consultation under the California Environmental Quality Act (CEQA).

A-2: Johnson P. Abraham, California Department of Toxic Substances Control

- Identify and determine whether current or historic uses of the site have resulted in any release of hazardous materials.
- Conduct a Phase I Environmental Site Assessment to identify recognized environmental conditions (RECs).
- Investigate, sample, and remedy RECs, if any, prior to new development or construction.
- If a part of the Proposed Project, demolition of structures containing lead-based paints, mercury, and asbestos-containing materials (ACMs) should be addressed.
- Residual pesticides may be present in the soil, if the site was previously used for agriculture. Investigation and mitigation is recommended.
- Evaluation, investigation, and mitigation is recommended for any current or historic PCB-containing transformers.

- Aerially-deposited lead (ADL) may be present in unpaved or formerly unpaved areas adjoining older roads, which may be relevant due to the proximity to Highway 111.
- Contamination of imported and/or exported soil should be addressed and properly disposed of. Evaluation and sampling of imported material should be conducted to test for contamination. If construction or demolition is suspected to cause soil contamination, construction should cease. Investigation and remediation should be conducted.
- If construction or demolition is suspected to cause groundwater contamination, construction should cease. Investigation and remediation should be conducted.
- A NPDES Permit may be required for wastewater discharge into a storm drain.

A-3: Lijin Sun, JD, South Coast Air Quality Management District (SCAQMD)

- Use the CalEEMod land use emissions software to predict air quality emissions.
- Use SCAQMD's air quality significance thresholds to determine air quality impacts, or perform dispersion modeling to determine thresholds.
- Analyze air quality impacts from all phases of the Proposed Project, including construction and operation. Include emissions from grading equipment, earth loading/unloading, paving, architectural coatings, off-road mobile sources, on-road mobile sources, stationary sources, area sources, and vehicular trips.
- Perform a mobile source health risk assessment for generated trips, especially heavy-duty diesel-fueled vehicle trips. This should include an analysis of all toxic air contaminant impacts.
- Consider CARB's guidance on siting incompatible land uses in relation to pollution exposure near high-volume roadways.
- Mitigate any significant air quality impacts by minimizing them beyond what is required by law.
- Provide a copy of the Tribal Environmental Impact Report (TEIR) to the SCAQMD, including any appendices related to air quality, health risks, and greenhouse gas analysis.
- Discuss the project's effect on air quality, including trips indirectly generated.
- Include a "No Project" Alternative.
- Discuss impacts resulting from proposed mitigation measures.

A-4: Anita M. Petke, SunLine Transit Agency

- SunLine Transit Agency would not be impacted by the project.
- If transit service is needed, SunLine is willing to coordinate with the City.

A-5: Anita Petke, SunLine Transit Agency

- Existing bus stops #234 (located on the northwest corner of Highway 111 at Allen) and #46 (located at Date Palm at Grove) would be impacted by the project, as they would need to be temporarily closed while construction takes place; therefore, the contractor performing work should contact SunLine at least 30 days in advance of work so arrangements can be made to have existing amenities (bench and waste container) removed.

P-1: Donald Damron

- The project should expand open space and parks in downtown Cathedral City, such as improving Buddy Rogers Park.
- Jointly develop a public swimming pool and water-feature complex.
- Address impacts as related to existing City plans, including the City's Parks and Recreation Master Plan.
- Address impacts to Buddy Rogers Park.
- Define the relationship between the project and surrounding land.
- The City should pursue an updated downtown plan that should include future land uses.

PH-1: Stone James, City of Cathedral City

- The City believes key transportation corridors will be able to accommodate any increase in traffic.
- The City supports this project, and the Tribe has the full support of the City.
- The project would complement the City's downtown area and catalyze growth there.

5.0 ALTERNATIVES TO BE ANALYZED WITHIN THE EA

No alternatives were raised during the EA scoping process. Alternatives, other than the No Action/No Development Alternative, were screened based on four criteria: 1) extent to which they meet the purpose and need for the Proposed Action, 2) feasibility, 3) ability to reduce environmental impacts, and 4) ability to contribute to a reasonable range of alternatives. The intent of the analysis of alternatives is to present to decision-makers and the public a reasonable number of alternatives that are both feasible and sufficiently different from each other in critical aspects. The following list briefly summarizes the reasonable range of development alternatives to be analyzed in detail in the EA:

- **Proposed Project Alternative**: Fee-to-trust transfer of the North Site and development of the North Site with a casino and mixed use facilities.
- **Reduced Intensity Alternative**: Fee-to-trust transfer of the North Site and development of the North Site with a casino and mixed uses, with fewer retail and restaurant facilities than the Proposed Project Alternative.
- **Non-Gaming Alternative**: Fee-to-trust transfer of the North Site and development of the North Site with non-gaming mixed uses, including restaurants and retail facilities.
- **South Site Alternative**: Fee-to-trust transfer of the South Site and development on the South Site with a casino and mixed uses sized similar to the Proposed Project Alternative. The APNs and ROW acreages for the South Site's 15 parcels totaling approximately 13.9 acres are summarized in **Table 3**.

TABLE 3
SOUTH SITE PARCEL INFORMATION

APN	Acreage	APN	Acreage	APN	Acreage
687-207-003	0.075	687-500-005	0.116	687-500-010	0.089
687-207-005	0.229	687-500-006	0.200	687-500-011	0.205
687-500-001	4.259	687-500-007	0.197	687-500-012	0.413
687-500-003	1.009	687-500-008	0.236	687-500-014	0.047
687-500-004	0.089	687-500-009	0.084	687-500-018	5.698
				ROW	1.1
				South Site Total[1]	**13.9**

Notes: APN = Assessor Parcel Number; ROW = right of way
1 – Total may not add due to rounding

6.0 SCOPE OF THE ENVIRONMENTAL ASSESSMENT

This section describes the recommended scope of the EA based on the issues raised during scoping and a preliminary investigation of the setting and potential project impacts. A checklist, prepared in accordance with the Compact, is included as Appendix C to the EA, and was used to further refine the range and scope of issues to be addressed in the EA.

6.1.1 ISSUES TO BE EVALUATED IN THE EA

Topics identified for detailed evaluation within the EA include:

- Land Resources
- Water Resources
- Air Quality
- Biological Resources
- Cultural Resources
- Socioeconomic Conditions and Environmental Justice
- Transportation and Circulation
- Land Use
- Public Services and Utilities
- Visual Resources
- Noise
- Hazardous Materials
- Cumulative Impacts
- Indirect and Growth-Inducing Impacts

6.1.2 ISSUES ELIMINATED FROM DETAILED CONSIDERATION

This section describes topics eliminated from further consideration within the EA based on the results of the scoping process and preliminary investigation of the environmental setting and potential project impacts. The following issue areas will not be discussed within the EA: agriculture, mineral resources, odor, and schools.

Agriculture

Agricultural Regulations

Farmland Protection Policy Act (FPPA)

The Farmland Protection Policy Act (FPPA) is intended to minimize the impact federal programs have on the unnecessary and irreversible conversion of farmland to nonagricultural uses. It assures that federal programs are administered in a manner that is compatible with state and local units of government and private programs and policies to protect farmland.

The Natural Resource Conservation Service (NRCS), an agency of the United States Department of Agriculture (USDA), fulfills the directives of the Soil and Water Conservation Act by identifying significant areas of concern for the protection of our resources. NRCS uses a land evaluation and site assessment system to establish a Farmland Conversion Impact Rating (FCIR) score. This evaluation is completed on Form AD 1006 (FCIR Form). The FCIR Form has two components: the land evaluation, which rates soil quality up to 100 points, and the site assessment, which measures other factors that affect the farm's viability up to 160 points. The total FCIR score is used as an indicator for the project's sponsor to consider alternative sites if the potential adverse impacts on the farmland exceed the recommended allowable level. Sites receiving a combined score of less than 160 (out of 260 possible points) do not require further evaluation; alternative project locations should be considered for sites with a combined score greater than 160 points.

Riverside County

The Riverside County Right-to-Farm Ordinance 625.1 was adopted to promote a good neighbor policy between agriculturalists and other residents by making clear what rights each has when they live near one another. The ordinance is designed to protect agricultural land uses from conflicts with non-agricultural uses, as well as to reduce the loss of agricultural resources.

City of Cathedral City

The City General Plan does not contain any provisions related to agricultural uses that are relevant to the North and South Sites.

Potential for Agricultural Impacts

According to the Farmland Mapping and Monitoring Program (FMMP), the North Site and the South Site are both classified as Urban and Built-Up Land. Urban and Built-Up Land includes residential, industrial, commercial, institutional facilities, cemeteries, airports, golf courses, sanitary landfills, sewage treatment, and water control structures.[1] The North and South Sites are not designated for agriculture, nor are any agriculture activities currently occurring on the sites. The North and South Sites are not currently under Williamson Act Contracts, nor is any adjacent land.[2] There are no agricultural operations on or in the vicinity of the North Site. None of the soils on either site are considered prime farmland, unique

[1] DOC, 2017. *Riverside County Important Farmland 2016 Sheet 2 of 3*. July 2017. Available online at: ftp://ftp.consrv.ca.gov/pub/dlrp/FMMP/pdf/2016/riv16_c.pdf. Accessed January 25, 2018.
[2] DOC, 2016. *Riverside County Williamson Act FY 2015/2016 Sheet 2 of 3*. Available online at: ftp://ftp.consrv.ca.gov/pub/dlrp/wa/Riverside_c_15_16_WA.pdf. Accessed January 25, 2018.

farmland, or land of statewide or local importance.[3] Therefore, development alternatives will have no effect on agricultural resources and this issue area will not be discussed within the EA.

Odor

Types of operations that are typically evaluated for odor concerns include waste processing and heavy industrial facilities such as wastewater treatment plants (WWTPs), landfills and composting facilities, chemical manufacturing, and confined animal facilities. There are no WWTPs, landfills, composting facilities or other major sources of odor within two miles of the alternative sites. The development alternatives do not include a wastewater treatment plant or other source of odors; therefore, no odor impacts will occur and this topic will not be discussed within the EA.

Mineral Resources

The City General Plan identifies aggregate minerals such as sand and gravel as significant mineral deposits within the vicinity of the alternative sites.[4] Sand and gravel mines are dispersed throughout Riverside County. The nearest mining operation is the Sam Jones Mine, an active open pit sand and gravel mine located approximately 8.5 miles northeast of the North Site. Construction of project alternatives would not result in the loss of mineral resources. Therefore, mineral resource impacts will not be discussed within the EA.

Schools

Both the North and South Sites are located within the Palm Springs Unified School District (PSUSD).[5] PSUSD currently operates 4 high schools, 5 middle schools, 16 elementary schools, and 2 alternative schools.[6] PSUSD has a total enrollment of approximately 23,200 students.[7] There are three schools located within approximately one mile of the North and South Sites: Cathedral City Elementary School and Nellie Coffman Middle School, both within PSUSD, are located approximately 4,000 feet north and 1.0 mile northeast, respectively, of the northern boundary of the North Site, while Palm Valley School, a private kindergarten through 12th grade school, is located approximately 0.9 miles northeast of the northern boundary of the North Site. The Proposed Project would not result in a substantial increase in population or housing; therefore, demand for additional schools or additional classroom capacity would not increase significantly under the project, and the construction of additional school facilities would not be required. Therefore, no impacts to schools will occur and this issue will not be discussed within the EA.

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[3] DOC, 2017.
[4] City of Cathedral City, 2009. *Comprehensive General Plan*. Available online at: http://www.cathedralcity.gov/services/planning/documents/general-plan. Accessed January 25, 2018.
[5] Palm Springs Unified School District (PSUSD), 2017. *Current Attendance Boundaries*. Available online at: https://docs.google.com/viewerng/viewer?url=https://www.psusd.us//cms/lib/CA02204874/Centricity/Domain/171/PUSDBoundaries_20171103.pdf. Accessed February 2018.
[6] PSUSD, 2018a. *School Boundary Maps*. Available online at: https://www.psusd.us/Page/4533. Accessed February 2018.
[7] PSUSD, 2018b. *School Accountability Report Cards (SARC)*. Available online at: https://www.psusd.us/site/Default.aspx?PageID=4538. Accessed February 2018.

ATTACHMENTS

Attachment A: Notice of Preparation
Attachment B: NOP Distribution Documents
Attachment C: Comments Received
Attachment D: Sign-in Sheets and Scoping Meeting Transcript

ATTACHMENT A

NOTICE OF PREPARATION

NOTICE OF PREPARATION OF AN ENVIRONMENTAL ASSESSMENT / TRIBAL ENVIRONMENTAL IMPACT REPORT

PROJECT TITLE: Agua Caliente Band of Cahuilla Indians Cathedral City Fee-to-Trust Casino Project

NEPA LEAD AGENCY: Bureau of Indian Affairs, Department of the Interior

SCOPING COMMENT PERIOD: December 29, 2017 – January 29, 2018

SCOPING HEARING: 6 p.m. on January 18, 2018, DoubleTree by Hilton, located at 67967 Vista Chino in Cathedral City, CA 92234

SUMMARY: The Agua Caliente Band of Cahuilla Indians (Tribe) proposes to build a gaming facility and ancillary amenities on land that it owns contiguous to the Tribe's Reservation within the City of Cathedral City (City), in Riverside County, California (Proposed Project). As part of the Proposed Project, an application has been filed with the Bureau of Indian Affairs (BIA) to take approximately 13 acres of land into trust on behalf of the Tribe for gaming purposes. The federal actions necessary to implement the Proposed Project trigger the requirements of the National Environmental Policy Act (NEPA).

This notice advises the public that the BIA, as NEPA lead agency, intends to gather information necessary for preparing an Environmental Assessment (EA) pursuant to NEPA in connection with the Proposed Project. This notice also announces and opens the public scoping process. Interested parties are invited to submit comments identifying potential environmental issues, concerns, reasonable mitigation measures, and alternatives to be considered in the EA. Additionally, based on Section 11 of the 2016 Tribal-State Compact between the State of California and the Tribe, the Tribe will be required to prepare a Tribal Environmental Impact Report (TEIR) to analyze the potential off-reservation environmental impacts of the Proposed Project. To reduce paperwork and eliminate redundancy, the TEIR will be prepared in

coordination with the EA, resulting in a joint "EA/TEIR" (herein referred to as an "EA"). Thus, this notice is also intended to fulfill the requirements of Section 11 of the Tribal-State Compact, which requires that interested parties are provided with information describing the Proposed Project and its potential significant effects and are notified of the opportunity to provide comments related to the scope and alternatives to be addressed within the environmental document.

DATES: To ensure consideration during the development of the EA, written comments on the scope of the EA should be sent as soon as possible and no later than January 29, 2018 (30 days after publication of this notice in the Desert Sun). The public scoping meeting will be held on January 18, 2018 starting at 6 p.m.

ADDRESSES: You may mail or hand-deliver written comments to Amy Dutschke, Regional Director, Bureau of Indian Affairs, Pacific Region, 2800 Cottage Way, Sacramento, CA 95825. Please include your name, return address, and "Scoping Comments on the Agua Caliente Cathedral City Fee-to-Trust Casino Project" on the first page of your written comments. You may also submit comments through email to Chad Broussard, Environmental Protection Specialist, Bureau of Indian Affairs, at chad.broussard@bia.gov. If emailing comments, please use "Scoping Comments on the Agua Caliente Cathedral City Fee-to-Trust Casino Project" as the subject of your email.

The public scoping meeting will take place at DoubleTree by Hilton, located at 67967 Vista Chino in Cathedral City, CA 92234.

FOR FURTHER INFORMATION CONTACT: Chad Broussard, Environmental Protection Specialist, Bureau of Indian Affairs, Pacific Regional Office, 2800 Cottage Way, Room W–

2820, Sacramento, CA 95825; telephone: (916) 978–6165; e-mail: chad.broussard@bia.gov. Information is also available online at www.cathedralcitycasino.com.

SUPPLEMENTARY INFORMATION:

The full copy of this notice, including supplementary information (a brief description of the project and location, potential alternatives, and a summary of potential environmental effects) is available on the project website at www.cathedralcitycasino.com.

PUBLIC COMMENT AVAILABILITY: Comments, including names and addresses of respondents, will be available for public review at the BIA address shown in the ADDRESSES section, during regular business hours, 8 a.m. to 4:30 p.m., Monday through Friday, except holidays. Before including your address, telephone number, e-mail address, or other personal identifying information in your comment, you should be aware that your entire comment – including your personal identifying information – may be made publicly available at any time. While you can ask in your comment that your personal identifying information be withheld from public review, the BIA cannot guarantee that this will occur.

ATTACHMENT B

NOP DISTRIBUTION DOCUMENTS

PROOF OF PUBLICATION

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PART OF THE USA TODAY NETWORK

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Email: legals@thedesertsun.com

PROOF OF PUBLICATION

STATE OF CALIFORNIA SS.
COUNTY OF RIVERSIDE

ANALYTICAL ENVIRONMENTAL SERVICES
1801 7TH ST, STE 100

SACRAMENTO CA 95811

I am over the age of 18 years old, a citizen of the United States and not a party to, or have interest in this matter. I hereby certify that the attached advertisement appeared in said newspaper (set in type not smaller than non pariel) in each and entire issue of said newspaper and not in any supplement thereof on the following dates, to wit:

12/29/17

I acknowledge that I am a principal clerk of the printer of The Desert Sun, printed and published weekly in the City of Palm Springs, County of Riverside, State of California. The Desert Sun was adjudicated a Newspaper of general circulation on March 24, 1988 by the Superior Court of the County of Riverside, State of California Case No. 191236.

I declare under penalty of perjury that the foregoing is true and correct. Executed on this 29th of December 2017 in Palm Springs, California.

Gloria P. Arcia

DECLARANT

NOTICE OF PREPARATION OF AN ENVIRONMENTAL ASSESSMENT / TRIBAL ENVIRONMENTAL IMPACT REPORT

PROJECT TITLE: Agua Caliente Band of Cahuilla Indians Cathedral City Fee-to-Trust Casino Project

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The public scoping meeting will take place at DoubleTree by Hilton, located at 67967 Vista Chino in Cathedral City, CA 92234.

FOR FURTHER INFORMATION CONTACT: Chad Broussard, Environmental Protection Specialist, Bureau of Indian Affairs, Pacific Regional Office, 2800 Cottage Way, Room W–2820, Sacramento, CA 95825; telephone: (916) 978–6165; e-mail: chad.broussard@bia.gov. Information is also available online at www.cathedralcitycasino.com.

SUPPLEMENTARY INFORMATION: The full copy of this notice, including supplementary information (a brief description of the project and location, potential alternatives, and a summary of potential environmental effects) is available on the project website at www.cathedralcitycasino.com.

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Published: 12/29/17

Ad#:0002626079
P O : Casino Project
of Affidavits :1

NOTICE OF COMPLETION

Print Form

Appendix C

Notice of Completion & Environmental Document Transmittal

Mail to: State Clearinghouse, P.O. Box 3044, Sacramento, CA 95812-3044 (916) 445-0613
For Hand Delivery/Street Address: 1400 Tenth Street, Sacramento, CA 95814

SCH #

Project Title: Agua Caliente Band of Cahuilla Indians Cathedral City Fee-to-Trust Casino Project

Lead Agency: Bureau of Indian Affairs, Pacific Regional Office — Contact Person: Chad Broussard

Mailing Address: 2800 Cottage Way, Room W-2820 — Phone: (916) 978-6165

City: Sacramento — Zip: 95825 — County: Sacramento

Project Location: County: Riverside — City/Nearest Community: Cathedral City

Cross Streets: Hillery Road and Allen Avenue — Zip Code: 96067

Longitude/Latitude (degrees, minutes and seconds): 33 ° 46 ' 47.4 " N / 116 ° 27 ' 37.2 " W — Total Acres: 13.57

Assessor's Parcel No.: Various — Section: 33 — Twp.: 4S — Range: 5E — Base: SBBM

Within 2 Miles: State Hwy #: 111 — Waterways: None

Airports: None — Railways: None — Schools: Various

Document Type:

CEQA: ☐ NOP ☐ Early Cons ☐ Neg Dec ☐ Mit Neg Dec ☐ Draft EIR ☐ Supplement/Subsequent EIR (Prior SCH No.) ☐ Other:

NEPA: ☐ NOI ☐ EA ☐ Draft EIS ☐ FONSI

Other: ☐ Joint Document ☐ Final Document ☒ Other: NOP for EA/TEIR

Governor's Office of Planning & Research
DEC 29 2017
STATE CLEARINGHOUSE

Local Action Type:

☐ General Plan Update ☐ General Plan Amendment ☐ General Plan Element ☐ Community Plan
☐ Specific Plan ☐ Master Plan ☐ Planned Unit Development ☐ Site Plan
☐ Rezone ☐ Prezone ☐ Use Permit ☐ Land Division (Subdivision, etc.)
☐ Annexation ☐ Redevelopment ☐ Coastal Permit ☒ Other: Fee-to-trust

Development Type:

☐ Residential: Units ____ Acres ____
☐ Office: Sq.ft. ____ Acres ____ Employees ____
☐ Commercial: Sq.ft. ____ Acres ____ Employees ____
☐ Industrial: Sq.ft. ____ Acres ____ Employees ____
☐ Educational: ____
☒ Recreational: Gaming facility
☐ Water Facilities: Type ____ MGD ____
☐ Transportation: Type ____
☐ Mining: Mineral ____
☐ Power: Type ____ MW ____
☐ Waste Treatment: Type ____ MGD ____
☐ Hazardous Waste: Type ____
☐ Other: ____

Project Issues Discussed in Document:

☒ Aesthetic/Visual ☐ Agricultural Land ☒ Air Quality ☒ Archeological/Historical ☒ Biological Resources ☐ Coastal Zone ☒ Drainage/Absorption ☒ Economic/Jobs
☒ Fiscal ☒ Flood Plain/Flooding ☐ Forest Land/Fire Hazard ☒ Geologic/Seismic ☒ Minerals ☒ Noise ☒ Population/Housing Balance ☒ Public Services/Facilities
☒ Recreation/Parks ☒ Schools/Universities ☐ Septic Systems ☒ Sewer Capacity ☒ Soil Erosion/Compaction/Grading ☒ Solid Waste ☒ Toxic/Hazardous ☒ Traffic/Circulation
☒ Vegetation ☒ Water Quality ☒ Water Supply/Groundwater ☐ Wetland/Riparian ☒ Growth Inducement ☒ Land Use ☒ Cumulative Effects ☐ Other: ____

Present Land Use/Zoning/General Plan Designation:

Downtown commercial/downtown residential, mixed use commercial

Project Description: *(please use a separate page if necessary)*

The proposed action is the acquisition of approximately 13 acres of fee land in trust by the United States upon which the Agua Caliente Band of Cahuilla Indians would construct a gaming facility and ancillary development. The proposed project site is located within the City of Cathedral City, and bordered by East Palm Canyon Drive/Highway 111 on the south, Date Palm Drive on the east, Buddy Rogers Avenue on the north, and commercial and vacant parcels within the City to the west. More information, including details regarding the EA scoping meeting, is provided in the attached Notice of Preparation.

Note: The State Clearinghouse will assign identification numbers for all new projects. If a SCH number already exists for a project (e.g. Notice of Preparation or previous draft document) please fill in.

Revised 2010

Reviewing Agencies Checklist

Lead Agencies may recommend State Clearinghouse distribution by marking agencies below with and "X".
If you have already sent your document to the agency please denote that with an "S".

X	Air Resources Board	X	Office of Historic Preservation
	Boating & Waterways, Department of		Office of Public School Construction
	California Emergency Management Agency		Parks & Recreation, Department of
X	California Highway Patrol		Pesticide Regulation, Department of
X	Caltrans District # 8		Public Utilities Commission
	Caltrans Division of Aeronautics	X	Regional WQCB # 7
X	Caltrans Planning	X	Resources Agency
	Central Valley Flood Protection Board		Resources Recycling and Recovery, Department of
	Coachella Valley Mtns. Conservancy		S.F. Bay Conservation & Development Comm.
	Coastal Commission		San Gabriel & Lower L.A. Rivers & Mtns. Conservancy
	Colorado River Board		San Joaquin River Conservancy
X	Conservation, Department of		Santa Monica Mtns. Conservancy
	Corrections, Department of	X	State Lands Commission
	Delta Protection Commission		SWRCB: Clean Water Grants
	Education, Department of		SWRCB: Water Quality
	Energy Commission	X	SWRCB: Water Rights
X	Fish & Game Region # 6		Tahoe Regional Planning Agency
	Food & Agriculture, Department of	X	Toxic Substances Control, Department of
	Forestry and Fire Protection, Department of	X	Water Resources, Department of
	General Services, Department of		
	Health Services, Department of	X	Other: Sara Drake, CA DOJ
	Housing & Community Development	X	Other: Patty Brandt, CA DOJ
X	Native American Heritage Commission		

Local Public Review Period (to be filled in by lead agency)

Starting Date December 29, 2017 Ending Date January 29, 2018

Lead Agency (Complete if applicable):

Consulting Firm: Analytical Environmental Services
Address: 1801 7th Street, Suite 100
City/State/Zip: Sacramento, CA 95811
Contact: Ryan Sawyer, Project Manager
Phone: (916) 447-3479

Applicant: Agua Caliente Band of Cahuilla Indians
Address: 5401 Dinah Shore Drive
City/State/Zip: Palm Springs, CA 92264
Phone: (760) 699-5800

Signature of Lead Agency Representative: [signature] **Date:** 12-29-2017

Authority cited: Section 21083, Public Resources Code. Reference: Section 21161, Public Resources Code.

MAILING LIST

First Name	Last Name	Title	Agency/Organization	Address	City	State	Zip
Raul	Ruiz	Congressman	36th District	43875 Washington Street, Ste F	Palm Desert	CA	92211
V Manuel	Perez	Supervisor	4th District, County of Riverside	73-710 Fred Waring Drive, Ste 222	Palm Desert	CA	92260
George	Johnson	CEO	Riverside County	4080 Lemon St. – 4th Floor	Riverside	CA	92501
Tom	Kirk	Executive Director	CVAG	73-710 Fred Waring Drive, Ste 200	Palm Desert	CA	92260
			Cathedral City Police Department	68-700 Avenida Lalo Guerrero	Cathedral City	CA	92234
			Public Affairs, Caltrans District 8, Planning Division	464 W 4th Street	San Bernardino	CA	92401
			Water Quality Control Board, Colorado River Basino Region	73-720 Fred Warning Drive, Ste 100	Palm Desert	CA	92260
			Coachella Valley Water District	PO Box 1058	Coachella	CA	92236
			Burrtec	41575 Eclectic Street	Palm Desert	CA	92260
Eduardo	Garcia	Assemblyman	56th Assembly District	48220 Jackson Street, A3	Coachella	CA	92236
Pat	Milos	Community Development Director	City of Cathedral City	68700 Avenida Lalo Guerrero	Cathedral City	CA	92234
			Planning Department, Riverside County Administrative Center	4080 Lemon Street	Riverside	CA	92501
Ollie	Beyal	Superintendent	BIA, Palm Springs Field Agency	3700A Desert Vista Road	Cathedral City	CA	92234
			Riverside County Transportation Commission	4080 Lemon Street, 3rd Floor	Riverside	CA	92502
			USEPA Region 9	75 Hawthorne Street	San Francisco	CA	94105
Barabara A	Lee	Director	CA Department of Toxic Substances Control	1001 I Street PO Box 806	Sacramento	CA	95564
			Desert Water Agency	1200 South Gene Autry Trail	Palm Springs	CA	92264
			Southern California Gas Company	211 North Sunrise Way	Palm Springs	CA	92262
Jeff	Stone	State Senator	28th Senate District	45-125 Smurr Street, Ste B	Indio	CA	92201
Jeremy	Gleim	Director of Development Services	City of Rancho Mirage	68-825 Highway 111	Rancho Mirage	CA	92270
Jonathan	Nadler	Manager	Southern California Associations of Governments	818 W Seventh Street, 12th Floor	Los Angeles	CA	90017
Ken	Corey	Assistant Field Supervisor	USFWS, Palm Springs Office	777 E Tahquitz Canyon Way, Ste 208	Palm Springs	CA	92262
			Riverside County Transportation Department	4080 Lemon Street, 8th Floor	Riverside	CA	92501
			Sunline Transit Agency	32-505 Harry Oliver Trail	Thousand Palms	CA	92276
Ian	MacMillan		SCQAMD	21865 East Copley Drive	Diamond Bar	CA	91765
			Palm Springs Unified School District	980 East Tahquitz Canyon Way	Palm Springs	CA	92262
			Riverside County Department of Waste Management Resources	14310 Frederick Street	Moreno Valley	CA	92553
		Region Manager	Southern California Edison Palm Springs Service Center	36100 Cathedral Canyon Drive	Cathedral City	CA	92234
			Spectrum	440 El Cielo Road, Ste 9	Palm Springs	CA	92262

First Name	Last Name	Title	Agency/Organization	Address	City	State	Zip
			State Clearinghouse	PO Box 3044	Sacramento	CA	95812
			California Gambling Control Commission	2399 Gateway Oaks Drive, Ste 220	Sacramento	CA	95833
Jon	Christensen	Treasurer-Tax Collector	Riverside County	4080 Lemon Street, 4th Floor	Riverside	CA	92501
Terrance	Laury		Verizon	83-793 Dr Carreon Boulevard	Indio	CA	92201
			California Department of Justice Office of the Attorney General	300 South Spring Street	Los Angeles	CA	90013
Michael	Hestrin		Riverside County DA's Office	3960 Orange Street	Riverside	CA	92501
Mark A	Hake		Riverside County Probation Department	3960 Orange Street, Ste 600	Riverside	CA	92501
Jeff	Morgan	Chair	Sierra Club Tahquitz Group	PO Box 4944	Palm Springs	CA	92263
			California Department of Justice Bureau of Gambling Control	2450 Del Paso Road	Sacramento	CA	95834
Stan	Sniff	Sheriff	Riverside County Sheriff-Coroner	4095 Lemon Street, 3rd Floor	Riverside	CA	92501
David H	Ready	City Manager	City of Palm Springs	3200 E Tahquitz Canyon Way	Palm Springs	CA	92262

ATTACHMENT C

COMMENTS RECEIVED

Comment Letter A-1

STATE OF CALIFORNIA
NATIVE AMERICAN HERITAGE COMMISSION
Environmental and Cultural Department
1550 Harbor Blvd., Suite 100
West Sacramento, CA 95691
Phone (916) 373-3710

Edmund G. Brown Jr., Governor

January 5, 2018

Chad Broussard
U. S. Bureau of Indian Affairs
Pacific Regional Office
2800 Cottage Way
Sacramento, CA 955825

Sent via e-mail: chad.broussard@bia.gov

RE: SCH# 2017124002; Agua Caliente Band of Cahuilla Indians Cathedral City Fee-to-Trust Casino Project, City of Cathedral City; Riverside County, California

Dear Mr. Broussard:

The Native American Heritage Commission has received the Notice of Preparation (NOP) for Draft Environmental Impact Report for the project referenced above. The California Environmental Quality Act (CEQA) (Pub. Resources Code § 21000 et seq.), specifically Public Resources Code section 21084.1, states that a project that may cause a substantial adverse change in the significance of an historical resource is a project that may have a significant effect on the environment. (Pub. Resources Code § 21084.1; Cal. Code Regs., tit.14, § 15064.5 (b) (CEQA Guidelines Section 15064.5 (b)). If there is substantial evidence, in light of the whole record before a lead agency, that a project may have a significant effect on the environment, an environmental impact report (EIR) shall be prepared. (Pub. Resources Code § 21080 (d); Cal. Code Regs., tit. 14, § 15064 subd. (a)(1) (CEQA Guidelines § 15064 (a)(1)). In order to determine whether a project will cause a substantial adverse change in the significance of a historical resource, a lead agency will need to determine whether there are historical resources with the area of project effect (APE).

CEQA was amended significantly in 2014. Assembly Bill 52 (Gatto, Chapter 532, Statutes of 2014) (AB 52) amended CEQA to create a **separate category of cultural resources**, "tribal cultural resources" (Pub. Resources Code § 21074) and provides that a project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment (Pub. Resources Code § 21084.2). Please reference California Natural Resources Agency (2016) "Final Text for tribal cultural resources update to Appendix G: Environmental Checklist Form," http://resources.ca.gov/ceqa/docs/ab52/Clean-final-AB-52-App-G-text-Submitted.pdf. Public agencies shall, when feasible, avoid damaging effects to any tribal cultural resource. (Pub. Resources Code § 21084.3 (a)). **AB 52 applies to any project for which a notice of preparation or a notice of negative declaration or mitigated negative declaration is filed on or after July 1, 2015.** If your project involves the adoption of or amendment to a general plan or a specific plan, or the designation or proposed designation of open space, on or after March 1, 2005, it may also be subject to Senate Bill 18 (Burton, Chapter 905, Statutes of 2004) (SB 18). **Both SB 18 and AB 52 have tribal consultation requirements**. If your project is also subject to the federal National Environmental Policy Act (42 U.S.C. § 4321 et seq.) (NEPA), the tribal consultation requirements of Section 106 of the National Historic Preservation Act of 1966 (154 U.S.C. 300101, 36 C.F.R. § 800 et seq.) may also apply.

The NAHC recommends **lead agencies consult with all California Native American tribes** that are traditionally and culturally affiliated with the geographic area of your proposed project as early as possible in order to avoid inadvertent discoveries of Native American human remains and best protect tribal cultural resources. Below is a brief summary of portions of AB 52 and SB 18 as well as the NAHC's recommendations for conducting cultural resources assessments. **Consult your legal counsel about compliance with AB 52 and SB 18 as well as compliance with any other applicable laws**.

AB 52

AB 52 has added to CEQA the additional requirements listed below, along with many other requirements:

1. Fourteen Day Period to Provide Notice of Completion of an Application/Decision to Undertake a Project: Within fourteen (14) days of determining that an application for a project is complete or of a decision by a public agency to undertake a project, a **lead agency** shall provide formal notification to a designated contact of, or tribal representative of, traditionally and culturally affiliated California Native American tribes that have requested notice, to be accomplished by at least one written notice that includes:
   a. A brief description of the project.
   b. The lead agency contact information.
   c. Notification that the California Native American tribe has 30 days to request consultation. (Pub. Resources Code § 21080.3.1 (d)).
   d. A "California Native American tribe" is defined as a Native American tribe located in California that is on the contact list maintained by the NAHC for the purposes of Chapter 905 of Statutes of 2004 (SB 18). (Pub. Resources Code § 21073).

2. Begin Consultation Within 30 Days of Receiving a Tribe's Request for Consultation and Before Releasing a Negative Declaration, Mitigated Negative Declaration, or Environmental Impact Report: A **lead agency** shall begin the consultation process within 30 days of receiving a request for consultation from a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project. (Pub. Resources Code § 21080.3.1, subds. (d) and (e)) and prior to the release of a negative declaration, mitigated negative declaration or environmental impact report. (Pub. Resources Code § 21080.3.1(b)).
   a. For purposes of AB 52, "consultation shall have the same meaning as provided in Gov. Code § 65352.4 (SB 18). (Pub. Resources Code § 21080.3.1 (b)).

3. Mandatory Topics of Consultation If Requested by a Tribe: The following topics of consultation, if a tribe requests to discuss them, are mandatory topics of consultation:
   a. Alternatives to the project.
   b. Recommended mitigation measures.
   c. Significant effects. (Pub. Resources Code § 21080.3.2 (a)).

4. Discretionary Topics of Consultation: The following topics are discretionary topics of consultation:
   a. Type of environmental review necessary.
   b. Significance of the tribal cultural resources.
   c. Significance of the project's impacts on tribal cultural resources.
   d. If necessary, project alternatives or appropriate measures for preservation or mitigation that the tribe may recommend to the lead agency. (Pub. Resources Code § 21080.3.2 (a)).

5. Confidentiality of Information Submitted by a Tribe During the Environmental Review Process: With some exceptions, any information, including but not limited to, the location, description, and use of tribal cultural resources submitted by a California Native American tribe during the environmental review process shall not be included in the environmental document or otherwise disclosed by the lead agency or any other public agency to the public, consistent with Government Code sections 6254 (r) and 6254.10. Any information submitted by a California Native American tribe during the consultation or environmental review process shall be published in a confidential appendix to the environmental document unless the tribe that provided the information consents, in writing, to the disclosure of some or all of the information to the public. (Pub. Resources Code § 21082.3 (c)(1)).

6. Discussion of Impacts to Tribal Cultural Resources in the Environmental Document: If a project may have a significant impact on a tribal cultural resource, the lead agency's environmental document shall discuss both of the following:
   a. Whether the proposed project has a significant impact on an identified tribal cultural resource.
   b. Whether feasible alternatives or mitigation measures, including those measures that may be agreed to pursuant to Public Resources Code section 21082.3, subdivision (a), avoid or substantially lessen the impact on the identified tribal cultural resource. (Pub. Resources Code § 21082.3 (b)).

7. Conclusion of Consultation: Consultation with a tribe shall be considered concluded when either of the following occurs:
    a. The parties agree to measures to mitigate or avoid a significant effect, if a significant effect exists, on a tribal cultural resource; or
    b. A party, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached. (Pub. Resources Code § 21080.3.2 (b)).

8. Recommending Mitigation Measures Agreed Upon in Consultation in the Environmental Document: Any mitigation measures agreed upon in the consultation conducted pursuant to Public Resources Code section 21080.3.2 shall be recommended for inclusion in the environmental document and in an adopted mitigation monitoring and reporting program, if determined to avoid or lessen the impact pursuant to Public Resources Code section 21082.3, subdivision (b), paragraph 2, and shall be fully enforceable. (Pub. Resources Code § 21082.3 (a)).

9. Required Consideration of Feasible Mitigation: If mitigation measures recommended by the staff of the lead agency as a result of the consultation process are not included in the environmental document or if there are no agreed upon mitigation measures at the conclusion of consultation, or if consultation does not occur, and if substantial evidence demonstrates that a project will cause a significant effect to a tribal cultural resource, the lead agency shall consider feasible mitigation pursuant to Public Resources Code section 21084.3 (b). (Pub. Resources Code § 21082.3 (e)).

10. Examples of Mitigation Measures That, If Feasible, May Be Considered to Avoid or Minimize Significant Adverse Impacts to Tribal Cultural Resources:
    a. Avoidance and preservation of the resources in place, including, but not limited to:
        i. Planning and construction to avoid the resources and protect the cultural and natural context.
        ii. Planning greenspace, parks, or other open space, to incorporate the resources with culturally appropriate protection and management criteria.
    b. Treating the resource with culturally appropriate dignity, taking into account the tribal cultural values and meaning of the resource, including, but not limited to, the following:
        i. Protecting the cultural character and integrity of the resource.
        ii. Protecting the traditional use of the resource.
        iii. Protecting the confidentiality of the resource.
    c. Permanent conservation easements or other interests in real property, with culturally appropriate management criteria for the purposes of preserving or utilizing the resources or places.
    d. Protecting the resource. (Pub. Resource Code § 21084.3 (b)).
    e. Please note that a federally recognized California Native American tribe or a nonfederally recognized California Native American tribe that is on the contact list maintained by the NAHC to protect a California prehistoric, archaeological, cultural, spiritual, or ceremonial place may acquire and hold conservation easements if the conservation easement is voluntarily conveyed. (Civ. Code § 815.3 (c)).
    f. Please note that it is the policy of the state that Native American remains and associated grave artifacts shall be repatriated. (Pub. Resources Code § 5097.991).

11. Prerequisites for Certifying an Environmental Impact Report or Adopting a Mitigated Negative Declaration or Negative Declaration with a Significant Impact on an Identified Tribal Cultural Resource: An environmental impact report may not be certified, nor may a mitigated negative declaration or a negative declaration be adopted unless one of the following occurs:
    a. The consultation process between the tribes and the lead agency has occurred as provided in Public Resources Code sections 21080.3.1 and 21080.3.2 and concluded pursuant to Public Resources Code section 21080.3.2.
    b. The tribe that requested consultation failed to provide comments to the lead agency or otherwise failed to engage in the consultation process.
    c. The lead agency provided notice of the project to the tribe in compliance with Public Resources Code section 21080.3.1 (d) and the tribe failed to request consultation within 30 days. (Pub. Resources Code § 21082.3 (d)).

    This process should be documented in the Cultural Resources section of your environmental document.

The NAHC's PowerPoint presentation titled, "Tribal Consultation Under AB 52: Requirements and Best Practices" may be found online at: http://nahc.ca.gov/wp-content/uploads/2015/10/AB52TribalConsultation_CalEPAPDF.pdf

SB 18

SB 18 applies to local governments and requires **local governments** to contact, provide notice to, refer plans to, and consult with tribes prior to the adoption or amendment of a general plan or a specific plan, or the designation of open space. (Gov. Code § 65352.3). Local governments should consult the Governor's Office of Planning and Research's "Tribal Consultation Guidelines," which can be found online at: https://www.opr.ca.gov/docs/09_14_05_Updated_Guidelines_922.pdf

Some of SB 18's provisions include:

1. Tribal Consultation: If a local government considers a proposal to adopt or amend a general plan or a specific plan, or to designate open space it is required to contact the appropriate tribes identified by the NAHC by requesting a "Tribal Consultation List." If a tribe, once contacted, requests consultation the local government must consult with the tribe on the plan proposal. **A tribe has 90 days from the date of receipt of notification to request consultation unless a shorter timeframe has been agreed to by the tribe.** (Gov. Code § 65352.3 (a)(2)).
2. No Statutory Time Limit on SB 18 Tribal Consultation. There is no statutory time limit on SB 18 tribal consultation.
3. Confidentiality: Consistent with the guidelines developed and adopted by the Office of Planning and Research pursuant to Gov. Code section 65040.2, the city or county shall protect the confidentiality of the information concerning the specific identity, location, character, and use of places, features and objects described in Public Resources Code sections 5097.9 and 5097.993 that are within the city's or county's jurisdiction. (Gov. Code § 65352.3 (b)).
4. Conclusion of SB 18 Tribal Consultation: Consultation should be concluded at the point in which:
    a. The parties to the consultation come to a mutual agreement concerning the appropriate measures for preservation or mitigation; or
    b. Either the local government or the tribe, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached concerning the appropriate measures of preservation or mitigation. (Tribal Consultation Guidelines, Governor's Office of Planning and Research (2005) at p. 18).

Agencies should be aware that neither AB 52 nor SB 18 precludes agencies from initiating tribal consultation with tribes that are traditionally and culturally affiliated with their jurisdictions before the timeframes provided in AB 52 and SB 18. For that reason, we urge you to continue to request Native American Tribal Contact Lists and "Sacred Lands File" searches from the NAHC. The request forms can be found online at: http://nahc.ca.gov/resources/forms/

NAHC Recommendations for Cultural Resources Assessments

To adequately assess the existence and significance of tribal cultural resources and plan for avoidance, preservation in place, or barring both, mitigation of project-related impacts to tribal cultural resources, the NAHC recommends the following actions:

1. Contact the appropriate regional California Historical Research Information System (CHRIS) Center (http://ohp.parks.ca.gov/?page_id=1068) for an archaeological records search. The records search will determine:
    a. If part or all of the APE has been previously surveyed for cultural resources.
    b. If any known cultural resources have been already been recorded on or adjacent to the APE.
    c. If the probability is low, moderate, or high that cultural resources are located in the APE.
    d. If a survey is required to determine whether previously unrecorded cultural resources are present.

2. If an archaeological inventory survey is required, the final stage is the preparation of a professional report detailing the findings and recommendations of the records search and field survey.
    a. The final report containing site forms, site significance, and mitigation measures should be submitted immediately to the planning department. All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum and not be made available for public disclosure.

b. The final written report should be submitted within 3 months after work has been completed to the appropriate regional CHRIS center.

3. Contact the NAHC for:
   a. A Sacred Lands File search. Remember that tribes do not always record their sacred sites in the Sacred Lands File, nor are they required to do so. A Sacred Lands File search is not a substitute for consultation with tribes that are traditionally and culturally affiliated with the geographic area of the project's APE.
   b. A Native American Tribal Consultation List of appropriate tribes for consultation concerning the project site and to assist in planning for avoidance, preservation in place, or, failing both, mitigation measures.

4. Remember that the lack of surface evidence of archaeological resources (including tribal cultural resources) does not preclude their subsurface existence.
   a. Lead agencies should include in their mitigation and monitoring reporting program plan provisions for the identification and evaluation of inadvertently discovered archaeological resources per Cal. Code Regs., tit. 14, section 15064.5(f) (CEQA Guidelines section 15064.5(f)). In areas of identified archaeological sensitivity, a certified archaeologist and a culturally affiliated Native American with knowledge of cultural resources should monitor all ground-disturbing activities.
   b. Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the disposition of recovered cultural items that are not burial associated in consultation with culturally affiliated Native Americans.
   c. Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the treatment and disposition of inadvertently discovered Native American human remains. Health and Safety Code section 7050.5, Public Resources Code section 5097.98, and Cal. Code Regs., tit. 14, section 15064.5, subdivisions (d) and (e) (CEQA Guidelines section 15064.5, subds. (d) and (e)) address the processes to be followed in the event of an inadvertent discovery of any Native American human remains and associated grave goods in a location other than a dedicated cemetery.

Please contact me if you need any additional information at gayle.totton@nahc.ca.gov.

Sincerely,



Gayle Totton, M.A., PhD.
Associate Governmental Program Analyst
(916) 373-3714

cc: State Clearinghouse

Comment Letter A-2

Department of Toxic Substances Control

Barbara A. Lee, Director
5796 Corporate Avenue
Cypress, California 90630

Matthew Rodriquez
Secretary for
Environmental Protection

Edmund G. Brown Jr.
Governor

January 10, 2018

Ms. Amy Dutschke
Regional Director
Bureau of Indian Affairs
Pacific Region
2800 Cottage Way
Sacramento, California 95825
Amy.Dutschke@bia.gov

NOTICE OF PREPARATION (NOP) FOR AN ENVIRONMENTAL ASSESSMENT/ TRIBAL ENVIRONMENTAL IMP ACT REPORT AN ENVIRONMENTAL IMPACT REPORT (EA/TEIR) FOR AGUA CALIENTE BAND OF CAHUILLA INDIANS CATHEDRAL CITY FEE-TO-TRUST CASINO PROJECT (SCH# 2017124002)

Dear Ms. Dutschke:

The Department of Toxic Substances Control (DTSC) has reviewed the subject NOP. The following project description is stated in the NOP: "The proposed action is the acquisition of approx. 13 acres of fee land in trust by the US upon which the Agua Caliente Band of Cahuilla Indians would construct a gaming facility and ancillary development. The proposed project site is located within the City of Cathedral City, and bordered by East Palm Canyon Drive/Hwy 111 on the south, Date Palm Dr. on the east, Buddy Rogers Avenue on the north, and commercial and vacant parcels within the City to the west."

Based on the review of the submitted document, DTSC has the following comments:

1. The EA/TEIR should identify and determine whether current or historic uses at the project site may have resulted in any release of hazardous wastes/substances. A Phase I Environmental Site Assessment may be appropriate to identify any recognized environmental conditions.

2. If there are any recognized environmental conditions in the project area, then proper investigation, sampling and remedial actions overseen by the appropriate regulatory agencies should be conducted prior to the new development or any construction.

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3. If the project plans include discharging wastewater to a storm drain, you may be required to obtain an NPDES permit from the overseeing Regional Water Quality Control Board (RWQCB).

4. If the proposed project involves the demolition of existing structures, lead-based paints or products, mercury, and asbestos containing materials (ACMs) should be addressed in accordance with all applicable and relevant laws and regulations.

5. If the site was used for agricultural or related activities, residual pesticides may be present in onsite soil. DTSC recommends investigation and mitigation, as necessary, to address potential impact to human health and environment from residual pesticides.

6. DTSC recommends evaluation, proper investigation and mitigation, if necessary, of onsite areas with current or historic PCB-containing transformers.

7. The NOP states, "The project site is bordered by East Palm Canyon Drive/Highway 111 on the south, Date Palm Drive on the east, Buddy Rogers Avenue on the north, and commercial and vacant parcels within the City to the west (Figure 3)." Aerially deposited lead (ADL) is generally encountered in unpaved or formerly unpaved areas adjoining older roads, primarily as a result of deposition from historical vehicle emissions when gasoline contained lead. As the project site is adjacent to Highway 111, this issue should be addressed in accordance with all applicable and relevant laws and regulations.

8. If the project development involves soil export/import, proper evaluation is required. If soil contamination is suspected or observed in the project area, then excavated soil should be sampled prior to export/disposal. If the soil is contaminated, it should be disposed of properly in accordance with all applicable and relevant laws and regulations. In addition, if imported soil was used as backfill onsite and/or backfill soil will be imported, DTSC recommends proper evaluation/sampling as necessary to ensure the backfill material is free of contamination.

9. If during construction/demolition of the project, soil and/or groundwater contamination is suspected, construction/demolition in the area should cease and appropriate health and safety procedures should be implemented. If it is determined that contaminated soil and/or groundwater exist, the EA/TEIR should identify how any required investigation and/or remediation will be conducted and the appropriate government agency to provide regulatory oversight.

If you have any questions regarding this letter, please contact me at (714) 484-5380 or by email at Johnson.Abraham@dtsc.ca.gov.

Sincerely,

Johnson P. Abraham
Project Manager
Brownfields Restoration and School Evaluation Branch
Site Mitigation and Restoration Program – Cypress

kl/sh/ja

cc: Mr. Chad Broussard (via e-mail)
Environmental Protection Specialist
Bureau of Indian Affairs
chad.broussard@bia.gov

Governor's Office of Planning and Research (via e-mail)
State Clearinghouse
P.O. Box 3044
Sacramento, California 95812-3044
State.clearinghouse@opr.ca.gov

Mr. Dave Kereazis (via e-mail)
Office of Planning & Environmental Analysis
Department of Toxic Substances Control
Dave.Kereazis@dtsc.ca.gov

Mr. Shahir Haddad, Chief (via e-mail)
Brownfields Restoration and School Evaluation Branch
Site Mitigation and Restoration Program - Cypress
Shahir.Haddad@dtsc.ca.gov

CEQA# 2017124002

SENT VIA USPS AND E-MAIL: January 24, 2018

chad.broussard@bia.gov
Chad Broussard, Environmental Protection Specialist
Bureau of Indian Affairs
2800 Cottage Way
Sacramento CA 95825

Notice of Preparation of Tribal Environmental Impact Report[1] for the Agua Caliente Band of Cahuilla Indians Cathedral City Fee-to-Trust Casino Project

The South Coast Air Quality Management District (SCAQMD) staff appreciates the opportunity to comment on the above-mentioned document. SCAQMD staff's comments are recommendations regarding the analysis of potential air quality impacts from the Proposed Project that should be included in the Tribal Environmental Impact Report (EIR). Please send SCAQMD a copy of the Tribal EIR upon its completion. Note that copies of the Tribal EIR that are submitted to the State Clearinghouse are not forwarded to SCAQMD. Please forward a copy of the Tribal EIR directly to SCAQMD at the address shown in the letterhead. **In addition, please send with the Tribal EIR all appendices or technical documents related to the air quality, health risk, and greenhouse gas analyses and electronic versions of all air quality modeling and health risk assessment files[2]. These include emission calculation spreadsheets and modeling input and output files (not PDF files). Without all files and supporting documentation, SCAQMD staff will be unable to complete our review of the air quality analyses in a timely manner. Any delays in providing all supporting documentation will require additional time for review beyond the end of the comment period.**

Air Quality Analysis

SCAQMD adopted its California Environmental Quality Act (CEQA) Air Quality Handbook in 1993 to assist other public agencies with the preparation of air quality analyses. SCAQMD recommends that the Lead Agency use this Handbook as guidance when preparing its air quality analysis. Copies of the Handbook are available from SCAQMD's Subscription Services Department by calling (909) 396-3720. More guidance developed since this Handbook is also available on SCAQMD's website at: http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/ceqa-air-quality-handbook-(1993). SCAQMD staff also recommends that the Lead Agency use the CalEEMod land use emissions software. This software has recently been updated to incorporate up-to-date state and locally approved emission factors and methodologies for estimating pollutant emissions from typical land use development. CalEEMod is the only software model maintained by the California Air Pollution Control Officers Association (CAPCOA) and replaces the now outdated URBEMIS. This model is available free of charge at: www.caleemod.com.

[1] A Tribal Environmental Impact Report is prepared to analyze the potential off-reservation environmental impacts of the Proposed Project pursuant to Section 11 of the 2016 Tribal-State Compact between the State of California and the Tribe. Accessed at: https://www.gov.ca.gov/docs/Agua_Caliente_Band_of_Cahuilla_Indians_Compact.pdf.

[2] Pursuant to the CEQA Guidelines Section 15174, the information contained in an EIR shall include summarized technical data, maps, plot plans, diagrams, and similar relevant information sufficient to permit full assessment of significant environmental impacts by reviewing agencies and members of the public. Placement of highly technical and specialized analysis and data in the body of an EIR should be avoided through inclusion of supporting information and analyses as appendices to the main body of the EIR. Appendices to the EIR may be prepared in volumes separate from the basic EIR document, but shall be readily available for public examination and shall be submitted to all clearinghouses which assist in public review.

SCAQMD has also developed both regional and localized significance thresholds. SCAQMD staff requests that the Lead Agency quantify criteria pollutant emissions and compare the results to SCAQMD's CEQA regional pollutant emissions significance thresholds to determine air quality impacts. SCAQMD's CEQA regional pollutant emissions significance thresholds can be found here: http://www.aqmd.gov/docs/default-source/ceqa/handbook/scaqmd-air-quality-significance-thresholds.pdf. In addition to analyzing regional air quality impacts, SCAQMD staff recommends calculating localized air quality impacts and comparing the results to localized significance thresholds (LSTs). LSTs can be used in addition to the recommended regional significance thresholds as a second indication of air quality impacts when preparing a CEQA document. Therefore, when preparing the air quality analysis for the Proposed Project, it is recommended that the Lead Agency perform a localized analysis by either using the LSTs developed by SCAQMD staff or performing dispersion modeling as necessary. Guidance for performing a localized air quality analysis can be found at: http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/localized-significance-thresholds.

The Lead Agency should identify any potential adverse air quality impacts that could occur from all phases of the Proposed Project and all air pollutant sources related to the Proposed Project. Air quality impacts from both construction (including demolition, if any) and operations should be calculated. Construction-related air quality impacts typically include, but are not limited to, emissions from the use of heavy-duty equipment from grading, earth-loading/unloading, paving, architectural coatings, off-road mobile sources (e.g., heavy-duty construction equipment) and on-road mobile sources (e.g., construction worker vehicle trips, material transport trips). Operation-related air quality impacts may include, but are not limited to, emissions from stationary sources (e.g., boilers), area sources (e.g., solvents and coatings), and vehicular trips (e.g., on- and off-road tailpipe emissions and entrained dust). Air quality impacts from indirect sources, such as sources that generate or attract vehicular trips, should be included in the analysis.

In the event that the Proposed Project generates or attracts vehicular trips, especially heavy-duty diesel-fueled vehicles, it is recommended that the Lead Agency perform a mobile source health risk assessment. Guidance for performing a mobile source health risk assessment ("*Health Risk Assessment Guidance for Analyzing Cancer Risk from Mobile Source Diesel Idling Emissions for CEQA Air Quality Analysis*") can be found at: http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/mobile-source-toxics-analysis. An analysis of all toxic air contaminant impacts due to the use of equipment potentially generating such air pollutants should also be included.

In addition, guidance on siting incompatible land uses (such as placing homes near freeways) can be found in the California Air Resources Board's *Air Quality and Land Use Handbook: A Community Health Perspective*, which can be found at: http://www.arb.ca.gov/ch/handbook.pdf. CARB's Land Use Handbook is a general reference guide for evaluating and reducing air pollution impacts associated with new projects that go through the land use decision-making process. Guidance[3] on strategies to reduce air pollution exposure near high-volume roadways can be found at: https://www.arb.ca.gov/ch/rd_technical_advisory_final.PDF.

Mitigation Measures

In the event that the Proposed Project generates significant adverse air quality impacts, CEQA requires that all feasible mitigation measures that go beyond what is required by law be utilized during project construction and operation to minimize these impacts. Pursuant to CEQA Guidelines Section 15126.4

[3] In April 2017, CARB published a technical advisory, *Strategies to Reduce Air Pollution Exposure Near High-Volume Roadways: Technical Advisory*, to supplement CARB's Air Quality and Land Use Handbook: A Community Health Perspective. This technical advisory is intended to provide information on strategies to reduce exposures to traffic emissions near high-volume roadways to assist land use planning and decision-making in order to protect public health and promote equity and environmental justice. The technical advisory is available at: https://www.arb.ca.gov/ch/landuse.htm.

(a)(1)(D), any impacts resulting from mitigation measures must also be discussed. Several resources are available to assist the Lead Agency with identifying potential mitigation measures for the Proposed Project, including:

- Chapter 11 of SCAQMD's CEQA Air Quality Handbook
- SCAQMD's CEQA web pages available here: http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/mitigation-measures-and-control-efficiencies
- SCAQMD's Rule 403 – Fugitive Dust, and the Implementation Handbook for controlling construction-related emissions and Rule 1403 – Asbestos Emissions from Demolition/Renovation Activities
- SCAQMD's Mitigation Monitoring and Reporting Plan (MMRP) for the 2016 Air Quality Management Plan (2016 AQMP) available here (starting on page 86): http://www.aqmd.gov/docs/default-source/Agendas/Governing-Board/2017/2017-mar3-035.pdf
- CAPCOA's *Quantifying Greenhouse Gas Mitigation Measures* available here: http://www.capcoa.org/wp-content/uploads/2010/11/CAPCOA-Quantification-Report-9-14-Final.pdf

Alternatives

In the event that the Proposed Project generates significant adverse air quality impacts, CEQA requires the consideration and discussion of alternatives to the project or its location which are capable of avoiding or substantially lessening any of the significant effects of the project. The discussion of a reasonable range of potentially feasible alternatives, including a "no project" alternative, is intended to foster informed decision-making and public participation. Pursuant to CEQA Guidelines Section 15126.6(d), the Tribal EIR shall include sufficient information about each alternative to allow meaningful evaluation, analysis, and comparison with the Proposed Project.

Data Sources

SCAQMD rules and relevant air quality reports and data are available by calling SCAQMD's Public Information Center at (909) 396-2039. Much of the information available through the Public Information Center is also available at SCAQMD's webpage at: http://www.aqmd.gov.

SCAQMD staff is available to work with the Lead Agency to ensure that project air quality impacts are accurately evaluated and any significant impacts are mitigated where feasible. If you have any questions regarding this letter, please contact me at lsun@aqmd.gov or call me at (909) 396-3308.

Sincerely,

Lijin Sun

Lijin Sun, J.D.
Program Supervisor, CEQA IGR
Planning, Rule Development & Area Sources

LS
RVC18010205
Control Number

Rec'd BIA-PRO JAN 29 2018 11:54

Comment Letter A-4

SunLine TRANSIT AGENCY

MEMBERS: Desert Hot Springs Palm Springs Cathedral City Rancho Mirage Palm Desert Indian Wells La Quinta Indio Coachella Riverside County

A Public Agency

Reg Dir ✓
Dep RD Trust ✓
Dep RD IS
Route FTT
Response Required
Due Date
Memo Ltr
Fax

January 17, 2018

Amy Dutschke, Regional Director
Bureau of Indian Affairs, Pacific Region
2800 Cottage Way
Sacramento, CA 95825

RE: Agua Caliente Band of Cahuilla Indians Cathedral City Fee-to-Trust Casino Project

Dear Ms. Amy Dutschke:

This letter responds to your request for comments regarding the proposed Agua Caliente Band of Cahuilla Indians Cathedral City Fee-to-Trust Casino Project bordered by East Palm Canyon Drive/Highway 111 on the south, Date Palm Drive on the east, Buddy Rogers Avenue on the north and within the city of Cathedral City. The SunLine Transit Agency (SunLine) staff has reviewed the project and offers the following comments.

SunLine staff's assessment concludes the proposed annexation will have no impact on transit services. Please keep staff informed of any approvals and/or future changes to the proposed annexation so we can keep all existing bus stops and services routes current. Additionally, if there is a need for transit service and/or transit amenities in the future, SunLine staff will coordinate it with the city of Cathedral City.

Should you have questions or concerns regarding this letter, please contact me at 760-343-3456, ext. 1603.

Sincerely,

Anita M. Petke
Transit Communications Service Specialist

cc: Lauren Skiver, General Manager
Stephanie Buriel, Deputy Chief of Administration

Comment Letter A-5

SunLine
TRANSIT AGENCY

MEMBERS: Desert Hot Springs Palm Springs Cathedral City Rancho Mirage
Palm Desert Indian Wells La Quinta Indio Coachella Riverside County

A Public Agency

January 26, 2018

Amy Dutschke, Regional Director
Bureau of Indian Affairs, Pacific Region
2800 Cottage Way
Sacramento, CA 95825

RE: Agua Caliente Band of Cahuilla Indian Cathedral City Fee-to-Trust Casino Project

Dear Ms. Amy Dutschke:

This letter responds to your request for comments regarding Cathedral City Fee-to-Trust Casino Project . As you are aware, SunLine Transit Agency (SunLine) currently operates fixed route service along Hwy 111 and Date Palm Drive, with transit service provided within the project area.

After future review of transit amenities within the defined project area, it indicates that the proposed Fee-to-Trust Casino Project will impact transit amenities utilized by passengers. Therefore, we are recommending the City of Cathedral City work with SunLine on the following issues:

A. Impacts to Existing Bus Stops

Based on our review, the existing bus stop #234 located on the northwest corner of Highway 111 at Allen will be impacted by the improvement project, as well as, bus stop #46 at Date Palm at Grove. According to the proposed plans, bus stops #234 and #46 will need to be temporarily closed while work is being performed at those locations. Please have the contractor performing work for this project contact SunLine at least thirty (30) days in advance of work commencing so arrangements can be made to have the existing amenities (bench and waste container) removed.

Should you have any questions or concerns regarding our comments, please do not hesitate to contact me. You may reach me at 760-343-3456, ext. 1603.

Respectfully,

Anita Petke
Transit Communications Service Specialist

From: **Donald Damron** <donaldjdamron@sbcglobal.net>
Date: Wed, Jan 24, 2018 at 7:09 PM
Subject: Scoping Comments on the Agua Caliente Cathedral City Fee-to-Trust Casino Project
To: "chad.broussard@bia.gov" <chad.broussard@bia.gov>

Scoping Comments on the Agua Caliente
Cathedral City Fee-to-Trust Casino Project

January 24, 2018
Donald Damron
69-333 E. Palm Canyon Dr.
Cathedral City, CA

The scope of the proposed Agua Caliente Casino Project, which is located on valuable downtown land in Cathedral City, should clearly define project amenities that are appropriate to the needs of a developing, yet somewhat undefined downtown community. The planned relationships and the connections from the Casino to the surrounding land should be defined within the scope of the casino alternatives. In conjunction with the development of the casino, an updated downtown plan should be pursued. At a minimum, future land uses and their connections to the casino should be defined as part of the project.

As a family-oriented community, the continued expansion of open space and parks in downtown Cathedral City should be addressed and incorporated into the scope of the Agua Caliente Casino Project. For example, a plan to improve Buddy Rogers Park, which abuts the project site, should be addressed and incorporated into the Casino plan. At a minimum, the impact that the Casino will have on Buddy Rogers Park will need to be assessed.

The impact of the Casino should be assessed as it relates to existing city plans. The Cathedral City Parks and Recreation Master Plan identifies the expansion of the city's park system as a priority. As example, the park plan suggests:
• "The resources of parkland, tennis courts, swimming pools and recreation center space is not current with nationally established space standards"; and
• "The residents spoke of a swimming pool complex as a high priority and the Park Master Plan lists the need for a public swimming pool as a high priority. The Plan also suggests that consideration should be given to the creation of a joint use agreement with community partners regarding a new swimming pool venture"

The Casino Project creates many opportunities to jointly-develop appropriate amenities in the downtown area. As one way to mitigate potential negative impacts on the downtown community, the scope of the Agua Caliente Casino Project should assess the potential to jointly-develop a public swimming pool and water-feature complex that would enhance both the Casino Project and the downtown area.

ATTACHMENT D

SCOPING MEETING TRANSCRIPT

SCOPING MEETING SIGN-IN SHEETS

SIGN IN SHEET/MAILING LIST

BUREAU OF INDIAN AFFAIRS – PUBLIC SCOPING MEETING
AGUA CALIENTE BAND OF CAHUILLA INDIANS CATHEDRAL CITY FEE-TO-TRUST CASINO PROJECT

DOUBLETREE BY HILTON – CATHEDRAL CITY, CALIFORNIA
JANUARY 18, 2018

Please Print Legibly

PLEASE PRINT LEGIBLY

NAME	ADDRESS	ORGANIZATION	PLACE ME ON THE MAILING LIST? YES	NO
Yaneli Hernandez	5401 Dinah Shore Dr. Palm Springs	ACBCI		✓
Rahsaan Tiffard	"	ACBCI	✓	
LAURA JAMES	74201 Chi. cosy Palm Desert	CVEP Laura@CVEP.com	✓	
STONE JAMES	68-700 AUDITION LALO GUERRETZO	CITY OF CATHEDRAL CITY	X	
Ollie Boyal	BIA	PS	~~✓~~	✓
BRUCE BOYAL	BIA	PS - CA		✓

SIGN IN SHEET/MAILING LIST

BUREAU OF INDIAN AFFAIRS – PUBLIC SCOPING MEETING
AGUA CALIENTE BAND OF CAHUILLA INDIANS CATHEDRAL CITY FEE-TO-TRUST CASINO PROJECT

DOUBLETREE BY HILTON – CATHEDRAL CITY, CALIFORNIA
JANUARY 18, 2018

Please Print Legibly

PLEASE PRINT LEGIBLY

NAME	ADDRESS	ORGANIZATION	PLACE ME ON THE MAILING LIST? YES	NO
Margaret Park	5401 Dinah Shore Dr, PS 92264	ACBCI	X	
JOHN PLATA	" " "	ACBCI	X	
Ollie Beyal	67940 Quijo Rd, Cat C.ty CA 92234		2	

SIGN IN SHEET/MAILING LIST

BUREAU OF INDIAN AFFAIRS – PUBLIC SCOPING MEETING
AGUA CALIENTE BAND OF CAHUILLA INDIANS CATHEDRAL CITY FEE-TO-TRUST CASINO PROJECT

DOUBLETREE BY HILTON – CATHEDRAL CITY, CALIFORNIA
JANUARY 18, 2018

Please Print Legibly

PLEASE PRINT LEGIBLY

NAME	ADDRESS	ORGANIZATION	PLACE ME ON THE MAILING LIST?	
			YES	NO
Dan Malcolm	5401 Dinah Shore Dr, Palm Springs, CA 92264	Agua Caliente Band of Cahuilla Indians		X
Sapphire Piamant-Rink	"	"		X

SCOPING MEETING TRANSCRIPT

In the Matter Of:

AguaCaliente Band of Cahuilla Indians Fee-to-Trust Casino Project

SCOPING HEARING

January 18, 2018

Job Number: 442024

AGUA CALIENTE BAND OF CAHUILLA INDIANS

CATHEDRAL CITY FEE-TO-TRUST CASINO PROJECT

SCOPING HEARING

DATE AND TIME: January 18, 2018
6:07 p.m.

PLACE: DoubleTree by Hilton
67967 Vista Chino
Cathedral City, California

REPORTER: Brenda S. Ladnier, CSR
Certificate No. 10212

JOB NUMBER: 442024

APPEARANCE:

BUREAU OF INDIAN AFFAIRS
PACIFIC REGIONAL OFFICE
BY: CHAD BROUSSARD
2800 Cottage Way
Sacramento, California 95825
(916) 978-6165

ANALYTICAL ENVIRONMENTAL SERVICES
BY: RYAN SAWYER
1801 7th Street
Suite 100
Sacramento, California 95811
(916) 447-3479

I N D E X

Comments By: Page

Mr. Broussard 4

Ms. Sawyer 6

Mr. Broussard 13

Public Comments By:

Stone James 15

E X H I B I T S

(None.)

THURSDAY, JANUARY 18, 2018, CATHEDRAL CITY, CALIFORNIA

6:07 P.M.

--oOo--

MR. BROUSSARD: Good evening. Can I have your attention, please?

The Bureau of Indian Affairs welcomes you to the Scoping Hearing for the proposed Agua Caliente Cathedral City Casino Fee-to-Trust Project.

My name is Chad Broussard, and I'm an environmental protection specialist with the Pacific Region of the Bureau of Indian Affairs, or "BIA" for short. The BIA is a bureau within the United States Department of Interior. I will be your facilitator at this evening's public hearing. At the table with me is Ryan Sawyer, with Analytical Environmental Services, the BIA's consultant.

So we're here tonight to conduct public scoping for the Environmental Assessment, or "EA" for short, that will be prepared for the proposed Fee-to-Trust land acquisition and the subsequent proposed development of a casino for the federally recognized Agua Caliente Tribe.

The location of the proposed Fee-to-Trust property can be seen on the large information boards in

the back. If the BIA approves the proposed Fee-to-Trust acquisition, it will hold the property in trust for the Tribe, allowing for the development of a gaming facility on site.

The National Environmental Policy Act, or "NEPA" for short, requires that the BIA conduct an environmental review before deciding whether or not to take the land into trust. So we're at the very beginning of that process with the process known as "scoping."

The purpose of the scoping process is to determine what the scope of the environmental review should be, the geographical scope of the analysis, the time frame, the number of topics to study, the intensity of analysis for each study, and any issues of concern to focus on, the number of types -- and types of alternatives to study.

And the purpose of this hearing is to provide information on the process and the proposed action to the public and to solicit input from the public on the scope of the EA. So, for example, relevant input might include concerns about specific types of impacts that might result from the action, information on historical environmental conditions in the area, or suggestions on alternatives to the proposed action.

With that in mind, I want to be clear that tonight's hearing is not a question-and-answer period, nor a forum for debate. I won't respond to any questions, nor engage in debate. Instead, this is your opportunity to tell us before the start of the project what you think should be analyzed, how the analysis should take place, and what environmental issues you might be concerned with.

Now, we'll have our NEPA consultant, AES, provide you with a brief PowerPoint presentation on the proposed Fee-to-Trust property, the proposed action, and the environmental process.

Ryan.

MS. SAWYER: Thank you, Chad.

As Chad mentioned, my name is Ryan Sawyer. I'm with the Analytical Environmental Services. I will be preparing the environmental document for the proposed project.

This slide provides a brief overview of the PowerPoint presentation topics. We'll be going over the purpose of the meeting, the NEPA process, the Tribal State Compact and TEIR process. I'll provide a summary of the proposed project and potential alternatives under consideration, a general overview of the scoping process, and anticipated issues to be addressed in the

EA, as well as opportunities for submitting scoping comments and the next steps in the process.

So as Chad mentioned, the purpose of the meeting tonight is to explain the environmental review process, introduce the project, present potential environmental issues to be analyzed in the EA, and also to provide an opportunity for the public agencies to provide an input on the proposed scope of the environmental analysis.

The National Environmental Policy Act, or NEPA, is a procedural statute that requires federal agencies to conduct an environmental analysis of the potential impacts of proposed major federal actions.

In this case, the proposed major federal action is the request for the Agua Caliente Band of Cahuilla Indians, or "Tribe," as I'll refer to them throughout this presentation, that the BIA place approximately 13 acres of land into trust in Cathedral City for gaming purposes.

This slide provides an overview of the NEPA process. We are, at this point, preparing -- we'll be preparing an Environmental Assessment, or EA, to address the impacts of the proposed project. Should the EA determine that no significant impacts will occur or that all potentially significant impacts can be mitigated to

a less than significant level, a Finding of No Significant Impact -- of No Significant Impact, or FONSI, may be signed.

In the event that potentially significant adverse effects that cannot be mitigated are identified through the EA process, the Environmental Impact Statement may need to be prepared. That's a longer process with more public noticing requirements and opportunities for comments. And at the end of that process, the end result would be a record and decision.

The 2016 Tribal-State Compact between the State of California and the Tribe requires preparation of a Tribal Environmental Impact Report to analyze the off-reservation impacts of the project. The resulting -- and so in this case, because we're also preparing a NEPA document, we'll be doing a joint EA/TEIR to satisfy the requirements of both NEPA and the Compact. I'll be referring to the joint EA/TEIR throughout this presentation as the EA.

The three major steps in the Compact environmental review process are Notice of Preparation of the Draft TEIR and scoping period, a 30-day scoping period, which we're currently engaged in now. Following that, a Draft TEIR is -- or a Draft TEIR is to be prepared and the notice of completion issued announcing

a 45-day comment period for the Draft TEIR. And then the final stage of the Compact environmental review process is issuance of a final TEIR, which consists of a draft of the TEIR and any responses to comments that came in during the 45-day review period.

The proposed project that will be analyzed within the EA is the trust acquisition of approximately 13 acres within Cathedral City for gaming purposes. And then subsequent to the trust acquisition, the Tribe proposes to develop the land with a casino, restaurants, bars, retail and mixed use space, tribal government offices, and parking.

The location of the proposed trust property is shown in this slide. The project site is located contiguous to the Tribe's reservation and is bordered by East Palm Canyon Drive or Highway 111 on the south, Date Palm Drive on the east, Buddy Rogers Avenue on the north, and commercial and vacant parcels within the city to the west.

This slide shows an aerial photograph of the site. The entire site has been previously subject to development. The City has plans to relocate the existing fire station located on the northeast portion of the site directly north of the parcel across Buddy Rogers Avenue.

As shown on this slide, the proposed project is currently anticipated to encompass the entire 13-acre site. The casino facility itself is proposed to be approximately 65,000 square feet in size, with an additional 60,000 square feet of restaurant, commercial, mixed use, and office facilities. Parking areas, including a potential parking deck, are proposed in the western areas of the site. The proposed uses shown here are generally consistent with the site's land use designation of downtown commercial given by the City.

As required by NEPA and the Compact, the EA will evaluate a reasonable range of alternatives. Which alternatives are chosen for analysis will depend partly on the results of the scoping process. Some alternatives may be considered -- that may be considered will include a reduced intensity alternative, a non-gaming alternative, and a potential off-site alternative site alternative.

I don't have a slide showing the locations of the alternative sites that we're currently considering, but there is a large exhibit of it in the back of the room if anyone is interested in taking a look.

The anticipated issues to be analyzed in the EA are shown on this slide. The issues bolded, air quality and greenhouse gas emissions, noise, traffic and

transportation, are the issues where we anticipate the potential for impacts and possible mitigation measures or a greater potential for impacts, I should say, at this point in the process.

We are currently in the information-gathering stage of the environmental review process referred to as "Scoping," which was initiated with publication of the Notice of Preparation in the Desert Sun on December 29th, 2017.

The NOP can be viewed at www.cathedralcitycasino.com. We will post future NEPA documents online at this -- online at this site for public review as well.

The NOP solicits input from the public and interested agencies on the nature and extent of issues and effects to be addressed in the EA. The scope of the document refers to the extent of the action, range of alternatives, and types of impacts to be evaluated.

The scoping comment period ends on January 29th. Please hand in your written comments or mail them to the BIA before this date. The BIA's address and e-mail address is noted on the comment cards provided here tonight and within the NOP. All scoping comments, whether written or spoken at this meeting, will be considered equally by the BIA.

After the close of the scoping period, scoping comments will be reviewed and the scope of the environmental review will be refined. A Draft EA analyzing the environmental impacts of the proposed action and a reasonable range of alternatives will be prepared and made available to the public for at least a 45-day review and comment period. The BIA will review and consider the comments received, and written responses to comments related to environmental issues will be prepared. If needed, edits or revisions will be made to the EA.

Based on the findings of the EA, the BIA will either issue a Finding of No Significant Impact, or FONSI, or prepare an Environmental Impact Statement. And the Tribe may certify the EA, or at that point, it would be the Final TEIR.

Contact information for the BIA is shown on this slide. As previously mentioned, written comments should be mailed to Ms. Amy Dutschke at this address. If you have any questions, you can contact Chad.

And also, please make a note to bookmark the cathedralcitycasino.com site because we will be posting all future notices and environmental documents at this site.

That concludes my presentation. I'll hand it

back over to Chad.

MR. BROUSSARD: Okay. Thanks, Ryan.

So I wanted to point out real quickly, the restrooms are located to the left right around the corner, and there's emergency exits to the right and the left as you exit the room.

Okay. So both spoken and written comments will be accepted at tonight's hearing. If you have a written letter that you'd like to submit, you can hand it to me or to one of the representatives at the back table.

We also have cards available. If you wanted to make a written comment on the card, those are at the back table as well. You just grab a card, write out the comment, and either hand it in to me or in to one of the representatives at the table.

As Ryan mentioned, the close of the scoping comment period is January 29th. If you'd like to make a spoken comment at the hearing, please fill in one of the speaker cards, which is also at the back table, and hand it in to one of the representatives. Please write as legibly as possible so I can understand your name.

We will take speakers in the order that we receive them. And typically, we give everyone Three minutes, but that's usually when we have a larger

crowd. We have a pretty small crowd here tonight, so we'll still use the -- we have a timer system. We'll still set it for three minutes, but I think you'll have a little extra time if you want to finish your remarks after the time goes off.

So a public hearing is not the best forum for lengthy comments due to the constraints of time. If you have a lengthy comment, we encourage you to submit a written letter. All comments will receive equal weight whether they're spoken or written.

We have a stenographer here so that all spoken comments will be recorded word for word and so they'll be considered fully as comments on the record. With that said, please restate your name for the record before giving your comment and please speak as clearly as possible so that the stenographer can understand and accurately document your words.

Please remember, again, that this is not a forum for debate. And I'd like to offer the following ground rules as suggestions for participation.

First, summarize your main points within Three minutes, if possible. Be as specific as you can. Only comments that relate to the scope of the EA will be useful to us in preparing the EA.

Second, the best opportunity to state your

views convincingly is through a brief actual presentation. It's okay to disagree but do so in a manner of mutual respect. And please address me specifically with your comments so that I can hear what you're saying and so that our stenographer can accurately record your words.

And please -- again, the purpose of the hearing is to collect comments on the scope of the EA, and all comments will be considered equally no matter how many times they're made.

So with that, do we have any -- do we have any speakers?

Go ahead. And she'll take that.

MS. SAWYER: And, Chad, we're going to have to switch around the microphones to that stand up there.

MR. BROUSSARD: Okay. Does this one work?

MS. SAWYER: Yes. I just got it turned on.

MR. BROUSSARD: Mr. James?

MR. JAMES: Yes, it is.

MR. BROUSSARD: All right. Thanks. Go ahead.

MR. JAMES: Okay. Chad, my name is Stone James, and I'm Director of Economic Development for the City of Cathedral City. And I just wanted to let you know that I support this project. I think it will be a tremendous complement to our downtown. We believe that given its

situation on key transportation corridors, that the -- those transportation corridors will be able to more than accommodate any increase on traffic. And overall, we believe that this is going to be a fantastic catalyst for the energy and the enthusiasm of the potential that our downtown possesses. So we hope this project goes forward, and the Tribe has our full support.

Very good. Thank you.

MR. BROUSSARD: All right. Thanks very much.

Do we have any other speakers?

Okay. Well, it's going to be a short hearing tonight. So given that there are no other speakers, we're going to go ahead and conclude the hearing.

Thank you for your participation and have a good night.

(Proceedings adjourned at 6:24 p.m.)

REPORTER'S CERTIFICATE

I, BRENDA S. LADNIER, certified shorthand reporter, in and for the State of California, do hereby certify under the laws of the State of California:

That the foregoing oral proceedings, taken down by me in stenotype, were thereafter reduced to typewriting by computer-aided transcription under my direction;

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I further certify that I am not in any way interested in the outcome of this action and that I am not related to any of the parties thereto.

In witness whereof, I have subscribed my name this date: February 6, 2018.

_____

Brenda S. Ladnier, C.S.R.
Certificate No. 10212

-

--ooo-- 4:3

1

100 2:7

10212 1:19

111 9:16

13 3:5 7:18 9:8

13-acre 10:2

15 3:8

18 1:15 4:1

1801 2:7

2

2016 8:11

2017 11:9

2018 1:15 4:1

29th 11:9,20 13:18

3

30-day 8:22

4

4 3:3

442024 1:20

45-day 9:1,5 12:7

6

6 3:4

60,000 10:5

65,000 10:4

67967 1:17

6:07 4:2

6:24 16:17

7

7th 2:7

9

916 447-3479 2:8

916 978-6165 2:4

95811 2:8

95825 2:4

A

able 16:2

accepted 13:8

accommodate 16:3

accurately 14:17 15:6

acquisition 4:21 5:2 9:7,9

acres 7:18 9:8

across 9:24

Act 5:5 7:10

action 5:19, 23,25 6:11 7:15 11:17 12:5

actions 7:13

actual 15:1

additional 10:5

address 7:22 11:22 12:19 15:3

addressed 6:25 11:16

adjourned 16:17

adverse 8:5

aerial 9:20

AES 6:9

Affairs 2:2 4:7,12

after 12:1 14:5

again 14:18 15:7

agencies 7:7, 12 11:15

Agua 1:4 4:8, 23 7:15

ahead 15:13, 20 16:13

air 10:24

all 7:25 11:23 12:23 14:9,11 15:9,20 16:9

allowing 5:3

also 7:6 8:15 12:21 13:12, 20

alternative 10:16,17,18, 20

alternatives 5:17,25 6:23 10:12,13,15 11:18 12:5

Amy 12:19

analysis 5:13, 15 6:6 7:9,12 10:13

Analytical 2:6

4:16 6:16

analyze 8:13

analyzed 6:6 7:6 9:6 10:23

analyzing 12:4

announcing 8:25

anticipate 11:1

anticipated 6:25 10:2,23

anyone 10:22

APPEARANCE 2:1

approves 5:1

approximately 7:18 9:7 10:4

area 5:24

areas 10:6,8

around 13:4 15:15

Assessment 4:19 7:22

attention 4:6

available 12:6 13:12

Avenue 9:17, 25

B

back 5:1 10:21 13:1, 10,14,20

Band 1:4 7:15

bars 9:11

Based 12:12

before 5:7 6:5 11:21 14:15

beginning 5:9

believe 15:25 16:4

best 14:6,25

between 8:11

BIA 4:12,13 5:1,6 7:17 11:21,25 12:7,12,17

BIA'S 4:17 11:21

boards 4:25

bolded 10:24

bookmark 12:21

bordered 9:15

both 8:17 13:7

Brenda 1:18

brief 6:10,19 15:1

Broussard 2:3 3:3,5 4:5, 10 13:2 15:16,18,20 16:9

Buddy 9:17, 24

bureau 2:2 4:7,12,13

C

Cahuilla 1:4 7:16

Caliente 1:4 4:8,23 7:15

California 1:17 2:4,8 4:1 8:12

came 9:5

cannot 8:5

Canyon 9:16

card 13:13,14

cards 11:22 13:12,20

case 7:14 8:15

casino 1:5 4:9,22 9:10 10:3

catalyst 16:4

Cathedral 1:5,17 4:1,9 7:18 9:8 15:23

cathedralcitycasino.com 12:22

Certificate 1:19 17:1

certify 12:15

Chad 2:3 4:10 6:14,15 7:3 12:20 13:1 15:14,21

Chino 1:17

chosen 10:13

city 1:5,17 4:1,9 7:19 9:8,18,22 10:10 15:22, 23

clear 6:1

clearly 14:15

close 12:1 13:17

collect 15:8

comment 9:1 11:19,22 12:7 13:13,15,18, 19 14:8,15

comments 3:2,7 7:2 8:9 9:4 11:20,24 12:2,8,9,18 13:7 14:7,9, 12,13,23 15:4,8,9

commercial 9:18 10:5,10

Compact 6:22 8:11,18, 20 9:2 10:11

complement 15:25

completion 8:25

concern 5:15

concerned 6:8

concerns 5:22

conclude 16:13

concludes 12:25

conditions 5:24

conduct 4:18 5:6 7:12

consider 12:8

consideration 6:24

considered 10:15 11:25 14:13 15:9

considering 10:20

consistent 10:9

consists 9:3

constraints 14:7

consultant 4:17 6:9

contact 12:17,20

contiguous 9:15

convincingly 15:1

corner 13:5

corridors 16:1,2

Cottage 2:3

crowd 14:1

CSR 1:18

currently 8:23 10:2,20 11:5

D

date 1:15 9:16 11:21

debate 6:3,4 14:19

December 11:9

deciding 5:7

decision 8:10

deck 10:7

Department 4:14

depend 10:13

Desert 11:8

designation 10:10

determine 5:12 7:24

develop 9:10

development 4:22 5:3 9:22 15:22

directly 9:24

Director 15:22

disagree 15:2

document 6:17 8:16 11:17 14:17

documents 11:12 12:23

Doubletree 1:16

downtown 10:10 15:25 16:6

draft 8:22,24

9:1,4 12:3

Drive 9:16,17

due 14:7

during 9:5

Dutschke 12:19

E

e-mail 11:22

EA 4:19 5:21 7:1,6,22,23 8:6,19 9:7 10:11,24 11:16 12:3, 11,12,15 14:23,24 15:8

EA/TEIR 8:17, 18

each 5:15

east 9:16,17

Economic 15:22

edits 12:10

effects 8:5

11:16

either 12:13 13:15

emergency 13:5

emissions 10:25

encompass 10:2

encourage 14:8

end 8:9,10

ends 11:19

energy 16:5

engage 6:4

engaged 8:23

enthusiasm 16:5

entire 9:21 10:2

environmental 2:6 4:11,16, 19 5:5,7,12, 24 6:7,12,16, 17 7:4,6,9,10, 12,22 8:6,13, 21 9:2 11:6 12:3,4,9,14, 23

equal 14:9

equally 11:25 15:9

evaluate 10:12

evaluated 11:18

evening 4:5

evening's 4:15

event 8:4

everyone 13:24

example 5:21

exhibit 10:21

existing 9:23

exit 13:6

exits 13:5

explain 7:4

extent 11:15, 17

extra 14:4

F

facilitator 4:14

facilities 10:6

facility 5:3 10:3

fantastic 16:4

federal 7:11, 13,14

federally 4:22

Fee-to-trust 1:5 4:9,21,24 5:1 6:11

feet 10:4,5

fill 13:19

final 9:2,3 12:16

Finding 8:1 12:13

findings 12:12

finish 14:4

fire 9:23

First 14:21

focus 5:16

following 8:23 14:19

FONSI 8:3 12:14

forum 6:3 14:6,19

forward 16:7

frame 5:14

full 16:7

fully 14:13

future 11:11 12:23

G

gaming 5:3 7:19 9:8

gas 10:25

general 6:24

generally 10:9

geographical 5:13

give 13:24

given 10:10 15:25 16:12

giving 14:15

goes 14:5 16:6

good 4:5 16:8,15

government 9:11

grab 13:14

greater 11:3

greenhouse 10:25

ground 14:20

H

hand 11:20 12:25 13:9, 15,20

hear 15:4

hearing 1:8 4:8,15 5:18 6:2 13:8,19 14:6 15:8 16:11,13

here 4:18 10:8 11:23 14:1,11

Highway 9:16

Hilton 1:16

historical 5:23

hold 5:2

hope 16:6

I

identified 8:5

Impact 8:2,6, 13 12:13,14

impacts 5:22 7:13,23,24,25 8:14 11:2,3, 18 12:4

include 5:22 10:16

including 10:7

increase 16:3

Indian 2:2 4:7,12

Indians 1:4 7:16

information 4:25 5:19,23 12:17

information-gathering 11:5

initiated 11:7

input 5:20,21 7:8 11:14

Instead 6:4

intensity 5:14 10:16

interested 10:22 11:15

Interior 4:14

into 5:8 7:18

introduce 7:5

issuance 9:3

issue 12:13

issued 8:25

issues 5:15 6:7,25 7:6 10:23,24 11:1,15 12:9

J

James 3:8 15:18,19,21

January 1:15 4:1 11:20 13:18

JOB 1:20

joint 8:16,18

K

key 16:1

known 5:9

L

Ladnier 1:18

land 4:21 5:8 7:18 9:10 10:9

large 4:25 10:21

larger 13:25

least 12:6

left 13:4,6

legibly 13:22

lengthy 14:7, 8

less 8:1

let 15:23

letter 13:9 14:9

level 8:1

like 13:9,18 14:19

little 14:4

located 9:14, 23 13:4

location 4:24 9:13

locations 10:19

longer 8:7

M

made 12:6,11 15:10

mail 11:21

mailed 12:19

main 14:21

major 7:13,14 8:20

make 12:21 13:13,18

manner 15:3

many 15:10

matter 15:9

may 8:3,7 10:15 12:15

measures 11:2

meeting 6:21 7:4 11:24

mentioned 6:15 7:3 12:18 13:17

microphones 15:15

might 5:21,23 6:8

mind 6:1

minutes 13:25 14:3,22

mitigated 7:25 8:5

mitigation 11:2

mixed 9:11 10:6

more 8:8 16:2

much 16:9

mutual 15:3

N

name 4:10 6:15 13:22 14:14 15:21

National 5:5 7:10

nature 11:15

need 8:7

needed 12:10

NEPA 5:6 6:9, 21 7:11,20 8:16,17 10:11 11:11

next 7:2

night 16:15

noise 10:25

non-gaming 10:17

None 3:15

NOP 11:10, 14,23

north 9:18,24

northeast 9:23

note 12:21

noted 11:22

notice 8:21, 25 11:8

notices 12:23

noticing 8:8

number 1:20 5:14,16

O

occur 7:24

off 14:5

off-reservation 8:14

off-site 10:17

offer 14:19

office 2:2 10:6

offices 9:12

one 13:10,15, 19,21 15:16

online 11:12

Only 14:23

opportunities 7:1 8:9

opportunity 6:5 7:7 14:25

order 13:23

over 6:20 13:1

overall 16:3

overview 6:19,24 7:20

P

p.m. 1:15 4:2 16:17

Pacific 2:2 4:11

Palm 9:16,17

parcel 9:24

parcels 9:18

parking 9:12 10:6,7

participation 14:20 16:14

partly 10:13

period 6:2 8:22,23 9:1,5 11:19 12:1,7 13:18

photograph 9:20

place 1:16 6:7 7:17

plans 9:22

point 7:21 11:4 12:15 13:3

points 14:21

Policy 5:5 7:10

portion 9:23

possesses 16:6

possible 11:2 13:22 14:16, 22

post 11:11

posting 12:22

potential 6:23 7:5,13 10:7, 17 11:2,3 16:5

potentially 7:25 8:4

Powerpoint 6:10,20

preparation 8:12,21 11:8

prepare 12:14

prepared 4:20 8:7,25 12:6,10

preparing 6:17 7:21,22 8:16 14:24

present 7:5

presentation 6:10,20 7:17 8:19 12:25 15:2

pretty 14:1

previously 9:21 12:18

procedural 7:11

proceedings 16:17

process 5:9, 11,19 6:12, 21,22,25 7:2, 5,21 8:6,8,10, 21 9:3 10:14 11:4,6

project 1:5 4:9 6:5,18,23 7:5,23 8:14 9:6,14 10:1 15:24 16:6

property 4:25 5:2 6:11 9:13

proposed 4:8,20,22,24 5:1,19,25 6:11,17,23 7:8,13,14,23 9:6,13 10:1,3, 7,8 12:4

proposes 9:10

protection 4:11

provide 5:18 6:10,22 7:7,8

provided 11:23

provides 6:19 7:20

public 3:7 4:15,18 5:20 7:7 8:8 11:13, 14 12:6 14:6

publication 11:7

purpose 5:11, 18 6:21 7:3 15:7

purposes 7:19 9:8

Q

quality 10:25

question-and-answer 6:2

questions 6:4 12:20

quickly 13:3

R

range 10:12 11:17 12:5

real 13:3

reasonable 10:12 12:5

receive 13:24 14:9

received 12:8

recognized 4:23

record 8:10 14:13,14 15:6

recorded 14:12

reduced 10:16

refer 7:16

referred 11:6

referring 8:18

refers 11:17

refined 12:3

Region 4:12

REGIONAL 2:2

relate 14:23

related 12:9

relevant 5:21

relocate 9:22

remarks 14:4

remember 14:18

Report 8:13

REPORTER 1:18

REPORTER'S 17:1

representatives 13:10,16, 21

request 7:15

required 10:11

requirements 8:8,17

requires 5:6 7:11 8:12

reservation 9:15

respect 15:3

respond 6:3

responses 9:4 12:9

restate 14:14

restaurant 10:5

restaurants 9:10

restrooms 13:4

result 5:23 8:10

resulting 8:15

results 10:14

retail 9:11

review 5:7,12 7:4 8:21 9:2,5 11:6,13 12:3, 7

reviewed 12:2

revisions 12:10

Rogers 9:17, 25

room 10:22 13:6

rules 14:20

Ryan 2:6 4:16 6:13,15 13:2, 17

S

Sacramento 2:4,8

said 14:14

satisfy 8:17

Sawyer 2:6 3:4 4:16 6:14, 15 15:14,17

say 11:3

saying 15:5

scope 5:12, 13,21 7:8 11:16 12:2 14:23 15:8

scoping 1:8 4:8,19 5:10, 11 6:24 7:1 8:22 10:14 11:7,19,23 12:1 13:17

Second 14:25

seen 4:25

Services 2:6 4:16 6:16

set 14:3

she'll 15:13

short 4:13,20 5:6 16:11

should 5:13 6:6,7 7:23 11:3 12:19

showing 10:19

shown 9:14 10:1,8,24 12:17

shows 9:20

signed 8:3

significant 7:24,25 8:1,2, 4 12:13

site 5:4 9:14, 21,24 10:3,8, 18 11:12 12:22,24

site's 10:9

sites 10:20

situation 16:1

size 10:4

slide 6:19 7:20 9:14,20 10:1,19,24 12:18

small 14:1

solicit 5:20

solicits 11:14

south 9:16

space 9:11

speak 14:15

speaker 13:20

speakers 13:23 15:12 16:10,12

specialist 4:11

specific 5:22 14:22

specifically 15:4

spoken 11:24 13:7,19 14:10,11

square 10:4,5

stage 9:2 11:6

stand 15:15

start 6:5

state 6:22 8:12 14:25

Statement 8:7 12:14

States 4:13

station 9:23

statute 7:11

stenographer 14:11,16 15:5

steps 7:2 8:20

still 14:2,3

Stone 3:8 15:21

Street 2:7

study 5:14, 15,17

subject 9:21

submit 13:9 14:8

submitting 7:1

subsequent 4:21 9:9

suggestions 5:24 14:20

Suite 2:7

summarize 14:21

summary 6:22

Sun 11:8

support 15:24 16:7

switch 15:15

system 14:2

T

table 4:15 13:11,14,16, 20

take 5:8 6:7 13:23 15:13

taking 10:22

TEIR 6:22 8:22,24 9:1,3, 4 12:16

than 8:1 16:2

three 8:20 13:25 14:3,22

through 8:6 15:1

throughout 7:17 8:19

THURSDAY 4:1

time 1:15 5:14 14:4,5,7

timer 14:2

times 15:10

tonight 4:18 7:4 11:23 14:1 16:12

tonight's 6:2 13:8

topics 5:14 6:20

traffic 10:25 16:3

transportatio n 11:1 16:1,2

tremendous 15:24

tribal 6:21 8:13 9:11

Tribal-state 8:11

Tribe 4:23 5:3 7:16 8:12 9:9 12:15 16:7

Tribe's 9:15

trust 5:2,8 7:18 9:7,9,13

turned 15:17

types 5:16,22 11:18

typically 13:24

U

under 6:23

understand 13:22 14:16

United 4:13

use 9:11 10:6, 9 14:2

useful 14:24

uses 10:8

usually 13:25

V

vacant 9:18

viewed 11:10

views 15:1

Vista 1:17

W

want 6:1 14:4

wanted 13:3, 12 15:23

Way 2:3

weight 14:9

welcomes 4:7

west 9:19

western 10:8

whether 5:7 11:24 14:10

will 4:14,20 5:2 6:16 7:24 9:6 10:12,13, 16 11:11,25 12:2,3,5,7,10, 12,22 13:8,23 14:9,12,23 15:9,24 16:2

within 4:13 9:7,8,18 11:23 14:21

word 14:12

words 14:17

15:6

work 15:16

write 13:14, 21

written 11:20, 24 12:8,18 13:7,9,13 14:9,10

www.cathedralcitycasino.com. 11:11

APPENDIX C

OFF-RESERVATION ENVIRONMENTAL IMPACT ANALYSIS CHECKLIST

Off-Reservation Environmental Impact Analysis Checklist

I. Aesthetics

Would the project:	*Potentially Significant Impact*	*Less Than Significant With Mitigation Incorporation*	*Less than Significant Impact*	*No Impact*
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☒	☐
b) Substantially damage off-reservation scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☒	☐
c) Create a new source of substantial light or glare, which would adversely affect day or nighttime views of historic buildings or views in the area?	☐	☐	☒	☐

Refer to Section 4.10, Visual Resources, of the Environmental Assessment (EA).

II. Agricultural and Forest Resources

Would the project:	*Potentially Significant Impact*	*Less Than Significant With Mitigation Incorporation*	*Less than Significant Impact*	*No Impact*
a) Involve changes in the existing environment, which, due to their location or nature, could result in conversion of off-reservation farmland to non-agricultural use?	☐	☐	☐	☒

Neither the North Site or the South Site are designated or currently used for agricultural uses. Thus, no impact to agricultural resources would occur, and this topic has been eliminated from further consideration in the EA. For further information, refer to the Scoping Memorandum dated August 2018.

III. Air Quality

Would the project:	*Potentially Significant Impact*	*Less Than Significant With Mitigation Incorporation*	*Less than Significant Impact*	*No Impact*
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☒	☐
b) Violate any air quality standard or contribute to an existing or projected air quality violation?	☐	☐	☒	☐

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions, which exceed quantitative thresholds for ozone precursors)?	☐	☐	☒	☐
d) Expose off-reservation sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
e) Create objectionable odors affecting a substantial number of people off-reservation?	☐	☐	☐	☒

a-d Refer to Section 4.3, Air Quality, of the EA.

e No odor-producing facilities (such as landfills, wastewater treatment plants, or composing facilities) are located within two miles of alternative sites. Project alternatives would not include a wastewater treatment plant or other source of odor. Thus, no impact to odor would occur, and this topic has been was eliminated from further consideration in the EA. For further information, refer to the Scoping Memorandum dated August 2018.

IV. Biological Resources

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a) Have a substantial adverse impact, either directly or through habitat modifications, on any species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☒	☐	☐
b) Have a substantial adverse effect on any off-reservation riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☐	☒	☐
c) Have a substantial adverse effect on federally protected off-reservation wetlands as defined by Section 404 of the Clean Water Act?	☐	☐	☒	☐
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☒	☐

Would the project:	*Potentially Significant Impact*	*Less Than Significant With Mitigation Incorporation*	*Less than Significant Impact*	*No Impact*
e) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☒	☐

Refer to Section 4.4, Biological Resources, of the EA.

V. Cultural Resources

Would the project:	*Potentially Significant Impact*	*Less Than Significant With Mitigation Incorporation*	*Less than Significant Impact*	*No Impact*
a) Cause a substantial adverse change in the significance of an off-reservation historical or archeological resource?	☐	☐	☒	☐
b) Directly or indirectly destroy a unique off-reservation paleontological resource or site or unique off-reservation geologic feature?	☐	☐	☒	☐
c) Disturb any off-reservation human remains, including those interred outside of formal cemeteries?	☐	☐	☒	☐

Refer to Section 4.5, Cultural Resources, of the EA.

VI. Geology and Soils

Would the project:	*Potentially Significant Impact*	*Less Than Significant With Mitigation Incorporation*	*Less than Significant Impact*	*No Impact*
a) Expose off-reservation people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☒	☐
ii) Strong seismic ground shaking?	☐	☐	☒	☐

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
iv) Landslides?	☐	☐	☒	☐
b) Result in substantial off-reservation soil erosion or the loss of topsoil?	☐	☐	☒	☐

Refer to Section 4.1, Land Resources, of the EA.

VII. Hazards and Hazardous Materials

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a) Create a significant hazard to the off-reservation public or the off-reservation environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐
b) Create a significant hazard to the off-reservation public or the off-reservation environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☒	☐	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed off-reservation school?	☐	☐	☒	☐
d) Expose off-reservation people or structures to a significant risk of loss, injury or death involving wildland fires.	☐	☐	☒	☐

Refer to Section 4.12, Hazardous Materials, of the EA.

VIII. Water Resources

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a) Violate any water quality standards or waste discharge requirements?	☐	☐	☒	☐

Would the project:	*Potentially Significant Impact*	*Less Than Significant With Mitigation Incorporation*	*Less than Significant Impact*	*No Impact*
b) Substantially deplete off-reservation groundwater supplies or interfere substantially with groundwater recharge such that there should be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☒	☐
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion of siltation off-site?	☐	☐	☒	☐
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding off-site?	☐	☐	☒	☐
e) Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff off-reservation?	☐	☐	☒	☐
f) Place within a 100-year flood hazard area structures, which would impede or redirect off-reservation flood flows?	☐	☐	☒	☐
g) Expose off-reservation people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	☐	☐	☒	☐

Refer to Section 4.2, Water Resources, of the EA.

IX. Land Use

Would the project:	*Potentially Significant Impact*	*Less Than Significant With Mitigation Incorporation*	*Less than Significant Impact*	*No Impact*
a) Conflict with any off-reservation land use plan, policy, or regulation of an agency adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☒	☐
b) Conflict with any applicable habitat conservation plan or natural communities conservation plan covering off-reservation lands?	☐	☐	☒	☐

Refer to Section 4.8, Land Use, of the EA.

X. Mineral Resources

Would the project:	*Potentially Significant Impact*	*Less Than Significant With Mitigation Incorporation*	*Less than Significant Impact*	*No Impact*
a) Result in the loss of availability of a known off-reservation mineral resource classified MRZ-2 by the State Geologist that would be of value to the region and the residents of the state?	☐	☐	☐	☒
b) Result in the loss of availability of an off-reservation locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	☐	☐	☐	☒

The nearest mining operation to the alternative sites is located 8.5 miles to the northeast. Construction of project alternatives would not result in the loss of mineral resources. Thus, no impact to mineral resources would occur, and this topic has been eliminated from further consideration. For further information, refer to the Scoping Memorandum dated August 2018.

XI. Noise

Would the project result in:	*Potentially Significant Impact*	*Less Than Significant With Mitigation Incorporation*	*Less than Significant Impact*	*No Impact*
a) Exposure of off-reservation persons to noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☒	☐	☐
b) Exposure of off-reservation persons to excessive groundborne vibration or groundborne noise levels?	☐	☒	☐	☐
c) A substantial permanent increase in ambient noise levels in the off-reservation vicinity of the project?	☐	☒	☐	☐
d) A substantial temporary or periodic increase in ambient noise levels in the off-reservation vicinity of the project?	☐	☐	☒	☐

Refer to Section 4.11, Noise, of the EA.

XII. Population and Housing

Would the project:	*Potentially Significant Impact*	*Less Than Significant With Mitigation Incorporation*	*Less than Significant Impact*	*No Impact*
a) Induce substantial off-reservation population growth?	☐	☐	☒	☐
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere off-reservation?	☐	☐	☒	☐

Refer to Section 4.6, Socioeconomic Conditions/Environmental Justice, and Section 4.13, Cumulative Impacts and Indirect Effects, of the EA.

XIII. Public Services

Would the project:	*Potentially Significant Impact*	*Less Than Significant With Mitigation Incorporation*	*Less than Significant Impact*	*No Impact*
a) Result in substantial adverse physical impacts associated with the provision of new or physically altered off-reservation governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the off-reservation public services:				
i. Fire protection?	☐	☒	☐	☐
ii. Police protection?	☐	☒	☐	☐
iii. Schools?	☐	☐	☐	☒
iv. Parks?	☐	☐	☒	☐
v. Other public facilities?	☐	☐	☒	☐

i-ii Refer to Section 4.9, Public Services and Utilities, of the EA.

iii Project alternatives would not result in a substantial increase in population and housing, and therefore would not increase the student population. Thus, no impact to schools would occur, and this topic has been eliminated from further consideration in the EA. For further information, refer to the Scoping Memorandum dated August 2018.

iv-v Refer to Section 4.9, Public Services and Utilities, of the EA.

XIV. Recreation

Would the project:	*Potentially Significant Impact*	*Less Than Significant With Mitigation Incorporation*	*Less than Significant Impact*	*No Impact*
a) Increase the use of existing off-reservation neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☒	☐

Refer to Section 4.9, Public Services and Utilities, of the EA.

XV. Transportation / Traffic

Would the project:	*Potentially Significant Impact*	*Less Than Significant With Mitigation Incorporation*	*Less than Significant Impact*	*No Impact*
a) Cause an increase in off-reservation traffic, which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume-to-capacity ratio on roads, or congestion at intersections)?	☐	☒	☐	☐
b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated off-reservation roads or highways?	☐	☒	☐	☐
c) Substantially increase hazards to an off-reservation design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☒	☐
d) Result in inadequate emergency access for off-reservation responders?	☐	☐	☒	☐

Refer to Section 4.7, Transportation/Circulation, of the EA.

XVI. Utilities and Service Systems

Would the project:	*Potentially Significant Impact*	*Less Than Significant With Mitigation Incorporation*	*Less than Significant Impact*	*No Impact*
a) Exceed off-reservation wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☒	☐
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing	☐	☐	☒	☐

Would the project:	*Potentially Significant Impact*	*Less Than Significant With Mitigation Incorporation*	*Less than Significant Impact*	*No Impact*
facilities, the construction of which could cause significant off-reservation environmental effects?				
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant off-reservation environmental effects?	☐	☐	☒	☐
d) Result in a determination by an off-reservation wastewater treatment provider (if applicable), which serves or may serve the project that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☒	☐

Refer to Section 4.9, Public Services and Utilities, of the EA.

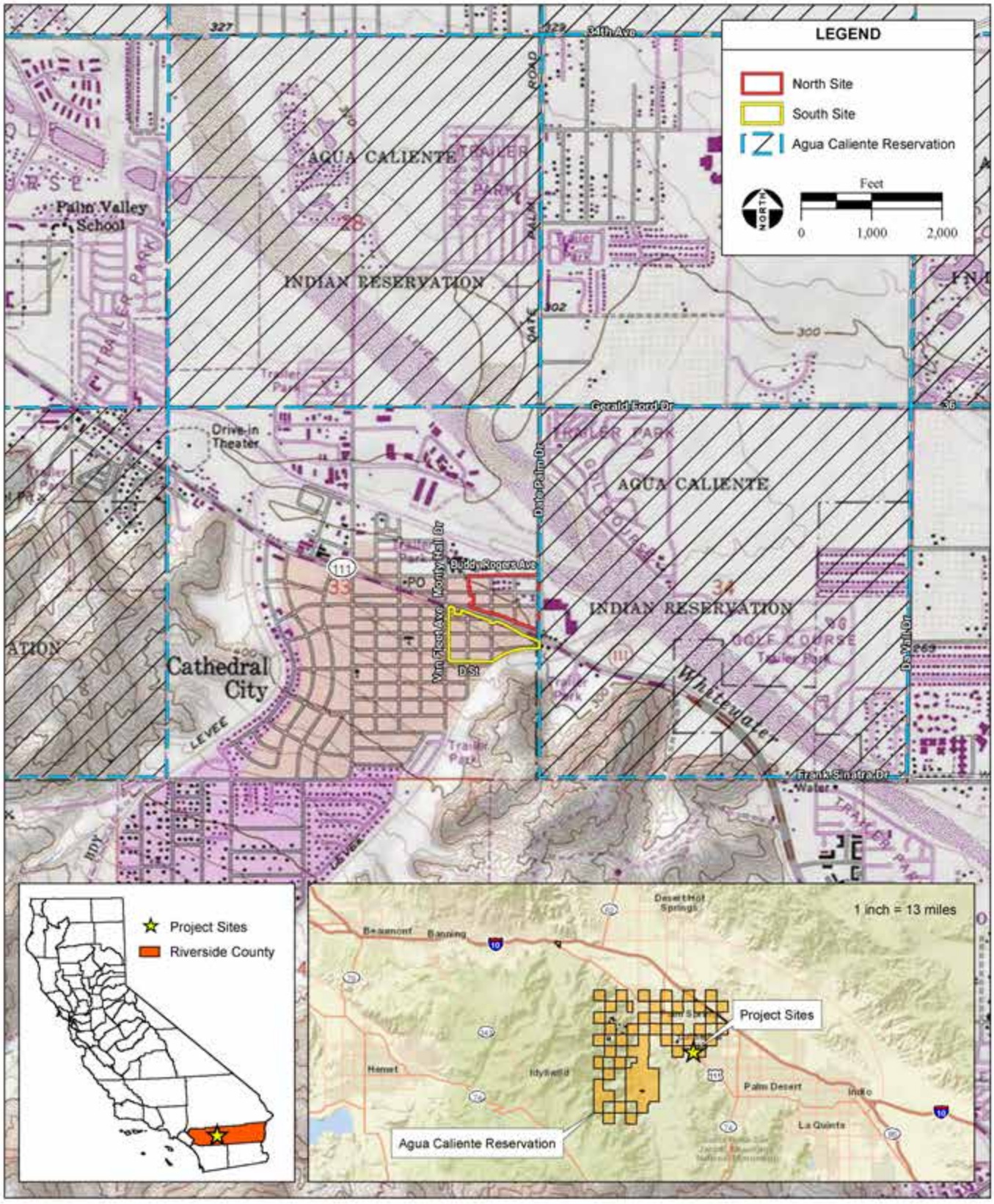
XVII. Cumulative Effects

Would the project:	*Potentially Significant Impact*	*Less Than Significant With Mitigation Incorporation*	*Less than Significant Impact*	*No Impact*
a) Have impacts that are individually limited, but cumulatively considerable off-reservation? "Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past, current, or probable future projects.	☐	☒	☐	☐

Refer to Section 4.13, Cumulative Impacts and Indirect Effects, of the EA.

APPENDIX D

FIGURES



SOURCE: "Cathedral City, CA" USGS 7.5 Minute Topographic Quadrangle, T4S R5E, Section 33, San Bernardino Baseline & Meridian; Riverside County GIS, 2017; ESRI Data, 2018; AES, 7/20/2018

Figure 2-1
Site and Vicinity



SOURCE: LandStatusPublic, 9/11/2017; Riverside County GIS, 2017;
Digitalglobe aerial photograph, 4/2017; ESRI Data, 2017; AES, 7/20/2018

Figure 2-2
Aerial Photograph of the Alternative Sites



SOURCE: Allen + Philp Partners, 2/20/2018; AES, 7/30/2018

Figure 2-3
Proposed Project Alternative Site Plan



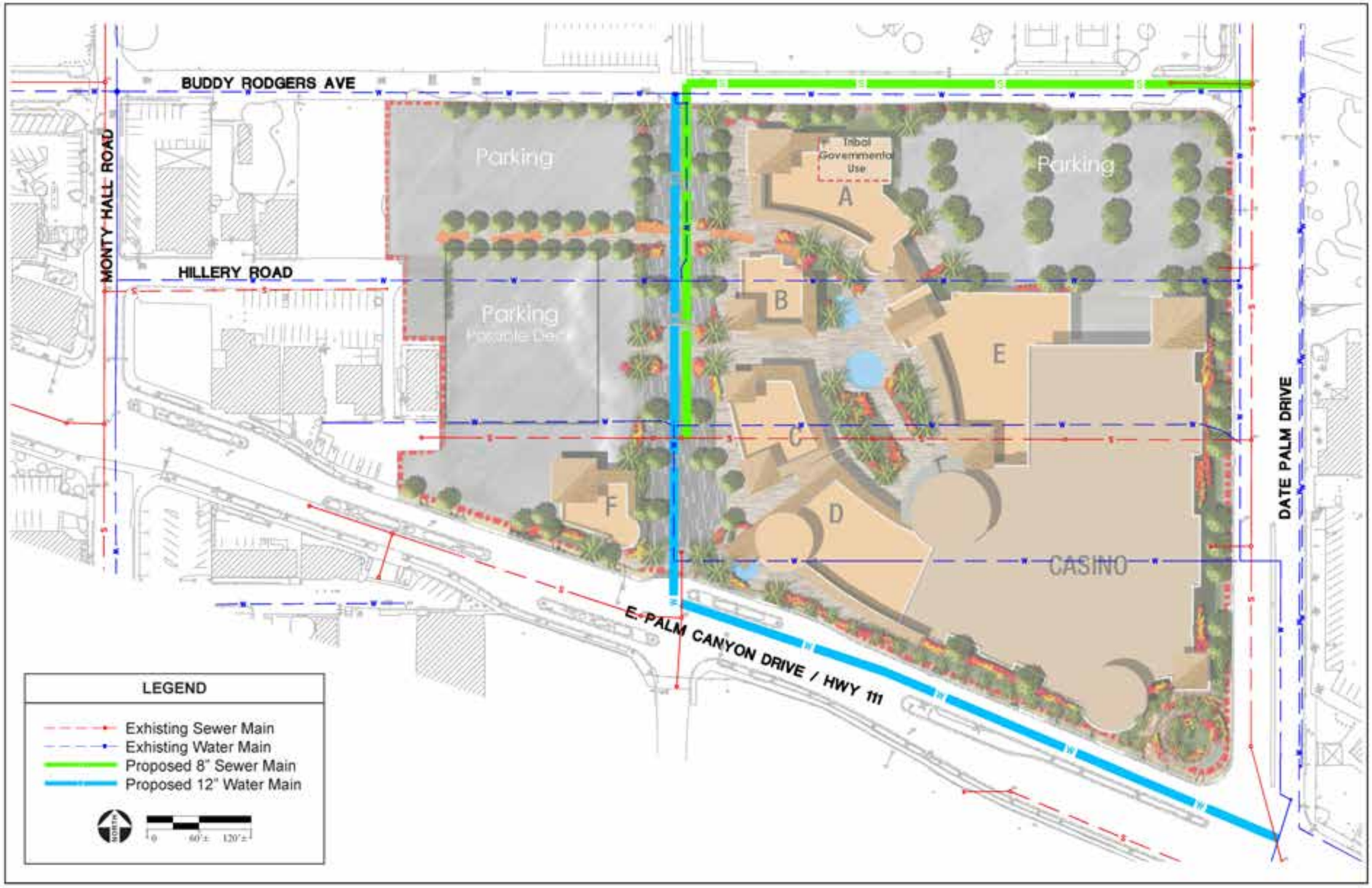
SOURCE: Allen + Philp Partners, 1/9/2018; AES, 7/27/2018

Figure 2-4
Reduced Intensity Alternative Site Plan



SOURCE: Allen + Philp Partners, 1/9/2018; AES, 7/27/2018

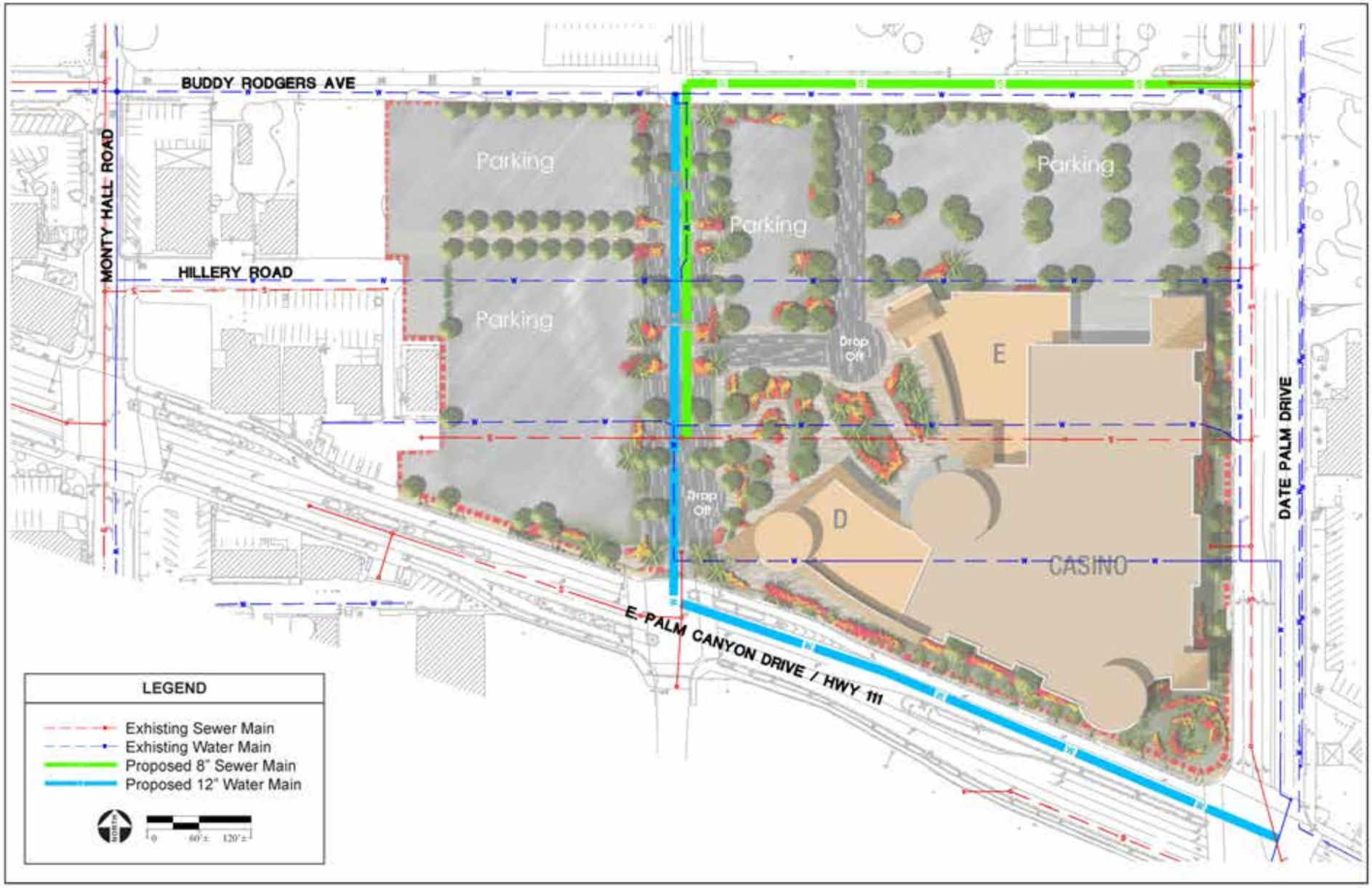
Figure 2-5
Non-Gaming Alternative Site Plan



SOURCE: MSA Consulting, Inc., 6/6/2018; AES, 7/30/2018

Figure 4.9-1

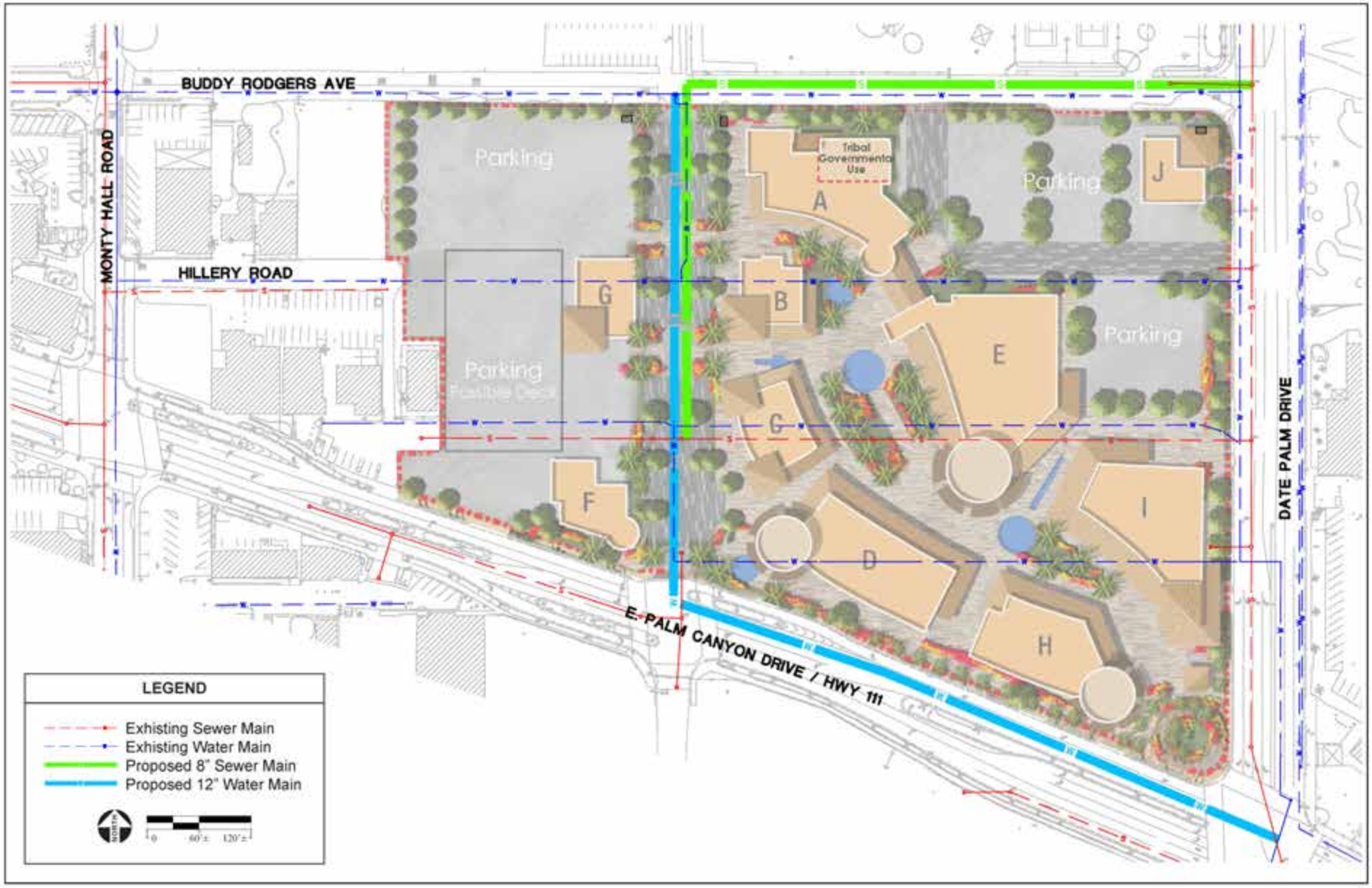
Proposed Project Alternative Water and Wastewater Utility Improvements



SOURCE: MSA Consulting, Inc., 6/6/2018; AES, 7/27/2018

Figure 4.9-2

Reduced Intensity Alternative Water and Wastewater Utility Improvements



SOURCE: MSA Consulting, Inc., 6/6/2018; AES, 7/27/2018

Figure 4.9-3

Non-Gaming Alternative Water and Wastewater Utility Improvements



SOURCE: Allen + Philp Partners, 1/26/2018; AES, 7/27/2018

Figure 4.10-1

Proposed Project Alternative and Reduced Intensity Alternative Architectural Rendering



SOURCE: Allen + Philp Partners, 1/26/2018; AES, 7/27/2018

Figure 4.10-2
Non-Gaming Alternative Architectural Rendering

APPENDIX E

ECONOMIC AND COMMUNITY IMPACT ANALYSIS

THE INNOVATION GROUP

Economic & Community Impact Analysis, Agua Caliente Band of Cahuilla Indians,

Cathedral City, CA

Prepared for:

Analytical Environmental Services

March 2018

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Cathedral City Economic & Community Impact Analysis

Table of Contents

INTRODUCTION 1

General Assumptions 1
Site Analysis 2

REGIONAL CASINO SUPPLY 9

Legislative Background of Tribal Gaming in California 9
Existing Properties 10
Proposed 10

GAMING MARKET ANALYSIS 11

Methodology 11
Market Carve-out 14
Calibration 16
Forecast Results Alternatives A, B and D 18

MIXED-USE RETAIL MARKET ASSESSMENT 20

Existing Conditions 20
Analysis 22
Assessment 22
Sales Forecast 23

COMPETITIVE EFFECTS ANALYSIS 24

Impacts on Other Casinos 25
Impact on Local Businesses 26
Casino Impacts: Academic Research 26
Casino Impact on the Local Hotel Market 27
Mixed-Use Retail Impact 29

ECONOMIC IMPACT ASSESSMENT 30

Methodology 30

ONGOING IMPACTS 33

Casino Operations 33
Operating Inputs 33
Proposed Project, Reduced Intensity, and Off-Site Alternatives (A, B & D) 34
Mixed-Use Retail Development Operations 34
Operating Inputs 34
Proposed Project (Alternatives A & D) 35
Reduced Intensity (Alternative B) 35
Non-gaming Alternative C 36

TOTAL ONGOING IMPACTS 36
CONSTRUCTION IMPACTS 38
PROPOSED PROJECT AND OFF-SITE ALTERNATIVES A & D 38
Estimated Construction Costs 38
Economic Impacts from Construction 39
REDUCED INTENSITY PROJECT ALTERNATIVE B 40
Estimated Construction Costs 40
Economic Impacts from Construction 41
NON-GAMING ALTERNATIVE C 41
Estimated Construction Costs 41
Economic Impacts from Construction 42
SOCIAL AND COMMUNITY IMPACT ANALYSIS 44
SECTION ONE: POPULATION AND EMPLOYMENT RELATED IMPACTS 45
Employment Impact 45
Household and Population Impact 48
School Impact 49
Housing Impact 50
Conclusion 51
SECTION TWO: MUNICIPAL SERVICES IMPACT 52
Police 52
Fire 53
Emergency Medical Services (EMS) 53
COMPARATIVE ANALYSIS 53
Criminal Incident Rates 54
Average Service Call Rates 58
Fire Incident Rates 60
Average Fire Incident Rates 62
CONCLUSION AND IMPLICATIONS FOR CATHEDRAL CITY 63
Fiscal Impacts and Municipal Services 63
Problem Gambling 68
APPENDIX A: PROBLEM GAMBLING RESEARCH 70
APPENDIX B: CASINOS AND CRIME 73
APPENDIX C: IMPACT ON LOCAL BUSINESS 80
APPENDIX D: CASINO EMPLOYMENT STATISTICS 83

INTRODUCTION

The Agua Caliente Band of Cahuilla Indians ("Tribe") is seeking property in Cathedral City, California for the development of a casino and mixed-use retail space. This analysis will address the economic impact of gaming and retail operations, as well as the one-time impacts of construction. The Cathedral City casino is scheduled to house approximately 500 slot machines and six-eight table games, food and beverage options and a casino retail shop. A mixed-use development consisting of 38,000-90,000-square feet of space is also planned.

The economic impact analysis is based on results in The Innovation Group's gaming and mixed-use retail market assessments located in the first portions of this report. For operating impacts, the Innovation Group's internal models were utilized, the results of which are reasonably consistent with the separate third-party feasibility study commissioned by the Tribe for the Tribe's business planning. Construction cost estimates provided by the Tribe were used to establish the one-time impact of construction activities.

The report covers the following four development options: the proposed project, a reduced intensity alternative, a non-gaming alternative, and an off-site alternative. The proposed project consists of a 65,000-square foot casino building and 60,000-square feet of additional mixed-use buildings. The reduced intensity alternative reduces the size of the mixed-use buildings to 38,000-square feet. The non-gaming alternative consists of 90,000-square feet of mixed used retail development.

The off-site alternative has the same program as the proposed project and is located directly across E. Palm Drive from the proposed site. Therefore, the off-site alternative would have no material difference in socio-economic impact as the proposed project.

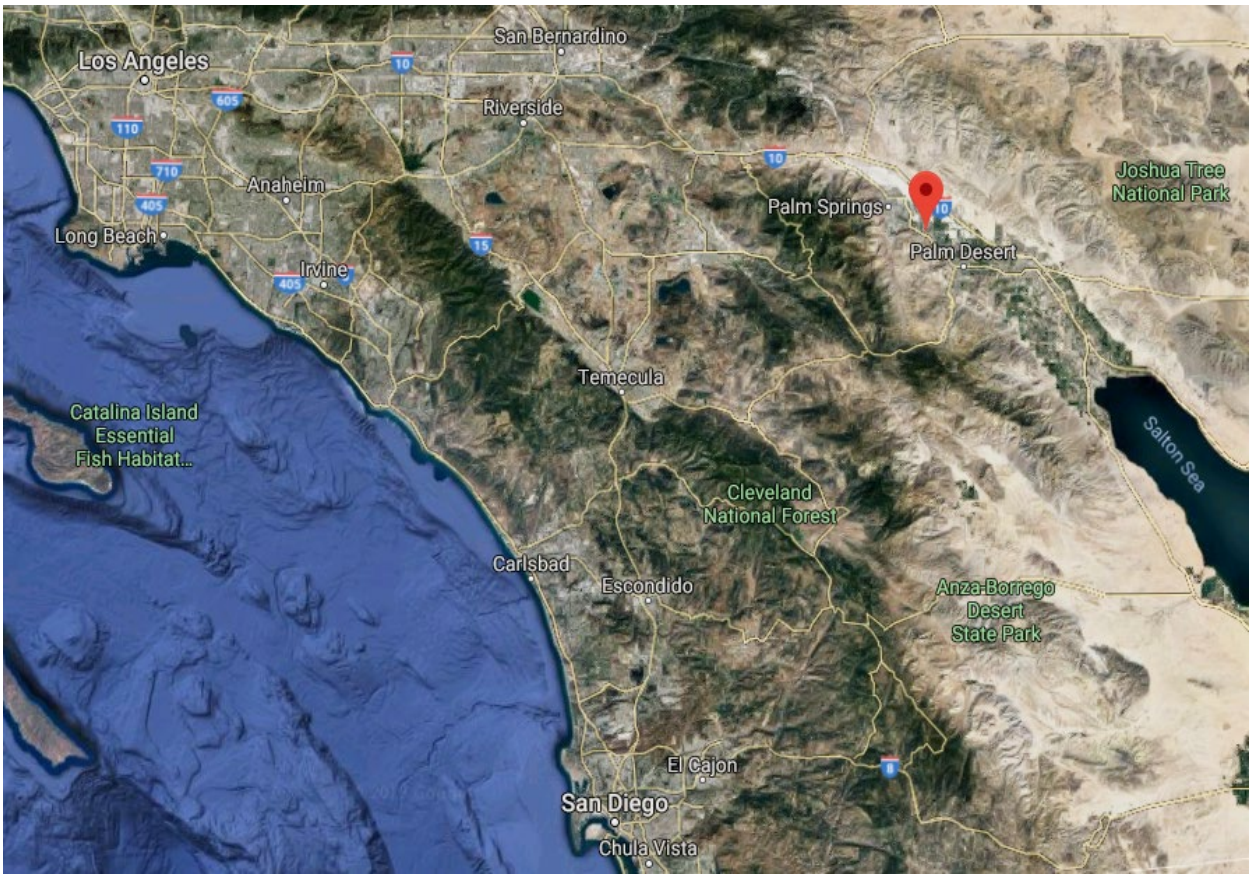
General Assumptions

In evaluating prospective gaming and ancillary revenues, the following assumptions were made:

- The facility is expected to open by 2020, with its first full year of operations in 2021;
- No major economic downturn will be experienced in the region during the timeframe of this report;
- The gaming environment in Southern California will not vary substantially from what currently exists; and
- The facility will contain the 500 slot machines and six-eight table games as well as appropriate amenities as noted by the site plans.

Site Analysis

The proposed project site is in the central portion of Riverside County, California, in Cathedral City. Located in the Coachella Valley between Palm Springs and Rancho Mirage, the area is nestled between three mountain ranges, the San Bernardino, San Jacinto, and Santa Rosa. The Coachella Valley, known primarily as a resort destination, is also considered part of the Sonoran Desert. Despite its isolated location, the region is accessible by Interstate I-10 from Los Angeles and Phoenix as well as several State Routes that cut across the mountain ranges.



The proposed project site is in downtown Cathedral City, at the junction of State Highway CA-111 and Date Palm Dr. State Highway 111, known locally as E. Palm Canyon Drive, is a five-lane semi-divided highway that runs through Coachella Valley connecting Interstate I-10 just north of Palm Springs down to the U.S.-Mexico border. The heavily used corridor is lined with small businesses, shopping centers, restaurants and automotive dealerships.



The proposed project site is currently comprised of a few small businesses and several undeveloped lots. A few lots fronting E. Palm Canyon Drive are zoned for Mixed-Use Commercial (MXC) development, although the remaining lots north of Dawes St. are zoned Downtown Residential (DRN). However, the latest land use map revised in 2014 indicates the entire site falls under the Downtown Commercial (DTC) district. The proposed points of entry for the proposed project will be on Allen Ave. from E. Palm Canyon and Buddy Roger Ave. from Date Palm Dr.

The alternative site is directly across E. Palm Canyon Drive from the proposed project site.



The following site plans show the four options: the proposed project, a reduced intensity alternative, a non-gaming alternative, and off-site alternative. The proposed project consists of a 65,000-square foot casino building, 60,000-square feet of additional mixed-use buildings, and adjacent parking lots for up to 1,000 vehicles. The reduced intensity alternative is identical to the proposed project, except it reduces the size of the adjacent mixed-use building to 38,000-square feet and total parking spaces to 850. The non-gaming alternative consists of 90,000-square feet of mixed used retail development. The off-site alternative also consists of a 65,000-square foot casino building and 60,000-square feet of additional mixed-use buildings, identical to the proposed project.


Project Data
CASINO 500 Slots / 65,000 sf
Gaming 40,000 sf
BOH / Support 17,500 sf
Restaurant 5,000 sf
Retail 2,500 sf
MIXED USE 60,000 sf
BLDG A 6,800 sf
BLDG B 4,200 sf
BLDG C 6,500 sf
BLDG D 13,000 sf
BLDG E 25,000 sf
BLDG F 4,500 sf
ESTIMATED TOTAL PROJECT 125,000 sf
ESTIMATED PARKING
Approx. 1,000 Spaces
Note: All building area estimated pending final programming and design.
Formal Entry
Parking
Tribal Government Use
A
Parking
Parking
Possible Deck
B
E
C
F
D
CASINO
Formal Entry
Park Monument Signage
Agua Caliente Fee-to-Trust
Cathedral City Casino Project
Conceptual Site Plan | Proposed Project
Allen Partners


Formal Entry
Parking
Parking
Parking
Parking
Drop Off
Drop Off
E
D
CASINO
Formal Entry
Park Monument Signage
Project Data
CASINO 500 Slots / 65,000 sf
Gaming 40,000 sf
BOH / Support 17,500 sf
Restaurant 5,000 sf
Retail 2,500 sf
MIXED USE 38,000 sf
BLDG D 13,000 sf
BLDG E 25,000 sf
ESTIMATED TOTAL PROJECT 103,000 saf
ESTIMATED PARKING
Approx. 850 Spaces
Note: All building area estimated pending final programming and design.
Agua Caliente Fee-to-Trust
Cathedral City Casino Project
Conceptual Site Plan | Reduced Intensity Alternative
Scale: 1" = 64'-0"
0' 32' 64' 128' 256'
Allen Partners


Formal Entry
Parking
Tribal Governmental Use
A
Parking
J
G
B
Parking
Possible Deck
E
Parking
C
F
I
D
H
Formal Entry
Park Monument Signage
Project Data
MIXED USE 90,000 sf
BLDG A 9,500 sf
BLDG B 4,500 sf
BLDG C 6,500 sf
BLDG D 12,500 sf
BLDG E 20,000 sf
BLDG F 5,000 sf
BLDG G 5,000 sf
BLDG H 10,000 sf
BLDG I 12,000 sf
BLDG J 5,000 sf
ESTIMATED PARKING
Approx. 700 Spaces
Note. All building area estimated pending final programming and design.
Agua Caliente Fee-to-Trust
Cathedral City Casino Project
0' 32' 64' 128' 256'
Conceptual Site Plan | Non-Gaming Alternative
Allen Matkins Partners


Project Data
CASINO 500 Slots / 65,000 sf
Gaming 40,000 sf
BOH / Support 17,500 sf
Restaurant 5,000 sf
Retail 2,500 sf
MIXED USE 60,000 sf
BLDG A 9,500 sf
BLDG B 8,000 sf
BLDG C 14,000 sf
BLDG D 9,500 sf
BLDG E 21,000 sf
ESTIMATED TOTAL PROJECT 125,000 sf
ESTIMATED PARKING
Approx. 1,150 Spaces
Monument Signage
Existing
Tribal Governmental Use
A
Parking
B
C
Dawes St
Allen Ave
Monument Signage
Formal Entry
E
Courtyard
CASINO
Service
Parking
Service
D
Casino Entry
Van Fleet St
D St
0' 32' 64' 128' 256'
Agua Caliente Fee-to-Trust
Cathedral City Casino Project
Conceptual Site Plan | Off-Site Alternative
Scale : 1" = 64'-0"
Allen Phillips Partners

REGIONAL CASINO SUPPLY

The Agua Caliente Band of Cahuilla Indians compete with other Native American gaming facilities in California. The following section presents the legislative background including the various compacts in the state, as well as the competitive landscape in southern California.

Commercial card rooms also operate in California, but there are no commercial card rooms in the Coachella Valley. Commercial card rooms are not permitted to offer slot machines or house-banked card games. The closest card rooms to the subject site are in Blythe and Lake Elsinore, well outside the primary markets of impact relevant to the proposed Cathedral City casinos. No measurable impact on any commercial card room is expected.

Legislative Background of Tribal Gaming in California

Native American gaming in the United States commenced as a result of the National Indian Gaming Regulatory Act (IGRA), which was passed by the U.S. Congress in 1988. It was lead in part due to work from the Cabazon Band of Mission Indians in their break through case known as the Cabazon Decision of 1987. It effectively overturned the existing gaming laws regarding Indian reservations in the U.S. The IGRA provides for a system of joint regulation of Class II gaming on Indian lands by tribes and the Federal Government and establishes a system for compacts between tribes and states concerning the regulation of Class III gaming. By law, Class II gaming is defined as (1) bingo or lotto, whether or not electronic, computer or other technological aids are used; (2) pull-tabs, punch-boards, tip jars, instant bingo, and other similar games if played in the same location as bingo or lotto; (3) non-banking card games that a) state law explicitly authorizes, or does not explicitly prohibit, and are played legally anywhere in the state, and b) players play in conformity with state laws and regulations concerning hours, periods of operation, and limitations on wagers and pot sizes; (4) or other Class II gaming facilities in operation prior to 1988. By default, Class III gaming is defined as gaming activities that are not Class I or II, or those generally referred to as house-banked, which include Vegas-style games such as blackjack, roulette, craps and video lottery terminals, or slot machines.

IGRA established a process of compact negotiation between federally recognized tribes and state governments, which precedes casino development. States have the right to place limitations on the number and type of games as well as the location of casinos (off or on reservation land) and the selling and consumption of alcohol. Class II operations do not require a compact for negotiation and usually consist of bingo halls and non-house-banked gaming devices.

Class III tribal gaming can vary by state, depending upon the results of compact negotiation between federally recognized tribes and individual governors. Some states execute compacts that restrict the games casinos can offer, number or size, as well as tax payment agreements and compact expiration dates.

Existing Properties

The following table presents all existing casinos The Innovation Group considered as competitive properties for the proposed development and its market areas.

Cathedral City Casino Competition and Market

Company	Slots	Tables	Positions	Hotel Rooms	F&B Venues
50 Miles					
Agua Caliente Casino Resort Spa	1,300	36	1,516	340	5
Spa Resort Casino	890	29	1,064	-	5
Fantasy Springs Resort Casino	2,000	40	2,240	250	11
Spotlight 29 Casino	1,600	21	1,726	-	4
Augustine Casino	760	8	808	-	2
Morongo	2,888	75	3,338	310	11
Cahuilla Casino	349	0	349	-	1
Red Earth Casino	360	0	360	-	1
Soboba Casino	2,000	20	2,120	-	2
51-100 Miles					
Tortoise Rock Casino	490	7	532	-	2
San Manuel Bingo & Casino	4,700	84	5,204	-	8
Pechanga Resort & Casino	3,800	198	4,988	517	14
Pala Casino Resort and Spa	2,000	85	2,510	507	10
Casino Pauma	1,050	23	1,188	-	4
Harrah`s Resort Southern California	1,700	60	2,060	1,108	12
Valley View Casino & Hotel	2,000	21	2,126	108	9
100+ Miles					
Barona Resort & Casino	2,100	91	2,646	400	11
Viejas Casino	2,000	28	2,168	239	7
Sycuan Casino & Resort	2,000	43	2,258	100	7
Hollywood Casino Jamul	1,700	43	1,958	-	8
Golden Acorn Casino	750	10	810	-	3
Chumash	2,300	45	2,570	320	6

Source: The Innovation Group, Casino Websites, Casinocity.com

Proposed

There are no other proposed casinos in the market area that have been approved for development. The La Jolla tribe has been attempting to re-open casino operations in a mountainous region of San Diego County, but the remote location would not pose a competitive impact on Cathedral City.

GAMING MARKET ANALYSIS

The Innovation Group conducted a Gaming Market Assessment for the Agua Caliente casino in Cathedral City using a complex drive-time gravity model. The assessment estimates gamer visits and resulting gaming revenue, as well as "win per visit" and "win per position" per day for the facility.

Methodology

In developing this analysis, a gravity model was employed. Gravity models are commonly used in location studies for commercial developments, public facilities and residential developments. First formulated in 1929 and later refined in the 1940s, the gravity model is an analytical tool that defines the behavior of a population based on travel distance and the availability of goods or services at various locations. The general form of the equation is that attraction is directly related to a measure of availability such as square feet and inversely related to the square of the travel distance. Thus, the gravity model quantifies the effect of distance on the behavior of a potential patron and considers the impact of competing venues.

The basic formulation is that the interaction between two or more gaming venues is based on Newton's Law of Universal Gravitation: two bodies in the universe attract each other in proportion to the product of their masses and inversely as the square distance between them. Thus, expected interaction between gaming venue i and market area j is shown as:

$$k \times \frac{P_i \times P_j}{d_{ij}^2}$$

where Pi = the gaming positions in gaming venue i, Pj = the population in market area j, dij = the distance between them, and k = an attraction factor relating to the quality and amenities to be found at each gaming venue in comparison to the competing set of venues. When this formulation is applied to each gaming venue gaming trips generated from any given zip code are then distributed among all the competing venues.

The gravity model included the identification of 18 discrete market areas based on drive times and other geographic features and the competitive environment. Using our GIS software and CLARITAS database[1], the adult population (21 and over), latitude and longitude, and average household income is collected for each zip code.

[1]The GIS software used was MapInfo. This software allows for custom data generally in a tabular format with a geographic identification code (census tract, zip code, latitude and longitude, or similar identifier) to be mapped or displayed and integrated with other geographic census based information such as location of specific population or roadways. MapInfo is one of the most widely used programs in the geographic information systems industry. Nielsen Claritas is a vendor of demographic information located in the United States. Nielsen Claritas provides census demographic and psychographic data on a variety of geographic levels of detail ranging from census block groups and counties to postal zip codes. Their information is updated every six months and includes a current year

Each of these market areas is assigned a unique set of propensity and frequency factors. Gamer visits are then generated from zip codes within each of the areas based on these factors. The gamer visits thus generated are then distributed among the competitors based upon the size of each facility, its attractiveness and the relative distance from the zip code in question. The gravity model then calculates the probabilistic distribution of gamer visits from each market area to each of the gaming locations in the market.

Each travel distance/time is evaluated to determine the likely alternative gaming choices for residents of the region. The model is constructed to include only those alternative venues that are considered to be within a reasonable travel time. These include competing casinos that have the potential to attract patrons from the market. Travel distances and time have been developed through use of our GIS system.

The following section provides a description and definition of the various components of the model.

Gamer Visits

This measure is used to specify the number of patron trips to a gaming market, where an individual can make any number of separate visits in the course of a year. In order to estimate the gamer visits, market penetration rates, made up of the separate measures of propensity and frequency, are applied to the adult population in each zip code. A gamer visit can include more than one visit to a casino.

Propensity

Propensity measures the percentage of adults who will participate in casino gaming within the zip code. This varies based upon a number of factors, which includes the number of gaming venues, their type (i.e. landbased versus cruising riverboat versus dockside riverboat), games permitted, availability of other entertainment and leisure options, and most importantly distance from a gaming venue. Propensity in the inner market areas from 0-50 miles can vary between the high thirty per cent range in a single cruising riverboat market to the fifty percent range, or more, for multiple land based casinos with a well-developed array of amenities.

Frequency

This measures the average number of visits that an adult will make annually to casinos in the subject market. Frequency is a function of annual gaming budget as indicated by income variations, the number of venues in the market, the type of gaming facility and most importantly distance from a gaming venue.

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estimate and provides a five year forecast for the future. The Innovation Group has utilized this data for inputs to its models for the last six years and has purchased full access to their demographic database for the entire United States.

MPI (Market Potential Index)

Propensity also varies as a function of each market's average market potential index (MPI) score. MPI scores are generated by Simmons Survey, a respected consumer research firm that conducts a nationwide survey of consumer behavior, including propensity to gamble at a casino. This score is an indication of the degree of likelihood that a person will participate in gaming based upon their lifestyle type. The MPI score inflates or discounts the participation rate of each zip code. For example, if a market area has an overall participation rate of 4.0 (propensity of 40% times frequency of 10), an MPI score of 120 for a particular zip code would effectively inflate the participation rate of that zip code to 4.8 (4.0 times 120%). The overall MPI score for the market area is a weighted average of all the zip codes within the area.

Win per Visit

Win per visit varies not only by gaming jurisdiction, but also in some cases by individual facilities. Normatively, win per visit is a function of distance and income. Gamers traveling greater distances tend to spend more per visit, typically making fewer gamer visits on average.

Attraction Factors

Attraction factors measure the relative attraction of one gaming venue in relation to others in the market. Attraction factors are applied to the size of the gaming venue as measured by the number of positions it has in the market. Positions are defined as the number of gaming machines plus the number of seats at gaming tables. A normative attraction factor would be one. When this is applied to the number of positions in a gaming venue there is no change in the size of the gaming venue as calculated by the model and hence its attraction to potential patrons. A value of less than one adjusts the size of the gaming venue downwards and conversely a value greater than one indicates that the gaming venue has characteristics that make it more attractive. Attraction factors can be based on a number of components including branding, the level and effectiveness of marketing efforts, and the level of quality and amenities of a facility. Attraction factors are also adjusted to model the presence of natural and man-made boundaries which impact ease of access and convenience of travel in the market area.

The sensitivity of the model to changes in these factors is not in the nature of a direct multiplication. For example, a doubling of the attraction factor will not lead to a doubling of the gamer visits attracted to the site. It will however cause a doubling of the attractive power of the gaming venue, which is then translated via non-linear equations into an increase in the number of gamer visits attracted to the gaming venue. This is based upon the location, size and number of competing gaming venues and their relationship to the market area to which the equation is applied. The variation of these factors is based upon The Innovation Group's experience in developing and applying these models, and consideration of the existing visitation and revenues. The latter represents the calibration of the model and has been accomplished by adjusting attraction factors to force the model to recreate the existing revenues and patron counts. In this case attraction factors have been adjusted for each casino for each market area. This is based upon known visitation patterns.

Market Carve-out

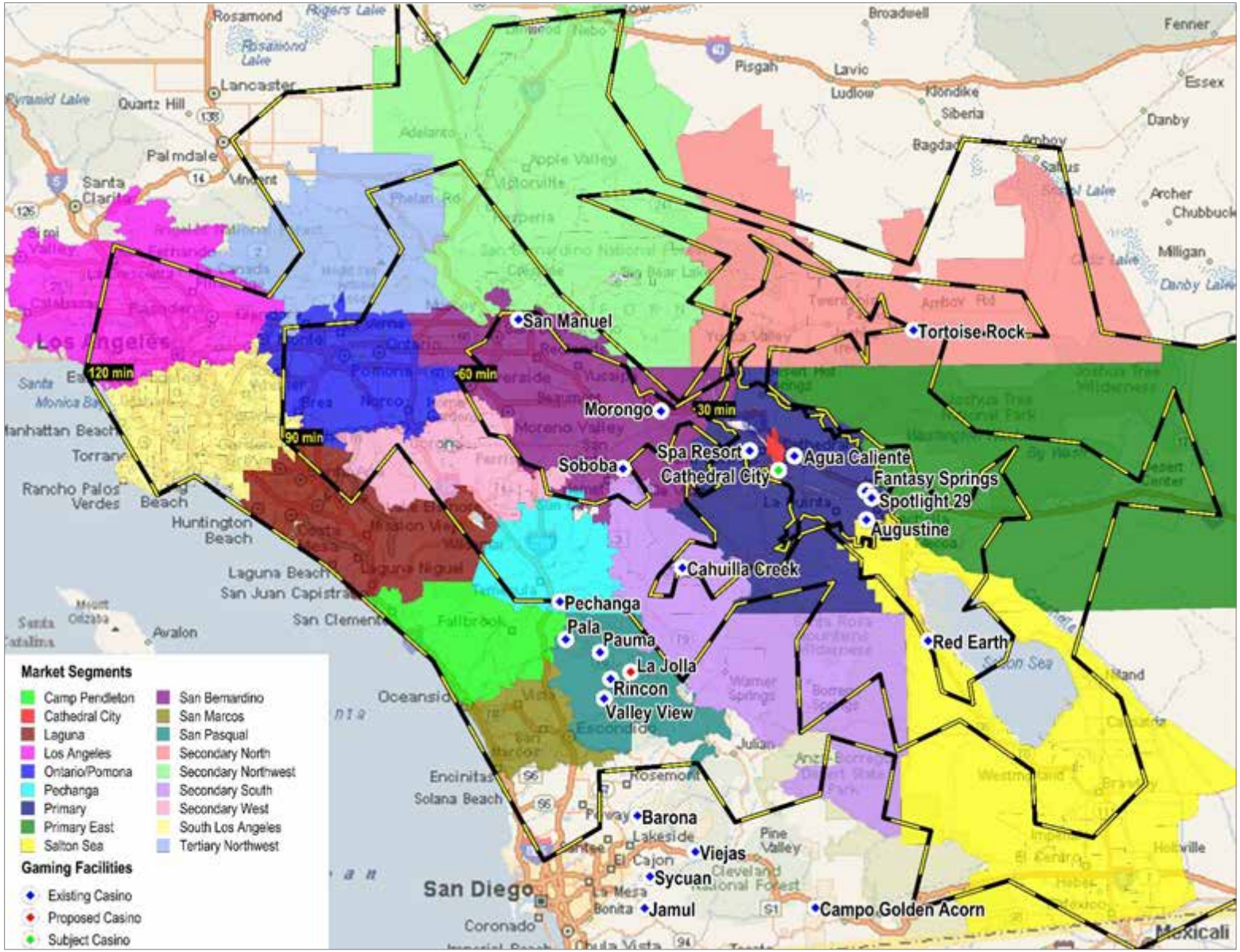
The Cathedral City market has been carved into 18 distinct market areas, from which it could be expected that different participation rates may be expected depending on the level and location of competition that is present in the market currently and in the future. The following map and table show the market areas and their respective adult population (21 and over) and average household income.

Market Area Demographics

	Adult Pop 2017	Adult Pop 2022	CAGR 2017-2022	Average HHI 2017	Average HHI 2022	CAGR 2017-2022
Cathedral City	39,781	42,708	1.43%	$64,568	$68,885	1.30%
Primary East	18,527	18,849	0.35%	$59,906	$64,213	1.40%
Secondary Northwest	363,909	392,605	1.53%	$62,777	$66,534	1.17%
San Bernardino	1,000,773	1,068,989	1.33%	$70,043	$75,109	1.41%
Primary	284,874	306,167	1.45%	$76,818	$83,104	1.59%
Ontario/Pomona	1,409,594	1,489,103	1.10%	$92,550	$99,394	1.44%
Secondary North	50,562	52,854	0.89%	$53,450	$56,675	1.18%
Secondary South	46,530	49,490	1.24%	$59,874	$63,548	1.20%
Secondary West	379,914	407,481	1.41%	$91,502	$98,719	1.53%
Tertiary Northwest	70,714	76,087	1.48%	$74,427	$80,534	1.59%
Pechanga	257,923	287,033	2.16%	$95,397	$103,285	1.60%
South Los Angeles	3,396,857	3,573,178	1.02%	$78,446	$84,786	1.57%
Laguna	1,616,281	1,718,380	1.23%	$111,599	$119,966	1.46%
Los Angeles	3,575,365	3,743,251	0.92%	$90,926	$98,528	1.62%
Camp Pendleton	180,573	192,434	1.28%	$100,374	$109,499	1.76%
San Pasqual	60,529	64,480	1.27%	$85,884	$94,024	1.83%
San Marcos	447,580	476,812	1.27%	$95,042	$105,185	2.05%
Salton Sea	138,707	146,841	1.15%	$58,731	$62,042	1.10%
Total/Average	**13,338,993**	**14,106,742**	**1.13%**	**$87,340**	**$94,315**	**1.55%**
State	*28,784,364*	*30,461,491*	*1.1%*	*$95,671*	*$104,510*	*1.8%*
National	*237,338,185*	*248,320,865*	*0.9%*	*$80,853*	*$87,464*	*1.6%*

Source: iXPRESS, Nielsen Claritas, Inc.; MapInfo: The Innovation Group; CAGR=Compound Annual Growth Rate

Cathedral City Market Area



Calibration

The modeling starts with a base calibration. Inputs are entered into the calibration model to recreate the estimated gaming visits and revenue for a previous 12-month period, in this case calendar year 2017. The calibration was performed with gaming revenue and player data provided by the Tribe for the Agua Caliente Casino (ACC) and the Spa Resort. Gaming revenue for competing casinos was estimated based on the Innovation Group's extensive experience in the region, having worked for several of the major competitors in the market.

The following table shows the rates for propensity, frequency, and win per visit (WPV) by market area that were used to re-create the actual conditions in the Base 2017 model. WPV has been varied based on differences between market areas in average household income and travel time.

Participation Rates Base 2017

	Propensity	Frequency	WPV
Cathedral City	44.1%	18.4	$73
Primary East	23.9%	7.3	$81
Secondary Northwest	29.6%	9.7	$80
San Bernardino	35.8%	14.0	$79
Primary	46.1%	18.8	$78
Ontario/Pomona	31.1%	11.1	$85
Secondary North	37.5%	15.0	$74
Secondary South	35.9%	14.1	$76
Secondary West	31.8%	11.6	$85
Tertiary Northwest	30.3%	10.7	$82
Pechanga	38.5%	15.7	$82
South Los Angeles	24.9%	7.9	$85
Laguna	24.5%	7.6	$92
Los Angeles	24.5%	7.6	$87
Camp Pendleton	32.9%	12.2	$86
San Pasqual	38.7%	15.8	$80
San Marcos	34.5%	13.2	$84
Salton Sea	28.8%	9.9	$79

Source: The Innovation Group

The following table shows gravity model gaming visits and revenues for the base calibration. The revenues reflect the total potential gaming revenue from the defined market area in 2017.

Gravity Model Base 2017: Total Market

	Gaming Visits	WPV	Revenues (MMs)
Cathedral City	326,606	$73	$23.9
Primary East	26,797	$81	$2.2
Secondary Northwest	1,027,389	$80	$82.3
San Bernardino	5,444,746	$79	$427.8
Primary	2,452,132	$78	$192.2
Ontario/Pomona	5,423,077	$85	$463.0
Secondary North	234,309	$74	$17.4
Secondary South	216,828	$76	$16.6
Secondary West	1,480,922	$85	$125.6
Tertiary Northwest	238,980	$82	$19.6
Pechanga	1,655,239	$82	$135.8
South Los Angeles	7,726,391	$85	$654.0
Laguna	3,336,804	$92	$306.2
Los Angeles	7,424,864	$87	$649.1
Camp Pendleton	732,048	$86	$63.0
San Pasqual	371,093	$80	$29.7
San Marcos	2,115,080	$84	$178.1
Salton Sea	366,970	$79	$29.1
Total	**40,600,274**	**$84**	**$3,415.6**

Source: The Innovation Group

The next step in the analysis is to create a base model for 2021 using projected population growth. This forecast represents the baseline against which the impact of adding the subject project will be measured.

Gravity Model Base 2021: Total Market

	Gaming Visits
Cathedral City	345,693
Primary East	27,182
Secondary Northwest	1,092,279
San Bernardino	5,738,739
Primary	2,598,212
Ontario/Pomona	5,664,935
Secondary North	242,806
Secondary South	227,526
Secondary West	1,565,486
Tertiary Northwest	252,792
Pechanga	1,803,172
South Los Angeles	8,046,023
Laguna	3,503,107
Los Angeles	7,701,894
Camp Pendleton	770,344
San Pasqual	390,276
San Marcos	2,224,758
Salton Sea	384,059
Total	**42,579,282**

Source: The Innovation Group

Forecast Results Alternatives A, B and D

As discussed, we developed a comprehensive drive-time gravity model which forecasts local market gamer visits and gaming revenue. The gravity model weighs the impact of the proposed Cathedral City casino based on its size in terms of gaming positions combined with an attraction factor which measures quality and scope. The additional gaming location would slightly enhance the convenience of gaming for residents in the Cathedral City market area, and thus slightly increase their propensity and frequency. There is no difference in the casino development in the three gaming alternatives (A, B and D); therefore, the results in this section apply to all three alternatives.

The following table shows the participation rates used in the forecasted scenario (Alternatives A, B and D).

Participation Rates Forecast 2021: Alternatives A, B and D

	Propensity	Frequency
Cathedral City	44.4%	18.6
Primary East	23.9%	7.3
Secondary Northwest	29.6%	9.7
San Bernardino	35.8%	14.0
Primary	46.1%	18.8
Ontario/Pomona	31.1%	11.1
Secondary North	37.5%	15.0
Secondary South	35.9%	14.1
Secondary West	31.8%	11.6
Tertiary Northwest	30.3%	10.7
Pechanga	38.5%	15.7
South Los Angeles	24.9%	7.9
Laguna	24.5%	7.6
Los Angeles	24.5%	7.6
Camp Pendleton	32.9%	12.2
San Pasqual	38.7%	15.8
San Marcos	34.5%	13.2
Salton Sea	28.8%	9.9

Source: The Innovation Group

The gravity model apportions gamer visits based on the travel time between the market segments and the gaming facilities, while considering the size (gaming positions), quality, and scope of each competitor. The model gauges the quality and scope of the competitive set using an attraction factor. The proposed casino is estimated to capture the majority of its gamer visits from the Primary market area.

Gravity Model Forecast 2021 Alternatives A, B and D

Market Segments	Total Market Gamer Visits	Subject Capture	Subject Gamer Visits
Cathedral City	351,374	23.8%	83,608
Primary East	27,182	3.2%	870
Secondary Northwest	1,092,279	1.2%	13,340
San Bernardino	5,738,739	0.5%	28,243
Primary	2,598,212	9.1%	235,996
Ontario/Pomona	5,664,935	0.4%	23,857
Secondary North	242,806	3.5%	8,533
Secondary South	227,526	0.6%	1,472
Secondary West	1,565,486	1.0%	16,315
Tertiary Northwest	252,792	1.6%	3,943
Pechanga	1,803,172	0.2%	4,130
South Los Angeles	8,046,023	0.4%	34,554
Laguna	3,503,107	0.5%	17,927
Los Angeles	7,701,894	1.0%	77,146
Camp Pendleton	770,344	0.3%	2,035
San Pasqual	390,276	0.1%	245
San Marcos	2,224,758	0.1%	3,033
Salton Sea	384,059	1.5%	5,792
Total	**42,584,963**	**1.3%**	**561,040**

Including capture of traffic and tourism, total visits are estimated at more than 586,000.

Total Gaming Visits 2021 Alternatives A, B and D

Local Market	561,040
Out-of-market, Traffic & Tourism	25,247
Total	**586,287**

MIXED-USE RETAIL MARKET ASSESSMENT

The Mixed-Use Retail Assessment that follows provides market research conducted by The Innovation Group to determine the feasibility of retail development on the proposed sites. We tested the feasibility of a mixed-used retail development, including food & beverage outlets, ranging in size from 38,000 square feet to 90,000 square feet. As described below, we utilized a "GAP Analysis" report from Environics Analytics to conduct our assessment.

Existing Conditions

To understand the current retail market dynamics within Cathedral City, we consulted a database of consumer-expenditure and retail-sales data that supports a summary of the under- or over-supply of different retail segments in the area.

The following table presents the results of this "GAP Analysis" for all retail sectors and sub-sectors. At first glance, the table indicates that there is a retail over-supply in Cathedral City of nearly $190 million. This over-supply, however, is due in large part to the significant over-supply in the "Motor Vehicle and Parts Dealers" category. This is likely due to the large number of auto dealerships and service centers in Cathedral City. This agglomeration of car dealers and service centers likely serves as a destination for the greater regional area. Removing this category from the GAP Analysis results in a retail under-supply for Cathedral City.

Cathedral City GAP Analysis, 2018 Estimate (thousands)

Store Type	Demand	Supply	Opportunity
Total Retail Sales Incl. Eating and Drinking Places	$768,323	$955,438	($187,115)
General Merchandise Stores	$97,001	$66,821	$30,180
Motor Vehicle and Parts Dealers	$134,243	$547,480	($413,238)
Foodservice and Drinking Places	$98,700	$74,429	$24,271
Clothing and Clothing Accessories Stores	$34,190	$13,569	$20,621
Building Material, Garden Equip Stores	$52,719	$17,944	$34,775
Food and Beverage Stores	$105,193	$82,645	$22,548
Furniture and Home Furnishings Stores	$14,036	$24,676	($10,640)
Sporting Goods, Hobby, Book, Music Stores	$11,597	$2,919	$8,678
Non-Store Retailers	$80,836	$6,517	$74,319
Electronics and Appliance Stores	$12,998	$7,460	$5,539
Health and Personal Care Stores	$45,700	$24,215	$21,486
Gasoline Stations	$65,407	$75,901	($10,494)

Source: Environics Analytics, The Innovation Group

Of course, not all the retail types included above would be appropriate as part of the development strategy under consideration. We would, for example, not include "Non-Store Retailers," which includes internet retail, traveling salesmen, kiosks, and other miscellaneous forms of retail trade. Excluding the "Motor Vehicle and Parts Dealers" as well as the "Non-Store Retailers" categories results in a retail under-supply of nearly $150 million. This is summarized in the table below.

Cathedral City GAP Analysis (Excluding Motor Vehicle and Parts Dealer & Non-Store Retailers), 2018 Estimate (thousands)

Store Type	Demand	Supply	Opportunity
Total Retail Sales Incl. Eating and Drinking Places	$537,541	$390,579	$146,962
General Merchandise Stores	$97,001	$66,821	$30,180
Foodservice and Drinking Places	$98,700	$74,429	$24,271
Clothing and Clothing Accessories Stores	$34,190	$13,569	$20,621
Building Material, Garden Equip Stores	$52,719	$17,944	$34,775
Food and Beverage Stores	$105,193	$82,645	$22,548
Furniture and Home Furnishings Stores	$14,036	$24,676	($10,640)
Sporting Goods, Hobby, Book, Music Stores	$11,597	$2,919	$8,678
Electronics and Appliance Stores	$12,998	$7,460	$5,539
Health and Personal Care Stores	$45,700	$24,215	$21,486
Gasoline Stations	$65,407	$75,901	($10,494)

Source: Environics Analytics, The Innovation Group

As illustrated in the table above, the categories with the largest retail opportunities include "Building Material, Garden Equipment Stores," "General Merchandise Stores," and "Foodservice and Drinking Places."

Given the development size range in consideration (38,000 sq. ft. to 90,000 sq. ft.), it is unlikely that that a retail offering in the "Building Material, Garden Equipment Stores" would be an appropriate fit for the development. The average store size for both Home Depot and Lowe's, for instance, are over 100,000 square feet.

Similarly, the "General Merchandise Store" category generally includes Big Box retailers, such as Wal-Mart and Target, which typically have an average store size above 100,000 square feet.

Focusing on other retail categories with retail under-supply—"Foodservice and Drinking Places," "Clothing and Clothing Accessories Stores," and "Health and Personal Care Stores"—indicates a retail opportunity of over $66 million in Cathedral City, as illustrated in the table below. These categories were chosen to assess the potential retail opportunity as they fit the "mixed use" nature of the development and will likely be complementary to the gaming development.

Cathedral City GAP Analysis - Mixed Used Development, 2018 Estimate (thousands)

Store Type	Demand	Supply	Opportunity
Total Retail Sales Incl. Eating and Drinking Places	$178,590	$112,212	$66,378
Foodservice and Drinking Places	$98,700	$74,429	$24,271
Clothing and Clothing Accessories Stores	$34,190	$13,569	$20,621
Health and Personal Care Stores	$45,700	$24,215	$21,486

Source: Environics Analytics, The Innovation Group

Analysis

The section outlines our analysis for the potential feasibility of a mixed-use retail development at the proposed site and off-site alternative. Our analysis considers the supply-demand dynamics described above as well as the average sales per square foot statistics for a variety of retail operators that could operate within the development.

Assessment

To assess the feasibility of the mixed-use retail development we first conducted an analysis of the average sales per-square-foot (psf) of typical mixed use development retail tenants. The comparable set we analyzed ranged from fast food retailers to processional care services among others. As shown below, the highest sales psf came from quick service or fast food restaurants with Chipotle having the highest sales psf at over $750. The average sales psf for the comparable set is just over $450.

Retail Average Sales Per Square Feet

Company or Business Type	Average Sales Per Square Feet
Chipotle	$767
Jack in The Box*	$570
Qdoba Mexican Grill*	$570
Wendy's*	$522
Francesca's	$517
Dunkin' Doughnuts	$403
Vitamin Shoppe	$375
GNC	$316
Five Below	$273
Regis Salons	$202
Total Average	**$452**
Average without Top Two Performers	***$397***

Source: Company 10K, The Innovation Group

*Only represents company owned stores

Next, we assessed this figure against the data provided from the GAP Analysis in order to understand if Cathedral City could sustain the average sales psf at a development that ranging from 38,000 square feet to 90,000 square feet in size. Specifically, the GAP Analysis provides data on local market consumer expenditure as well as local market retail sales broken out by industry classification. As described previously, the GAP Analysis then shows the opportunity/GAP in the market for each particular industry. If it is positive it shows there is room for growth; however, if it is negative it means the market is already saturated with that business type. Therefore, the GAP Analysis allows The Innovation Group to quantify if there is enough demand to sustain a development based upon demand in a given market. As noted above, we focused the GAP Analysis on the "Foodservice and Drinking Places," "Clothing and Clothing Accessories Stores," and "Health and Personal Care Store."

Using data from the GAP Analysis for Cathedral City, displayed previously, we were able to calculate the maximum retail area available to build. We found that there is an opportunity for a mixed used development that would generate annual sales in excess of $66.4 million. Applying this to the comparable set's average sales psf at approximately $452, we determined that the maximum size for the development that could be sustained in the local market would be slightly above 147,000 square feet. Based on this analysis, we believe a 38,000 sq. ft. to 90,000 sq. ft. mixed used retail development presents a feasible option for the proposed retail development.

Potential SQFT: Mixed Used Development

GAP Analysis ($000)*	$66,378
Comparable Average Sales PSF	$452
Maximum Potential SQFT	**147,016**

Source: Company Financial Filings, The Innovation Group, Environics Analytics; *includes Foodservice and Drinking Places, Clothing and Clothing Accessories Stores, and Health and Personal Care Stores

Sales Forecast

For the purpose of providing inputs into the economic and community impact analysis, we have utilized the following revenue forecasts based on the sales psf average of $397 as shown in a previous table, with a further adjustment factor applied to the non-gaming alternative based on the larger size and lack of casino anchor. As shown on the maps in the Site Analysis section, a portion of the mixed-use space is to be set aside for tribal operations, and therefore has been discounted from the gross square footage. At the direction of the Tribe, the mix of remaining space is forecast to be 60% food and beverage and 40% retail.

Sales Forecast: Mixed Used Development

	Full Build	Reduced	Non-Gaming
F&B	$13,633,620	$9,057,300	$18,705,708
Retail	$9,089,080	$6,038,200	$12,470,472

Source: The Innovation Group

COMPETITIVE EFFECTS ANALYSIS

Three possible categories of substitution effects would arise from development of the Cathedral City project:

1. The casino's impact on other casinos in the region;
2. The casino's impact on local non-gaming businesses; and,
3. The mixed-use retail development's impact on local non-gaming businesses.

Impacts on Other Casinos

Based on the results of the gravity model analysis—that is, comparing the Cathedral City forecast model to the future baseline—the Innovation Group has estimated the impact the Cathedral City would have on other casinos in the region.

First, we assess the impact on the Tribe's two existing casinos: Agua Caliente (ACC) & Spa Resort. As noted, the baseline model was calibrated to existing performance at these two casinos. Revenue at competing casinos was estimated based on our extensive experience in the region. The table below depicts the impact that Cathedral City is projected to have on gaming revenues at Agua Caliente's two existing properties. It should be noted that the baseline forecasts for ACC and Spa assume expansions at both facilities. A new hotel is being developed at the Spa property in Palm Springs, along with gaming expansion, and preliminary plans for the ACC include additional gaming space and hotel rooms.

Substitution Effect 2021 on Agua Caliente Band (Alternatives A, B and D)

Agua Caliente	Spa Resort Casino
-8.5%	-6.2%

Cathedral City's market penetration is expected to impact other competitors in the region as well. The table below summarizes the anticipated decline in revenues at competitive facilities within a 90-minute radius, based on the gravity model comparing the Cathedral City forecast model results to the future baseline. The largest impacts would be felt to the East at the three casinos in the Coachella area, but even those impacts are estimated at less than 2%.

Substitution Effect on Regional Competitors 2021 (Alternatives A, B and D)

Fantasy Springs	Augustine	Spotlight 29	Red Earth	Tortoise Rock	Cahuilla Creek	Morongo	San Manuel	Soboba	Pechanga
-1.8%	-1.6%	-1.7%	-0.8%	-0.8%	-0.7%	-0.6%	-0.4%	-0.4%	-0.3%

It should be noted that these substitution effects are "but-for" effects, not year-over-year effects. In other words, they are 2021 revenue forecasts measured against a 2021 baseline assuming Cathedral City does not open. On a year-over-year basis, regional competitors are not generally expected to notice declines.

Impact on Local Businesses

Casino Impacts: Academic Research

Casino development sometimes elicits concern, which research has dispelled, that substitution of consumer spending (the substitution effect) will impact local businesses, especially smaller "mom and pop" retail, restaurant and entertainment businesses. This argument has its origins in long-ago controversies regarding Atlantic City. Clyde Barrow, Director for the Center of Policy Analysis at the University of Massachusetts Dartmouth, traces the Atlantic City "myth" to a misinformation campaign by the Atlantic City Restaurant and Tavern Association "to win more concessions for its members from the city's casino hotels."[2]

Research by Kathryn Hashimoto and George Fenich found that contrary to a negative impact, casinos in Atlantic City actually reversed a downward trend:

> The number of eating and drinking establishments in Atlantic County was actually declining in the years *prior* to the opening of the first casinos. However, this decline was actually reversed after the first casinos opened, when the number of non-casino eating and drinking places increased from 415 in 1978 to 569 in 1994 (37 percent). Moreover, in the 11 years since the Hashimoto and Fenich study, the number of non-casino eating and drinking places in Atlantic County has continued to increase to 625 (9.8 percent) in 2004 with 9,020 employees (36 percent).[3]

For more information on this research, see Appendix C.

Given the extensive supply of gaming already operating in the local area, no material substitution effect on local businesses is projected to result from customer spending at the casino.

Moreover, the proposed Cathedral City development is anticipated to have a positive impact on local businesses. In fact, it is expected to anchor further development in the surrounding area, which as can be seen on the site map on page 4 is largely undeveloped. The City's General Plan and Date Palm Drive Corridor Connector Plan has designated the location as an important node for commercial development.

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[2] Barrow, Clyde and Mathew Hirshy. "The Persistence of Pseudo-Facts in the U.S. Casino Debate: The Case of Massachusetts" Gaming Law Review and Economics Volume 12, Number 4, 2008.
[3] Ibid.

Casino Impact on the Local Hotel Market

Local businesses in Cathedral City are expected to benefit from casino development. Local hotels in particular would benefit from the introduction of a new market segment: casino-related room demand. As shown in numerous casino jurisdictions across the country, non-casino hotels benefit even when casinos operate their own hotel.

Casino development increases room demand at non-casino hotels even when casino hotels are built. For example, in Shreveport-Bossier City, Louisiana, hotel occupancy rates averaged about 60% before casinos but rose to 74% by 2005.[4] Such a boost to non-casino hotel demand results from the overall increased visitation to the area and the overflow from peak periods when casino hotels are fully booked. On the Mississippi Gulf Coast occupancy rates in non-casino hotels remained steady at 55% despite a 143% increase in total rooms, including a 60% increase in non-casino hotel rooms.[5]

Within the City of San Diego, the Transient Occupancy Tax (TOT) has grown substantially since recovering from the 2009-10 recession effects, despite the opening of several large hotels at casinos on the outskirts of the market (and not within the City), including an 1,100-room hotel at Harrah's Rincon. Furthermore, HVS reports that hotel occupancy in the San Diego market posted its third straight record occupancy in 2016 at 77%. RevPAR (revenue per available room, a measure of hotel performance) has also seen steady increases since the recession.[6]

City of San Diego, CA Transient Occupancy Tax Collections (MMs)

2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
$160.24	$136.32	$128.11	$139.77	$150.82	$157.03	$170.17	$186.24	$202.80	$221.10

Source: San Diego Tourism Authority

The Coachella Valley is known as a major resort destination in the southwest. As such, there is an abundant supply of local accommodations. In the Coachella Valley surrounding Cathedral City, there are a total of 131 hotels, with 65 of those hotels falling within the Palm Springs city limits. The hotels provide a total of 14,434 hotel rooms in the cities surrounding Cathedral City, with over 6,500 of those rooms classified as being either upscale or upper-upscale. The table below shows the competitive supply within the region.

[4] Shreveport-Bossier Convention and Tourism Bureau 2011 Lodging Report.
[5] Source: Mississippi Gaming Commission.
[6] http://hvi.hvs.com/market/united-states/San_Diego

Regional Hotel Supply

Name of City	Number of Hotels	Total # of Hotel Rooms
Desert Hot Springs, CA	16	679
Indian Wells, CA	4	1,460
Indio, CA	17	1,309
La Quinta, CA	5	1,108
Palm Desert, CA	16	2,555
Palm Springs, CA	65	5,364
Rancho Mirage, CA	7	1,843
Thousand Palms, CA	1	116
Total	**131**	**14,434**

Source: The Innovation Group; Smith Travel Research

The local supply includes 6 hotels within the Cathedral City, California area for a total of 764 rooms as provided by Smith Travel Research (STR). The market has several upscale hotels and a few economy class to upper-midscale options. The Red Lion Inn & Suites is the closest property to the proposed casino site, only 0.5 miles south on E. Palm Canyon Drive. However, as part of the downtown redevelopment initiative, the city has announced plans for a 100-room nationally branded hotel to be built on the vacant parcel directly across from the casino on Date Palm Drive (not the Alternative site D). This planned hotel as well as the other local hotels would be expected to benefit by overnight demand from casino patrons.

Local Hotel Supply

Name of Establishment	City & State	Class	Rooms
Travelodge Cathedral City	Cathedral City, CA	Economy Class	43
Red Lion Inn & Suites Cathedral City	Cathedral City, CA	Midscale Class	97
Holiday Inn Express & Suites Cathedral City Palm Springs	Cathedral City, CA	Upper Midscale Class	94
DoubleTree Golf Resort Palm Springs	Cathedral City, CA	Upscale Class	289
Staybridge Suites Cathedral City Golf Resort	Cathedral City, CA	Upscale Class	197
CCBC Resort Hotel	Cathedral City, CA	Upscale Class	44
Total			**764**

Source: The Innovation Group; Smith Travel Research

It should also be noted that the proposed Cathedral City development will not include a casino hotel; therefore, we would expect positive impact on local hotels in the Cathedral City market beyond what would be experienced if the casino were to include a hotel.

Mixed-Use Retail Impact

As discussed in the Mixed-Use Retail Assessment, there is currently a large gap in Cathedral City between retail sales and consumer spending in most retail categories except in the categories of motor vehicles, furniture, and gas stations, implying a limited supply of retail opportunities for residents of Cathedral City in other categories.

Further, as noted, the proposed development is planned to be 60% food and beverage development, for which there is a $24 million opportunity according to the GAP analysis, with the remaining and 40% expected in the categories Clothing and Clothing Accessories Stores and Health and Personal Care Stores, for which there is a $42 million opportunity according to the GAP analysis.

The sales forecast for all four scenarios is well within these GAP opportunities, which would significantly reduce the potential for material impacts on local businesses. Moreover, as detailed in the Gaming Market Analysis, most gaming visits are projected to be derived from outside of Cathedral City, and a portion of the retail sales would be attributed to these visitors in Alternatives A, B and D. This outside spending would not occur in Alternative C, which also has the largest planned retail development of the four alternatives. As a result, the greatest potential for substitution effects on local businesses would be expected from Alternative C.

ECONOMIC IMPACT ASSESSMENT

Methodology

This economic impact assessment evaluates the costs and benefits to Riverside County that could be expected during the ongoing operational stage as well as the construction phase of the proposed development. The economic effects that accrue from the annual operations of the casino are termed ongoing impacts, as they are revenues, jobs, earnings, and tax dollars that can be expected to accrue annually as a result of gaming operations and the attraction of gaming patrons. The construction phase of the project is considered a one-time benefit to the area. This refers to the fact that these dollars will be introduced into the economy only during the construction phase of the project and cannot be expected to continue to provide permanent jobs or revenues beyond the project's completion.

Direct, indirect, and induced impacts are assessed for both ongoing operations and the construction of the facility. Additionally, impacts are assessed for ongoing operations from the mixed-use retail space in the different building program scenarios.

Direct impacts result from the economic activity that occurs on the property itself. In the case of ongoing operations, these expenditures ultimately derive from patron spending. The direct impact effectively represents the expenditures made by the facility in the form of employee compensation, purchases of goods and services, and patron spending on the food, beverage, hospitality, and retail sectors of the complex. Patron spending on the casino floor has been discounted to exclude promotional allowances as well as payments to local governments, since those payments represent direct transfers to government coffers and are accounted for in the fiscal impact analysis.

Indirect impacts reflect the economic spin-off that is made possible by the direct purchases of the facility. Local firms providing goods and services to the proposed facility will have incomes partially attributable to these gaming operations. These dollars contribute to the vendors' spending power, and therefore the incremental increase in their spending attributable to this income is considered an indirect impact. These additional expenditures and revenues continue to flow throughout the economy in a rippling effect.

Induced impacts result from the direct impacts on labor income. As household incomes are affected by direct employment and spending, this money is re-circulated through the household spending patterns causing further local economic activity.

It is standard practice to evaluate local impacts at the county level since that is the geographic level at which Census data is organized and economic impact multipliers are available. However, although by necessity the results are presented for Riverside County, it is estimated that the majority of economic impacts will accrue to Cathedral City and its residents. The Innovation Group obtained data from IMPLAN for zip code 92234 (Cathedral City) and tested the results against the Riverside County results.

Direct effects from operations are attributed 100% to the host geography regardless of the geography's size; for example, the direct casino employment takes place in Cathedral City as well

as in Riverside County. Therefore, the direct effects are unchanged from the county to the city level. However, the multiplier effects (indirect and induced) for Cathedral City are approximately half of those estimated for Riverside County. For construction impacts, more leakage occurs out of Cathedral City. Some direct effects occur elsewhere in the county (estimated by IMPLAN to be 5%), and the multipliers for indirect and induced effects are lower (43% on average of the county multipliers).

For the full analysis, the county level data is preferred because it is a more fulsome data set[7] and because some impacts will occur elsewhere in Riverside County outside the city of Cathedral City.

The economic impact analysis results in the following outputs:

1. Employment—or number of total jobs supported. This includes full and part-time workers (headcount).*

2. Labor Income (Earnings/Salaries) in IMPLAN consists of two parts. First is the total payroll cost of the employee paid by the employer: wage and salary, all benefits, and employer-paid payroll taxes (e.g. employer side of social security, unemployment taxes, etc). Second, proprietor income consists of payments received by self-employed individuals and unincorporated business owners.

3. Value Added is comprised of Labor Income, Indirect Business Taxes, and Other Property Type Income. It demonstrates an industry's value of production over the cost of its purchasing the good and services required to make its products. Value Added is often referred to as Gross Regional Product (GRP). Value Added = Labor Income + Indirect Business Taxes + Other Property Type Income.

4. Output (Total Spending) represents the value of industry production. In IMPLAN these are annual production estimates for the year of the data set and are in producer prices. For manufacturers, this will be sales plus/minus change in inventory. For service sectors production = sales. For retail and wholesale trade, output = gross margin and not gross sales. Output = Intermediate Inputs + Value Added.

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[7] As explained by IMPLAN: "Due to its internal consistency and ability to account for spatial variables like the proximity and size of alternative markets, the Trade Flow method is presumed to be superior to the Econometric method for estimating Regional Purchasing Coefficients (RPCs). For this reason, it is the default and recommended method of trade flow estimation for all state- and county-level models. For the US total (where domestic interregional trade estimation is not required), RPCs are derived using Supply/Demand pooling. Zip Code level RPCs are derived using the Econometric RPC method as trade flow data is not currently available at the ZIP Code level."

* Employment is headcount (or total number of jobs, full and part time) in keeping with US Census data and IMPLAN. Since it includes part-time employees, headcount is a higher number than FTE (full-time equivalent).

Economic impact analyses use industry multipliers that have been developed based on U.S. Census data to determine the indirect impacts that occur from direct expenditures. The Innovation Group has utilized IMPLAN 3.0 software and data for the purpose of these calculations. IMPLAN accounts closely follow the accounting conventions used in the "Input-Output Study of the U.S. Economy" by the Bureau of Economic Analysis.

However, as noted by the Center for Policy Analysis at the University of Massachusetts Dartmouth in a study from 2004, IMPLAN multipliers are lower than those calculated by the Bureau of Economic Analysis:

> The IMPLAN modeling system accounts for substitution effects by applying local and regional multipliers to disposable personal income only. The modeling system's balanced accounts matrix insures that disposable income which is spent on one type of good or service cannot be spent simultaneously on some other good or service. The application of multipliers to disposable personal income and the imposition of a balanced account matrix results in multiplier effects that are substantially less than those recommended in the U.S. Bureau of Economic Analysis Regional Input-Output Modeling System II (RIMS II). … Thus, the indirect and induced impacts represent *net* new job creation and not merely a transfer of jobs from one sector to another.

ONGOING IMPACTS

The ongoing economic effects result from the casino operations and retail development operations. As discussed, the projected gaming revenue was adjusted, removing revenue sharing payments and promotional allowances in order to establish the gaming input. Projected food and beverage and casino retail revenue figures were used as well.

Casino Operations

The Agua Caliente Band of Cahuilla Indians is seeking to purchase property in Cathedral City, California for the development of a casino and mixed-use retail space. The casino is scheduled to house approximately 500 slot machines, six-eight table games, food and beverage outlets and a small retail shop. A combination of surface and structured parking will accommodate up to 1,000 vehicles.

Operating Inputs

The first step is to analyze the impact generated by direct operations of the facility in 2021, the first full year of operations. This step accounts for the workers employed at the facility and the compensation they earn as well as the purchases of goods and services by the casino property. To model these impacts, we utilized industry change activities in IMPLAN for casino, restaurant, and retail sectors. The revenue inputs were generated by the Innovation Group from the gaming and retail market assessments.

Staffing and employment compensation estimates were based on The Innovation Group's operating pro forma model and input into the IMPLAN software. Our staffing model has been calibrated to actual operating data from existing casinos in California and other jurisdictions and is on a Full-Time Equivalent ("FTE") basis (see Appendix D). These FTEs (estimated at approximately 270 in our model) were converted by sector into total number of employees (full and part time) using IMPLAN's conversion matrix, which for the casino sector is 0.82136 FTEs for each employee on a headcount basis, or 328 jobs for the casino operations portion of the proposed project.

Gaming revenue input into the IMPLAN model is net of the Tribal Compact and related payments and promotional allowances. The following table shows the total operating parameters and the adjusted inputs utilized in the IMPLAN modeling. All ongoing impacts are for stabilized (Year 1) operations; therefore, they are expressed in 2021 dollars.

2021 Combined Operating Inputs ($MMs)

Department	Revenue
Casino	$41.72
Food and Beverage	$3.35
Retail & Other	$0.65
Total Direct	**$45.72**

The Innovation Group

The Innovation Group has reviewed the gaming and retail feasibility study commissioned by the Tribe that is the basis of the Tribe's business planning for the Cathedral City development. We find that the revenue and EBITDA (earnings before interest, taxes, depreciation and amortization) projections in that feasibility study are reasonable and reasonably consistent with our own modeling, the results of which constitute the inputs used in this economic impact analysis.

There is no difference in the casino development in the three gaming alternatives (A, B and D); therefore, the results are identical in all three alternatives.

Proposed Project, Reduced Intensity, and Off-Site Alternatives (A, B & D)

The proposed casino project for Alternatives A, B and D is estimated to support 328 direct jobs in Riverside County, along with 115 indirect jobs and 79 induced jobs for a total of 522 in the county. Total labor income is estimated to exceed $19.3 million annually and total spending in Riverside County to reach $69.44 million. It should be noted that Labor Income in the Direct Effect consists solely of Employee Compensation; no Proprietor Income is attributed to the casino owner.

The gross impact of ongoing casino operations is shown in the following table.

Casino Operating Impacts Riverside County 2021 ($MMs): Alternatives A, B & D

	Employment	Labor Income	Value Added	Output
Direct Effect	328	$12.49	$27.17	$45.25
Indirect Effect	115	$3.77	$8.04	$14.07
Induced Effect	79	$3.05	$5.91	$10.12
Total	**522**	**$19.31**	**$41.12**	**$69.44**

IMPLAN Group, LLC, IMPLAN System (data and software); The Innovation Group

As noted previously, while 100% of the direct effects from casino operations by definition occur in Cathedral City, only approximately 50% of the indirect and induced effects are estimated to accrue to Cathedral City. Further, as shown in the Substitution Effects section in the gaming market analysis, a portion of gaming revenue is expected to have otherwise occurred at other casinos in Riverside County, meaning the net impact on the county is lower than shown in the table above.

Mixed-Use Retail Development Operations

The following section identifies the economic impacts from the proposed mixed-use retail development under three scenarios, proposed, reduced intensity and non-gaming alternative. The only difference between the proposed and reduced intensity alternative is that the total space will reduce from 60,000-square feet to 38,000-square feet. In the non-gaming alternative, the space is 90,000-square feet.

Operating Inputs

Retail sales from the mixed-use market assessment were categorized in IMPLAN under the Retail Sector 405 for General merchandise stores and food and beverage sales were split between full-service and limited-service restaurants.

2021 Retail Development Inputs ($MMs)

Industry Segment	Proposed Project Revenue	Reduced Intensity Revenue	Non-Gaming Alternative
405 Retail - General merchandise stores	$9.09	$6.04	$12.47
501 Full-service restaurants	$6.82	$4.53	$9.35
502 Limited-service restaurants	$6.82	$4.53	$9.35
Total	**$22.72**	**$15.10**	**$31.18**

IMPLAN Group, LLC, IMPLAN System; The Innovation Group

Margins were applied in IMPLAN to properly reflect the portion of the sales that are attributable to Riverside County. The Gross Retail Margin in IMPLAN is the difference between the price paid by consumers and the price paid by the retailer, with the remaining portion of the sales considered to be leakages outside of the county. The retail margin for this sector in Riverside County is 27.2%; therefore, only $2.5 million of $9.09 million in retail sales is considered the direct effect of this development (and $1.6 million of $6.04 million for the reduced intensity scenario or $3.4 million of $12.47 million for the non-gaming alternative scenario). Margins do not exist in IMPLAN for any service producing sector; therefore the annual sales for restaurants were not margined in this analysis.

Proposed Project (Alternatives A & D)

According to the IMPLAN analysis, the proposed mixed-use development is estimated to support 228 direct jobs in Riverside County, along with 24 indirect jobs and 34 induced jobs for a total of 286 in the county. Total labor income is estimated to be $8.3 million annually and total spending in Riverside County is estimated at over $23.8 million. As noted previously, only approximately 50% of the indirect and induced effects are estimated to accrue to Cathedral City.

Mixed-Use Development Impacts Riverside County 2021 ($MMs): Alternatives A & D

	Employment	Labor Income	Value Added	Output
Direct Effect	228	$6.02	$9.60	$16.11
Indirect Effect	24	$0.99	$1.85	$3.29
Induced Effect	34	$1.32	$2.55	$4.37
Total	**286**	**$8.33**	**$14.00**	**$23.77**

IMPLAN Group, LLC, IMPLAN System (data and software); The Innovation Group

Reduced Intensity (Alternative B)

The reduced-intensity mixed-use development is estimated to support 151 direct jobs in Riverside County, along with 16 indirect jobs and 23 induced jobs for a total of 190 in the county. Total labor income is estimated to be nearly $5.5 million annually and total spending in Riverside County is estimated at over $15.8 million. As noted previously, only approximately 50% of the indirect and induced effects are estimated to accrue to Cathedral City.

Mixed-Use Development Impacts Riverside County 2021 ($MMs): Reduced Intensity Alternative B

	Employment	Labor Income	Value Added	Output
Direct Effect	151	$4.00	$6.38	$10.70
Indirect Effect	16	$0.66	$1.23	$2.19
Induced Effect	23	$0.87	$1.69	$2.90
Total	**190**	**$5.53**	**$9.30**	**$15.79**

IMPLAN Group, LLC, IMPLAN System (data and software); The Innovation Group

Non-gaming Alternative C

The non-gaming mixed-use development is estimated to support 313 direct jobs in Riverside County, along with 33 indirect jobs and 47 induced jobs for a total of 392 in the county. Total labor income is estimated to exceed $11.4 million annually and total spending in Riverside County is estimated at over $32.6 million. As noted previously, only approximately 50% of the indirect and induced effects are estimated to accrue to Cathedral City.

Mixed-Use Development Impacts Riverside County 2021 ($MMs): Non-Gaming Alternative C

	Employment	Labor Income	Value Added	Output
Direct Effect	313	$8.26	$13.17	$22.10
Indirect Effect	33	$1.36	$2.54	$4.52
Induced Effect	47	$1.81	$3.50	$5.99
Total	**392**	**$11.43**	**$19.21**	**$32.61**

IMPLAN Group, LLC, IMPLAN System (data and software); The Innovation Group

Total Ongoing Impacts

In total, the proposed project alternative is estimated to support 556 direct jobs in Riverside County, along with 139 indirect jobs and 113 induced jobs for a total of 807 in the county. Total labor income is estimated to exceed $27.6 million annually and total spending in Riverside County to reach $93.2 million.

Total Operating Impacts Riverside County 2021 ($MMs): Alternatives A & D

	Employment	Labor Income	Value Added	Output
Direct Effect	556	$18.51	$36.77	$61.35
Indirect Effect	139	$4.76	$9.89	$17.37
Induced Effect	113	$4.37	$8.47	$14.49
Total	**807**	**$27.64**	**$55.12**	**$93.21**

IMPLAN Group, LLC, IMPLAN System (data and software); The Innovation Group

In total, the reduced-intensity alternative is estimated to support 479 direct jobs in Riverside County, along with 131 indirect jobs and 102 induced jobs for a total of 712 in the county. Total labor income is estimated to be nearly $24.8 million annually and total spending in Riverside County is estimated at over $85 million.

Total Operating Impacts Riverside County ($MMs): Reduced Intensity Alternative B

	Employment	Labor Income	Value Added	Output
Direct Effect	479	$16.49	$33.55	$55.95
Indirect Effect	131	$4.43	$9.27	$16.26
Induced Effect	102	$3.93	$7.61	$13.02
Total	**712**	**$24.84**	**$50.42**	**$85.23**

IMPLAN Group, LLC, IMPLAN System (data and software); The Innovation Group

In total, the non-gaming alternative is estimated to support 313 direct jobs in Riverside County, along with 33 indirect jobs and 47 induced jobs for a total of 392 in the county. Total labor income is estimated to exceed $11.4 million annually and total spending in Riverside County is estimated at over $32.6 million.

Total Operating Impacts Riverside County ($MMs): Non-Gaming Alternative C

	Employment	Labor Income	Value Added	Output
Direct Effect	313	$8.26	$13.17	$22.10
Indirect Effect	33	$1.36	$2.54	$4.52
Induced Effect	47	$1.81	$3.50	$5.99
Total	**392**	**$11.43**	**$19.21**	**$32.61**

IMPLAN Group, LLC, IMPLAN System (data and software); The Innovation Group

CONSTRUCTION IMPACTS

The construction of the alternatives would inject capital into the region, supporting the local construction industry and suppliers. The following section presents the one-time construction impacts associated with the development of the alternatives. This section produces a project description and breakdown of the county impacts for the construction scenarios of the project. All construction costs estimates have been provided by the Tribe.

Proposed Project and Off-site Alternatives A & D

Estimated Construction Costs

The construction of the proposed casino is scheduled to begin in 2019. The 65,000-square foot casino will house approximately 500 slot machines and 6-8 table games in addition to food and beverage outlets and a small retail shop. The proposed project also includes 60,000-square feet of adjacent buildings for a mix-use development. A combination of surface and structured parking will accommodate up to 1,000 vehicles. Current plans for this phase have a development budget of $74 million dollars, including $15 million in FF&E (furniture, fixtures and equipment).

Construction Cost Estimate ($MMs): Alternatives A & D

	Proposed
Design	$13.0
Utilities/Site Work	$16.0
Casino	$24.0
Mixed-Use	$ 6.0
Sub-Total	***$ 59.0***
Wholesale Trade/Furnishings (FFE)	$15.0
Total	**$74.0**

Source: Agua Caliente Band of Cahuilla Indians

The following table outlines the inputs used to calculate the economic impact by sector. Site Work and Design & Studies are included as part of the spending pattern for the construction sector in the IMPLAN software. An estimate for slot machine costs—a very specialized product—was separated out of the $15 million FF&E budget; IMPLAN's Social Accounting Matrix (SAM) estimates that only 2.5% of the $8.28 million slot purchase will originate from within the study area.

Construction Inputs ($MMs): Alternatives A & D

	Budget
Industry Sector	
57 Construction of New Commercial Structures, including farm structures	$59.00
Commodity Sector	
3395 Wholesale trade distribution services	$6.72
3394 All other miscellaneous manufactured products	$8.28
Total Construction	**$74.00**

IMPLAN Group, LLC, IMPLAN System; The Innovation Group

Economic Impacts from Construction

The following section presents the one-time construction impacts associated with developing the proposed Cathedral City Casino in Riverside County. The impacts are expressed on a single-year basis. Therefore, the employment figures, for example, represent person-year equivalents.

Based on the construction budget, the IMPLAN model estimates that construction of the facility will directly support 474 workers in Riverside County, with labor income equaling $26.48 million. The direct spending for construction is estimated to generate a further $9.35 million in indirect purchases or spending through supply chains in the county. Household spending by the workers employed through construction (directly and indirectly through the local supply chain) is estimated to support induced employment of 145 workers with labor income of $5.5 million.

In total, Riverside County is estimated to see a one-time employment impact of 680 workers, providing $35 million in labor income, and $92 million in total spending, as shown in the following table.

Construction Impacts Riverside County ($MMs): Alternatives A & D

	Employment	Labor Income	Value Added	Output
Direct Effect	474	$26.48	$36.59	$64.19
Indirect Effect	62	$2.96	$5.11	$9.35
Induced Effect	145	$5.52	$10.70	$18.34
Total	**680**	**$34.96**	**$52.40**	**$91.89**

IMPLAN Group, LLC, IMPLAN System (data and software); The Innovation Group

Of these impacts, approximately 95% of direct effects and 43% of secondary effects (indirect and induced) are projected to accrue to Cathedral City.

Reduced Intensity Project Alternative B

Estimated Construction Costs

The reduced intensity alternative is nearly identical to the proposed project plan except for the reduction of adjacent mixed-use buildings to 38,000-square feet and total parking spaces to 850. Construction under the reduced intensity scenario is scheduled to begin in 2019. The reduced intensity program is slated to have a development budget of $67 million dollars, including $15 million in FF&E (furniture, fixtures and equipment).

Construction Cost Estimate ($MMs): Reduced Intensity Alternative B

	Proposed
Design	$11.0
Utilities/Site Work	$13.0
Casino	$24.0
Mixed-Use	$4.0
Sub-Total	***$52.0***
Wholesale Trade/Furnishings	$15.0
Total	**$67.0**

Source: Agua Caliente Band of Indians

The following table outlines the inputs used to calculate the economic impact by sector. Site Work and Design & Studies are included as part of the spending pattern for the construction sector in the IMPLAN software. An estimate for slot machine costs—a very specialized product—was separated out of the $15 million FF&E budget; IMPLAN's Social Accounting Matrix (SAM) estimates that only 2.5% of the $8.28 million slot purchase will originate from within the study area.

Construction Inputs ($MMs): Reduced Intensity Alternative B

	Budget
Industry Sector	
57 Construction of New Commercial Structures, including farm structures	$52.00
Commodity Sector	
3395 Wholesale trade distribution services	$6.72
3394 All other miscellaneous manufactured products	$8.28
Total Construction	**$67.00**

IMPLAN Group, LLC, IMPLAN System; The Innovation Group

Economic Impacts from Construction

The following section presents the one-time construction impacts associated with developing the proposed Cathedral City Casino in Riverside County. The impacts are expressed on a single-year basis. Therefore, the employment figures, for example, represent person-year equivalents.

Based on the construction budget for the reduced intensity program, the IMPLAN model estimates that construction of the facility will directly support 420 workers in Riverside County, with labor income equaling $23.50 million. The direct spending for construction is estimated to generate a further $8.41 million in indirect purchases or spending through supply chains in the county. Household spending by the workers employed through construction (directly and indirectly through the local supply chain) is estimated to support induced employment of 129 workers with labor income of $4.9 million.

In total, Riverside County is estimated to see a one-time employment impact of 605 workers, providing $31 million in labor income, and $82 million in total spending, as shown in the following table.

Construction Impacts Riverside County ($MMs): Reduced Intensity Alternative B

	Employment	Labor Income	Value Added	Output
Direct Effect	420	$23.50	$32.62	$57.19
Indirect Effect	56	$2.66	$4.60	$8.41
Induced Effect	129	$4.91	$9.52	$16.31
Total	**605**	**$31.08**	**$46.73**	**$81.91**

IMPLAN Group, LLC, IMPLAN System (data and software); The Innovation Group

Of these impacts, approximately 95% of direct effects and 43% of secondary effects (indirect and induced) are projected to accrue to Cathedral City.

Non-gaming Alternative C

Estimated Construction Costs

The non-gaming alternative consists of 90,000-square feet of mixed used retail development and 700 parking spaces. Construction under the non-gaming scenario is scheduled to begin in 2019. The non-gaming alternative program is slated to have a development budget of $45 million dollars, including $7 million in FF&E (furniture, fixtures and equipment).

Construction Cost Estimate ($MMs): Non-Gaming Alternative C

	Proposed
Design	$10.0
Utilities/Site Work	$19.0
Mixed-Use	$9.0
Sub-Total	***$38.0***
Wholesale Trade/Furnishings	$7.0
Total	**$45.0**

Source: Agua Caliente Band of Indians

The following table outlines the inputs used to calculate the economic impact by sector. Site Work and Design & Studies are included as part of the spending pattern for the construction sector in the IMPLAN software.

Construction Inputs ($MMs): Non-Gaming Alternative C

	Budget
Industry Sector	
57 Construction of New Commercial Structures, including farm structures	$38.00
Commodity Sector	
3395 Wholesale trade distribution services	$7.00
Total Construction	**$45.00**

IMPLAN Group, LLC, IMPLAN System; The Innovation Group

Economic Impacts from Construction

The following section presents the one-time construction impacts associated with developing the proposed mixed-use retail space in Riverside County. The impacts are expressed on a single-year basis. Therefore, the employment figures, for example, represent person-year equivalents.

Based on the construction budget for the non-gaming alternative program, the IMPLAN model estimates that construction of the facility will directly support 325 workers in Riverside County, with labor income equaling $18.19 million. The direct spending for construction is estimated to generate a further $7.09 million in indirect purchases or spending through supply chains in the county. Household spending by the workers employed through construction (directly and indirectly through the local supply chain) is estimated to support induced employment of 101 workers with labor income of $3.84 million.

In total, Riverside County is estimated to see a one-time employment impact of 474 workers, providing $24 million in labor income, and $65 million in total spending, as shown in the following table.

Construction Impacts Riverside County ($MMs): Non-Gaming Alternative C

	Employment	Labor Income	Value Added	Output
Direct Effect	325	$18.19	$26.08	$45.36
Indirect Effect	49	$2.27	$3.89	$7.09
Induced Effect	101	$3.84	$7.44	$12.75
Total	**474**	**$24.30**	**$37.41**	**$65.21**

IMPLAN Group, LLC, IMPLAN System (data and software); The Innovation Group

Of these impacts, approximately 99% of direct effects and 48% of secondary effects (indirect and induced) are projected to accrue to Cathedral City.

SOCIAL AND COMMUNITY IMPACT ANALYSIS

This section assesses the social and community impacts of the proposed casino in Cathedral City, California. The Cathedral City casino is scheduled to house approximately 500 slot machines and six-eight table games, food and beverage options and a casino retail shop. A mixed-use development consisting of 38,000-60,000-square feet of leasable space is also planned. The complete development, fully-built, is projected to employ 556 people. A non-gaming alternative development plan will consist of 90,000-square feet of leasable space and employ 313 people. Increased local services and costs as a result of casino gaming operations generally fall into three categories: those arising from population and development growth, those arising from the impacts of increased visitation and traffic, and social impacts resulting from problem gambling.

The analysis draws upon social science research as well as data analysis conducted by the Innovation Group. Although casinos are perceived to be different in kind from other commercial developments of comparable size and visitor base, inordinate negative impacts from casino development have not materialized, even in small communities with limited infrastructure and resources. In fact, experience over the past two decades has demonstrated that mitigation payments designed in anticipation of drastic impacts have often exceeded the actual need of the communities.

The perception that casinos breed crime is not supported by the evidence. While the *number* of reported crimes can increase, as with any commercial development that attracts visitors, casino gaming has not been shown to lead to an increase in crime *rates*.

Host communities should expect impacts similar in kind to other commercial development of similar scope and visitor potential. The projected increase in visitor population should be expected to lead to increases in public safety services and judicial system caseload. The one significant difference in kind relates to the association between problem gambling and other social pathologies as discussed in Appendix A. Given the current availability of gaming in the region, the addition of gaming in Cathedral City is not expected to lead to a material increase in prevalence rates in the local area.

In summary, evidence suggests that on-going impacts to local communities are highly manageable, typically requiring only a small fraction of gaming revenues to address fully. The Agua Caliente Band of Cahuilla Indians will negotiate a local service agreement with Cathedral City and/or Riverside County to address impacts on municipal services and create dedicated funding structures.

Infrastructure impacts are highly site-dependent. The Cathedral City site was previously undeveloped, but its location along two major thoroughfares is well suited to handle visitor and traffic volume with minimal local impact. State Highway 111 currently has a traffic light and dedicated turn lanes onto Allen Ave. and traffic lights are in place on Date Palm Drive that will serve additional access routes onto the casino property. Minimal improvements on these roadways, such as dedicated turn signals, are expected.

Section One: Population and Employment Related Impacts

The Cathedral City Casino is expected to draw over 586,000 annual gaming visits[8] to the area in 2021 and directly employ 328 people. The mixed-use retail space is estimated to employ between 151-313 people depending on the development scenario, as detailed in the economic impact assessment.

For the purposes of this section, Cathedral City will be used as the primary study area of impacts as it pertains to employment and increased population.

Employment Impact

As noted, the proposed development is projected to require 556 jobs[9] in 2021, the first full year of operations, 480 jobs under the reduced intensity building program or 313 jobs in the non-gaming alternative.[10] These jobs are expected to be filled by a combination of local unemployed workers, local out-bound commuters, residents of neighboring cities, and new residents. Cathedral City unemployment currently stands at slightly over 1,100 workers. Local trends have shown consistent declines in levels of unemployment; therefore, for the future baseline conditions, we have forecasted 1,000 unemployed residents in 2021.

Cathedral City Average Annual Employment Statistics

Year	Civilian labor force	Employment	Unemployment	Unemployment rate (%)
2007	25,897	24,371	1,526	5.9
2008	26,152	23,960	2,192	8.4
2009	26,246	22,882	3,364	12.8
2010	23,728	21,022	2,706	11.4
2011	23,751	21,177	2,574	10.8
2012	23,927	21,644	2,283	9.5
2013	24,147	22,195	1,952	8.1
2014	24,456	22,824	1,632	6.7
2015	24,921	23,570	1,351	5.4
2016	25,343	24,097	1,246	4.9
2017	25,656	24,552	1,104	4.3

Source: Bureau of Labor Statistics, LAUS series, Not-seasonally adjusted; The Innovation Group

Cathedral City is primarily zoned residential, creating a jobs-housing imbalance with substantially more workers than jobs. As such, Cathedral City acts as a bedroom community to other employment centers such as Palm Springs, Palm Desert and Rancho Mirage. Data produced by the Coachella Valley Economic Partnership shows the total workers that both live and work in the valley are around 70,000 or 54% of the total workforce. In Cathedral City alone, there are roughly

[8] Visits, not individual patrons. Casino customers typically make more than one visit per year.
[9] Headcount, including full and part-time workers.
[10] Only direct jobs are included in these employment impacts. Jobs supported by indirect and induced effects are diffuse and not expected to have the same migratory impact as direct jobs.

10,000 workers that commute to other parts of the valley that could otherwise work in their community.

Residence and Place of Work in Coachella Valley

Lives/Works	Indio	Cathedral City	Palm Desert	Palm Springs	Coachella	La Quinta	Desert Hot Springs	Rancho Mirage	Indian Wells
Indio	*4,193*	625	3,726	1,546	1,534	2,281	102	1,509	804
Cathedral City	571	*1,808*	1,989	4,097	204	431	232	1,912	317
Palm Desert	737	436	*3,749*	1,193	238	892	93	1,555	572
Palm Springs	269	667	1,022	*4,954*	76	203	180	1,011	129
Coachella	1,958	270	1,548	477	*1,770*	1,099	45	513	336
La Quinta	1,087	254	1,933	827	438	*1,788*	44	879	484
Desert Hot Springs	275	489	766	1,555	90	154	*809*	479	82
Rancho Mirage	139	229	619	569	49	137	32	*744*	85
Indian Wells	60	28	221	80	18	93	1	109	*90*
Stay in place	***25.7%***	***15.6%***	***39.6%***	***58.2%***	***22.1%***	***23.1%***	***17.2%***	***28.6%***	***12.9%***

Source: Coachella Valley Economic Partnership 2017

According to the most recent LEHD Origin-Destination Employment Statistics (LODES)[11] data from the US Census (2015), only 9.7% of workers living in Cathedral City work there, meaning more than 90% commute out to other areas or work remotely for businesses located elsewhere. Of those commuter residents, 56% work in other Coachella Valley cities. Similarly, 78% of the 8,816 jobs in Cathedral City are occupied by workers that live outside of the city limits, nearly half of which live in other areas of Coachella Valley.

Cathedral City Commuting Patterns

Workers residing in Cathedral City	20,241
Number of Jobs in Cathedral City	8,816
Live & work in Cathedral City	1,954
% who live & work in Cathedral City	9.7%
% who commute OUT	90.3%
% who commute IN	78%

Source: US Census. (2015) LEHD Origin-Destination Employment Statistics (2002-2015)

As the following table shows, it is estimated that the existing area workforce in the Cathedral City and Coachella Valley will account for the majority of employment under all three development scenarios. Only 11.8% of workers are estimated to represent new residents moving into the area.

[11] More information about the data source can be found here: https://lehd.ces.census.gov/doc/help/onthemap/OnTheMapDataOverview.pdf

Cathedral City Project Source of Workforce

Source of Employment	Proposed Project	Reduced Intensity	Non-Gaming	Metric Applied	Source
A. Number of New Employees	556	480	313	Total Jobs	IMPLAN, Innovation Group revenue projections
B. Number of Commuters from outside C.C.	233	173	43	78%, based on Cathedral City Workforce Commuting Patterns	US Census
C. C.C. Unemployed back to work	75	75	75	7.5% of a future estimate of 1,000 Unemployed Workers*	US Census
D. Commuters Staying within C.C.	183	183	183	1% of 18,287 C.C. workers who currently commute outside the area	US Census
E. Total from Existing Area Workforce	**491**	**431**	**300**	**B+C+D**	
***F.** Estimated Total New Workers Needed*	*66*	*49*	*12*	*A - E*	
% of New Employees	*11.8%*	*10.2%*	*3.8%*	*F / A*	

C.C.= Cathedral City

These estimates were based on previous Innovation Group research and results from a recent analysis of Plainridge casino in Plainville, Massachusetts. The survey of Plainridge employees demonstrates that casino employment is comprised mainly of workers already residing within commuting distance: a mixture of previously employed local residents looking for a better opportunity or the ability to work closer to home, along with previously unemployed local residents. The percentage of workers who moved to take the position with Plainridge was a small percentage of the staff. Furthermore, most casino workers had not had prior casino work experience.

Plainridge Casino Source of Workforce

	# of Responses	Percentage
Prior Employment status:		
Unemployed	162	15.5%
Employed Part-time	363	34.7%
Underemployed	*189*	*18.1%*
Employed Full-time	522	49.9%
Total	1,047	100.0%
Reason for taking the position		
Job closer to home	305	29.1%
Other results		
No prior casino experience	902	86.2%
Moved to take the position	75	7.2%

New Employee Survey at Plainridge Park Casino: Analysis of First Two Years of Data Collection
University of Massachusetts Donahue Institute, Economic and Public Policy Research Group, May 10, 2017

Other studies show similar impacts on employment. The Rappaport Institute for Greater Boston and the John F. Kennedy School of Economics at Harvard University (Baxandall and Sacerdote

2005) in a national, county-level study of Native American casinos found a slight decrease in unemployment rates after casinos opened. The analysis included all California casinos in existence in the 1990s. From their total sample of 156 casino counties, the Rappaport study isolated out 57 counties with large casinos and relatively low population and nine counties with both large casinos and large populations to see if there were statistical differences in terms of community impacts. The authors compared the county unemployment rate averaged for the year before and after a casino opens in a county, and then subtracted that number from the average state change in unemployment to isolate the county-specific effect. The following table shows their results:

Rappaport Study Employment Results

	All Casino-Counties[1]	Counties with Large-Capacity Casinos[2]	Populous Casino Counties[3]
Population Growth (%)	+5*	8.6	+8.1*
Total Employment (%)	+6.7*	+14.9*	5.7
Unemployment (%)	-0.3	-1.2*	0.5

*Statistically significant results at 99% confidence interval.
1. Reports how adjusted outcomes in 156 counties that introduced Indian-run casinos during the 1990s differed from the other 2,959 that did not.
2. The effect for 21 counties in the top 10th percentile in terms of number of slot machines (over 1,760).
3. The effect for the 57 casino counties in the top population quartile (over 55,000 residents).

The Rappaport study also highlighted results for three counties in southern California: Riverside, San Bernardino, and San Diego. In all three counties, the unemployment decreased relative to the state average. For example, before casino development, Riverside County had a slightly lower unemployment rate than the state average (by 0.3%). After casino development, the county's unemployment rate was 1.7% lower than the state average, a relative decrease of 1.4 percentage points. San Bernardino had a relative decrease of 0.5 points and San Diego 0.4.

Rappaport Study California County Results for Employment (%)

	Relative Unemployment % (County - State Average) Before	Relative Unemployment % (County - State Average) After	Change in Relative % Unemployment (Before - After)
Riverside, CA	-0.3	-1.7	-1.4
San Bernardino, CA	-2.2	-2.7	-0.5
San Diego, CA	-4.1	-4.5	-0.4

Household and Population Impact

Assuming approximately 1.1 workers per household, the total number of new households to Cathedral City is estimated between 11-60 depending on the development scenario. On average, households in California comprise 2.9 persons, bringing the total population increase to Cathedral City between 32-173 people. This represents less than 0.3% of the projected 2021 population.

Cathedral City Project Impact on Households and Population

	Proposed Project	Reduced Intensity	Non-Gaming
New employees moving to C.C.	66	49	12
# of jobs per household	1.1	1.1	1.1
Number of new Households	***60***	***44***	***11***
California State Avg. Household Size	2.9	2.9	2.9
New C.C. Population	**173**	**129**	**32**
% Increase of 2021 Total C.C. Pop	0.30%	0.22%	0.05%

C.C.= Cathedral City

School Impact

Based on the number of new households and California household metrics, the increase to Cathedral City school enrollment is estimated to be approximately 7-36 children depending on the development scenario.

Cathedral City Project Impact on Riverside County School Enrollment

	Metric	Proposed Project	Reduced Intensity	Non-Gaming
Number of New Households		60	44	11
Number of Households That Will Have Children*	39%	23	17	4
*Number of Children per Household***	*1.95*			
Total Number of Children		45	33	8
School age Children	**80%**	**36**	**27**	**7**

Source: iXPRESS, Nielsen Claritas, Inc., US Census Bureau: Table ST-F1-2000.;
*Cathedral City's 2017 estimated percent of households with presence of children under age of 18
**California's average number of children per family with children

All the public schools in Cathedral City fall into the Palm Springs Unified School District. Given the suburban area, some students will attend schools outside of Cathedral City; however, the primary impact will fall on the Palm Springs Unified School District as employees are more likely to find housing near the development. There are 28 schools within the district, therefore an additional 36 students can be easily absorbed into the system. The following table shows the enrollment trends for the affected school district.

Palm Springs Unified School District: Annual School Enrollment

	11/12	12/13	13/14	14/15	15/16	16/17
Grades K-5	10,902	11,048	10,887	10,912	10,847	10,574
Grades 6-8	5,418	5,318	5,363	5,270	5,306	5,264
Grades 9-12	7,356	7,209	7,110	7,150	7,195	7,249
Total	**23,676**	**23,575**	**23,360**	**23,332**	**23,348**	**23,087**

Source: California Department of Education, DataQuest; The Innovation Group

Housing Impact

The Cathedral City Casino will be located along a major commercial corridor and will have a minimal impact on the local residential neighborhoods. There are a number of existing attractions and retail in the area which already draw significant visitation, in addition to the thru-traffic on East Palm Canyon Dr. (Highway 111).

The additional households that are projected to locate in and around the Cathedral City area will have small, but positive impact on the housing market. New households will support the current and future development of housing in the community.

Coachella Valley, and Cathedral City in particular, was hit hard by the mortgage crisis in 2008 but has experienced a significant recovery. According to an article from the Desert Sun, Coachella Valley is shifting from a "buyers' market" to a "sellers' market" as home prices have soared in recent years.[12] As a consequence, over the past few years as home values and ownership rates increased, the rental supply in the area has become somewhat constrained. However, in Cathedral City specifically it is still a good time to buy as average home prices in 2017 were still below their pre-recessionary highs.[13]

Currently, the number of housing units is 22% greater than the number of households in Cathedral City, denoting an adequate number of units available for residents. Five-year projections estimate that the growth of families and households will occur at a faster rate than housing units, bringing the housing supply down to 20% greater than the number of households. According to the Nielsen/Claritas data, the number of housing units is projected to grow by 970 units by 2022 in Cathedral City, which will be sufficient to absorb the 60 households estimated to relocate.

Cathedral City Population and Housing Trends

	2010 Census	2017 Estimated	2022 Projection
Population	51,200	55,126	58,107
Percent Change		*7.7%*	*5.4%*
Households	17,045	18,353	19,323
Percent Change		*7.7%*	*5.3%*
Families	11,078	11,939	12,585
Percent Change		*7.8%*	*5.4%*
Housing Units	21,033	22,380	23,374
Percent Change		*6.4%*	*4.4%*

Source: Nielson/Claritas, The Innovation Group

[12] https://www.desertsun.com/story/money/real-estate/2017/02/23/coachella-valley-real-estate-market/97352000/
[13] http://desertrealestate.com/annual/cathedral-city-real-estate-trends-annual.html

Cathedral City has lower than average rates of renter-occupied housing than the state of California, but higher than Riverside County. Ongoing operations are slated to create approximately 556 new jobs at the proposed facility, providing stable employment for existing residents that can support homeownership, increasing homeownership figures throughout the local area. The addition of new families has the potential to support current and planned housing development throughout the city without overwhelming existing infrastructure.

2017 Occupied Housing Units by Tenure

	Cathedral City	Riverside County	California	United States
Owner-Occupied	63%	68%	56%	65%
Renter-Occupied	37%	32%	44%	35%

Source: Nielson/Claritas, The Innovation Group

Conclusion

Overall, the Cathedral City casino and retail developments are projected to bring up to an additional 173 people to Cathedral City. This is a small increase in local population and will not have a substantial impact on local services, including the Palm Springs Unified School District.

Section Two: Municipal Services Impact

Host communities should expect impacts similar in kind to other commercial development of similar scope and visitor potential. The projected increase in visitor population should be expected to lead to increases in public safety services and judicial system caseload.

The one significant difference in kind relates to the association between problem gambling and other social pathologies as discussed in this report. According to the California Department of Public Health, the nearest provider offering free Gambling Education and Treatment Services is currently four miles from Cathedral City in Rancho Mirage, CA. Given the availability of gaming in Coachella Valley and the region, the addition of gaming in Cathedral City is not expected to lead to a material increase in prevalence rates in the local area.

Evidence suggests that on-going impacts to local communities are highly manageable, typically requiring only a small fraction of gaming revenues to address fully. As noted earlier in the report, the Agua Caliente Band of Cahuilla Indians is expected to negotiate a local service agreement with Cathedral City and/or Riverside County to address impacts on municipal services and create dedicated funding structures.

Of most direct consequence to casino development are police, fire, and EMS, which will largely fall into the purview of the Cathedral City Police Department and Cathedral City Fire Department.

Police

The 2017/18 fiscal year budget accounts for a total of 76 budgeted personnel in the Cathedral City Police Department (CCPD) which include 49 police officers and investigators and 27 professional staff. At this time, there is one vacancy for a Senior Public Safety Dispatcher.[14] The officers respond to emergency calls for assistance and reports of impending crimes or crimes in progress. The patrol officers also serve warrants, make arrests and assist other divisions. In addition to the Patrol and Administration Divisions, there is an Investigations Unit, K-9 Unit, Detective Bureau, Special Weapons and Tactics (SWAT) Team, School Resource Officer, Crime Scene Unit, and a Police Reserves Unit.[15]

The Police Headquarters are located at 60-700 Avenida Lalo Guerrero, less than 1 mile from the casino site.

According to the City's FY2018/19 budget, the Police Department's budget will exceed $17 million in order to cover future service needs, with $14.8 million (85%) allocated to the department's salaries and benefits.

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[14] City of Cathedral City: Adopted Budget FY 2017-18 and 2018-19. Page 28
http://www.cathedralcity.gov/home/showdocument?id=6359

[15] Retrieved from Cathedral City website: http://www.cathedralcitypolice.com/

Fire

Fire protection will be provided by Cathedral City Fire Department (CCFD). In 2016, the department responded to over 10,000 calls, which were primarily emergency incident calls. The Fire Department provides emergency medical services (EMS) and advanced lifesaving support services (ALS). The department employs 40 persons, 36 of whom work in either the fire suppression or paramedic services units.

There are three fire stations located in Cathedral City and operated by the CCFD. On the north-end of the city Station 413 is located at 27610 Landau Blvd, the fire department headquarters are located at 32100 Desert Vista Rd., and Station 411, the downtown location, is at 36913 Date Palm Dr. Currently, Station 411 is located directly on the site of the potential casino development; proceeds received by the City related to the purchase of the project site by the Tribe are currently being used by the City to design and construct a much needed new and modern fire station directly across the street. The three fire stations within the City provide service to approximately 54,000 people within the city and an incident rate of 10.6 per 100 residents in 2017.

The Fire Department budget is projected to increase in FY 2018/19, coming to $11 million. The clear majority of the budget goes towards salaries and benefits; however the amount allotted to operations has increased in recent years. In the 2016/15 fiscal year, operations accounted for only 8.4% of the budget, and in the 2018/19 budget operations account for 14.1% of the total.

Emergency Medical Services (EMS)

The Cathedral City Fire Department has two department ambulances staffed with two firefighter/paramedics on each unit. In 2016, the Agua Caliente Band of Cahuilla Indians provided EMS workers with iPads for electronic patient care reporting, with the goal of coordinating the system with the Riverside County Emergency Medical Services Agency. The Cathedral City Fire Department EMS team is the primary first response agency used within the city's jurisdiction.

If the Cathedral City Fire Department EMS service is unable to respond to a call, American Medical Response (AMR) or Riverside County EMS may be contacted. AMR is a national company based out of Greenwood Village, CO, with offices located in 40 states and the District of Columbia. Their main office in Coachella Valley is located in Riverside, CA. Riverside County EMS Agency is also located in the city of Riverside. They provide transportation to 16 different medical facilities within Riverside County, including Eisenhower Medical Center and Desert Regional Medical Center, the two closest hospitals to Cathedral City.

Comparative Analysis

Research in other jurisdictions show that impacts to local communities are manageable, typically requiring only a small fraction of gaming revenues to address fully. Based on casino evaluations performed by Purdue University and other research institutions on behalf of the Indiana Gaming Commission, statewide average actual costs borne by host communities are approximately 0.3% of gaming revenues. A study of the fiscal impact of Belterra on Switzerland County, Indiana in 2005 concluded, "…the added property, wagering and admissions taxes, and the incentive

payments, exceeded the costs imposed by the riverboat. This allowed the county to increase appropriations—to cover added riverboat costs and to provide more public services—while charging Switzerland taxpayers less".[16]

The introduction of a casino can lead to an increase in traffic patrol requirements and in the number of calls for police service. Arrests or citations related to increased visitation to the local area will create increased caseloads for the local judiciary. Even calls not resulting in arrest or citation can result in a need for increased police staffing.

A large, well-equipped fire department, such as Cathedral City Fire Department usually does not have to increase fire personnel in order to respond to incidents at a new casino. However, rural communities which do not have the types of equipment needed to respond to incidents at buildings beyond a certain height (e.g. ladder truck) often invest in new equipment. In general, rural municipalities have more limited service-infrastructure to handle large-scale developments and increased visitation than large cities, where impacts are marginal relative to resources.

Criminal Incident Rates

The following section provides data for the number of calls police respond to and the numbers of arrests made at a sampling of casinos throughout the country. The analysis includes three individual properties, SugarHouse in Philadelphia, Pennsylvania, Rivers Casino in Pittsburgh, Pennsylvania and Rivers Casino in Des Plaines, Illinois.

SugarHouse Casino – Philadelphia, Pennsylvania

SugarHouse Casino is located along the Delaware River, outside of downtown Philadelphia in an urban neighborhood. The following statistics provide an overview of the number of calls and arrests the police department has made near the casino. It should be noted that the following data overstates the number of calls to the casino as the Philadelphia Police Department collects data based on address, which in this case also includes adjacent commercial properties. The Pennsylvania State Police respond to incidents within the casino. The number of calls to the area near the casino declined from 2012 to 2014 by over 50% and offenses declined by 75%. This is due to a steep decline in the all "all other offenses" category, indicating change in police procedure or local ordinances.

[16] *Five-Year License Renewal: Belterra Resort Indiana, LLC*, performed by Indiana University-Purdue University Indianapolis on behalf of the Indiana Gaming Commission, October 2005, page 36.

SugarHouse Casino Service Calls and Criminal Offenses

Crime Category	2012	2013	2014	Average
Total Service Calls	1,023	708	499	743
Part One Offenses	*30*	*22*	*19*	*24*
Rape	0	1	0	0
Robbery	1	3	2	2
Aggravated Assault	5	1	0	2
Theft	21	16	16	18
Stolen Vehicle	3	1	1	2
Part Two Offenses	*122*	*137*	*21*	*93*
Simple Assault	12	19	5	12
Fraud	3	1	2	2
Prostitution	14	8	5	9
Narcotic	3	2	0	2
Offenses Against Family	1	0	0	0
Driving Under the Influence	3	0	1	1
Liquor Law Violations	0	0	0	0
Public Drunkenness	1	2	0	1
Disorderly Conduct	11	13	5	10
All Other Offenses	74	92	3	56
Total Offenses	**152**	**159**	**40**	**117**

Source: Philadelphia Police Department, The Innovation Group

Rivers Casino – Pittsburgh, Pennsylvania

Rivers Casino is located near Heinz Field, along the Ohio River in Pittsburgh, Pennsylvania. Police protection is provided by two entities, the Pennsylvania State Police and the Pittsburgh Police. The Pennsylvania State Police address incidents within the casino, while the local Pittsburgh Police respond to incidents outside of the casino. The following provides an overview of the calls made to the state and local police.

Rivers Casino Pittsburgh Police Service Calls

Call Type	2012	2013	2014	Average
911	18	17	18	18
Accident	19	16	17	17
Animal	0	0	0	0
Auto Theft	6	3	4	4
Assault	3	13	10	9
Child	3	2	2	2
Criminal Mischief	7	8	4	6
Disorderly Person	23	19	20	21
Dispute	6	2	6	5
Disturbance	2	0	1	1
DV	7	3	6	5
Drugs	1	0	0	0
Fight	0	5	6	4
Fire	0	1	1	1
Fraud	0	0	1	0
Gun/Weapon	6	2	1	3
Harassment	2	3	2	2
Hit & Run	28	27	26	27
Ind Exposure/Sex Asslt	2	0	0	1
Intox (Person/Driver)	43	38	44	42
Medical	13	14	19	15
Overdose	2	1	3	2
Parking	3	3	2	3
Police	36	33	71	47
Psych	5	5	5	5
Resist Arr	0	0	0	0
Robbery	0	1	3	1
Retail Theft	0	0	0	0
Shots Fired	1	0	0	0
Soliciting	18	12	6	12
Suspicious Act/Pe/Veh	7	4	7	6
Theft	4	13	14	10
Theft fr Auto	14	5	12	10
Traffic	14	16	20	17
Trespass	1	0	2	1
Unknown	5	1	5	4
Warrant	8	1	1	3
Misc	21	22	19	21
Total	**328**	**290**	**358**	**325**

Source: Pittsburgh Police Department, The Innovation Group

Rivers Casino Pennsylvania State Police Service Calls

Call Type	2013	2014	Average
Criminal Homicide	0	0	0
Sex Offenses	0	2	1
Robbery	0	0	0
Assaults	32	26	29
Property Offenses	535	368	452
Arson	0	0	0
Drug Violations	18	27	23
Alcohol Crimes	14	25	20
Total	**599**	**448**	**524**

Source: Pennsylvania State Police, The Innovation Group

The Rivers Casino in Pittsburgh receives an average of 849 calls to the casino and areas directly adjacent to the casino. The incident rate was calculated based on the estimated attendance at the facility and the total number of service calls.

Rivers Casino Service Call Rates

Revenue 2014	$346,297,439
Avg. Spend	$75
Est. Attendance	4,617,299
Average Pittsburgh Police Calls	325
Incident Rate Pittsburgh Police Calls	0.007%
Average Pennsylvania Police Calls	524
Incident Rate Pennsylvania State Police Calls	0.011%
Incident Rate All Police Calls	0.018%

Source: Pittsburgh Police Department, Pennsylvania State Police, Pennsylvania Gaming Control Board, The Innovation Group

Rivers Casino – Des Plaines, Illinois

The Rivers Casino in Des Plaines is located on the west side of Chicago within close proximity to O'Hare Airport. The following provides an overview of the number and type of calls that the Des Plaines Police Department at the casino.

Rivers Casino Des Plaines Police Service Calls

	2012	2013	2014	Average
Assault & Battery	61	73	68	67
Administrative & Investigative	275	204	336	272
Animal/Pet Related	10	5	5	7
Community Relations Related	128	29	24	60
Controlled Substance	5	30	79	38
Disorderly Conduct	12	9	16	12
Fire/LEO Assist	180	48	62	97
Fraudulent Activity	43	70	88	67
Gambling Related	3	0	0	1
Medical Related	7	6	6	6
Minors with Alcohol	2	0	1	1
Motor Vehicle Offense (DUI, DL)	44	44	42	43
Property Damage	12	13	14	13
Theft Related	35	44	70	50
Traffic Accident	60	59	46	55
Traffic Enforcement	26	40	49	38
Trespassing	431	354	341	375
Welfare/Missing Persons Related	1	4	6	4
Total	**1,335**	**1,032**	**1,253**	**1,207**

Source: Des Plaines Police Department, The Innovation Group

Attendance figures from the Illinois Gaming Board were utilized in order to calculate the incident rates for calls made to local police.

Des Plaines Service Call Rates

Casino Attendance 2014	3,519,071
Average Casino Service Calls	1,207
Incident Rate for Service Calls	0.034%

Source: Des Planes Police Department, Illinois Gaming Board, The Innovation Group

Average Service Call Rates

Incident rates from the data above was utilized in order to establish an incident rate that will be applied to the Cathedral City facility in order to project the number of calls and charges that can be expected with the addition of a casino to the community. Data from Philadelphia was excluded from the average because it doesn't include incidents on the casino floor.

Average Criminal Incident Rate

	Estimated Calls
Rivers Casino - Pittsburgh, PA	0.018%
Rivers Casino - Des Plaines, IL	0.034%
Average	***0.026%***

It is estimated that the proposed alternatives will have approximately 164 - 269 annual calls in 2021, its first full year of operations. These are an increase of 0.3% - 0.5% over the current 2017 Cathedral City Police Department service call volume.

Cathedral City Police Service Call Estimate

	Alternatives A & D	Alternative B	Alternative C
2021 Projected Casino Attendance	586,287	586,287	-
2021 Projected Retail Visitation	435,876	290,873	623,524
2021 Total Visitation*	1,022,163	877,161	623,524
Average service call rate	*0.026%*	*0.026%*	*0.026%*
Projected Police Service Calls	**269**	**231**	**164**
*2017 Service Calls Cathedral City***	*55,586*	*55,586*	*55,586*
2021 Projected Service Calls Cathedral City	55,855	55,817	55,750
% Change	*0.48%*	*0.42%*	*0.30%*

*Likely to be over-estimated as we did not assume crossover of patrons visiting both retail and casino ** 2017 data from Cathedral City Police Department's total incidents. Total incidents are comprised of citizen service calls and officer-initiated incidents.

Neither Cathedral City Police Department nor the California Department of Justice provide a breakdown of service calls by type. Instead, the following table provides a breakdown of criminal incidents or offenses that occurred in Cathedral City over the past five years.

Cathedral City Criminal Incidents 2012-2016

	2012	2013	2014	2015	2016
Violent Crimes	**204**	**149**	**128**	**117**	**152**
Homicide	2	4	1	3	5
Forcible Rape	10	9	11	13	18
Robbery	68	44	49	49	51
Aggravated Assault	124	92	67	52	78
Property Crimes	**1,576**	**1,118**	**1,194**	**1,152**	**1,097**
Burglary	626	399	386	327	275
Motor Vehicle Theft	297	302	317	320	393
Larceny-Theft	653	417	491	505	429
Arson	**10**	**1**	**1**	**4**	**5**
TOTAL	**1,790**	**1,268**	**1,323**	**1,273**	**1,254**
Total Population	52,522	52,913	53,287	53,626	54,056
Crimes per 100 residents	*3.4*	*2.4*	*2.5*	*2.4*	*2.3*

Sources: Open Justice, California DOJ; The Innovation Group; US Census

The projected increase in service calls for the proposed project is estimated at 0.48% of the existing Cathedral City Police department service call volume.

For additional information on criminal incidents and qualitative data from other jurisdictions, see appendix.

Fire Incident Rates

The following section provides data for the number of calls the local fire department responds to of the three casino properties, SugarHouse in Philadelphia, Pennsylvania, Rivers Casino in Pittsburgh, Pennsylvania and Rivers Casino in Des Plaines, Illinois. Additionally, data from the Grand Victoria Casino in Elgin, Illinois was used. The majority of calls made to the area around the casino are calls for EMS service or traffic accidents. There are a very small number of calls that are labeled as fire and usually involve a false alarm.

SugarHouse Casino – Philadelphia, Pennsylvania

The Philadelphia Fire Department responded to an average of 28 calls from 2012 to 2014. Of those calls, the majority were in connection with EMS or traffic accidents.

Philadelphia Fire Department Calls

	2012	2013	2014	Average
EMS and Traffic Accident	27	18	19	21
Fire	9	8	3	7
Total	**36**	**26**	**22**	**28**

Source: Philadelphia Fire Department, The Innovation Group

The following utilizes the estimated attendance figures from the previous section in order to calculate the fire call rate for SugarHouse Casino in Philadelphia.

Philadelphia Fire Department Call Rate

Estimated Casino Attendance	3,534,995
Average Fire Incidents	28
Fire Dept. Call Rate	0.001%

Source: Philadelphia Fire Department, The Innovation Group

Rivers Casino – Pittsburgh, Pennsylvania

The Pittsburgh Fire Department responded to an average of 17 calls from 2012 to 2014. Of those calls, the majority were in connection with EMS or traffic accidents.

Pittsburgh Fire Department Calls

	2012	2013	2014	Average
EMS and Traffic Accident	10	9	15	11
Fire	9	5	3	6
Total	**19**	**14**	**18**	**17**

Source: Pittsburgh Fire Department, The Innovation Group

The following utilizes the estimated attendance figures from the previous section to calculate the fire call rate for Rivers Casino Pittsburgh.

Pittsburgh Fire Department Call Rate

Estimated Casino Attendance	4,617,299
Average Fire Incidents	17
Fire Dept. Call Rate	0.000%

Source: Pittsburgh Fire Department, The Innovation Group

Rivers Casino – Des Plaines, Illinois

The Philadelphia Fire Department responded to an average of 168 calls from 2012 to 2014. Of those calls, the majority were in connection with EMS or traffic accidents.

Des Plaines Fire Department Calls

	2012	2013	2014	Average
EMS	185	138	167	163
Fire	3	4	6	4
Total	**188**	**142**	**173**	**168**

Source: Des Plaines Fire Department, The Innovation Group

The following utilizes the estimated attendance figures from the previous section in order to calculate the fire call rate for Rivers Casino in Des Plaines.

Des Plaines Fire Department Call Rate

Attendance	3,519,071
Average Calls	168
Fire Dept. Call Rate	0.005%

Source: Des Plaines Fire Department, The Innovation Group

Grand Victoria - Elgin

The City of Elgin, Illinois is located near a major metropolitan area. The Grand Victoria Casino is also located within an hour of downtown Chicago and draws from that market. The following table provides an overview of incidents reported by the Elgin Fire Department for the Grand Victoria Casino.

Grand Victoria Elgin Fire Response 2014

Call Type	2012	2013	2014	Average
EMS	65	72	67	68
Fire	0	0	0	0
Good Int.	2	2	3	2
Public Assistance	0	2	1	1
False	4	2	5	4
Total	**71**	**78**	**76**	**75**

Source: Elgin Fire Department, The Innovation Group

Attendance was taken from the Illinois Gaming Board. Based on these figures, the rate of incidents compared to number of guests was extremely small.

Grand Victoria Elgin Fire Call Rate

Des Plaines Fire Incidents	
Attendance	1,372,095
Average Calls	75
Fire Dept. Call Rate	0.005%

Source: Elgin Fire Department, Illinois Gaming Board, The Innovation Group

Average Fire Incident Rates

Incident rates from the data above was utilized in order to establish an incident rate that will be applied to the facility in Cathedral City in order to project the number of calls the Fire Department can expect.

Average Fire Department Call Rate Estimate

	Estimated Fire Incident Rate
SugarHouse Casino - Philadelphia, PA	0.001%
Rivers Casino - Pittsburgh, PA	0.0004%
Rivers Casino - Des Plaines, IL	0.005%
Grand Victoria Casino - Elgin, IL	0.006%
Average	**0.003%**

Source: The Innovation Group

It is estimated that the Cathedral City Casino will have approximately 17 calls a year starting in 2021. This is an increase of approximately 0.3% over the current call volume.

Cathedral City Casino Fire Department/EMS Service Call Estimate

	Alternatives A & D	Alternative B	Alternative C
2021 Projected Casino Attendance	586,287	586,287	-
2021 Projected Retail Visitation	435,876	290,873	623,524
2021 Total Visitation	1,022,163	877,161	623,524
Average service call rate	*0.003%*	*0.003%*	*0.003%*
Projected Fire Service/EMS Calls	**29**	**25**	**18**
*2021 Estimated Cathedral City Fire Service/EMS Calls**	*6,248*	*6,248*	*6,248*
2021 Projected Cathedral City Fire Service/EMS Calls	6,277	6,273	6,266
% Change	*0.5%*	*0.4%*	*0.3%*

*Estimate based on historical service call data from Cathedral City Fire Department

The following provides a breakdown of Fire Department calls in the Cathedral City from all stations.

Cathedral City Fire Department Calls 2017 (Includes EMS)

Type	Incidents	% of Total
Total	**5,836**	**100%**
Medical	4,442	76%
Non-Medical	*1,394*	*24%*
Fire	*202*	*3%*
Assist	*392*	*7%*
Fire Exposure	*3*	*0%*
False Alarm	*228*	*4%*
Hazard	*46*	*1%*
PSR	*523*	*9%*
Total Population	**55,126**	
Incident per 100 residents	*10.6*	

Sources: Cathedral City Fire Department, The Innovation Group

Again, some communities have seen a smaller impact on services. The Kenner Department reported a small number of fire incidents at the Treasure Chest Casino, averaging approximately seven medical calls and only one fire call in the last five years.

Conclusion and Implications for Cathedral City

Fiscal Impacts and Municipal Services

Local fiscal benefits from tribal developments are difficult to define. First of all, according to standard state-tribal compacts, including Agua Caliente's, local communities receive a portion of

slot revenue sharing that the Tribe pays into the State Special Distribution Fund. But that portion is not defined. Secondly, tribal operations can be exempt from property and sales taxes, and thus a Municipal Service Agreement (MSA) is typically negotiated to compensate for that exemption. However, to date there is not an MSA in place although one is anticipated.

Impacts arising from population and development growth would be effectively diluted by the size of Cathedral City's existing labor force, housing stock, and school capacity. Impacts arising from increased visitation—such as police, fire and EMS calls—are less than significant but detailed below. Moreover, the gains in tax revenues that will accrue to the City as a result of increased economic activity generated by the casino and its employees will mitigate increases in municipal services expenses. In sum, the casino and mixed-use development will have a significant positive impact on Cathedral City's governmental services.

Estimated Municipal Expenses

The following table shows the estimated expenses attributable to the subject development from police and fire/EMS services, based on the Comparative Analysis section above, with percent change estimates from that analysis applied to future budget estimates. For future budget estimates, the City's FY2018/19 budget was grown by 6%.

Cathedral City Police and Fire/EMS Expense Increase 2021

2021 Budget Estimate		Alternatives A & D	Alternative B	Alternative C
Police: $18,020,000	*Incremental %*	*0.48%*	*0.42%*	*0.30%*
		$86,496	$75,684	$54,060
Fire/EMS: $11,660,000	*Incremental %*	*0.50%*	*0.40%*	*0.30%*
		$58,300	$46,640	$34,980
Total Increase in Municipal Services		**$144,796**	**$122,324**	**$89,040**

Sources: Cathedral City, The Innovation Group

Property Tax Impact

The following table shows the current value assessments and property taxes attributable to the parcels of land proposed for development. Alternatives A – C are proposed for the site north of East Palm Canyon Drive while Alternative D is proposed for the site south of East Palm Canyon Drive, as detailed in the site analysis section of this report. The total loss of property tax that Cathedral City could expect to incur from the development of either property is between $94,427 and $105,367.

2017 Property Tax Information

	Number of Parcels	Total Acres	Assessed Value	Property Taxes
Alternative A - C	66	9.88	$8,515,491	$105,367
Alternative D	15	12.94	$7,543,575	$94,427

Source: Riverside County, CA Office of the Treasurer – Tax Collector

Estimated Municipal Revenues

Excluding property and sales taxes,[17] ongoing operations from the alternative developments would directly contribute between $0.56 million to $1.26 million to the local and state government, according to IMPLAN results.

Riverside County State and Local Tax Impact: Direct Effect

	Alternatives A & D	Alternative B	Alternative C
Dividends	$16,142	$15,385	$3,094
Social Ins Tax- Employee Contribution	$34,227	$30,616	$14,760
Social Ins Tax- Employer Contribution	$71,695	$64,131	$30,918
TOPI: Sales Tax	$0	$0	$0
TOPI: Property Tax	$0	$0	$0
TOPI: Motor Vehicle Lic	$27,741	$23,480	$17,416
TOPI: Severance Tax	$1,307	$1,106	$821
TOPI: Other Taxes	$155,509	$131,624	$97,629
TOPI: S/L NonTaxes	$92,261	$78,091	$57,922
Corporate Profits Tax	$182,953	$174,374	$35,066
Personal Tax: Income Tax	$544,986	$485,289	$244,009
Personal Tax: NonTaxes (Fines- Fees)	$105,099	$93,586	$47,056
Personal Tax: Motor Vehicle License	$18,840	$16,777	$8,435
Personal Tax: Property Taxes	$7,996	$7,120	$3,580
Personal Tax: Other Tax (Fish/Hunt)	$3,696	$3,291	$1,655
Total State and Local Tax	**$1,262,452**	**$1,124,870**	**$562,361**

Source: IMPLAN Group, LLC, IMPLAN System (data and software); The Innovation Group

However, the impacts from indirect and induced effects of ongoing operations would not be subject to the property and sales tax exemptions. IMPLAN estimates that indirect and induced effects from ongoing operations would generate between $0.7 million and $2.0 million in tax revenue to local and state government depending on the proposed alternative.

[17] As a trust property, it has been assumed the subject development would be exempt from these local taxes.

Riverside County State and Local Tax Impact: Indirect Effect

	Alternatives A & D	Alternative B	Alternative C
Dividends	$4,775	$4,523	$1,028
Social Ins Tax- Employee Contribution	$6,672	$6,167	$2,066
Social Ins Tax- Employer Contribution	$13,976	$12,917	$4,328
TOPI: Sales Tax	$303,846	$280,134	$96,919
TOPI: Property Tax	$254,809	$234,924	$81,278
TOPI: Motor Vehicle Lic	$5,873	$5,415	$1,873
TOPI: Severance Tax	$277	$255	$88
TOPI: Other Taxes	$32,923	$30,354	$10,502
TOPI: S/L NonTaxes	$19,533	$18,008	$6,230
Corporate Profits Tax	$54,119	$51,269	$11,650
Personal Tax: Income Tax	$143,198	$133,239	$40,710
Personal Tax: NonTaxes (Fines- Fees)	$27,615	$25,695	$7,851
Personal Tax: Motor Vehicle License	$4,950	$4,606	$1,407
Personal Tax: Property Taxes	$2,101	$1,955	$597
Personal Tax: Other Tax (Fish/Hunt)	$971	$904	$276
Total State and Local Tax	**$875,638**	**$810,366**	**$266,804**

Source: IMPLAN Group, LLC, IMPLAN System (data and software); The Innovation Group

Riverside County State and Local Tax Impact: Induced Effect

	Alternatives A & D	Alternative B	Alternative C
Dividends	$3,305	$2,971	$1,367
Social Ins Tax- Employee Contribution	$7,000	$6,292	$2,894
Social Ins Tax- Employer Contribution	$14,663	$13,179	$6,063
TOPI: Sales Tax	$452,668	$406,871	$187,197
TOPI: Property Tax	$379,614	$341,207	$156,986
TOPI: Motor Vehicle Lic	$8,750	$7,865	$3,618
TOPI: Severance Tax	$412	$371	$170
TOPI: Other Taxes	$49,049	$44,086	$20,284
TOPI: S/L NonTaxes	$29,100	$26,156	$12,034
Corporate Profits Tax	$37,461	$33,671	$15,491
Personal Tax: Income Tax	$130,185	$117,015	$53,832
Personal Tax: NonTaxes (Fines- Fees)	$25,106	$22,566	$10,381
Personal Tax: Motor Vehicle License	$4,501	$4,045	$1,861
Personal Tax: Property Taxes	$1,910	$1,717	$790
Personal Tax: Other Tax (Fish/Hunt)	$883	$794	$365
Total State and Local Tax	**$1,144,606**	**$1,028,804**	**$473,336**

Source: IMPLAN Group, LLC, IMPLAN System (data and software); The Innovation Group

Summary

As discussed, the impact on police and fire/EMS services provided by Cathedral City is estimated to be minimal, or 0.5% at most. A portion of this impact is expected to be mitigated by sales and property taxes from indirect and induced effects. As noted in the economic impact methodology section, approximately 50% of the indirect and induced effects forecast by IMPLAN for Riverside

County is estimated to accrue to Cathedral City. The sales tax rate in Cathedral City is 8.75%, with 6% going to the State, 2.5% to Cathedral City and 0.25% to Riverside County, meaning that the City retains 28.6% of the sales taxes occurring within its borders. According to the Riverside County Assessor's Annual Report for 2016, approximately 7% of the property taxes collected in the county was distributed to cities. In total, as detailed in the following table, the fiscal gain to Cathedral City attributable only to indirect and induced effects would total $130,278 in the Proposed Project.

Cathedral City, Estimated Sales and Property Tax Impact: Indirect and Induced Effects

	Alternatives A & D	Alternative B	Alternative C
Total County & State Indirect and Induced Sales Tax	$756,514	$687,005	$284,116
Portion Occurring within the City	$378,257	$343,503	$142,058
City's Share of Total Sales Taxes	28.6%	28.6%	28.6%
Cathedral City Fiscal Impact from Sales Taxes	**$108,073**	**$98,144**	**$40,588**
Total County Indirect and Induced Property Tax	$634,423	$576,131	$238,264
Portion Occurring within the City	$317,212	$288,066	$119,132
City's Share of Total Property Taxes	7.0%	7.0%	7.0%
Cathedral City Fiscal Impact from Property Taxes	**$22,205**	**$20,165**	**$8,339**
Total	**$130,278**	**$118,308**	**$48,927**

Sources: IMPLAN, Riverside County Assessor, The Innovation Group

This positive fiscal impact would help mitigate the approximately $250,000 total negative impact from increased city services and loss of property taxes, as shown in the following table.

Cathedral City Net Impact

	Alternative A	Alternative B	Alternative C	Alternative D
Total Increase in Municipal Services	$144,796	$122,324	$89,040	$144,796
Loss of Property Tax	$105,367	$105,367	$105,367	$94,427
Total Negative Impact	$250,163	$227,691	$194,407	$239,223
Mitigated by Indirect & Induced Taxes	$130,278	$118,308	$48,927	$130,278
Variance	**-$119,885**	**-$109,383**	**-$145,480**	**-$108,945**

Source: The Innovation Group

It should be noted that this analysis does not include any PILOT (payments in lieu of taxes) or other benefits to the City resulting from either a Municipal Services Agreement or from the terms of the Agua Caliente compact.

Problem Gambling

There is not expected to be any fiscal impact on Cathedral City municipal services from problem gambling, since prevention and treatment programs are funded by the State (see Appendix A). Further, problem gambling prevalence is not anticipated to increase from this development given the widespread availability of casino gaming already present throughout the Coachella Valley. In fact, in our gravity modeling analysis, the proposed location is on average only a few minutes closer than existing casinos to residents of Cathedral City, meaning that increased gaming participation over current levels is expected to be minimal.

Moreover, the Agua Caliente compact contains the following requirements to take preventative steps to mitigate problem gambling:

> The Tribe will continue to maintain the following safeguards against problem gambling:
>
> > (a) Train Gaming Facility supervisors and gaming floor employees on responsible gaming, and to identify and manage problem gambling.
> >
> > (b) Display at all public entrances, automated teller machines, and exits of the Gaming Facility signage bearing a toll-free helpline number where patrons may obtain assistance for gambling problems.
> >
> > (c) Maintain a self-exclusion program whereby a self-identified problem gambler may request the halt of promotional mailings, the revocation of privileges for casino services, denial of or restraint on the issuance of credit and check cashing services, and exclusion from the Gaming Facility.
> >
> > (d) Establish an involuntary exclusion program that allows a Gaming Operation to halt promotional mailings, deny or restrain the issuance of credit and check cashing services, and deny access to the Gaming Facility to persons who have exhibited signs of problem gambling.
> >
> > (e) Make diligent efforts to prevent underage individuals from loitering in the area of the Gaming Facility where gaming activities take place.
> >
> > (f) Reasonably assure that advertising and marketing of Gaming Activities at the Gaming Facility contain both a responsible gaming message and on printed advertisements, include a toll-free helpline telephone number for problem gamblers, where practical.

Further, the Tribe will be required to contribute a portion of slot machine revenue to the Special Distribution Fund, which is used for the following purposes:

> > (a) Grants, including any administrative costs, for programs designed to address and treat gambling addiction;

(b) Grants, including any administrative costs and environmental review costs, for the support of State and local government agencies impacted by tribal government gaming;

(c) Compensation for regulatory costs incurred by the State including, but not limited to, the Commission, the California Department of Justice, the Office of the Governor, the California Department of Public Health Programs, Office of Problem Gambling, the State Controller, the Department of Human Resources, the Financial Information System for California, and State Designated Agencies in connection with the implementation and administration of Class III Gaming compacts in California;

As noted, there is a California Department of Public Health-sanctioned provider offering free Gambling Education and Treatment Services (CalGETS) in Rancho Mirage, four miles from Cathedral City.

More information on problem gambling research is contained in Appendix A.

APPENDIX A: PROBLEM GAMBLING RESEARCH

Definition and Prevalence

A majority of Americans, about 86%, report having gambled at least once in their lifetime[18]. Most people gamble for recreational purposes without the behavior becoming a problem. Studies, however, estimate that 0.4%-1.6% of the United States population can be classified as pathological gamblers.[19,20] Pathological gambling has been commonly associated with relationship problems, employment issues, and significant financial difficulties.

The American Psychiatric Association (2004) defines a pathological gambler as a person who features a continuous loss of control over gambling. Furthermore this gambler illustrates a progression, in gambling frequency and amounts wagered, in the preoccupation with gambling and in obtaining monies with which to gamble. However, problem gambling is a more loosely defined term and is commonly associated with gaming-related difficulties that are considered less serious than those of a pathological gambler. For the sake of this report we will utilize the definition by noted researchers Cox, Rosenthal and Volberg which defines problem gambling as a pattern of gambling behavior that compromise, disrupt or damage personal, family or vocational pursuits.[21]

The National Research Council[22] utilizes a three-level metric. Level 1 gambling is considered social and or recreational gambling with no appreciable harmful effects. Level 2 gambling is synonymous with problem gambling. Level 3 gambling is synonymous with pathological gambling. Problem gambling is an urge to gamble despite harmful negative consequences or a desire to stop. It is often defined by whether harm is experienced by the gambler or others, such as the gamblers family, significant other, spouse, friends, or coworkers. A problem gambler may or may not be a pathological gambler. Pathological or compulsive gambling is defined as a mental disorder characterized by a continuous or periodic loss of control over gambling, a preoccupation with gambling and with obtaining money with which to gamble, irrational thinking, and a continuation of the behavior despite adverse consequences.

Prevalence rates to determine adult problem gambling rates are measured by administering a survey (often a variation of the South Oaks Gambling Screen or a modified DSM-IV questionnaire) to a statistically valid sample of the adult population of the jurisdiction being

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[18] James KC, Bible WA, Dobson JC, Lanni JT, Leone RC, Loescher RW, et al. *National gambling impact study commission final report*. National Gambling Impact Study Commission. 1999.
[19] Shaffer HJ, Hall MN, Vander Bilt J. "Estimating the prevalence of disordered gambling behavior in America and Canada: a research synthesis." *Am J Public Health*. 1999
[20] Petry NM, Stinson FS, Grant BF. "Comorbidity of DSM-IV pathological gambling and other psychiatric disorders: results from the national epidemiologic survey on alcohol and related conditions." *J Clin Psychiatry*. 2005
[21] Cox, S., H. R. Lesieur, R. J. Rosenthal & R. A. Volberg. 1997. *Problem and Pathological Gambling in America: The National Picture.* Columbia, MD: National Council on Problem Gambling.
[22] National Research Council, pp. 20-21.

measured. Adolescent rates are measured in a similar manner. Such a method and analysis of data that accompanies the process is referred to as a general population prevalence study.

Jurisdictions in several countries have conducted studies to estimate the percentage of the population that could be classified as having some level of problem gambling behavior. These studies, commonly referred to as prevalence studies, are designed to reflect the scope and severity of problem gambling behavior.[23]

One of the most frequently cited studies on prevalence rates is *Estimating the Prevalence of Disordered Gambling Behavior in the United States and Canada: A Meta-analysis by the Harvard Medical School Division on Addictions*. The meta-analysis method of estimating prevalence rates has been used in related addiction fields of drug prevention and patterns of alcohol use and alcohol treatment and is considered a more cost-effective method than a national study since it makes use of existing research already conducted in a field.

The Harvard Medical School study, believed to be the first to use meta-analysis measurements for problem gambling prevalence rates, analyzed 152 distinct previous prevalence studies available for review by June 15, 1997. The study determined that 2.0 percent of the adult population could be considered as Level 2 of disordered gambling (often referred to as problem gambling) and 0.9 percent of Level 3 or disordered gambling (also referred to as pathological gambling) during the past year. The vast majority of adults in the general population, then, do not experience gambling-related problems of any clinical significance.

The meta-analysis raw data was given to the Committee on the Social and Economic Impact of Pathological Gambling of the National Research Council (NRC) in its analysis for the National Gaming Impact Study Commission. After an extensive review, the NRC agreed with the above rates of problem gambling and used the numbers in its own analysis of problem gambling in its final report.

It should be noted that problem gambling is not limited to states with casinos, since most states have other forms of gambling and since casino options are available in other states.

A study in California in 2006 found that "the lifetime prevalence of pathological gambling in California is 1.5% and the lifetime prevalence of problem gambling is 2.2%."[24] However, California did not begin offering publicly funded treatment services until 2010,[25] and in 2006 there were no residential treatment providers and insufficient outpatient providers.[26] The only public services were a helpline and Gamblers Anonymous.

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[23] *Estimating the Prevalence of Disordered Gambling Behavior in the United States and Canada: A Meta-analysis*, Harvard Medical School Division on Addictions, 1997.
[24] Volberg RA, Nysse-Carris KL, Gerstein DR, *2006 California Problem Gambling Prevalence Survey*. Submitted to the California Department of Alcohol and Drug Programs Office of Problem and Pathological Gambling
[25] Wheeler M. *UCLA, California partner on new publicly funded program to treat state's problem gamblers*, October 18, 2010, UCLA Newsroom.
[26] Volberg, *IBID*.

The California Department of Public Health's Gambling Education and Treatment Services (CalGETS) now offers a variety of treatment options at no cost to problem gamblers and affected individuals. Telephone counseling is available at no cost Monday-Friday from 9AM-5PM, in addition to the 24/7 helpline. Outpatient providers are located throughout the state, including two centers providing Intensive Outpatient treatment, and there are now two residential treatment centers.

Funding for these services comes from the tribal Special Distribution Fund, the Lottery Fund, and the Gambling Addiction Fund (which is derived from a $100 per-table fee on gaming tables at commercial cardrooms).

The introduction of casino gambling can lead to negative social impacts that can be controlled and minimized through proper planning, awareness campaigns, and prevention and treatment programs applied in a coordinated manner by all relevant stakeholders. Utilizing the many proven prevention and treatment programs and the requirements relating to problem/responsible gaming being utilized in California, the potential social impact of the advent of gaming in the state can be minimized. Through enhanced funding provided by a local services agreement, problem gambling services will be more effective in mitigating problem gambling and promoting responsible gambling.

By devoting more resources to prevention and treatment, Connecticut was able to cut prevalence rates despite further gaming development. In 1996, Connecticut had only a single clinic, but by the time of an updated study in 2008, the state had 17 clinics.[27] Prevalence rates declined substantially during that period, despite the opening of Mohegan Sun late in 1996 and further expansion at Foxwoods, including the opening of Grand Pequot Tower hotel in 1997.

Connecticut Prevalence Rates

	2008 Survey	1997 Study
Problem Gamblers	0.90%	2.20%
Probable Pathological Gamblers	0.70%	0.60%
Total Disordered Gamblers	1.60%	2.80%

Source: Spectrum Gaming Group.

The presence of casinos in California complicates an assessment of any impact on prevalence rates from further casino development in the state. In the case of the proposed Cathedral City facility, a salient point is that casino gambling is already available in the area. Given this existing availability, the addition of gaming in Riverside County is not expected to lead to an increase in prevalence rates in the local area.

[27] Spectrum Gaming Group, *Gambling in Connecticut: Analyzing the Economic and Social Impacts*, prepared for the State of Connecticut, Division of Special Revenue, June 2009.

APPENDIX B: CASINOS AND CRIME

The social and community impacts of gaming development have been extensively studied. In many areas research findings have been inconclusive and thus considerable resources continue to be devoted to researching possible negative impacts given the unique nature of gaming compared to other commercial enterprises.

A number of broad studies of the social and economic impact of casinos have been conducted in the United States. In the late 1990s, prompted by the expansion of casinos throughout the United States, mainly in the form of riverboat casinos, Native American casinos, and racetrack slot parlors, Congress set up the National Gambling Impact Study Commission (NGISC). Its findings were released in 1999.

The Commission retained the National Research Council (NRC) to review the existing research on the socio-economic impacts of casino development. The NRC concluded that the existing research on the subject was inadequate:

> The NRC project involved a review of all existing and relevant studies by representatives of a variety of scientific fields. In the end, NRC recommended that further study be initiated. Study of the benefits and costs of gambling "is still in its infancy." Lamenting past studies that utilized "methods so inadequate as to invalidate their conclusions," the absence of "systematic data," the substitution of "assumptions for the missing data," the lack of testing of assumptions, "haphazard" applications of estimations in one study by another, the lack of clear identification of the costs and benefits to be studied, and many other problems, NRC concluded the situation demands a "need for more objective and extensive analysis of the economic impact that gambling has on the economy."[28]

The Commission then retained the National Opinion Research Center (NORC) to undertake said "objective and extensive analysis" concerning impacts. The NORC came to the following conclusion:

> First, the casino effect is not statistically significant for any of the bankruptcy or crime outcome measures…….. This is not to say that there is no casino-related crime or the like; rather, these effects are either small enough as not to be noticeable in the general wash of the statistics, or whatever problems that are created along these lines when a casino is built may be countered by other effects.[29]

Despite the NGISC's authoritative findings, some researchers continue to claim that casinos cause crime.[30] However, there are three major flaws in much of this research:

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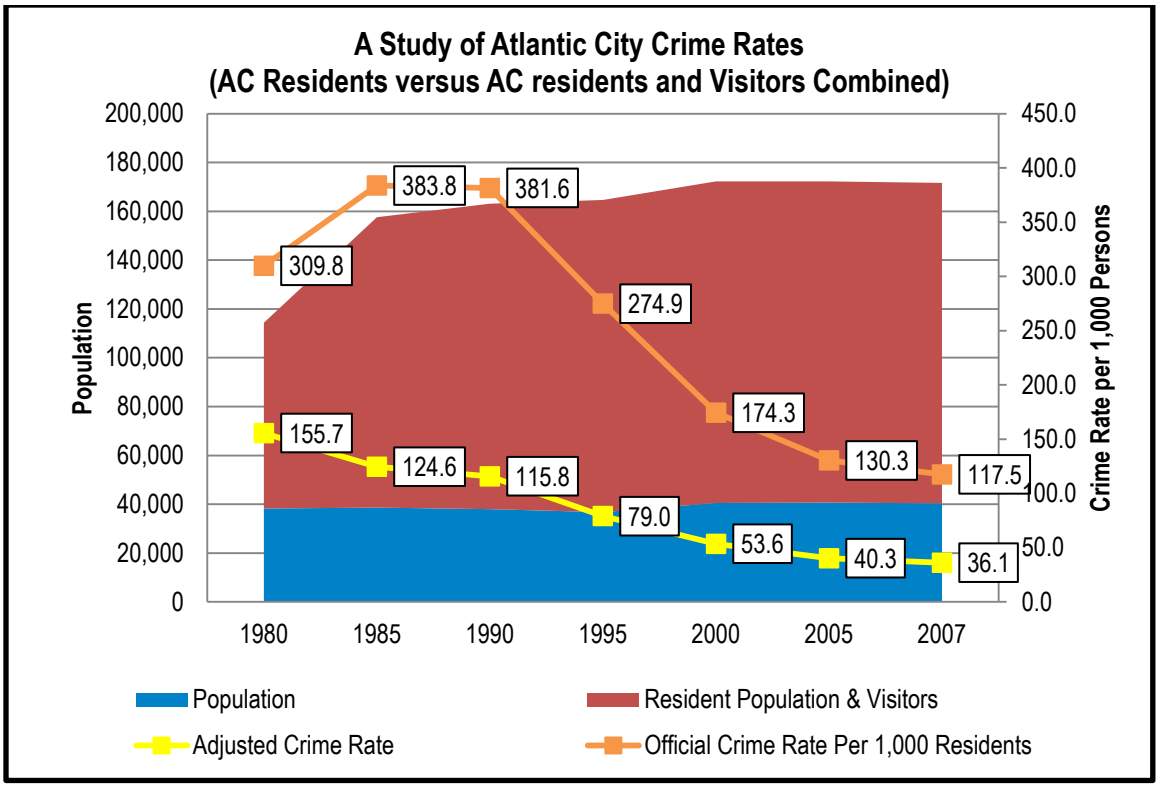
[28] National Gambling Impact Study, Chapter 7. 1999. Gambling's Impact on People and Places.
[29] The National Gambling Impact Study Commission, "National Gambling Impact Study" (1999).
[30] See Grinols and NBER discussion below.

1. Much of the research that attributes an increase in crime to casinos has ignored the temporary population increases brought about by casino visitation. When crime rates are calculated not accounting for the influx of visitors, there appears to be an increase in crime. While this may be true in absolute terms, it radically overestimates the increase in likelihood of residents being victims of crime.
2. Further to #1, some research applies crimes such as on-site thefts of casino visitors to the local population, leading to an invalid increase in the local crime rate.
3. The crimes rates are not studied over a sufficient period of time and therefore temporary increases or long term trends attributable to more primary causal factors are not always recognized or are misinterpreted.

One of the earliest examples of flawed research is related to Atlantic City. The ***number*** of crimes tripled after casinos opened in 1978, and some researchers applied the increase to the local resident population, which in the resulting invalid calculation resulted in a tripling of the crime ***rate***. However, most of the increase related to thefts within the casinos, which did not impact the local population. A valid calculation of the crime rate has to include the visitation base.

In fact, there has been a ***decreased*** chance of being a victim of crime since casinos were developed in Atlantic City. Factors likely include an increase in casino employment and law enforcement resources, safer infrastructure with well-lit garages, and an increase in general tourism activity. According to more recent data supplemented to the study completed by Margolis et al, [31] this decline in crime rates per 1,000 residents continued through 2007 to a rate of 36.1 per thousand residents. The chart below illustrates the crime rate trends from 1980 to 2007.

[31] Margolis, J. & Altheimer & Gray. (December 1997). "Casinos and crime: An analysis of the evidence." American Gaming Association. http://www.americangaming.org/assets/files/studies/Crime.pdf . The Innovation Group.



The Rappaport Institute for Greater Boston and the John F. Kennedy School of Economics at Harvard University (Baxandall and Sacerdote 2005) in a national, county-level study of Native American casinos found a slight decrease in crime rates after casinos opened. The analysis included all California casinos in existence in the 1990s. From their total sample of 156 casino counties, the Rappaport study isolated out 57 counties with large casinos and relatively low population and nine counties with both large casinos and large populations to see if there were statistical differences in terms of community impacts. The following table shows their results:

Rappaport Study Results

	All Casino-Counties[1]	Counties with Large-Capacity Casinos[2]	Populous Casino Counties[3]
Population Growth (%)	+5*	8.6	+8.1*
Total Employment (%)	+6.7*	+14.9*	5.7
Unemployment (%)	-0.3	-1.2*	0.5
House Prices	$5,869	$8,924	$7,083
Crime (Per 1,000 People)	-3	-6	-1

*Statistically significant results at 99% confidence interval.
1. Reports how adjusted outcomes in 156 counties that introduced Indian-run casinos during the 1990s differed from the other 2,959 that did not.
2. The effect for 21 counties in the top 10th percentile in terms of number of slot machines (over 1,760).
3. The effect for the 57 casino counties in the top population quartile (over 55,000 residents).

The Rappaport study concluded:

> Our analysis shows that while total crime can be expected to increase when casinos open, the increase is due to increased population, not to a casino-created crime wave. Looking at FBI indexed crimes per resident in all [156] counties; we find that introducing a casino is associated with a decrease of 3 reported crimes per 1,000 people. The introduction of a casino, however, had no statistically significant effect on per-capita crime rates in either large-population casino counties or in large-casino counties. The per-capita crime rate in the 9 large-population counties that also hosted large-capacity casinos dropped 9 crimes per 1,000 residents, however.[32]

It is worth noting that the study included two of the largest casinos in the world, Foxwoods and Mohegan Sun. In Ledyard, Connecticut (which hosts the Foxwoods casino), crimes outside the casino increased from 214 in 1991 to 364 in 1998, but in subsequent years, State Police data show that off-casino crimes in Ledyard fell below pre-casino levels. In Montville, Connecticut (host to Mohegan Sun), as with Ledyard, the number of crimes reported "remained relatively constant," which the authors conclude is "surprising since the sheer increase in activity around these towns might have led to greater crime."[33]

The study also highlighted results for three counties in southern California: Riverside, San Bernardino, and San Diego. In all three counties, crime decreased relative to the state average. For example, before casino development, Riverside County suffered 22 more crimes per 1,000 residents than the state average. After casino development, the county had just 6 more crimes per 1,000 residents than the state average, a relative decrease of 16 crimes per thousand residents. San Bernardino had a relative decrease of 10 crimes per thousand, and San Diego 9.

Rappaport Study California County Results for Crime

	Relative Crime (Before)	Relative Crime (After)	Change in Relative Crime (After - Before)
Riverside, CA	0.022	0.006	-0.016
San Bernardino, CA	0.016	0.006	-0.01
San Diego, CA	0.008	-0.001	-0.009

In other western jurisdictions, the Montana legislature in 1997 commissioned a study on the video gaming industry. The resulting analysis found no impact on crime rates in Montana:

> While gambling may have caused an increase of certain types of crime, Montana's overall crime rate increase is not any higher than the increases in matched cities with little or no

[32] IBID. As summarized in their 2008 report, "Betting on the Future: The Economic Impact of Legalized Gambling."

33 Baxandall, P. & B. Sacerdote (January 2005). *The Casino Gamble in Massachusetts: Full Report and Appendices*. Rappaport Institute for Greater Boston, John F. Kennedy School of Economics, Harvard University. Page 14.

legal gambling. In fact, in almost three-quarters of the specific comparisons carried out, crime rates rose more (or decreased less) in the matched cities than in the Montana cities.

Each of the seven largest Montana cities was matched with an out-of-state city in the region with similar population size, similar population growth rate, similar racial composition, but with little or no legal gambling. The percentage change in crime rates for three indices of crime (total serious crime, property crime, and violent crime) was computed for three time periods… between 1984 and 1994. [The data] illustrate the lack of a systematic pattern in crime rate changes between Montana cities and those in states with little or no gambling. For example, the violent crime rate grew faster in Cheyenne, Wyo., than in Great Falls between 1984 and 1994, yet the index of property crime decreased in Cheyenne while it increased in Great Falls during the same period.[34]

In summary, there is no evidence from gross level data that the advent of casinos has a measurable impact on local crime rates in general, whether in Eastern, Midwestern, or Western jurisdictions. It is highly likely any crimes associated with casinos are either offset by economic benefits or that the level of crime is so small as to be overwhelmed by other factors such as economic trends.

Primary Research from Select Casino Jurisdictions

The figures from the casinos used in the Comparative Analysis Criminal Incidents section, provide a general picture of criminal activity at a casino. Other communities have found lower and higher levels of incidents. For example, figures from the Kenner Police Department note an average of 9 criminal incidents at the Treasure Chest Casino from 2012 to 2014. Attendance at the Treasure Chest Casino in Kenner is over one million annually.

A recent article in The Enterprise provided additional qualitative data from the casinos in this analysis. An officer from the Pittsburgh Police department compared the number of calls to games at the local baseball and football stadiums, "Nothing different than when there's a ball game," Luczak said. "I wouldn't say there's much change."[35]

Des Plaines Police Deputy Chief Nick Treantafeles had similar sentiments, "It's just like any place that serves alcohol," he said. "You get drunk and disorderly, but their security handles 98 percent of the issues there. We might get called for a fight that gets out of hand. ... It hasn't put a damper on the services we offer the rest of the community."[36]

While specific increase in police staffing varies from community to community, many communities found no need to increase police staffing, as shown below in the examples from Indiana. The Center for Urban Policy and the Environment at Indiana University-Purdue University has prepared 5-year evaluations of riverboat licensees for the Indiana Gaming

[34] Montana Gambling Commission Study, 1998, Chapter 8.
[35] http://www.enterprisenews.com/article/20150517/NEWS/150516955/12741/NEWS/?Start=1
[36] http://www.enterprisenews.com/article/20150517/NEWS/150516955/12741/NEWS/?Start=1

Commission which contain sections on community impacts. The following bullet points include summaries and excerpts from these reports with respect to police and fire protection.

Casino Aztar:

- The Evansville Police Department reports no increases in crime since the riverboat opening. They do report a drop in crime in 1999 when compared to the previous year.
- "No new police officers or firefighters were added. Traffic control has not been a problem..."

Majestic Star:

- The community purchased 12 police cars with Year 1 incentive payments.
- Gary's Chief of Police reports no additional criminal activity surrounding the riverboat.

Horseshoe Hammond (formerly Empress Casino Hammond):

- The Hammond Police Department reports crime has fallen in most categories when compared to before the boat opened.

Hollywood (formerly Argosy):

- According to the Lawrenceburg Police Department, casino-related arrests for public intoxication, DWI, and minor theft, as well as traffic accidents in the area have increased slightly each year from 1997 to 2000.
- Lawrenceburg has added two police officers since the boat opened to deal with the increased caseload.

Ameristar (formerly Harrah's East Chicago):

- According to East Chicago's police department, no additional criminal activity can be attributed to the riverboat's presence.
- "Crime in East Chicago has decreased substantially over this time period due to increased cooperation with federal agencies, community policing and increased staffing."

Blue Chip Casino:

- According to Michigan City's chief of police, no additional criminal activity can be attributed to Blue Chip's presence.

On the issue of crime, Jeremy Margolis, who had served as Assistant U.S. Attorney in Chicago, Illinois Inspector General, and Director of the Illinois State Police, found in a 1997 study[37] that the chance of being victim of a crime decreases after casino development. Factors include an

[37] Margolis, J. (December 1997). "Casinos and crime: An analysis of the evidence." American Gaming Association.

increase in employment brought by casinos, increased law enforcement resources, safer infrastructure with well-lit garages, and an increase in general tourism activity.

In testimony before the Pennsylvania Gaming Control Board (PGCB) in 2006, Margolis was asked to give an update of his seminal study. Margolis concluded, based on examining updated crime data from the F.B.I. as well as interviews with the Executive Director of the Illinois Crime Commission, the Illinois State Police, and the Illinois Gaming Board, that the situation is "really unchanged except for the maturation of the industry, the maturation of the regulatory process has probably settled things down more than it had settled when I completed my study in 1997. It's just not an issue."[38]

[38] PGCG hearing transcript, September 7, 2006, pages 22-23.

APPENDIX C: IMPACT ON LOCAL BUSINESS

Research Results

There is a substantial body of research and case studies demonstrating the impacts that casinos have on surrounding local businesses. There are several important reasons that local businesses benefit from the development of a casino:

- Casino visitors stopping at local retail outlets and restaurants.
- Long-distance patrons staying at area hotels; even in markets with casino hotels, non-casino hotels enjoy boosts in occupancy.
- Casino expenditures on local goods and services put more money into the local economy.

A review of studies of casino impacts on local business shows that casinos can stimulate local economies, resulting in communitywide growth, including in the local food and beverage business and retail businesses. There is little evidence of significant economic substitution after the introduction of new casinos, particularly for casinos in urban areas.

Casino development increases room demand at non-casino hotels even when casino hotels are built. For example, in Shreveport-Bossier City, Louisiana, hotel occupancy rates averaged about 60% before casinos but rose to 74% by 2005.[39] Such a boost to non-casino hotel demand results from the overall increased visitation to the area and the overflow from peak periods when casino hotels are fully booked. On the Mississippi Gulf Coast occupancy rates in non-casino hotels remained steady at 55% despite a 143% increase in total rooms, including a 60% increase in non-casino hotel rooms.[40]

Within the City of San Diego, the Transient Occupancy Tax (TOT) has grown substantially since recovering from the 2009-10 recession effects, despite the opening of several large hotels at casinos on the outskirts of the market (and not within the City), including an 1,100-room hotel at Harrah's Rincon. Furthermore, HVS reports that hotel occupancy in the San Diego market posted its third straight record occupancy in 2016 at 77%. RevPAR (revenue per available room, a measure of hotel performance) has also seen steady increases since the recession.[41]

City of San Diego, CA Transient Occupancy Tax Collections (MMs)

2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
$160.24	$136.32	$128.11	$139.77	$150.82	$157.03	$170.17	$186.24	$202.80	$221.10

Source: San Diego Tourism Authority

[39] Shreveport-Bossier Convention and Tourism Bureau 2011 Lodging Report.
[40] Source: Mississippi Gaming Commission.
[41] http://hvi.hvs.com/market/united-states/San_Diego

The research division of the Federal Reserve Bank of St. Louis concluded in a 2003 report that the results are "mixed" regarding the impacts of casinos on other local businesses. The report references one study that "found that the growth in retail sales tax collections from various industries slowed after the introduction of casino gambling." However, another referenced study from Indiana showed that casino development retained spending by patrons "who would have, without the casino, spent their money outside of the local area."[42]

Furthermore, there is substantial economic research from throughout the country contradicting the substitution effect. Hashimoto and Fenich's 1997 research shows that "in jurisdictions from the seashore to the riverfront to rural areas, north and south, east and west, local restaurants tended to thrive after a casino opened nearby." Furthermore, Hashimoto and Fenich conclude: "When casinos are developed, all aspects of the local food and beverage business increase: the number of establishments increases, the number of people employed increases and payroll increases at an even greater rate than the first two."[43]

Research conducted in 1996 by Nancy Reeves and Associates for the Mille Lacs Band of Ojibwe, entitled "The Economic Impact of Grand Casino Mille Lacs and Grand Casino Hinckley on Their Surrounding Areas" concluded that:

> At least 15 businesses have either opened, expanded, or re-opened since the opening of Grand Casino Mille Lacs. Included are 4 hotels/motels and resorts, 8 restaurants and fast food establishments, 2 gas stations and a go-kart track. Together, these businesses have added an estimated 142 jobs in the area.
>
> With the opening of Grand Casino Hinckley in 1992, the hospitality business in Hinckley was transformed from a rest stop for travelers to a tourist destination. In addition to the casino complex, with its 1,275 jobs, Hinckley has added 11 new businesses and expanded 4 more since 1992, adding 87 new jobs. As is the case in the Mille Lacs area, Hinckley is now a year round destination because of the casino. Also similar to the Mille Lacs situation, the main street businesses in Hinckley have seen increases in customer spending attributed primarily to casino employees living in the area.

The Center for Policy Analysis University of Massachusetts Dartmouth came to similar conclusions analyzing a number of gaming jurisdictions throughout the country. The number of restaurants and retail sales excluding those from casinos increased in Bossier City, Louisiana; Biloxi/Gulfport, Mississippi; Connecticut; Gilpin County, Colorado, and; Tunica County, Mississippi.

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[42] Thomas A. Garrett, Senior Economist, Federal Reserve Bank of St. Louis, *Casino Gambling in America and Its Economic Impacts,* August 2003.

[43] George Fenich and Kathryn Hashimoto, "The Effects of Casinos on Local Restaurant Business," paper presented at the International Conference on Gambling and Risk-Taking, Montreal, 1997.

> There was a net increase of eight restaurants in Bossier City, Louisiana following the introduction of riverboat casinos. The city's taxable restaurant sales, excluding restaurants in the hotels and casinos, increased by 5 percent in 1994 and by 7 percent in 1995 *after* the introduction of riverboat casinos. In Biloxi/Gulfport, Mississippi, the rate of non-casino retail sales growth increased from an average of 3 percent annually (1990-1992) in the years prior to riverboat gambling to 12 percent annually in the years after riverboat gaming began in the locality.
>
> …the number of restaurants in the area surrounding Foxwoods and Mohegan Sun increased from 472 to 506 following the casino's opening, while restaurant employment increased from 5,911 to 6,628 during the same period.… In Gilpin County Colorado, the number of restaurants increased from 31 to 40 after the introduction of casino gaming. In Tunica County, Mississippi, the number of restaurants increased by 13 percent and restaurant employment grew by 9 percent after the introduction of casino gaming in the county.[44]

Similar conclusions have been reached in other studies:

- Even after accounting for substitution effect, economists at the University of Missouri and Washington University concluded that casino gambling in Missouri had a net positive annual impact on Missouri output of $759 million, corresponding to a continuing higher level of employment of 17,932 jobs generating $508 million more in personal income.[45]
- A multijurisdictional analysis of retail spending found that in Biloxi/Gulfport, Miss., annual retail sales growth rates increased an average of 3 percent per year from 1990 to 1992, the year when casinos were introduced. Between 1993 and 1995, retail sales jumped 13 percent. In Will County, Ill., retail sales growth trailed statewide trends until 1992, when riverboat casinos were introduced in the local economy. But each year between 1992 and 1995, retail sales growth in Will County exceeded the state rate. In Shreveport/Bossier City, La., retail sales increased by more than 10 percent during 1994, the year that riverboat casinos opened, as the region enjoyed the highest retail sales increase in more than a decade.[46]

In summary, there is a wealth of evidence contradicting the proposition that gaming substitutes for other expenditures. The positive spillover effect on local hotels for one is unequivocally demonstrated in numerous jurisdictions, even in markets where casinos operate hotels for their gaming customers.

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[44] Ibid.

[45] Charles Leven et al., "Casino Gambling and State Economic Development," paper presented at the Regional Science Association, 37th European Congress, Rome, Aug. 26-29, 1997.

[46] Arthur Andersen, *Economic Impacts of Casino Gaming in the United States, Volume 2: Micro Study* (Washington, D.C.: American Gaming Association, May 1997).

APPENDIX D: CASINO EMPLOYMENT STATISTICS

The following data is presented to support the employment and payroll as estimated by the Innovation Group's operating pro forma and utilized in the economic impact analysis.

The California Nations Indian Gaming Association (CNIGA) commissions every two years a statewide economic impact report based on confidential data from California tribal gaming operations. The latest version of the report is 2016, which is based on data from 2014. The 2016 report revealed total direct employment of 40,705 FTEs in 2014, which in IMPLAN's conversion matrix equals 46,558 jobs on a headcount basis. Applied to a statewide gaming position count of 83,266, the headcount figure results in a ratio of 0.60 (of employees to gaming positions). The data set utilized in the analysis was provided by the following properties, but estimates were made for the unknown properties to result in a statewide total:

CNIGA Study Contributing Properties

Casino	City	County
Blue Lake Casino & Hotel	Blue Lake	Humboldt
Colusa Casino Resort	Colusa	Colusa
Cher-Ae Heights Casino	Trinidad	Humboldt
Elk Valley Casino	Crescent City	Del Norte
Feather Falls Casino	Oroville	Butte
Morongo Casino, Resort & Spa	Banning	Riverside
Pala Casino, Resort & Spa	Pala	San Diego
Pit River Casino	Burney	Shasta
Win-River Resort & Casino	Redding	Shasta
Harrah's Rincon Casino & Resort	Valley Center	San Diego
San Manuel Indian Bingo & Casino	Highland	San Bernardino
Chumash Casino	Santa Ynez	Santa Barbara
Sycuan Casino	El Cajon	San Diego
Black Oak Casino	Tuolumne	Tuolumne

Source: CNIGA, Beacon Economics; 2016 California Tribal Gaming Impact Study: An Economic, Fiscal, and Social Impact Analysis with Community Attitudes Survey Assessment

This represents a wide range of properties, including a number of large resorts with staffing at amenities that would tend to inflate the headcount to position ratio. Payroll data was not included in the study; however, proprietary data at comparably located California properties to Cathedral City show annual wages and salaries averages in the $30,000 to $32,000 range on an FTE basis.

The State of Louisiana provides employment data for its casinos, revealing employee to position ratios and average pay data highly consistent with California. Average pay per employee headcount was $28,404 in FY 2015, and average number of employees per gaming position is 0.67. As shown in the table below, many properties have hotels requiring staffing which would tend to inflate the headcount to position ratio.

Louisiana Employment Data

	$ Payroll	Employees (Headcount)	$ Per Employee	Gaming pos.	Employees per Position	Hotel Rooms
Amelia Belle Casino	7,715,171	333	23,169	934	0.36	0
Belle of Baton Rouge	19,257,997	539	35,729	860	0.63	300
Boomtown New Orleans	15,773,901	655	24,082	1,440	0.45	150
Boomtown Bossier City	12,919,561	553	23,363	1,093	0.51	188
Cypress Bayou (Chitimacha Tribe)	18,804,836	807	23,302	1,560	0.52	102
Hollywood Baton Rouge	14,558,535	419	34,746	1,011	0.41	0
L'Auberge Baton Rouge	21,160,374	1,074	19,702	1,776	0.60	205
Eldorado Shreveport	23,791,268	1,136	20,943	1,747	0.65	403
L'Auberge Lake Charles	73,297,258	2,167	33,824	2,007	1.08	1,000
Horseshoe Casino	38,288,642	1,287	29,750	1,726	0.75	606
Diamond Jacks	15,600,020	495	31,515	1,002	0.49	570
Margaritaville Bossier City	30,977,477	1,032	30,017	1,522	0.68	395
Isle Lake Charles	24,023,916	967	24,844	1,446	0.67	501
Treasure Chest	22,110,087	693	31,905	1,203	0.58	0
Sam's Town Shreveport	22,649,968	864	26,215	1,143	0.76	514
Golden Nugget Lake Charles	69,331,592	2,127	32,596	2,069	1.03	1,100
Average	**430,260,603**	**15,148**	**28,404**	**22,539**	**0.67**	**6,034**

Source: Louisiana Gaming Control Board Annual Report 2016

These Louisiana payroll totals do not include benefits.

APPENDIX E: INNOVATION GROUP QUALIFICATIONS

The Innovation Group has extensive experience completing economic and community impact studies for gaming and hospitality development. The list of projects below represents a sample of The Innovation Group Project Team's community impact work to date.

Recent Social, Community & Economic Impact Experience

Government of Bermuda and the Bermuda Hotel Association (BHA)

The Innovation Group was engaged to provide consulting services to the Bermuda Government and the Bermuda Hotel Association regarding the potential implementation of gaming in Bermuda. This highly visible project involved working for a combined public/private Tribe (a joint effort between the Government of Bermuda and the local Hotel Association) and was of a highly comprehensive and complex nature. In order to help determine the potential and methodologies for the tourism-focused jurisdiction, we applied a series of qualitative and quantitative tools including a gaming market assessment, a legislation study, tax considerations, and economic/social impact analysis.

Advisor to City of Springfield, Massachusetts

Through the prominent legal firm Shefsky & Froelich, who had been engaged to represent City of Springfield in its negotiations with potential casino developers, The Innovation Group was engaged in 2013 as an expert advisor to assist with the review of operator bids for a proposed casino resort in Springfield. The Innovation Group helped the city develop economic impact estimates for each submission, including such services as police, fire, EMS, schools and other impacted departments. We reviewed each of the applicant's proposals and provided a critical review of each with respect to fiscal economic impacts.

State of Massachusetts

The Innovation Group was tasked by the State Senate of Massachusetts to evaluate several development scenarios based on pending legislation to enable casino gaming in the Commonwealth. The State Senate request included the preparation of a tax and regulatory discussion providing competitive intelligence into other jurisdictions, recommendations on specific legislative elements based on the Commonwealth's goals, and their fiscal impacts. Statewide gaming revenue estimates forecasted the gross gaming revenues and job creation that could be generated under a number of development scenarios. The revenue estimates were further evaluated to answer two key policy questions: the amount of revenue that would have accrued out of state in the absence of enabling legislation and the impact that casino gaming would have on the lottery.

Based on the recommendations and conclusions in our report, the State Senate of Massachusetts drafted legislation that created three development zones for large scale casino developments in the state. The tax and regulatory discussion in our report was included in the final legislative proposal that the Governor signed into law.

The legislation being considered was expansive and scope and included a large amount of stakeholders, including our Tribe, the Massachusetts State Senate and the potential developers and the Native American Tribes. Because of the different goals of each stakeholder, we developed a model that allowed us to evaluate multiple scenarios and iterations. The outcome of our modeling provided results that showed the full gaming potential to maximize the state's tax revenue potential while weighing the feasibility of the casino developments across the state.

Sullivan County, New York, Community Service Mitigation Analysis

In 2003, the Innovation Group was engaged by counsel for a proposed Native American casino in Sullivan County to provide a community mitigation analysis as part of a federal Environmental Impact Assessment for the Department of Interior.

Plainridge Racecourse Social/Community Impact Analysis & Strategic Research

In 2012, the Innovation Group was engaged by Plainridge Racecourse to provide market analysis, financial pro forma, and socio-economic social impact in support of a gaming license application in Massachusetts, which has the most intensive application requirements of any gaming jurisdiction. Included in our analysis were a comprehensive social impact analysis and an assessment of community mitigation, with applicants being required to negotiate a Community Host Agreement.

Ohio Statewide Economic and Community Impact Assessments

The Innovation Group recently completed an economic impact study for two locations being considered in Ohio for development by the Eastern Shawnee Tribe. Included was a cost-benefit analysis for local host communities relative to the proposed development. Benefits examined included employment from construction and on-going operations, earnings, spending on local goods and services, and fiscal impacts from sales, hotel room, and income taxes.

Laurel Park, Maryland, Gaming Market Assessment and Economic Impact Assessment

The Innovation Group recently completed the feasibility analysis for a gaming license application at Laurel Park, Maryland. In addition to a gaming market assessment and operating pro formas, our services included an economic impact analysis as part of the application requirements.

Grand Ronde Economic and Community Impact Study

The Innovation Group was asked to complete a "reverse" economic impact study to gauge the potential impact on tribal income and departments of the proposed Cascade Locks casino. The IG assessed the potential impacts on Grand Ronde's departmental services, programs, and employment from a reduction in income from Spirit Mountain. Our involvement with this assignment provides our team with important insight into the current tribal organization and the future economic challenges facing the Grand Ronde.

State of New Hampshire Economic Impact

The Innovation Group prepared an analysis of the potential New Hampshire gaming market for the state legislature in considering options for development. Following a preliminary

review of the state, The Innovation Group developed six scenarios involving one or two casinos in three locations around the state. The scenarios were developed considering the state's two goals of maximizing revenue to the state and providing economic development opportunities to specific regions. The analysis projected both increased gaming revenues as well as potential impacts on other industries in the state such as the pari-mutuel industry, restaurants and bars, and increased governmental costs in the areas of enforcement and regulation.

Florida Statewide Economic Impact Analysis

The seven major racing operators in Florida engaged The Innovation Group to analyze the potential economic impact of the tax rate adjustment and addition of table games that are currently being discussed for the state of Florida. The goal of the assessment was to determine the aggregate construction expenditure and annual gaming revenue potential for Dade and Broward county pari-mutuel facilities assuming anticipated competitive environment and proposed legislative changes.

Economic Impact Assessment, Mile High USA, Inc., Aurora, Colorado

Mile High USA retained The Innovation Group to complete an Economic Impact Assessment for the potential addition of Video Lottery Terminals ("VLT's") at Arapahoe Park in Aurora, CO, including an optional scenario assuming the addition of VLT's to the South Colorado Gaming and Events Center in Pueblo, CO as well. We delivered a report including patron demand and revenue forecasts for each selected location; a sizing and supply distribution analysis looking at the appropriate number of VLT's for each site; an estimate of substitution to existing CO casinos; and an estimate of net direct and indirect economic impacts associated with construction and operation of each development, including a community needs assessment.

Kentucky Statewide Market & Social Impact Assessments

The Innovation Group was engaged to provide a statewide gaming market assessment, return on investment analysis and economic impact study for (2) two gaming scenarios in Kentucky. The first scenario assumed full-service slot and table gaming facilities at the state's (7) existing racetracks. The second scenario included several non-racetrack gaming locations. Using a gravity model, we developed revenue estimates, sizing and local capture potential from residents currently traveling out of state to gamble. The Innovation Group also conducted a qualitative study regarding the social cost of gaming, focusing on the impact to existing businesses in the area. A strategic plan acceptable to all participants was presented to the legislature with The Innovation Group providing supporting expert witness testimony regarding the findings.

Caesars Entertainment Economic & Social Impact Assessments, Suffolk Downs, Massachusetts

Caesar's Entertainment retained the Innovation Group to complete an analysis of the potential social and cultural impacts of casino at Suffolk Downs per the State of Massachusetts's Gaming Legislation. The report updated a feasibility study we conducted in 2009 with added analyses on the impact a casino could have on local and small businesses, bankruptcy, problem gambling, property values, unemployment, cultural institutions, and the Massachusetts State Lottery.

Kahnawake First Nation Economic & Social Impact Studies, Quebec, Canada

In 2013, The Innovation Group completed a gaming market assessment and operational pro forma for a proposed First Nations casino in Montreal, Quebec. Accompanying that study was a complete economic impact for the First Nations community assessing the impact the casino would have on jobs, local businesses, and visitation to the area, as well as a complete socio-economic impact analysis to help the First Nation understand the various positive and negative social impacts that a casino may have on the surrounding population.

Las Vegas Sands, Bethlehem, Pennsylvania: Housing and Tourism Impact Study

General Scope: The Innovation Group completed an impact analysis of a proposed casino in Bethlehem, Pennsylvania, detailing the impact to the local housing market and existing tourism market. Comparisons were made to changes in housing values of other jurisdictions where gaming has been initiated. Impacts studied included the existing tourism market as well as potential new tourism opportunities generated by the development and indirect benefits from advertising and increased visibility. The study also included analyses of historical and other cultural impacts.

Additional Public Sector Related Experience

State of Illinois

The Innovation Group recently completed work for the Office of the Governor, Patrick Quinn. The project included analyzing multiple development scenarios and tax structures to determine the optimal strategy for casino expansion in the state. We worked closely with the Governor's office staff to ensure that our analysis matched the evolving nature of the negotiations between the Governor and the state legislature. This work was completed as a continuation from a previous project for the state that included analyzing the impacts of the Lottery and ambient video lottery terminals (VLT's) being introduced across the state.

The Governor has used The Innovation Group's analysis to guide the actions of the office as it evaluated all of the potential legislative actions for expanded gaming in the state.

The development scenarios, sizing parameters and tax structure for the expansion to gaming in the stated were constantly evolving de nature of the discussions and negotiations between the governor and the state legislature. In order to be responsive to these changes and provide up to date results, we made our staff available and flexible to the needs of the Governor's Office. The ever evolving development scenario required our staff to be diligent with the modeling process in order to make sure that the correct results tied to each iteration of the discussion and negotiation.

OLG: Greater Toronto Area Market Assessment

The Innovation Group provided a market assessment for the greater Toronto Area (GTA), considering the 27 gaming facilities across Ontario (4 resort casinos, 17 racetrack slots and 6 charity casinos). To complete the scope of work, we referred to previous market studies and existing performance data, to consider opportunities within the GTA to further

maximize revenue and profitability at some GTA gaming facilities. Particular consideration was offered to the long term future of Casino Rama, as well as general substitution consideration for all OLG locations. We reviewed the supply and demand for GTA gaming facilities and developed a market assessment for the GTA that clarified which areas of unmet demand could be defined in a variety of scenarios. The key objectives of our analysis were to determine the unmet demand (gaming revenue) within the GTA, estimate gaming demand and substitution impacts, based on a variety of scenarios to be determined together by OLG and The Innovation Group, and determine the optimal scenario(s) for best capturing this unmet demand, including supply requirements and resulting gaming revenue impacts. OLG also asked us to explore various sizing options with respect specific properties.

Based on the results and recommendations in our report, The Ontario Lotteries and Gaming commission has initiated its privatization and modernization program for more than 25 casinos and slot clubs in the Greater Toronto Area.

In order to comprehensively address the gaming revenue potential for the market, The Innovation Group had to determine a solution to estimate the latent demand in the market. The latent demand is not usually addressed in projects like this because of the complexity needed in order to estimate the potential. We established a methodology that addressed the maximum potential demand in the market based on comparables from other mature operating markets in the world. In order to accomplish this we created a metric that estimated the average gaming spend per adult and benchmarked this spend against comparable mature markets to establish the maximum.

Pennsylvania Statewide Table Game Analysis

In 2009, on behalf of several casino operators, The Innovation Group assessed the revenue potential that table game operations would generate in the Commonwealth of Pennsylvania. Our services included a statewide economic impact study evaluating the benefits to the Commonwealth from the introduction of table games, as well as testimony to the legislature regarding our findings. Key to allowing this program to proceed was convincing the legislature to assess a low tax rate on table games which they eventually accepted. In addition we projected increase in slot revenue as a result of companion play.

Based on the conclusions in the report and testimony, the state legislature passed a bill that allowed for table games to be introduced at casinos at a competitive tax rate. The lower tax rate bill spurred development at the casinos which included capital improvements to the casino floor and non gaming amenities including food and beverage and hotel development.

On the outset of the report, the state legislature was seeking a tax rate and structure that would have been prohibitive to the growth of the gaming industry in the state of Pennsylvania. In order to realign the stance of the legislature, The Innovation Group relied on our expertise to show both the numerical explanation of the issue as well as the expository writing to relay the point.

City of Philadelphia, Philadelphia Gaming Advisory Task Force Advisory Services

The Innovation Group was engaged to complete comprehensive analysis of the proposed new slot operations in the city and to make recommendations as to the city's oversight of these facilities. The input we provided aided officials in understanding a range of issues related to the operations so that they could more proactively take part in the development of the new industry. Our work included performing site analyses for 11 sites, developing market assessments and revenue projections for 14 scenarios, developing 28 pro formas, estimating local and overnight modal splits, estimating the fiscal impacts of problem gambling and impacts of crime and providing secondary research on trends in gaming. As primary consultants, we also oversaw the work of other consultants including input into the design and analysis of surveys and focus groups, and input into traffic impact assessments. The Innovation Group won this coveted contract through an open bid process.

The city used our recommendations in the report to assign two locations for potential casino development. One of the locations is currently developed and operating as one of the state's highest revenue generating casinos.

There were two main complications with this project: (1) the management of all the subcontractors and (2) addressing the needs of the various stakeholders on the city's development and oversight committee. In order to manage the many sub contractors on this project, The Innovation Group utilized a comprehensive timeline and communication strategy that allowed all of the subcontractors to be able to complete their tasks in a timely manner. In order to address all of the stakeholders, The Innovation Group created a communication protocol that allowed the committee members to voice their opinions and concerns and the results were addressed and included in the reports outcome and recommendations. The committee members felt their concerns addressed based on the outcome of the report.

Pennsylvania Statewide Market Assessment, Senate Democratic Appropriations Committee

In support of a bill that became the basis for subsequent gaming legislation and a state goal to generate $1 billion in revenue, The Innovation Group conducted a gaming market analysis (using a gravity model at the statewide level) to determine the number, size and location of gaming licenses for 12 proposed facilities. Multiple scenarios were addressed in order to determine the distribution which would maximize state tax revenues and ensure viable developments. The report also included a financial analysis of the break-even point for development given a proposed $50 million license fee and construction and financing costs. The recommendations of the report were eventually accepted by the state and incorporated into legislation. Following the passage of the bill, The Innovation Group also took a lead role on Philadelphia's Gaming Advisory Task Force to recommend optimum locations for gaming facilities in the city.

Legislation was drafted and passed through the state legislature based on the outcome and recommendation from The Innovation Group Report. The report identified the proximate sizing and location of casinos in the state that would generate over $1 billion in gaming tax revenue. Subsequent to the development of the casinos the state has received over $1 billion in total tax revenue.

Maryland Senate

Paul Girvan, a Managing Director/Partner of The Innovation Group and member of our proposed project team, testified before the Maryland Senate and provided revenue estimates in support of the legislation in 2004 and then again in 2007. The bill's success was partially based on our projections of gaming revenues that the state could put into its school system.

Government of Jamaica, Tourism Development & Strategic Planning Advisory Services

The Innovation Group has been retained and is working on an on-going basis for the Government of Jamaica's Public-Private Joint Venture to develop leisure and tourism attraction on the Country's north coast between Montego Bay and Ocho Rios in an area called Harmony Cove. The Innovation Group provided strategic planning, feasibility analysis, economic impact analysis, capital cost estimates and business planning support for a master plan development that will leverage landside uses drawing from a new cruise ship terminal at Falmouth and include hotels, casinos and other themed recreation all based upon a cultural fabric embedded in the country's musical history. The Innovation Group has played a key role in sourcing management for the proposed property, and structuring the operating agreement for management.

National Government of Panama

The Innovation Group assessed the potential gaming market in Panama under a number of scenarios relating to privatization, facility placement, and mixture of full casinos and slot rooms. Subsequent to our analysis, the state-run, hotel-based casinos and slot rooms were privatized and upgraded by international operators.

The Innovation Group Project Team

Thomas J. Zitt, Ph.D. – Executive Vice President

Since joining The Innovation Group in 1997, Thomas Zitt has excelled at market analytics and high-level strategic planning, earning his reports a reputation for accuracy and reliability unsurpassed in the gaming industry.

Tom lives in New Orleans but directs training, modeling and quality control for all Innovation Group offices. The depth of his analysis provides tribes, developers and government bodies with the confidence that their decisions are being made on sound economic foundations, and the methodological soundness and comprehensiveness of his expert witness reports have been critical in his Tribes' success in a number of legal proceedings.

Market sizing is a particular strength. Tom conducted the statewide gravity model analysis used by Pennsylvania legislators in structuring the state's highly successful gaming legislation. He has also consulted for the Illinois Governor's office and numerous developers in assessing potential revenue impacts of statewide gaming expansion. Additional statewide gravity models include Alabama, California, Florida, Georgia, Kentucky, Massachusetts, Michigan, New York, Ohio, Virginia, and West Virginia. He has also worked extensively in Atlantic City, Indiana, Iowa, Louisiana, Mississippi, Missouri, New Mexico, Oregon, Washington, and Wisconsin. His

international experience extends to the United Kingdom, Isle of Man, Cambodia, Japan, Kazakhstan, Laos, Macau, Mongolia, the Philippines, Russia and Russian Far East, Spain, and South Korea.

His work for tribes extends beyond gaming as he has completed economic diversification and strategic planning studies for tribal councils in California, Michigan, and Oregon.

In addition, Tom has assessed the economic, social and fiscal impacts of gaming in numerous developing jurisdictions, including Massachusetts, New York, and Ohio. He has also conducted regional analyses for investment firms like CIBC World Markets, Deutsche Bank and Bear Stearns looking to understand the impacts of new gaming development. Tom received his doctorate in American Culture Studies from Bowling Green University.

Angela Slovachek, Project Manager

Angela joined The Innovation Group in February 2015 while finishing her Master's degree in Urban and Regional Planning at the University of New Orleans. Angela's previous work as a research analyst at a New Orleans consulting firm in addition to ten years of managerial experience in the restaurant industry makes her a viable asset to our team.

Based out of our New Orleans office, Angela's primary focus has been in the domestic market for both commercial and Native American projects. Since joining our team she has assisted in market analyses, financial forecasts, economic impact studies and diversification strategies for our Tribes in the Gaming and Hospitality Industries. She also collaborates on some of the company's International projects providing market research for feasibility studies and white papers. Angela contributes to our Emerging Leaders of Gaming initiative by writing for the Global Gaming Business Magazine's column on 40 Under 40 award recipients.

She is currently an active member of the American Planning Association (APA) and Louisiana Urban & Regional Information Systems Association (LAURISA), an organization dedicated to the effective and ethical use of spatial information technologies.

In addition to her MURP degree, Angela obtained a B.A. in Economics and International Development and a Certificate in Peace Studies and Conflict Resolution while attending the University of Wisconsin in Milwaukee. With a lifelong commitment to community service, Angela proudly served as a United States Peace Corps volunteer in Benin, West Africa from 2010-12.

APPENDIX F

WATER AND WASTEWATER REPORT

Cathedral City Fee-to-Trust Casino Project

Cathedral City, California

Water and Wastewater Report

Prepared By:

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MSA Project No. 2443

September 21, 2018

Rodney Reed, P.E.

Introduction

The discussion within this section is based on a variety of information sources. The City of Cathedral City General Plan Update (2002) and its corresponding Environmental Impact Report (EIR) (March 2002), the Desert Water Agency 2015 Urban Water Management Plan, and the 2012 Coachella Valley Water Management Plan Update.

The Department of Water Resources is responsible for the management of water usage including the delivery of water to two thirds of California's population through the State Water Project.

The Project Site is located within the boundaries of the Coachella Valley Planning Area of the Colorado River Basin (Region 7). Region 7 covers approximately 13 million acres (20,000 square miles) in the southeastern portion of California and includes all of Imperial County and portions of San Bernardino, Riverside, and San Diego Counties. It is bounded on the east by the Colorado River; to the south by Mexico; to the west by the Laguna, San Jacinto, and San Bernardino Mountains; and to the north by the New York, Providence, Granite, Old Dad, Bristol, Rodman, and Ord Mountain Ranges.

The Coachella Valley is located in the central portion of Riverside County and can be divided into the West Valley and East Valley. The West Valley includes the cities of Palm Springs, Desert Hot Springs, Cathedral City, Rancho Mirage, Indian Wells, Palm Desert, and a portion of the City of Indio, and the unincorporated communities of Sun City and Thousand Palms. This area is a predominately resort/recreation based economy. Water demand in the West Valley is supplied by several sources: groundwater, surface water from local streams, and recycled water. The East Valley includes the cities of Coachella, Indio, La Quinta, and the unincorporated communities of Bermuda Dunes, Mecca, Oasis, Thermal, and Vista Santa Rosa. Historically, the East Valley has had a primarily agriculture based economy.

Groundwater is the primary source of domestic water supply in the Coachella Valley. The Coachella Valley's principal groundwater basin, the Whitewater River Subbasin, extends from Whitewater in the northwest to the Salton Sea in the southeast. Per the 2010 CVWD Water Management Plan, the basin has an estimated storage capacity of 30 million acre-feet (AF). The Whitewater River Watershed covers 1,920 square miles in the west central portion of Region 7 and includes the majority of Riverside County and a small portion of southern San Bernardino County. The watershed consists mainly of sparsely populated mountains, desert, and agricultural lands. The watershed is bounded on the south by the San Jacinto and Santa Rosa Mountains, on the west by the Santa Ana Watershed, on the east by the Salton Sea, the Hexie and Cottonwood Mountains, and Southern Mojave Watershed, and on the north east by the little San Bernardino Mountains and Southern Mojave Watershed. The highest elevations (upper reaches) of the watershed occur in the San Jacinto Mountains at 10,000 feet above mean sea level.

Desert Water Agency (DWA) was formed in 1961 to import State Water Project (SWP) water into the Palm Springs and Desert Hot Springs areas. DWA is a public agency and retail water supplier serving 325 square miles that includes the City of Palm Springs, the southwestern portion of Cathedral City, portions of Desert Hot Springs, as well as some incorporated areas of Riverside County.

DWA provides water service through two different separate systems (potable and recycled) within its service area. DWA's source of supply include groundwater produced by local potable water wells, surface water diverted from creeks in the San Jacinto Mountains, imported SWP water exchanged for Colorado River water, and recycled water (for irrigation use). DWA pumps from 29 active wells which includes about 23,000 active services throughout 392 miles of pipeline.

DWA extracts groundwater for municipal use from the upper portion of the Whitewater River Subbasin of the Coachella Valley Groundwater Basin. There are five groundwater subbasins in the Coachella Valley: Whitewater River, Mission Creek, San Gorgonio Pass, Desert Hot Springs, and Garnett Hill. All imported water is used to replenish or recharge the Coachella Valley Groundwater Basin, particularly the Whitewater River and Mission Creek Subbasins, and subsequently the Garner Hill Subbasin.

The Whitewater River Subbasin is partially recharged naturally with runoff from the San Jacinto, Santa Rosa, and San Bernardino Mountains. Since the 1950's or earlier, groundwater extractions in the Whitewater River Subbasin have exceeded the long-term natural recharge, a condition called "overdraft", resulting in declining groundwater levels.

For the project site, as defined later, DWA provides wastewater collection service but CVWD provides wastewater treatment. DWA collects wastewater through the local municipal sanitary sewer system, which terminates at a sewer lift station at the northwest corner of Date Palm Drive and Buddy Rogers Avenue. From there the wastewater is pumped to a junction structure on a CVWD gravity line that terminates at CVWD's Water Reclamation Plant 10 (WRP-10) in Palm Desert. The WRP-10 plant capacity is 18 million gallons per day, with tertiary treatment capacity of 15 million gallons per day, distributing recycled water to 13 non-potable water customers for uses such as irrigation for parks and golf courses. Operations, maintenance, and safety at WRP-10 are conducted in accordance to environmental and regulatory standards.

Recycled water has been a priority water supply in the Valley since 1965. Currently, DWA and CVWD provide more than 14,000 AFY of recycled water for golf course and greenbelt irrigation purposes from four wastewater treatment facilities.

Tribal Land Use Ordinance

The purpose of the Agua Caliente Band of Cahuilla Indians (Tribe) Land Use Ordinance (Land Use Ordinance) is to provide standards and regulations to control land uses on the Agua Caliente Indian Reservation, maintain and protect the Reservation's unique natural and cultural resources, and to preserve the natural environment. Article VII, Landscaping Standards, promotes the use of native, desert, and other drought tolerant plants to reduce water demand on the Reservation. The landscape management practices identified in this article of the Land Use Ordinance ensure maximum water efficiency, comprehensive landscaping plans, irrigation plans, plant materials, decorative water features, and limitations on turf material.

Project Site Description

The purpose of this section is to estimate the water and sewer demand for the Cathedral City Fee-to-Trust Casino Project (Project) in Cathedral City, CA, as it would relate to the five (5) alternatives being studied as part of the Environmental Assessment (EA) prepared for the Project. The approximately 13.6 acre project site for Alternatives A, B, and C is located on the northwest corner of Date Palm Drive and East Palm Canyon Drive (Highway 111) in Cathedral City, California (North Site), with the project site for Alternative D being approximately 13.9 acres located on the south side of Highway 111 between Date Palm Drive and Van Fleet Street (South Site).

The five (5) alternatives analyzed are further described in this report. A brief summary of characteristics follows:

Alternative A: Proposed Casino and Mixed Use Complex

- Fee-to-trust transfer of 13.6 acres in Cathedral City, CA, and resulting development of a 125,000 square foot casino-mixed use complex.
- 65,000 square foot casino.
- 60,000 square feet of mixed use structures (Buildings A-F)

Alternative B: Reduced Intensity Alternative

- Fee-to-trust transfer of 13.6 acres in Cathedral City, CA, and resulting development of a 103,000 square foot casino-mixed use complex.
- 65,000 square foot casino.
- 38,000 square feet of mixed use structures (Buildings D-E)

Alternative C: Alternative Use (Non-Gaming)

- Fee-to-trust transfer of 13.6 acres in Cathedral City, CA, and resulting development of a 90,000 square foot mixed use complex.
- 90,000 square foot mixed use complex (Buildings A-J)

Alternative D: SWC of East Palm Canyon Drive and Date Palm Drive – Site Alternative

- Fee-to-trust transfer of 13.9 acres in Cathedral City, CA, and resulting development of a 125,000 square foot casino-mixed use complex.
- 65,000 square foot casino.
- 60,000 square feet of mixed use structures (Buildings A-E)

Alternative E: No action

- No new development or change of land use.

Background

The North Site (Alternatives A, B and C) is bounded by East Palm Canyon Drive on the south, Date Palm Drive on the east, Buddy Rogers Avenue on the north, and abuts existing developed and vacant parcels on the west. The existing alignments of Allen Avenue and Dawes Street cross the site in their entirety, as do portions of Hillery Road and Grove Street. The South Site (Alternative D) is bounded by East Palm Canyon Drive on the north, Van Fleet Street on the west, D Street on the south and the East Cathedral flood channel along the southeast.

Both the North and South Sites were previously developed with residential and/or commercial uses. Except for the existing fire station at the northeast corner and the fast food restaurant at the southeast

corner, the North Site has been cleared and reconditioned to generally flat-graded pads, with existing streets remaining in use. The South Site has been re-developed into a single graded pad, although the roughly 300 foot alignment of A Street is still in use, along with two parking areas on its north side. Between the two existing parking areas, and between East Palm Canyon Drive and A Street, is an existing commercial structure whose parcel not a part of the Project.

Design Analysis

The objective of an analysis for any land use change (development) is to show no adverse impact between the permitted and proposed conditions. The analysis for development on an individual tract must take into account allotted development for the entire project. The proposed scenario cannot impact other development.

Conceptual development of the North and South Sites was examined based four conceptual site layout alternatives provided by Analytical Environmental Services. Alternative A consists of a 65,000 square foot casino structure and 60,000 square feet of mixed use structures on the North Site, with the remaining area used for parking and circulation, yielding approximately 1,000 parking spaces. Alternative B represents a smaller development footprint, with the same 65,000 square foot casino but with 38,000 square feet of mixed use structures and about 850 parking spaces. Alternative C eliminates the casino use, with all 90,000 square feet of structures designated for mixed use and a total of approximately 700 parking spaces. Alternative D applies the 65,000 square foot casino option on the South Site, with 60,000 square feet of mixed use structures and about 1,150 parking spaces.

Description of Analysis

The following is a general discussion of the alternatives and design assumptions. Proposed Development within the Alternatives A through D are shown in the exhibits at the end of this report. Alternatives A, B, and C are on the North Site and Alternative D is on the South Site. Alternative E is representative of the current condition on the North and South Sites.

Conceptual Water and Sewer Infrastructure

The design of domestic water and sanitary sewer facilities requires consideration of the proposed number of fixtures, the proposed usage and the demand required for fire protection, in addition to the physical constraints of the environment. For planning-level purposes, broad and conservative assumptions are sufficient to anticipate the primary infrastructure required to serve projected future demands. Design of site-level private facilities is much more dependent on more detailed site-driven issues and constraints and, as such, those private facilities are not projected in this assessment.

Domestic water service is provided by DWA, with a network of water mains surrounding and running through both the North and South Sites. Existing 12-inch mains currently run along the north and east boundaries of the North Site in Buddy Rogers Avenue and Date Palm Drive, and along the east, south and west boundaries of the South Site in D Street and Van Fleet Street, as well as along the southeast side adjacent to the East Cathedral Channel levee. Additionally, 8-inch and 6-inch mains currently exist in Hillery Road, Grove Street, Dawes Street, Allen Avenue and A Street.

Sanitary sewer is collected by DWA in existing mains within and adjacent to the North and South Sites

and conveyed to a lift station at the northwest corner of Buddy Rogers Avenue and Date Palm Drive, as previously described. The existing DWA sanitary sewer mains serving the North and South Sites include a 12-inch main running south from the lift station along Date Palm Drive and crossing East Palm Canyon Drive, then running along the north side of the East Cathedral Channel levee to D Street and continuing west on D Street beyond Van Fleet Street. Additional 8-inch branches run south from D Street at F Street and Van Fleet Street. An 8-inch line also extends west from Date Palm Drive through the north site along Grove Street. In a separate branch of the system, an 8-inch main runs north along Van Fleet Street from C Street, continuing along Monty Hall Drive to the North Cathedral Channel, then following the channel to the aforementioned lift station.

At the time that East Palm Canyon Drive was redeveloped in the 1990s, a portion of a sanitary sewer network was constructed in East Palm Canyon Drive providing future connectivity from the north and south portions of Allen Avenue, and also running west in East Palm Canyon Drive to a point just beyond the A Street intersection, with an A Street stub-out included. Best available evidence indicates that this sewer network segment was never connected to any active system, as the prior consolidation and redevelopment of the South Site rendered the segment obsolete and it remains as an unused vestige.

As the configuration of these current sanitary sewer and domestic water facilities are not suitable to serve the needs of the proposed Project, particularly as it pertains to fire protection, a conceptual layout of proposed improvements was developed to provide services for each of the four Alternatives.

Alternative A – Proposed Casino and Mixed Use Project

In this alternative, the proposed development represents full build-out of the Project with the assumption that the North Site is brought into federal trust status for the Tribe for gaming purposes.

Alternative B – Reduced Intensity Alternative

This scenario maintains the casino use in Alternative A but reduces the square footage of the mixed use element by more than a third.

Alternative C – Non-Gaming

In this alternative, the casino use in Alternative A is replaced by additional mixed-use buildings and the North Site is brought into federal trust status for the Tribe for non-gaming purposes.

Despite the reduced use in Alternative B or the absence of the casino in Alternative C, the incremental decrease in demand is not sufficient to downsize the primary mains, so the required layouts for Alternatives A, B, and C may be discussed as one layout for both sewer and water. For all three Alternatives, the proposed mains required for construction are a 12-inch domestic water main and an 8-inch sanitary sewer main. Additionally, existing infrastructure facilities within the North Site for Alternatives A, B, and C will require removal and/or abandonment to facilitate construction of new proposed improvements.

A proposed 12-inch water main would connect to the existing main in Buddy Rogers Avenue at Allen Avenue, continue south in the redeveloped right of way of Allen Avenue and turn east along East Palm Canyon Drive to the intersection of Date Palm Drive, where it would connect with the existing main that extends south from Date Palm Drive. The portions of the existing mains in Hillery Road, Grove Street and Dawes Street between Allen Avenue and Date Palm Drive would be removed or abandoned. West of Allen Avenue, the existing mains would remain in service, connected to the new main, although they

likely would be relocated onsite to accommodate new construction and/or follow new roadway alignments.

A new 8" sanitary sewer main would intercept the existing main in Grove Street at Allen Avenue, then continue north to Buddy Rogers Avenue, then east to connect with the existing sewer main in Date Palm Drive. The portion of the existing main in Grove Street between Allen Avenue and Date Palm Drive would be removed or abandoned, and the portion west of Allen Avenue would remain in service, connected to the new main, with likely relocation onsite.

Alternative D – Site Alternative

In this alternative, the proposed building area remains the same as Alternative A, but moves to the larger South Site located south of East Palm Canyon Drive/Highway 111, which would be brought into federal trust status for the Tribe for gaming purposes.

For Alternative D, the existing water and sewer mains along the East Cathedral Channel levee interfere with the location of the proposed casino structure, so they would have to be removed or abandoned between D Street and East Palm Canyon Drive, and the existing sewer main in D Street would require replacement as well. A new 12-inch sanitary sewer main would extend west from the east end of D Street to Van Fleet Street, picking up the existing branches from the south and west, then run north in Van Fleet Street and east in East Palm Canyon Drive to reconnect at Date Palm Drive. A new 12-inch water main would follow the same route except that its initial connection to the existing main would be at the intersection of Van Fleet Street and D Street.

As a less costly option, the Alternative D conceptual site plan could be modified to shift the casino westerly out of interference with the existing water and sewer mains along the channel levee, allowing them to remain in service. A 12-inch water main would continue to be required along East Palm Canyon Drive from Date Palm to Van Fleet Street, connected to existing mains at each end, in order to provide fire protection to the site. The exhibit depicting this option has only a coarse and fragmented representation of the site plan, as it is intended only to indicate the rough repositioning of the casino building away from the levee. No attempt was made to rework the remainder of the site plan to accommodate this shift or clean up the fragmented overlap.

Alternative E – No Action

The "No Action" alternative assumes that the proposed construction of the 125,000 sf casino-mixed use complex and water/sewer infrastructure does not occur. It is expected that the North and South Sites would remain in their current, vacant condition under this alternative. Therefore, there would be no additional demand to dry utilities or the service systems.

Conclusions

For purposes of assessing the impacts of the proposed development on water and sewer infrastructure, proposed domestic water usage and sanitary sewer demands were calculated for the project site alternatives. DWA records of design projections and assumptions used sizing for existing infrastructure were not available but MSA personnel coordinated with DWA to establish demand calculations consistent with DWA practices. Prior projections for water and wastewater demand were

calculated using the DWA Master Sewer Plan density of 11.1 Equivalent Dwelling Units (EDUs) per acre, resulting in prior assumed densities of 159 EDUs for the north site and 172 EDUs for the south site. Applying a conservative practical average of 480 gallons per day of domestic water usage per EDU, the water use for the North and South Sites would be 76,002 gallons per day and 82,216 gallons per day, respectively. Standard DWA engineering design practice would have added 50% to these usages for pipe sizing purposes. Similarly, with an average of 252 gallons per day of wastewater generation, the prior projected sanitary sewer demand for the North and South sites would be 40,068 gallons per day and 43,344 gallons per day, respectively.

The included Water Demand Calculations tables show the anticipated domestic water usage and wastewater demands for the Alternatives A through D, along with the assumptions used in the calculations. These assumptions again are in accordance with DWA standard practices and were established in coordination with DWA personnel. As shown, the expected domestic water and sanitary sewer usages in gallons per day for the four site alternatives are:

	Water	Sewer
Alternative A	33,929	17,892
Alternative B	32,159	16,884
Alternative C	24,134	12,852
Alternative D	34,113	18,144

The projected domestic water and sanitary sewer usage for the North Site is about 32% to 45% of the prior projected (existing) usage, and about 41% to 42% of prior projection for the South Site. As such, the proposed developments are not anticipated to warrant construction or modification of existing water and wastewater infrastructure outside of the immediate Project needs described previously, which may be regarded as project-specific, even where occurring as off-site improvements. The proposed developments therefore do not contribute significant cumulative impacts to the overall DWA and CVWD systems.

WATER DEMAND CALCULATIONS
ALT A
Cathedral City Fee-To-Trust Casino Project

Planning Area	Description	Rooms/DU	Building Area (SF)	Net Land Area (AC)	Rate Category	INDOOR: Indoor Rate (gpd)	Indoor Rate (gpd)	Daily Demand (gpm)	Demand Adjustment Factor	Average Daily Demand ADD adjusted (gpm)	Indoor Annual Consumption (ac-ft/year)	OUTDOOR: Outdoor Rate (gpd)	Outdoor Rate (gpd)	Daily Demand (gpm)	Demand Adjustment Factor	Outdoor ADD adjusted (gpm)	Outdoor Annual Consumption (ac-ft/year)
	Casino - Gaming		**40,000**		Supermarkets	7,014		4.87	100%	4.87	7.86	2,821		1.96	0%	0.00	-
	Casino - BOH / Support		**17,500**		Supermarkets	3,068		2.13	100%	2.13	3.44	1,234		0.86	0%	0.00	-
	Casino - Restaurant		**5,000**		Restaurant	4,534		3.15	100%	3.15	5.08	353		0.24	0%	0.00	-
	Casino - Retail		**2,500**		Supermarkets	438		0.30	100%	0.30	0.49	176		0.12	0%	0.00	-
								-	100%	0.00	-			-	0%	0.00	-
	BLDG A		**6,800**		Supermarkets	1,192		0.83	100%	0.83	1.34	480		0.33	0%	0.00	-
	BLDG B		**4,200**		Supermarkets	736		0.51	100%	0.51	0.82	296		0.21	0%	0.00	-
	BLDG C		**6,500**		Supermarkets	1,140		0.79	100%	0.79	1.28	458		0.32	0%	0.00	-
	BLDG D		**13,000**		Supermarkets	2,279		1.58	100%	1.58	2.55	917		0.64	0%	0.00	-
	BLDG E		**25,000**		Supermarkets	4,384		3.04	100%	3.04	4.91	1,763		1.22	0%	0.00	-
	BLDG F		**4,500**		Supermarkets	789		0.55	100%	0.55	0.88	317		0.22	0%	0.00	-
								-	100%	0.00	-			-	0%	0.00	-
	Open Space			13.6	Open Space	-	-	-	100%	0.00	-	-	41,766	29.00	**20%**	5.80	**9.36**
								-	100%	0.00	-			-	0%	0.00	-
								-	100%	0.00	-			-	0%	0.00	-
		0	125,000	13.6		25,575	-			17.76	**29 ac-ft/year**					5.80	**9 ac-ft/year**
			streets	0						0.08 ac-ft/day						0.03 ac-ft/day	
			13.6							28.65 ac-ft/year						9 ac-ft/year	

Planning Area	Description	Rooms/DU	Building Area (SF)	Net Land Area (AC)	Rate Category	Average Daily Demand ADD adjusted (gpm)	ADD (gpd)	Annual Consumption (ac-ft/year)
0	Casino - Gaming	-	40,000	0	Supermarkets	4.9	7,013.7	7.86
0	Casino - BOH / Support	-	17,500	0	Supermarkets	2.1	3,068.5	3.44
0	Casino - Restaurant	-	5,000	0	Restaurant	3.1	4,534.2	5.08
0	Casino - Retail	-	2,500	0	Supermarkets	0.3	438.4	0.49
0	0	-	-	0	0	-	-	-
0	BLDG A	-	6,800	0	Supermarkets	0.8	1,192.3	1.34
0	BLDG B	-	4,200	0	Supermarkets	0.5	736.4	0.82
0	BLDG C	-	6,500	0	Supermarkets	0.8	1,139.7	1.28
0	BLDG D	-	13,000	0	Supermarkets	1.6	2,279.5	2.55
0	BLDG E	-	25,000	0	Supermarkets	3.0	4,383.6	4.91
0	BLDG F	-	4,500	0	Supermarkets	0.5	789.0	0.88
0	0	-	-	0	0	-	-	-
0	Open Space	-	-	13.6	Open Space	5.8	8,353.2	9.36
0	0	-	-	0	0	-	-	-
0	0	-	-	0	0	-	-	-
		-	125,000				33,929 gpd	**38 ac-ft/year**
					Approximate EDU	71.00	478 gpd/EDU	

Domestic Demand Rate Categories:
Supermarkets Domestic Demand is established using prior accepted reference (Rate of 64 gallons/year/square foot of office space as obtained from Commercial and Institutional End Uses of Water, AWWA Research Foundation Table 6.19)
Office Building Domestic Demand is established using prior accepted reference (Rate of 35 gallons/year/square foot of office space as obtained from Commercial and Institutional End Uses of Water, AWWA Research Foundation Table 6.18)
Restaurant Domestic Demand is established using prior accepted reference (Rate of 331 gallons/year/square foot of Restaurant space as obtained from Commercial and Institutional End Uses of Water, AWWA research Foundation Table 6.16)
DWA Design Guidelines for residential flow rate is **720** gallons per day per home.
Water Supply Assessment approved residential flow rate 55 gallons per day per capita (derived from California Water Code, Section 1, Division 6, provides for indoor water use performance standard of 55 gallons per capita per day.
City of Cathedral City density per home is 3.02 people per home = 166.1 gallons per day per home.

Landscape Irrigation Demand
Rate of 3.44 AC-ft per year per acre is applied to the Open Space Category landscaped area (Plant Factor of 0.38 and IE efficiency of 0.75) - this rate is applied to determint the outdoor for Residential, Hotel, Restaurant, and Supermarkets areas
Rate of 6.02 AC-ft per year per acre is applied to the Open Space 2 Category landscaped area (Plant Factor 0.7 and IE efficiency of 0.8)
DWA's - Maximum Water Allotment per DWA's table is 3.44 ac-ft/year/ac

water use	**33,929 gpd**
sewer use	**17,892 gpd**
per site density (4 EDU/AC)	55
Ex. water use	26,290 gpd
Ex. sewer use	13,860 gpd
per DWA sewer master plan (11.1 EDU/AC)	159.00
Ex. water use	**76,002 gpd**
Ex. sewer use	**40,068 gpd**

WATER DEMAND CALCULATIONS
ALT B
Cathedral City Fee-To-Trust Casino Project

						INDOOR						OUTDOOR						TOTAL Water Demand								
Planning Area	Description	Rooms/DU	Building Area (SF)	Net Land Area (AC)	Rate Category	Indoor Rate (gpd)	Indoor Rate (gpd)	Daily Demand (gpm)	Demand Adjustment Factor	Average Daily Demand ADD adjusted (gpm)	Indoor Annual Consumption (ac-ft/year)	Outdoor Rate (gpd)	Outdoor Rate (gpd)	Daily Demand (gpm)	Demand Adjustment Factor	Outdoor ADD adjusted (gpm)	Outdoor Annual Consumption (ac-ft/year)	Planning Area	Description	Rooms/DU	Building Area (SF)	Net Land Area (AC)	Rate Category	Average Daily Demand ADD adjusted (gpm)	ADD (gpd)	Annual Consumption (ac-ft/year)
	Casino - Gaming		**40,000**		Supermarkets	7,014		4.87	100%	4.87	7.86	2,821		1.96	0%	0.00	-	0	Casino - Gaming	-	40,000	0	Supermarkets	4.9	7,013.7	7.86
	Casino - BOH / Support		**17,500**		Supermarkets	3,068		2.13	100%	2.13	3.44	1,234		0.86	0%	0.00	-	0	Casino - BOH / Support	-	17,500	0	Supermarkets	2.1	3,068.5	3.44
	Casino - Restaurant		**5,000**		Restaurant	4,534		3.15	100%	3.15	5.08	353		0.24	0%	0.00	-	0	Casino - Restaurant	-	5,000	0	Restaurant	3.1	4,534.2	5.08
	Casino - Retail		**2,500**		Supermarkets	438		0.30	100%	0.30	0.49	176		0.12	0%	0.00	-	0	Casino - Retail	-	2,500	0	Supermarkets	0.3	438.4	0.49
								-	100%	0.00	-			-	0%	0.00	-	0	0	-	-	0	0	-	-	-
	BLDG A		**-**		Supermarkets	-		-	100%	0.00	-	-		-	0%	0.00	-	0	BLDG A	-	-	0	Supermarkets	-	-	-
	BLDG B		**-**		Supermarkets	-		-	100%	0.00	-	-		-	0%	0.00	-	0	BLDG B	-	-	0	Supermarkets	-	-	-
	BLDG C		**-**		Supermarkets	-		-	100%	0.00	-	-		-	0%	0.00	-	0	BLDG C	-	-	0	Supermarkets	-	-	-
	BLDG D		**13,000**		Supermarkets	2,279		1.58	100%	1.58	2.55	917		0.64	0%	0.00	-	0	BLDG D	-	13,000	0	Supermarkets	1.6	2,279.5	2.55
	BLDG E		**25,000**		Supermarkets	4,384		3.04	100%	3.04	4.91	1,763		1.22	0%	0.00	-	0	BLDG E	-	25,000	0	Supermarkets	3.0	4,383.6	4.91
	BLDG F		**-**		Supermarkets	-		-	100%	0.00	-	-		-	0%	0.00	-	0	BLDG F	-	-	0	Supermarkets	-	-	-
								-	100%	0.00	-			-	0%	0.00	-	0	0	-	-	0	0	-	-	-
	Open Space			13.6	Open Space	-	-	-	100%	0.00	-	-	41,766	29.00	**25%**	7.25	**11.70**	0	Open Space	-	-	13.6	Open Space	7.3	10,441.5	11.70
								-	100%	0.00	-			-	0%	0.00	-	0	0	-	-	0	0	-	-	-
								-	100%	0.00	-			-	0%	0.00	-	0	0	-	-	0	0	-	-	-
		0	103,000	13.6		21,718	-			15.08	**24 ac-ft/year**					7.25	**12 ac-ft/year**			-	103,000				32,159 gpd	**36 ac-ft/year**
			streets	0						0.07 ac-ft/day						0.03 ac-ft/day							Approximate EDU	67.00	480.00	
			13.6							24.33 ac-ft/year						12 ac-ft/year										

Domestic Demand Rate Categories:
Supermarkets Domestic Demand is established using prior accepted reference (Rate of 64 gallons/year/square foot of office space as obtained from Commercial and Institutional End Uses of Water, AWWA Research Foundation Table 6.19)
Office Building Domestic Demand is established using prior accepted reference (Rate of 35 gallons/year/square foot of office space as obtained from Commercial and Institutional End Uses of Water, AWWA Research Foundation Table 6.18)
Restaurant Domestic Demand is established using prior accepted reference (Rate of 331 gallons/year/square foot of Restaurant space as obtained from Commercial and Institutional End Uses of Water, AWWA research Foundation Table 6.16)
DWA Design Guidelines for residential flow rate is **720** gallons per day per home.
Water Supply Assessment approved residential flow rate 55 gallons per day per capita (derived from California Water Code, Section 1, Division 6, provides for indoor water use performance standard of 55 gallons per capita per day.
City of Cathedral City density per home is 3.02 people per home = 166.1 gallons per day per home.

Landscape Irrigation Demand
Rate of 3.44 AC-ft per year per acre is applied to the Open Space Category landscaped area (Plant Factor of 0.38 and IE efficiency of 0.75) - this rate is applied to determint the outdoor for Residential, Hotel, Restaurant, and Supermarkets areas
Rate of 6.02 AC-ft per year per acre is applied to the Open Space 2 Category landscaped area (Plant Factor 0.7 and IE efficiency of 0.8)
DWA's - Maximum Water Allotment per DWA's table is 3.44 ac-ft/year/ac

water use	**32,159 gpd**
sewer use	**16,884 gpd**
per site density (4 EDU/AC)	55
Ex. water use	26,400 gpd
Ex. sewer use	13,860 gpd
per DWA sewer master plan (11.1 EDU/AC)	159.00
Ex. water use	**76,002 gpd**
Ex. sewer use	**40,068 gpd**

WATER DEMAND CALCULATIONS
ALT C
Cathedral City Fee-To-Trust Casino Project

Planning Area	Description	Rooms/DU	Building Area (SF)	Net Land Area (AC)	Rate Category	INDOOR: Indoor Rate (gpd)	Indoor Rate (gpd)	Daily Demand (gpm)	Demand Adjustment Factor	Average Daily Demand ADD adjusted (gpm)	Indoor Annual Consumption (ac-ft/year)	OUTDOOR: Outdoor Rate (gpd)	Outdoor Rate (gpd)	Daily Demand (gpm)	Demand Adjustment Factor	Outdoor ADD adjusted (gpm)	Outdoor Annual Consumption (ac-ft/year)
	Casino - Gaming		-		Supermarkets	-		-	100%	0.00	-	-		-	0%	0.00	-
	Casino - BOH / Support		-		Supermarkets	-		-	100%	0.00	-	-		-	0%	0.00	-
	Casino - Restaurant		-		Restaurant	-		-	100%	0.00	-	-		-	0%	0.00	-
	Casino - Retail		-		Supermarkets	-		-	100%	0.00	-	-		-	0%	0.00	-
								-	100%	0.00	-			-	0%	0.00	-
	BLDG A		**9,500**		Supermarkets	1,666		1.16	100%	1.16	1.87	670		0.47	0%	0.00	-
	BLDG B		**4,500**		Supermarkets	789		0.55	100%	0.55	0.88	317		0.22	0%	0.00	-
	BLDG C		**6,500**		Supermarkets	1,140		0.79	100%	0.79	1.28	458		0.32	0%	0.00	-
	BLDG D		**12,500**		Supermarkets	2,192		1.52	100%	1.52	2.46	881		0.61	0%	0.00	-
	BLDG E		**20,000**		Supermarkets	3,507		2.44	100%	2.44	3.93	1,410		0.98	0%	0.00	-
	BLDG F		**5,000**		Supermarkets	877		0.61	100%	0.61	0.98	353		0.24	0%	0.00	-
	BLDG G		**5,000**		Supermarkets	877		0.61	100%	0.61	0.98	353		0.24	0%	0.00	-
	BLDG H		**10,000**		Supermarkets	1,753		1.22	100%	1.22	1.96	705		0.49	0%	0.00	-
	BLDG I		**12,000**		Supermarkets	2,104		1.46	100%	1.46	2.36	846		0.59	0%	0.00	-
	BLDG J		**5,000**		Supermarkets	877		0.61	100%	0.61	0.98	353		0.24	0%	0.00	-
								-	100%	0.00	-			-	0%	0.00	-
	Open Space			13.6	Open Space	-	-	-	100%	0.00	-	-	41,766	29.00	**20%**	5.80	**9.36**
								-	100%	0.00	-			-	0%	0.00	-
								-	100%	0.00	-			-	0%	0.00	-
		0	90,000	13.6		15,781	-			10.96	**18 ac-ft/year**					5.80	**9 ac-ft/year**
			streets	0						0.05 ac-ft/day						0.03 ac-ft/day	
				13.6						17.68 ac-ft/year						9 ac-ft/year	

Planning Area	Description	Rooms/DU	Building Area (SF)	Net Land Area (AC)	Rate Category	Average Daily Demand ADD adjusted (gpm)	ADD (gpd)	Annual Consumption (ac-ft/year)
0	Casino - Gaming	-	-	0	Supermarkets	-	-	-
0	Casino - BOH / Support	-	-	0	Supermarkets	-	-	-
0	Casino - Restaurant	-	-	0	Restaurant	-	-	-
0	Casino - Retail	-	-	0	Supermarkets	-	-	-
0	0	-	-	0	0	-	-	-
0	BLDG A	-	9,500	0	Supermarkets	1.2	1,665.8	1.87
0	BLDG B	-	4,500	0	Supermarkets	0.5	789.0	0.88
0	BLDG C	-	6,500	0	Supermarkets	0.8	1,139.7	1.28
0	BLDG D	-	12,500	0	Supermarkets	1.5	2,191.8	2.46
0	BLDG E	-	20,000	0	Supermarkets	2.4	3,506.8	3.93
0	BLDG F	-	5,000	0	Supermarkets	0.6	876.7	0.98
0	BLDG G	-	5,000	0	Supermarkets	0.6	876.7	0.98
0	BLDG H	-	10,000	0	Supermarkets	1.2	1,753.4	1.96
0	BLDG I	-	12,000	0	Supermarkets	1.5	2,104.1	2.36
0	BLDG J	-	5,000	0	Supermarkets	0.6	876.7	0.98
0	0	-	-	0	0	-	-	-
0	Open Space	-	-	13.6	Open Space	5.8	8,353.2	9.36
0	0	-	-	0	0	-	-	-
0	0	-	-	0	0	-	-	-
		-	90,000				24,134 gpd	**27 ac-ft/year**
					Approximate EDU	51.00	474 gpd/EDU	

TOTAL Water Demand

water use	**24,134 gpd**
sewer use	**12,852 gpd**
per site density (4 EDU/AC)	55
Ex. water use	26,070 gpd
Ex. sewer use	13,860 gpd
per DWA sewer master plan (11.1 EDU/AC)	159.00
Ex. water use	**76,002 gpd**
Ex. sewer use	**40,068 gpd**

Domestic Demand Rate Categories:

Supermarkets Domestic Demand is established using prior accepted reference (Rate of 64 gallons/year/square foot of office space as obtained from Commercial and Institutional End Uses of Water, AWWA Research Foundation Table 6.19)

Office Building Domestic Demand is established using prior accepted reference (Rate of 35 gallons/year/square foot of office space as obtained from Commercial and Institutional End Uses of Water, AWWA Research Foundation Table 6.18)

Restaurant Domestic Demand is established using prior accepted reference (Rate of 331 gallons/year/square foot of Restaurant space as obtained from Commercial and Institutional End Uses of Water, AWWA research Foundation Table 6.16)

DWA Design Guidelines for residential flow rate is **720** gallons per day per home.

Water Supply Assessment approved residential flow rate 55 gallons per day per capita (derived from California Water Code, Section 1, Division 6, provides for indoor water use performance standard of 55 gallons per capita per day.

City of Cathedral City density per home is 3.02 people per home = 166.1 gallons per day per home.

Landscape Irrigation Demand

Rate of 3.44 AC-ft per year per acre is applied to the Open Space Category landscaped area (Plant Factor of 0.38 and IE efficiency of 0.75) - this rate is applied to determint the outdoor for Residential, Hotel, Restaurant, and Supermarkets areas

Rate of 6.02 AC-ft per year per acre is applied to the Open Space 2 Category landscaped area (Plant Factor 0.7 and IE efficiency of 0.8)

DWA's - Maximum Water Allotment per DWA's table is 3.44 ac-ft/year/ac

WATER DEMAND CALCULATIONS
ALT D
Cathedral City Fee-To-Trust Casino Project

Planning Area	Description	Rooms/DU	Building Area (SF)	Net Land Area (AC)	Rate Category	INDOOR: Indoor Rate (gpd)	Indoor Rate (gpd)	Daily Demand (gpm)	Demand Adjustment Factor	Average Daily Demand ADD adjusted (gpm)	Indoor Annual Consumption (ac-ft/year)	OUTDOOR: Outdoor Rate (gpd)	Outdoor Rate (gpd)	Daily Demand (gpm)	Demand Adjustment Factor	Outdoor ADD adjusted (gpm)	Outdoor Annual Consumption (ac-ft/year)
	Casino - Gaming		**40,000**		Supermarkets	7,014		4.87	100%	4.87	7.86	2,821		1.96	0%	0.00	-
	Casino - BOH / Support		**17,500**		Supermarkets	3,068		2.13	100%	2.13	3.44	1,234		0.86	0%	0.00	-
	Casino - Restaurant		**5,000**		Restaurant	4,534		3.15	100%	3.15	5.08	353		0.24	0%	0.00	-
	Casino - Retail		**2,500**		Supermarkets	438		0.30	100%	0.30	0.49	176		0.12	0%	0.00	-
								-	100%	0.00	-			-	0%	0.00	-
	BLDG A		**9,500**		Supermarkets	1,666		1.16	100%	1.16	1.87	670		0.47	0%	0.00	-
	BLDG B		**6,000**		Supermarkets	1,052		0.73	100%	0.73	1.18	423		0.29	0%	0.00	-
	BLDG C		**14,000**		Supermarkets	2,455		1.70	100%	1.70	2.75	987		0.69	0%	0.00	-
	BLDG D		**9,500**		Supermarkets	1,666		1.16	100%	1.16	1.87	670		0.47	0%	0.00	-
	BLDG E		**21,000**		Supermarkets	3,682		2.56	100%	2.56	4.12	1,481		1.03	0%	0.00	-
								-	100%	0.00	-			-	0%	0.00	-
								-	100%	0.00	-			-	0%	0.00	-
	Open Space			13.9	Open Space	-	-	-	100%	0.00	-	-	42,687	29.64	**20%**	5.93	**9.56**
								-	100%	0.00	-			-	0%	0.00	-
								-	100%	0.00	-			-	0%	0.00	-
		0	125,000	13.9		25,575	-			17.76	**29 ac-ft/year**					5.93	**10 ac-ft/year**
			streets	0						0.08 ac-ft/day						0.03 ac-ft/day	
			13.9							28.65 ac-ft/year						10 ac-ft/year	

Planning Area	Description	Rooms/DU	Building Area (SF)	Net Land Area (AC)	Rate Category	Average Daily Demand ADD adjusted (gpm)	ADD (gpd)	Annual Consumption (ac-ft/year)
0	Casino - Gaming	-	40,000	0	Supermarkets	4.9	7,013.7	7.86
0	Casino - BOH / Support	-	17,500	0	Supermarkets	2.1	3,068.5	3.44
0	Casino - Restaurant	-	5,000	0	Restaurant	3.1	4,534.2	5.08
0	Casino - Retail	-	2,500	0	Supermarkets	0.3	438.4	0.49
0	0	-	-	0	0	-	-	-
0	BLDG A	-	9,500	0	Supermarkets	1.2	1,665.8	1.87
0	BLDG B	-	6,000	0	Supermarkets	0.7	1,052.1	1.18
0	BLDG C	-	14,000	0	Supermarkets	1.7	2,454.8	2.75
0	BLDG D	-	9,500	0	Supermarkets	1.2	1,665.8	1.87
0	BLDG E	-	21,000	0	Supermarkets	2.6	3,682.2	4.12
0	0	-	-	0	0	-	-	-
0	0	-	-	0	0	-	-	-
0	Open Space	-	-	13.9	Open Space	5.9	8,537.5	9.56
0	0	-	-	0	0	-	-	-
0	0	-	-	0	0	-	-	-
		-	125,000				34,113 gpd	**38 ac-ft/year**
					Approximate EDU	72.00	474 gpd/EDU	

Domestic Demand Rate Categories:
Supermarkets Domestic Demand is established using prior accepted reference (Rate of 64 gallons/year/square foot of office space as obtained from Commercial and Institutional End Uses of Water, AWWA Research Foundation Table 6.19)
Office Building Domestic Demand is established using prior accepted reference (Rate of 35 gallons/year/square foot of office space as obtained from Commercial and Institutional End Uses of Water, AWWA Research Foundation Table 6.18)
Restaurant Domestic Demand is established using prior accepted reference (Rate of 331 gallons/year/square foot of Restaurant space as obtained from Commercial and Institutional End Uses of Water, AWWA research Foundation Table 6.16)
DWA Design Guidelines for residential flow rate is **720** gallons per day per home.
Water Supply Assessment approved residential flow rate 55 gallons per day per capita (derived from California Water Code, Section 1, Division 6, provides for indoor water use performance standard of 55 gallons per capita per day.
City of Cathedral City density per home is 3.02 people per home = 166.1 gallons per day per home.

Landscape Irrigation Demand
Rate of 3.44 AC-ft per year per acre is applied to the Open Space Category landscaped area (Plant Factor of 0.38 and IE efficiency of 0.75) - this rate is applied to determint the outdoor for Residential, Hotel, Restaurant, and Supermarkets areas
Rate of 6.02 AC-ft per year per acre is applied to the Open Space 2 Category landscaped area (Plant Factor 0.7 and IE efficiency of 0.8)
DWA's - Maximum Water Allotment per DWA's table is 3.44 ac-ft/year/ac

water use	**34,113 gpd**
sewer use	**18,144 gpd**
per site density (4 EDU/AC)	56
Ex. water use	26,544 gpd
Ex. sewer use	14,112 gpd
per DWA sewer master plan (11.1 EDU/AC)	172.00
Ex. water use	**82,216 gpd**
Ex. sewer use	**43,344 gpd**

BUDDY RODGERS AVE

MONTY HALL ROAD

HILLERY ROAD

Parking

Parking
Possible Deck

Tribal
Governmental
Use

A

B

C

D

E

F

Parking

CASINO

E. PALM CANYON DRIVE / HWY 111

DATE PALM DRIVE

AGUA CALIENTE
CASINO PROJECT
PRELIMINARY WATER & SEWER
ALTERNATIVE A

JULY 27, 2018

MSA CONSULTING, INC.
PLANNING ▪ CIVIL ENGINEERING ▪ LAND SURVEYING
34200 BOB HOPE DRIVE ▪ RANCHO MIRAGE ▪ CA 92270
TELEPHONE (760) 320-9811 ▪ FAX (760) 323-7893

NORTH

SCALE: 1"=100'

LEGEND

- EXISTING SEWER MAIN
- EXISTING WATER MAIN
- PROPOSED 8" SEWER MAIN
- PROPOSED 12" WATER MAIN

BUDDY RODGERS AVE

MONTY HALL ROAD

HILLERY ROAD

Parking

Parking

Parking

Parking

Drop Off

Drop Off

E

D

CASINO

E. PALM CANYON DRIVE / HWY 111

DATE PALM DRIVE

AGUA CALIENTE
CASINO PROJECT
PRELIMINARY WATER & SEWER
ALTERNATIVE B

JULY 27, 2018

MSA CONSULTING, INC.
PLANNING ▪ CIVIL ENGINEERING ▪ LAND SURVEYING
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TELEPHONE (760) 320-9811 ▪ FAX (760) 323-7893

NORTH

SCALE: 1"=100'

LEGEND

- S — EXISTING SEWER MAIN
- W — EXISTING WATER MAIN
- S — PROPOSED 8" SEWER MAIN
- W — PROPOSED 12" WATER MAIN

BUDDY RODGERS AVE

MONTY HALL ROAD

HILLERY ROAD

Parking

Parking
Possible Deck

Tribal
Governmental
Use

A

B

E

G

C

F

D

H

I

J

Parking

Parking

E. PALM CANYON DRIVE / HWY 111

DATE PALM DRIVE

AGUA CALIENTE
CASINO PROJECT
PRELIMINARY WATER & SEWER
ALTERNATIVE C

JULY 27, 2018

MSA CONSULTING, INC.
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TELEPHONE (760) 320-9811 ▪ FAX (760) 323-7893

NORTH

SCALE: 1"=100'

LEGEND

- EXISTING SEWER MAIN
- EXISTING WATER MAIN
- PROPOSED 8" SEWER MAIN
- PROPOSED 12" WATER MAIN



AGUA CALIENTE
CASINO PROJECT
PRELIMINARY WATER & SEWER
ALTERNATIVE D1

JULY 27, 2018

NORTH

SCALE: 1"=100'

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AGUA CALIENTE
CASINO PROJECT
PRELIMINARY WATER & SEWER
ALTERNATIVE D2

JULY 27, 2018

NORTH

SCALE: 1"=100'

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APPENDIX G

GRADING AND DRAINAGE REPORT

Cathedral City Fee-to-Trust Casino Project

Cathedral City, California

Grading and Drainage Report

Prepared By:

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34200 Bob Hope Drive
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(760) 320-9811

MSA Project No. 2443

July 27, 2018

Rodney Reed, P.E.

Introduction

The discussion within this section is based on a variety of information sources. The City of Cathedral City General Plan Update (2002) and its corresponding Environmental Impact Report (EIR) (March 2002), the current Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FIRMs) effective on August 28, 2008, for the Project Site, and the Agua Caliente Band of Cahuilla Indians (Tribe) "*Tribal Ordinance Controlling Pollutant Discharges into the Waters of the Agua Caliente Indian Reservation*," "*Land Use Ordinance*," and "*Floodplain Management Ordinance for the Agua Caliente Indian Reservation*."

The Clean Water Act (CWA) of 1972 establishes regulations pertaining to the discharge of pollutants to waters of the U.S. from point sources. Subsequent amendments to the CWA in 1987 established a framework for regulating non-point source stormwater discharges under the National Pollutant Discharge Elimination System (NPDES).

The NPDES is a program created to implement the Clean Water Act. In November 1990, the United States Environmental Protection Agency (USEPA) published final regulations that establish requirements for specific categories of industries, including construction projects that encompass greater than or equal to 5 acres of land. The Phase II Rule became final in December 1999, expanding regulated construction sites to those greater than or equal to 1 acre. The regulations require that stormwater and non-stormwater runoff associated with construction activity that discharges either directly to surface waters or indirectly through municipal separate storm sewer systems (MS4), must be regulated by an NPDES permit.

The USEPA has delegated management of California's NPDES program to the State Water Resources Control Board (SWRCB) and the nine regional board offices that grant permits to regulate point source discharges of industrial and municipal wastewater into the waters of the United States. The NPDES program was established in 1972 to regulate the quality of effluent discharged from easily detected point sources of pollution such as wastewater treatment plants and industrial discharges. The 1987 amendments to the CWA21 recognized the need to address non-point-source stormwater runoff pollution and expanded the NPDES program to operators of MS4s, construction projects, and industrial facilities.

Presently in the State of California, the SWRCB, and nine California Regional Water Quality Control Boards (RWQCBs) administer the regulation, protection, and administration of water quality pursuant to the NPDES. Their regulations encompass storm water discharges from construction sites, MS4s, and major industrial facilities.

Stormwater runoff for tribal construction projects is managed by the USEPA through the USEPA's approval of coverage under the USEPA Construction General Permit (CGP) for Indian country within the State of California. Pursuant to the CGP, onsite BMPs required as part of a project specific Stormwater Pollution Prevention Plan (SWPPP) will be utilized to maintain the water quality of the Project during construction activities that disturb surface area in excess of one acre.

The Project Site, as defined below, is located within the boundaries of the Coachella Valley Planning Area of the Colorado River Basin RWQCB, also known as Region 7. Region 7 covers approximately 13 million acres (20,000 square miles) in the southeastern portion of California, and includes all of Imperial County and portions of San Bernardino, Riverside, and San Diego Counties. It is bounded on the east by the Colorado River; to the south by Mexico; to the west by the Laguna, San Jacinto, and San Bernardino Mountains; and to the north by the New York, Providence, Granite, Old Dad, Bristol, Rodman, and Ord Mountain Ranges.

The Coachella Valley Planning Area consists of the Whitewater River Watershed and East Salton Sea Watershed, with the Project Site located within the Whitewater River Watershed. The Whitewater River Watershed covers 1,920 square miles in the west central portion of Region 7 and includes the majority of Riverside County and a small portion of southern San Bernardino County. The watershed consists mainly of sparsely populated mountains, desert, and agricultural lands. The watershed is bounded on the south by the San Jacinto and Santa Rosa Mountains, on the west by the Santa Ana Watershed, on the east by the Salton Sea, the Hexie and Cottonwood Mountains, and Southern Mojave Watershed, and on the north east by the little San Bernardino Mountains and Southern Mojave Watershed. The highest elevation (upper reaches) of the watershed occur in the San Jacinto Mountains at 10,000 feet above mean sea level.

The SWRCB administers the NPDES permit program regulating stormwater from construction activities for projects greater than 1 acre in size. This is known as the General Permit for Storm Water Discharges Associated with Construction Activities, Order No. 2009-0009-DWQ, as amended by Order No. 2012-0006-DWQ, NPDES No. CAS000002. However, the USEPA is the NPDES permitting authority for Indian lands in California and USEPA's CGP CAR10I000 includes similar requirements as those identified in CAS000002.

The main compliance requirement of NPDES permits is the development and implementation of a SWPPP. The purpose of a SWPPP is to identify potential on-site pollutants and identify and implement appropriate stormwater pollution prevention measures to reduce or eliminate discharge of pollutants to surface water from stormwater and non-stormwater discharges. Stormwater Best Management Practices (BMPs) to be implemented during construction and grading, as well as post-construction BMPs will be outlined in the SWPPP prepared for the proposed Project as required by CGP CAR 10I000.

The City of Cathedral City is permittee of the Whitewater River Watershed Municipal Separate Storm Sewer System (MS4) (Order No. R72013-0011, NPDES No. CAS617002) and the Whitewater River Region Water Quality Management Plan (WQMP) for Urban Runoff (January 2011). Under this permit, projects within the City are required to prepare a project specific WQMP, and projects are required to treat the "first flush" of storm water runoff prior to any release into the City's MS4 system. While not subject to City requirements, the Tribe will voluntarily prepare and maintain a WQMP throughout the life of the Project.

Tribal Ordinance Controlling Pollutant Discharges into the Waters of the Reservation

The purpose of this Tribal Ordinance is to regulate and control all pollutant discharges into the waters of the Reservation. Per this Ordinance, no pollutant discharges are allowed into the waters of the Reservation unless there is prior consultation with the Federal, Tribal, or State agency with jurisdiction under the Clean Water Act and/or the Safe Drinking Water Act, and if required, appropriate permit(s) are obtained.

(Agua Caliente Band of Cahuilla Indians, *"Tribal Ordinance Controlling Pollutant Discharges into the Waters of the Agua Caliente Indian Reservation,"* http://www.aguacaliente.org/downloads/Ordinance24.pdf)

Tribal Land Use Ordinance

The purpose of the Agua Caliente Band of Cahuilla Indians Land Use Ordinance (Land Use Ordinance) is to provide standards and regulations to control land uses on the Reservation, maintain and protect the Reservation's unique natural and cultural resources, and to preserve the natural environment. Article VII, Landscaping Standards, promotes the use of native, desert, and other drought tolerant plants to reduce water demand on the Reservation. The landscape management practices identified in this article of the Land Use Ordinance ensure maximum water efficiency, comprehensive landscaping plans, irrigation plans, plant materials, decorative water features, and limitations on turf material.

(Agua Caliente Band of Cahuilla Indians *"Land Use Ordinance,"* http://www.aguacaliente.org/downloads/TribalLandUseCode.pdf)

Tribal Ordinance for Floodplain Management

The purpose of the Floodplain Management Ordinance is to promote the public health, safety, general welfare, and to minimize the public and private losses due to flood conditions in specific areas. The Floodplain Management Ordinance was modeled after the ordinance prepared by the California Department of Water Resources, Division of Flood Management. In order to accomplish the primarily purpose of the Ordinance, the following methods and provisions are included to reduce flood losses:

- Minimize damage to public facilities and utilities such as water and gas mains, electric, telephone and sewer lines, and streets and bridges located in areas of special flood hazard.
- Restrict or prohibit uses which are dangerous to health, safety, and property due to water or erosion hazards, or which result in damaging increases in erosion or flood heights or velocities.
- Require that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction.
- Control the alteration of natural floodplains, stream channels, and natural protective barriers, which help accommodate or channel flood waters.
- Control filling, grading, dredging, and other development which may increase flood damage.

- Prevent or regulate the construction of flood barriers which will unnaturally divert flood waters or which may increase flood hazards in other areas.

(Agua Caliente Band of Cahuilla Indians, *"Floodplain Management Ordinance for the Agua Caliente Indian Reservation,"* http://www.aguacaliente.org/downloads/Ordinance21.pdf)

The Project includes a drainage plan designed to convey flows on-site; without modification to existing off-site drainage conditions. Off-site flows from the half streets adjacent to the Project Site are collected at natural concentration points along the boundaries of the Project Site and conveyed via piped flow to the North Cathedral Channel. The proposed on-site drainage system is designed to convey 100-year storm flows via surface and piped flows to an underground retention system sized to contain and infiltrate the 100-year, 3-hour storm in accordance with the City of Cathedral City requirements. Although an existing 48-inch storm drain pipe runs beneath Allen Avenue from Date Palm Drive to the North Cathedral Channel, it is not available to receive direct stormwater discharge, other than perhaps as an overflow route.

During construction, the Project will comply with South Coast Air Quality Management District's (SCAQMD) Rule 403 and 403.1, which prompt the requirement for preparation and implementation of a Fugitive Dust (PM10) Control Plan. Implementation of the Fugitive Dust Control Plan primarily pertains to air quality, but also supports water quality protection through the requirement of soil stabilization measures to prevent sediment erosion and track-out. The concurrent implementation of the required SWPPP and PM-10 plans will prevent the potential construction-related impacts to water quality at the site and its surroundings.

The Tribe will voluntarily prepare a Project-Specific Water Quality Management Plan (WQMP) to comply with the most current standards of the Whitewater River Region Water Quality Management Plan for Urban Runoff and the Whitewater River Watershed MS4 Permit and the above Tribal Ordinances by preventing the off-site discharge and transport of potential pollutants associated with Project runoff. The Project-Specific WQMP, currently in a preliminary form, identifies a strategy of site design, source controls, and treatment controls with a component of maintenance and monitoring to address post-construction runoff quality and quantity.

All Project development avoids on-site flooding and flooding onto downstream properties. An agreement would be executed between the Tribe and/or developers and CVWD to maintain consistency with Coachella Valley Water District (CVWD) Ordinance 1234.1. A flood control facility operations and maintenance manual would be submitted to CVWD and/or the City for review and approval prior to issuance of grading or building permits. Furthermore, since the Project Site currently does not fall within a FEMA 100-year flood zone, the Project would not be required to obtain a Conditional Letter of Map Revision (CLOMR) through FEMA. The comment will be reviewed by the Tribal Council in their consideration of the Record of Decision for the Project.

Project Site Description

The purpose of this section is to substantiate the grading and drainage needed for the Cathedral City Fee-to-Trust Casino Project (Project) in Cathedral City, CA, as it would relate to the five (5)

alternatives studied as part of the Environmental Assessment (EA) prepared for the Project. The approximately 13.6 acre Project site for Alternatives A, B, and C (North Site) is located on the northwest corner of Date Palm Drive and East Palm Canyon (Highway 111) and generally slopes down to the northeast at an average of 2.5%, falling about 26 feet over roughly 1,000 feet, with surface elevations ranging from approximately 310 feet to 284 feet above mean sea level. The approximately 13.9 acre Project site for Alternative D (South Site), located on the south side of Highway 111 between Date Palm Drive and Van Fleet Street, generally falls to the northeast as well, with an average slope of about 3.1%, falling almost 40 feet over nearly 1,000 feet, with surface elevations ranging from 339 feet to 299 feet above mean sea level.

According to the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) Map Number's 06065C1587G and 06065C1589G, effective since August 28, 2008, the North and South Sites are not in a designated 100-year flood hazard area but are designated as being in Zone X, which indicates areas of 0.2% annual chance flood, areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile, and areas protected by levees from 1% annual chance flood.

The five (5) alternatives analyzed are further described in this report. A brief summary of characteristics follows:

Alternative A: Proposed Casino and Mixed Use Complex

- Fee-to-trust transfer of 13.6 acres in Cathedral City, CA, and resulting development of a 125,000 square foot casino-mixed use complex.
- 65,000 square foot casino.
- 60,000 square feet of mixed use structures (Buildings A-F)

Alternative B: Reduced Intensity Alternative

- Fee-to-trust transfer of 13.6 acres in Cathedral City, CA, and resulting development of a 103,000 square foot casino-mixed use complex.
- 65,000 square foot casino.
- 38,000 square feet of mixed use structures (Buildings D-E)

Alternative C: Alternative Use (Non-Gaming)

- Fee-to-trust transfer of 13.6 acres in Cathedral City, CA, and resulting development of a 90,000 square foot mixed use complex.
- 90,000 square foot mixed use complex (Buildings A-J)

Alternative D: SWC of East Palm Canyon Drive and Date Palm Drive – Site Alternative

- Fee-to-trust transfer of 13.9 acres in Cathedral City, CA, and resulting development of a 125,000 square foot casino-mixed use complex.
- 65,000 square foot casino.
- 60,000 square feet of mixed use structures (Buildings A-E)

Alternative E: No action

- No new development or change of land use.

Background

The North Site (Alternatives A, B, and C) is bounded by East Palm Canyon Drive on the south, Date Palm Drive on the east, Buddy Rogers Avenue on the north, and abuts existing developed and vacant parcels on the west. The existing alignments of Allen Avenue and Dawes Street cross the site in their entirety, as do portions of Hillery Road and Grove Street. The South Site (Alternative D) is bounded by East Palm Canyon Drive on the north, Van Fleet Street on the west, D Street on the south and the East Cathedral flood channel along the southeast.

Both North and South Sites were previously developed with residential and/or commercial uses. Except for the existing fire station at the northeast corner and the fast food restaurant at the southeast corner, the North Site has been cleared and reconditioned to generally flat-graded pads, with existing streets remaining in use. The South Site has been re-developed into a single graded pad, although the roughly 300 foot alignment of A Street is still in use, along with two parking areas on its north side. Between the two existing parking areas, and between East Palm Canyon Drive and A Street, is an existing commercial structure whose parcel not a part of the Project.

As a sub-basin within the Whitewater River basin, the North and South Sites permitted receiving water body is the Coachella Valley Storm Channel. However, due to Tribal and Cathedral City Municipal Code requirements, the Project is required to retain the 100-year, 3-hour storm onsite.

The Project will provide pretreatment within the site. In doing so, pretreatment is established prior to run-off entering into the proposed onsite underground storage facility. Water quality is provided through infiltration within the landscaped areas and the perforated pipe storage facility as is storage for storm events equivalent to, or less than the 100-year, 3-hour event.

Off-Site Discharge

The Project is located in the central portion of the Whitewater River basin and will therefore meet the criteria governing improvements within that basin for stage and discharge. Offsite discharge is not authorized by Cathedral City Municipal Code Title 15.10 and while the Tribe is not subject to Title 15.10 requirements, the Tribe will voluntarily comply.

Design Criteria

The design criteria for any development within the Project must meet the minimum standards for the Whitewater River Region and the Tribal Ordinance Controlling Pollutant Discharges into the Waters of the Agua Caliente Indian Reservation. The parameters are as follows:

Pretreatment

Pretreatment will be utilized within the Project prior to runoff entering the storm drain system. Grates and filter bags at the inlets will remove trash, debris, and sediment from the runoff.

Water Quality

Cathedral City Municipal Code Chapter 15.10 and the Tribal Ordinance Controlling Pollutant Discharges into the Waters of the Agua Caliente Indian Reservation prohibit the discharge of non-storm water discharges to the district drain system and/or waters of the Agua Caliente Indian Reservation without the applicable discharge permit.

In addition to pretreatment, run-off will be retained onsite. Water Quality is a form of secondary treatment that allows further retention of run-off for infiltration of stormwater. Water quality for the Project is met by infiltrating storm events within the underground retention facility. The retention volume is determined by the 100-year, 3-hour storm event. A smaller design storm is utilized for treatment of the "first flush" of stormwater runoff. As such, the underground retention facility for each alternative will have sufficient capacity to capture and retain the WQMP design volume as this volume is a fraction of the 100 year storm event.

Stormwater Quantity

The Cathedral City Municipal Code Chapter 8.24.070 (storm water storage facilities) states: *Development of all land within the city must include provisions for the management of storm water runoff from the property which is to be developed, in compliance with this chapter and with Chapter 15.10 of this code, and with the following provisions. Management of storm water shall consist of constructing storm drain systems and storm water storage facilities, which includes detention basins. As a minimum, all development will make provisions to store runoff from rainfall events up to and including the one-hundred-year, three-hour duration event. If a suitable outlet for a detention basin is not available, or if engineering analysis indicates that available outlet systems would be overtaxed by a detention basin outflow, a retention basin shall be constructed in lieu of a detention basin.*

On-site Storage

In addition to pretreatment and water quality, conditions for development within Cathedral City require that:

- runoff from the 100-year, 3-hour storm event does not exceed the maximum onsite storage capacity.

Design Analysis

The objective of an analysis for any land use change (development) is to show no adverse impact between the permitted and proposed conditions. The analysis for development on an individual property must take into account allotted development for the entire Project. The proposed scenario cannot significantly impact other development.

Proposed scenarios were compared against the permitted conditions. The proposed model includes the ultimate build-out condition for the Project with modification of existing conditions accounting for proposed development. To accommodate the development of the Alternatives, the proposed model includes requirements for the infrastructure system on the South Site.

The drainage models for Alternatives A through D include proposed onsite storage and infiltration of stormwater runoff. The models simulate the property as constructed according to all Alternative project descriptions.

Proposed systems are modeled and analyzed using:

- The proposed improvements on Tribal land with proposed infrastructure upgrades within the property.

To be compliant with conditions of the Cathedral City Municipal Code and other regulatory requirements, each analysis must demonstrate:

- 100% retention of the 100-year, 3-hour storm event.
- No adverse impact to the surrounding properties.

Description of Analysis

The following is a general discussion of the Alternatives and design assumptions. Proposed Development within Alternatives A through D are shown in the exhibits at the end of this report. Alternatives A, B, and C are on the North Site and Alternative D is on the South Site. Alternative E is representative of the current condition on the North and South Sites.

For the analysis, a conceptual grading plan was developed for each Alternative, fitting the site plans vertically to the existing perimeter features and maintaining standard parameters for grades and slopes in a commercial application. From these grading concepts, preliminary earthwork volumes were calculated to determine the cut/fill and import/export dirt volumes required for the Project. Hydrologic calculations were performed to determine the necessary onsite stormwater storage volumes for the 100-year, 3-hour storm event and, under the assumption of full underground stormwater retention to maximize site use, dimensioned areas were delineated for underground stormwater storage on the site.

Conceptual Grading

The conservative approach of the preliminary grading design was to achieve a practical physical interaction with the existing boundary constraints while maintaining efficient vertical relationships and transitions. However, it was important to avoid subjective design decisions that plot aesthetic and experiential choices against cost, as such considerations typically are undertaken by project owners and their architects and should not be dictated at the planning level through quantitative pragmatism. In the conceptual grading design, dirt import or export volumes were minimized only to the point where such subjective value judgments were not in consideration. In the eventual Project design, choices may be made to reduce import or export through the use of stepped floor elevations within buildings, stem walls, retaining walls, ramps and stairs, and so on.

For instance, the curb line running east along Palm Canyon Drive and then north on Date Palm Drive falls about 26 feet. The casino building in Alternatives A and B, anchored at the southeast corner, occupies about 40% of the East Palm Canyon frontage and about 75% of the Date Palm frontage, all presumably at the same floor level. The proposed conceptual grading design included the assumption that the casino building would be built with a single floor elevation throughout and

would not be situated below street level along East Palm Canyon Drive, the most visible frontage. The result was a significant elevation differential from street to pad at the northeast corner of the site, and a substantial volume of imported fill dirt required. Of course, in the eventual design of the site there are many choices that can be made to reduce the import volume — the building can be lowered with architectural mitigation on the street frontage, the casino building can be stepped down internally, etc., but those value judgments should not be imposed unilaterally at this stage.

As mentioned, the North Site generally slopes down to the northeast at an average of 2.5%, falling about 26 feet over roughly 1,000 feet. The conceptual grading designs for its three Alternatives are similar, owing to the similarities of the site layouts, and all generally follow the existing lay of the site and have an overall low point at the northeast corner; the variation of these elevation differentials is a product of multiple spatial relationships throughout the site. At the southeast corner the vertical relationships are more uniform.

The conceptual grading of the redeveloped Allen Avenue, running north-south through the site, primarily slopes down to the north at 2%, save for the northernmost 125 feet which is at 5.5%. Similarly, the portion of the site west of Allen Avenue is comparable for all three options, generally sloping down to the east at 0.5% to 1.5%.

The South Site for Alternative D generally falls to the northeast as well, with an average slope of about 3.1%, falling almost 40 feet over nearly 1,000 feet. The conceptual grading design here again follows the existing lay of the site and has an overall low point at the northeast corner. The proposed casino is located at the low end of the site, with a finished floor elevation sitting above East Palm Canyon Drive, increasing eastward. The proposed entry street approaches the Formal Entry from Van Fleet Street, falling at 4.1% and flattening to a maximum of 1.5% along the building frontages.

Conceptual Earthwork Analyses

The conceptual grading schemes described above were used to create surfaces, which were compared to the existing surfaces created topography obtained from aerial photography. Raw volumes were obtained for each Alternative. The figures represent raw earthwork estimates that do not account for shrinkage and subsidence of soil, over-excavation, thickness of pavement, soil generated through excavation of the underground retention systems, or other factors typically determined or recommended by a geotechnical engineer after performing a soil analysis. Also, grading schemes may be designed with a goal of balancing or minimizing import/export, but such designs require more in-depth site design and cost choices which are not appropriate or available at this planning-level stage.

Conceptual Hydrologic Analyses

The hydrologic analyses of the North and South Sites involved the generation of synthetic unit hydrographs to model a 100-year, 3-hour storm event, based on rainfall values provided by the National Oceanic and Atmospheric Administration (NOAA). For purposes of this analysis, the onsite stormwater storage is presumed to be fully underground in a relatively economical perforated

corrugated metal pipe (CMP) manifold and wrapped in stone bedding, and utilizing an efficient 96" diameter pipe size. The existing Project sites have total impervious areas of about 3.1 acres for the North Site and about 0.6 acres on the South Site.

Conclusions

Each Alternative was modeled for the improvements described previously. The analysis stormwater runoff and includes an estimate of earthwork.

Alternative A – Proposed Casino and Mixed Use Project

In Alternative A, the proposed development represents full build-out of the Project with the assumption that the North Site is brought into federal trust status for the Tribe for gaming purposes. **Table 1** provides a general summary of land use breakdown for this Alternative:

Table 1

Casino (s.f.)	Mixed-Use (s.f.)	Parking (spaces)	Impervious Area (ac)	Pervious Area (ac)
65,000	60,000	1,000	12.24	1.36

This scenario maximizes the building square footage on the northern North Site.

On-site retention will be provided in the northeast corner of the Project under the proposed parking lot. 2,010 lineal feet of 96" perforated corrugated metal pipe will be placed in ten rows and surrounded by porous stone to create a 203 ft by 95.5 ft underground retention system that will provide 138,166 cubic feet of storage, based on the 100-year, 3-hour storm event.

The earthwork analysis for this scenario indicates a 91,933 cubic-yard (cy) import, with no factors included.

Alternative B – Reduced Intensity Alternative

In Alternative B, the proposed development represents a reduction in mixed-use building area from Alternative A. **Table 2** provides a general summary of the land use for this Alternative:

Table 2

Casino (s.f.)	Mixed-Use (s.f.)	Parking (spaces)	Impervious Area (ac)	Pervious Area (ac)
65,000	38,000	850	12.24	1.36

Alternatives A, B, and C have the same total area of impervious area, leading to the 100-year, 3-hour storm totals resulting in the same volume to be retained. As such, the underground retention systems are identical, except for their placement. On-site retention will be provided in the northeast corner of the North Site under the proposed parking lot in this Alternative. Total

impervious area increase for the north site is approximately 9.1 acres.

The earthwork analysis for this scenario indicates a 72,653 cy import, with no factors included.

Alternative C – Non-Gaming

In Alternative C, the casino use in Alternative A is replaced by additional mixed-use buildings and the North Site is brought into federal trust status for the Tribe for non-gaming purposes. **Table 3** provides a general summary of the land use for this Alternative:

Table 3

Casino (s.f.)	Mixed-Use (s.f.)	Parking (spaces)	Impervious Area (ac)	Pervious Area (ac)
0	90,000	700	12.24	1.36

Alternatives A, B, and C have the same total area of impervious area, leading to the 100-year, 3-hour storm totals resulting in the same volume to be retained. As such, the underground retention systems are identical, except for their placement. On-site retention will be provided in the northeast corner of the North Site under the proposed parking lot in this Alternative.

The earthwork analysis for this scenario indicates a 98,613 cy import, with no factors included.

Alternative D – Site Alternative

In Alternative D, the proposed building area remains the same as Alternative A, but moves to the larger South Site located south of East Palm Canyon Drive/Highway 111, which would be brought into federal trust status for the Tribe for gaming purposes. **Table 4** provides a general summary of the land use for this Alternative:

Table 4

Casino (s.f.)	Mixed-Use (s.f.)	Parking (spaces)	Impervious Area (ac)	Pervious Area (ac)
65,000	60,000	1,150	12.51	1.39

On-site retention will be provided on the north side of the South Site under the proposed parking lot between buildings A and B. 2,050 lineal feet of 96" perforated corrugated metal pipe will be placed in ten rows and surrounded by porous stone to create a 207 ft by 95.5 ft underground retention system that will provide 140,901 cubic feet of storage, based on the 100-year, 3-hour storm event. Total impervious area increase for the south site is approximately 11.9 acres.

The earthwork analysis for this scenario indicates a 140,948 cy export, with no factors included.

Alternative 'E' – No Action

No changes to the Project site.



AGUA CALIENTE

CASINO PROJECT

PRELIMINARY GRADING

ALTERNATIVE A

JULY 27, 2018

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NORTH

SCALE: 1"=100'



AGUA CALIENTE
CASINO PROJECT
PRELIMINARY EARTHWORK
ALTERNATIVE A

JULY 27, 2018

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NORTH

SCALE: 1"=100'

ESTIMATED EARTHWORK QUANTITIES

	CUT (CY)	FILL (CY)
RAW QUANTITIES	530	92,463
IMPORT	**91,933**	
TOTAL EARTHWORK	92,993	92,993

ALTERNATIVE A
PROPOSED LAND USE SUMMARY

LAND USE	AREA (acres)	RI NUMBER	AMC II INFILTRATION RATE (in/hr)	IMPERVIOUS PERCENT
BUILDINGS/PAVING/HARDSCAPE	12.24	32	0.74	100.0
LANDSCAPED/OPEN SPACE	1.36	32	0.74	10.0
TOTAL AREA	13.60			

STORM EVENT SUMMARY
PROPOSED CONDITIONS

DURATION		3-HOUR
EFFECTIVE RAIN	(in)	2.88
FLOOD VOLUME	(cu-ft) (acre-ft)	**142,091** **3.26**
PEAK FLOW	(cfs)	42.42
PERCOLATION	(ft) (cu-ft)	**0.25** **4,847**
REQUIRED STORAGE	(cu-ft)	**137,244**

UNDERGROUND RETENTION SUMMARY

PIPE STORAGE (96" CMP)	(cu-ft)	101,034
POROUS STONE STORAGE	(cu-ft)	37,133
TOTAL STORAGE	(cu-ft)	**138,166**

LEGEND

TRIBUTARY AREA BOUNDARY

DRAINAGE SUB-AREA ID

AREA (AC)

A
A=1.12

UNDERGROUND RETENTION



AGUA CALIENTE
CASINO PROJECT
PRELIMINARY HYDROLOGY
ALTERNATIVE A
RCFC SYNTHETIC UNIT
(SHORTCUT METHOD)

JULY 27, 2018

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NORTH

SCALE: 1"=100'



AGUA CALIENTE
CASINO PROJECT
PRELIMINARY GRADING
ALTERNATIVE B

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NORTH

SCALE: 1"=100'



AGUA CALIENTE
CASINO PROJECT
PRELIMINARY EARTHWORK
ALTERNATIVE B

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NORTH

SCALE: 1"=100'

ESTIMATED EARTHWORK QUANTITIES

	CUT (CY)	FILL (CY)
RAW QUANTITIES	974	73,627
IMPORT	**72,653**	
TOTAL EARTHWORK	74,601	74,601

ALTERNATIVE B
PROPOSED LAND USE SUMMARY

LAND USE	AREA (acres)	RI NUMBER	AMC II INFILTRATION RATE (in/hr)	IMPERVIOUS PERCENT
BUILDINGS/PAVING/HARDSCAPE	12.24	32	0.74	100.0
LANDSCAPED/OPEN SPACE	1.36	32	0.74	10.0
TOTAL AREA	13.60			

STORM EVENT SUMMARY
PROPOSED CONDITIONS

DURATION		3-HOUR
EFFECTIVE RAIN	(in)	2.88
FLOOD VOLUME	(cu-ft) (acre-ft)	**142,091** **3.26**
PEAK FLOW	(cfs)	42.42
PERCOLATION	(ft) (cu-ft)	**0.25** **4,847**
REQUIRED STORAGE	(cu-ft)	**137,244**

UNDERGROUND RETENTION SUMMARY

PIPE STORAGE (96" CMP)	(cu-ft)	101,034
POROUS STONE STORAGE	(cu-ft)	37,133
TOTAL STORAGE	(cu-ft)	**138,166**

LEGEND

TRIBUTARY AREA BOUNDARY

DRAINAGE SUB-AREA ID

AREA (AC)

UNDERGROUND RETENTION



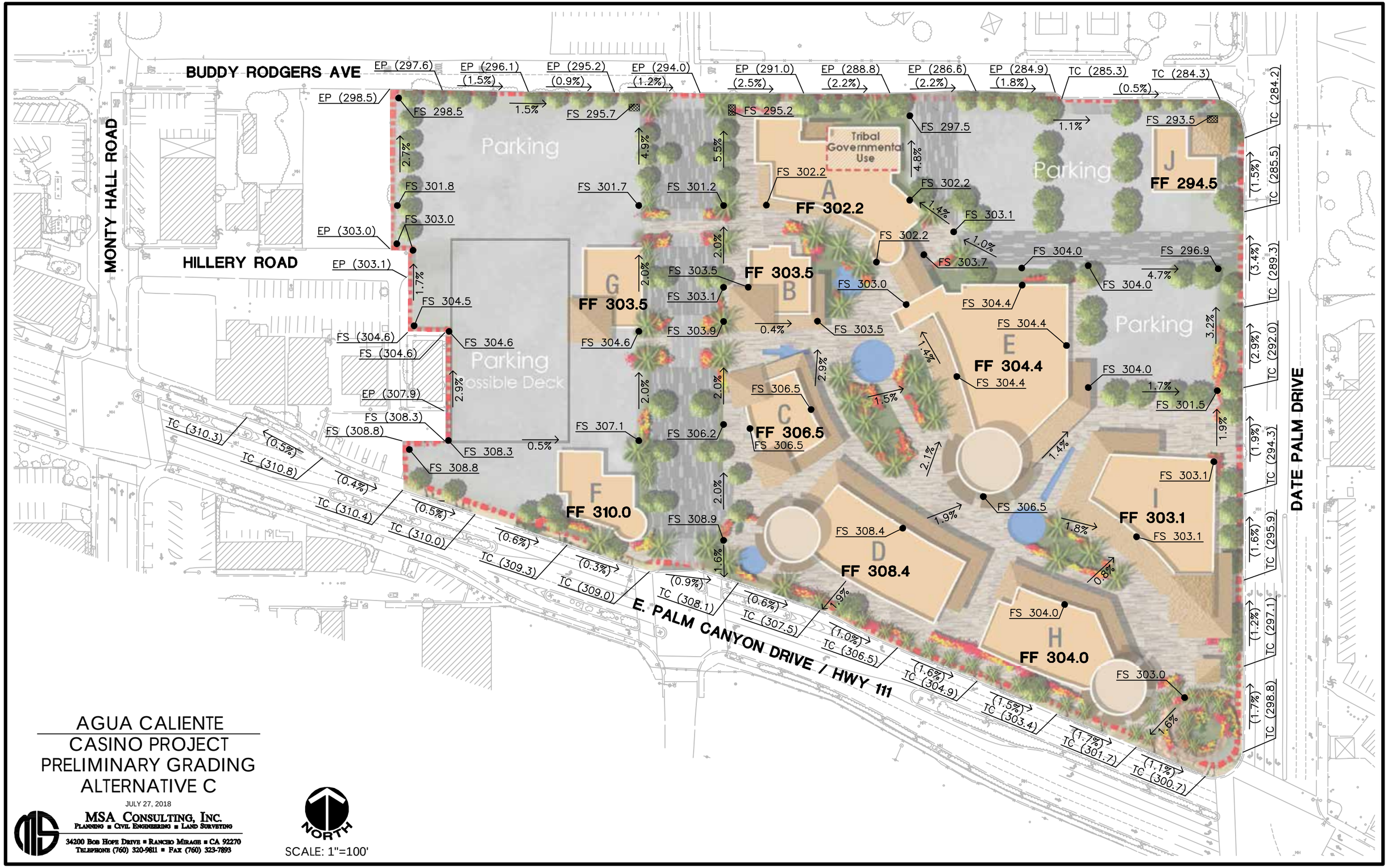
AGUA CALIENTE
CASINO PROJECT
PRELIMINARY HYDROLOGY
ALTERNATIVE B
RCFC SYNTHETIC UNIT
(SHORTCUT METHOD)

JULY 27, 2018

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NORTH

SCALE: 1"=100'



AGUA CALIENTE
CASINO PROJECT
PRELIMINARY GRADING
ALTERNATIVE C

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NORTH

SCALE: 1"=100'



AGUA CALIENTE
CASINO PROJECT
PRELIMINARY EARTHWORK
ALTERNATIVE C

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NORTH

SCALE: 1"=100'

ESTIMATED EARTHWORK QUANTITIES

	CUT (CY)	FILL (CY)
RAW QUANTITIES	176	98,789
IMPORT	**98,613**	
TOTAL EARTHWORK	98,965	98,965

ALTERNATIVE C
PROPOSED LAND USE SUMMARY

LAND USE	AREA (acres)	RI NUMBER	AMC II INFILTRATION RATE (in/hr)	IMPERVIOUS PERCENT
BUILDINGS/PAVING/HARDSCAPE	12.24	32	0.74	100.0
LANDSCAPED/OPEN SPACE	1.36	32	0.74	10.0
TOTAL AREA	13.60			

STORM EVENT SUMMARY
PROPOSED CONDITIONS

DURATION		3-HOUR
EFFECTIVE RAIN	(in)	2.88
FLOOD VOLUME	(cu-ft) (acre-ft)	**142,091** **3.26**
PEAK FLOW	(cfs)	42.42
PERCOLATION	(ft) (cu-ft)	**0.25** **4,847**
REQUIRED STORAGE	(cu-ft)	**137,244**

UNDERGROUND RETENTION SUMMARY

PIPE STORAGE (96" CMP)	(cu-ft)	101,034
POROUS STONE STORAGE	(cu-ft)	37,133
TOTAL STORAGE	(cu-ft)	**138,166**

LEGEND

TRIBUTARY AREA BOUNDARY

DRAINAGE SUB-AREA ID

AREA (AC)

UNDERGROUND RETENTION

C
A=1.12



AGUA CALIENTE
CASINO PROJECT
PRELIMINARY HYDROLOGY
ALTERNATIVE C
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SCALE: 1"=100'



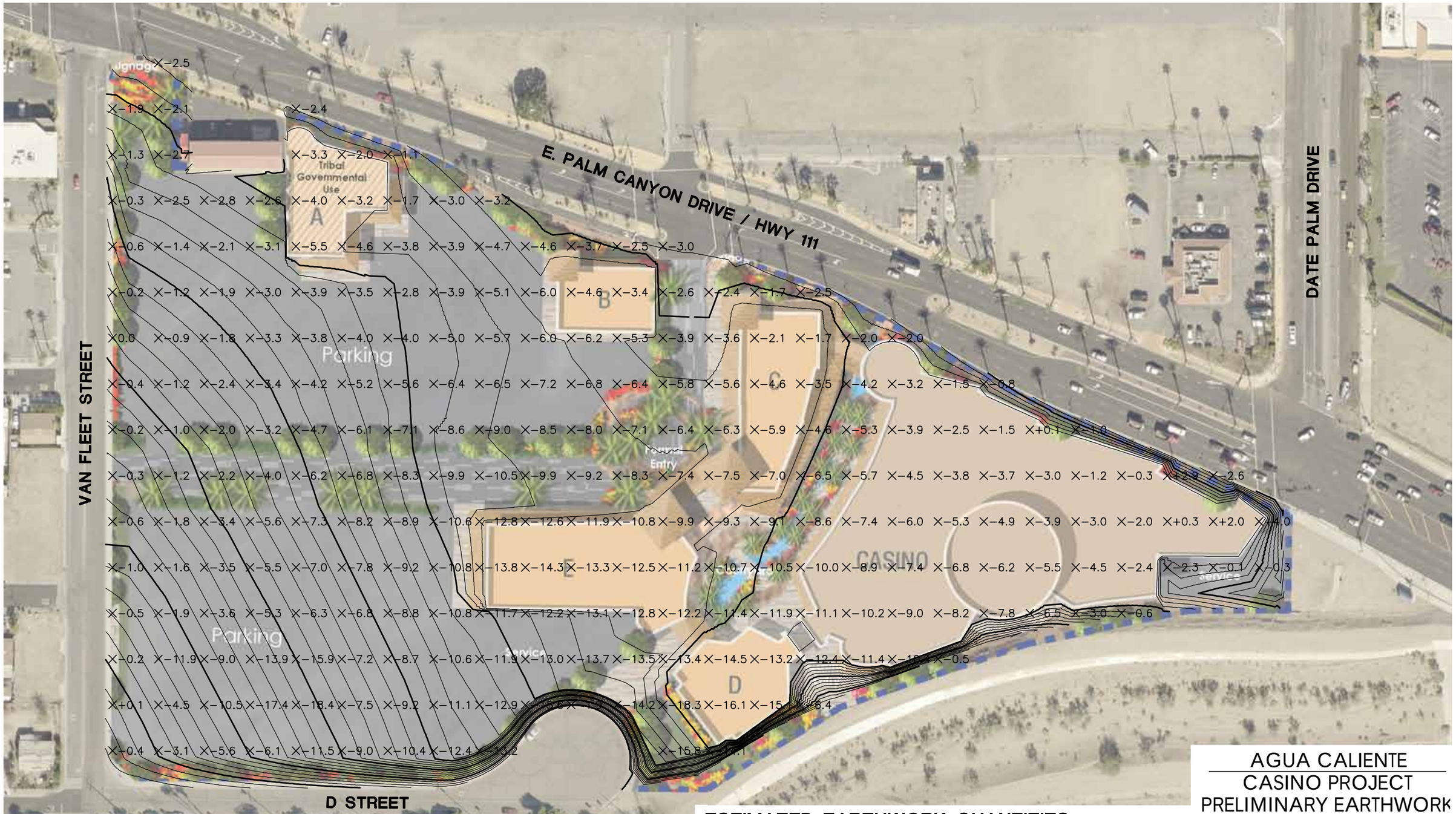
AGUA CALIENTE
CASINO PROJECT
PRELIMINARY GRADING
ALTERNATIVE D

JULY 27, 2018

NORTH

SCALE: 1"=100'

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ESTIMATED EARTHWORK QUANTITIES

	CUT (CY)	FILL (CY)
RAW QUANTITIES	141,749	801
EXPORT		**140,948**
TOTAL EARTHWORK	142,550	142,550

NORTH

SCALE: 1"=100'

AGUA CALIENTE
CASINO PROJECT
PRELIMINARY EARTHWORK
ALTERNATIVE D

JULY 27, 2018

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LEGEND

TRIBUTARY AREA BOUNDARY

DRAINAGE SUB-AREA ID

AREA (AC)

UNDERGROUND RETENTION

D
A=1.12

ALTERNATIVE D
PROPOSED LAND USE SUMMARY

LAND USE	AREA (acres)	RI NUMBER	AMC II INFILTRATION RATE (in/hr)	IMPERVIOUS PERCENT
BUILDINGS/PAVING/HARDSCAPE	12.51	32	0.74	100.0
LANDSCAPED/OPEN SPACE	1.39	32	0.74	10.0
TOTAL AREA	13.90			

STORM EVENT SUMMARY
PROPOSED CONDITIONS

DURATION		3-HOUR
EFFECTIVE RAIN	(in)	2.88
FLOOD VOLUME	(cu-ft) (acre-ft)	145,225 3.33
PEAK FLOW	(cfs)	43.36
PERCOLATION	(ft) (cu-ft)	0.25 4,942
REQUIRED STORAGE	(cu-ft)	**140,283**

UNDERGROUND RETENTION SUMMARY

PIPE STORAGE (96" CMP)	(cu-ft)	103,044
POROUS STONE STORAGE	(cu-ft)	37,856
TOTAL STORAGE	(cu-ft)	**140,901**



AGUA CALIENTE
CASINO PROJECT
PRELIMINARY HYDROLOGY
ALTERNATIVE D
RCFC SYNTHETIC UNIT
(SHORTCUT METHOD)

JULY 27, 2018

NORTH

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APPENDIX H

EXPANDED AFFECTED ENVIRONMENT

EXPANDED AFFECTED ENVIRONMENT

This section presents relevant information about the existing environment of the area that may be affected by the Proposed Action and alternatives, including development alternatives analyzed in Appendix A to the Environmental Assessment (EA), as summarized in Section 3.0 of the EA. Both the North Site and the South Site environmental setting are discussed below, although alternatives on the South Site were eliminated from analysis within the EA, as described in Section 2.7 of the EA and Appendix A to the EA. The following environmental issue areas are described: Land Resources, Water Resources, Air Quality, Biological Resources, Cultural Resources, Socioeconomic Conditions/Environmental Justice, Transportation/Circulation, Land Use, Public Services and Utilities, Visual Resources, Noise, and Hazardous Materials. The heading numbers used herein correspond with Section 3.0 of the EA.

3.1 LAND RESOURCES

3.1.1 REGULATORY SETTING

The land resources regulatory setting is summarized in **Table 3-1**, and described in detail below.

TABLE 3-1
REGULATORY POLICIES AND PLANS RELATED TO LAND RESOURCES

Regulation	Description
Alquist-Priolo Earthquake Fault Zoning Act	Ensures public safety by prohibiting the siting of most structures for human occupancy across traces of active faults
Seismic Hazards Mapping Act	Requires the California State Geologist to create maps delineating zones where data suggest amplified ground shaking, liquefaction, or earthquake-induced landslides may occur

Alquist-Priolo Earthquake Fault Zoning Act

The Alquist-Priolo Earthquake Fault Zoning Act (Alquist-Priolo Act; formerly the Alquist-Priolo Special Studies Zone Act), signed into law December 1972 after the 1971 San Fernando earthquake, requires the delineation of zones along active and potentially active faults in California. The United States Geological Survey (USGS) defines a fault as "active" if it has moved one or more times in the last 10,000 years. The California Geological Survey (CGS) defines an "active" fault as one that exhibits evidence of activity during the last 11,000 years. Faults that exhibit evidence of Quaternary activity (within the last 1.6 million years) are considered to be "potentially active." The purpose of the Alquist-Priolo Act is to regulate development on or near fault traces to reduce the hazard of fault rupture and to prohibit the location of most off-Reservation structures for human occupancy across these traces. Fault zones defined by the Alquist-Priolo Act are areas around active faults, averaging approximately one-quarter mile wide, within which cities and counties having jurisdiction must regulate certain development projects (DOC, 2016a).

Seismic Hazards Mapping Act

The Seismic Hazards Mapping Act was enacted in 1990 to protect the public from the effects of strong ground shaking, liquefaction, landslides, ground failure, or other hazards caused by earthquakes. This act

requires a state geologist to delineate various seismic hazard zones and requires cities, counties, and other local permitting agencies to regulate certain development projects within the portions of those zones where they have jurisdiction. Before a development permit is granted by a city, county or other local permitting agency for a site within a seismic hazard zone, a geotechnical investigation must be conducted and appropriate mitigation measures must be incorporated into the project's design. Ground shaking probability maps have been developed in conjunction with the USGS for all of California (DOC, 2016b).

3.1.2 ENVIRONMENTAL SETTING

Topography

Both the alternative sites are relatively level, with the only changes in elevation occurring along Dawes Street, where soil has been deposited to raise the pad for the buildings in the southeastern corner of the North Site. The elevation of the North Site is approximately 300 feet above mean sea level (amsl), and the elevation of the South Site is approximately 310 feet amsl.

Geology

Geomorphic regions are broad-scale subdivisions based on terrain, texture, rock type, and geologic structure and history. The USGS uses a three-tiered classification of the United States, by division, province, and section, to provide a spatial organization for the great variety of the country's physical features. The alternative sites fall within the Intermontane Plateaus major physiographic division, Basin and Range province, Salton Trough region (USGS, 2008).

The City of Cathedral City (City) is located within the Coachella Valley, in the northwesterly portion of the Salton Trough, a narrow, low-lying tectonic depression that began forming about 5 million years ago. The rocks and sediments exposed at the surface can be classified based on their age, and include Mesozoic and older rocks in the Santa Rosa Mountains, Pleistocene sediments on Edom Hill, Flat Top Mountain, and the northwestern portion of the City, and Holocene sediments on the valley floor, including the North Site and South Site (City of Cathedral City, 2009).

The most recently deposited sediments in the region are of alluvial (stream-deposited) or aeolian (wind-deposited) origin. Alluvial surfaces can be differentiated based on age and the degree of dissection and soil development. The youngest alluvial materials, known as active channel deposits, have no soil development and occur within the active stream channels. These sediments are associated with the watershed of the Whitewater River, including the Salvia and Morongo Washes south of the Indio Hills and the Cathedral Canyon drainages at the base of the Santa Rosa Mountains, where the alternative sites lie. Coarse, poorly sorted sands and gravels are referred to as alluvial fan and stream-wash deposits, and occur at the base of the Santa Rosa Mountains, on the alluvial fans emanating from Cathedral Canyon (City of Cathedral City, 2009).

Wind-deposited (aeolian) sediments, which are typically alluvial in origin, are also referred to as sand dune deposits. These silty, fine, and medium-grained soils are picked up and transported by strong winds emanating from the San Gorgonio Pass at the northwesterly edge of the Coachella Valley. They are redistributed along the central valley floor where they form shifting sand dunes.

Seismic Hazards

The Coachella Valley, like most of California, is a seismically active region; however, the nearest Zone of Required Investigation (i.e. areas mapped by the State Geologist around the surface traces of active faults) is located approximately 10 miles northeast of the alternative sites (CGS, 1974), and the closest mapped fault is the Garnet Hill fault, located approximately 5 miles north of the alternative sites (DOC, 2007) (refer to **Figure 3.1-1**).

Liquefaction and Lateral Spreading

Soil liquefaction can occur in seismic conditions. Liquefaction is the temporary transformation of saturated, non-cohesive material from a relatively stable, solid condition to a liquefied state as a result of increased soil pore water pressure. Soil pore water pressure is the water pressure between soil particles. The alternative sites are in a low to very low liquefaction susceptibility area (City of Cathedral City, 2009: Exhibit V-4); however, the alternative sites are in an area with high susceptibility to seismically induced settlement (City of Cathedral City, 2009: Exhibit V-5).

Lateral spreading is a type of ground failure that typically occurs during a seismic event in the form of horizontal ground displacement. Due to the relatively stable geologic formation and lack of active faults, earthquake-induced ground failures such as lateral spreading are unlikely to occur on the alternative sites.

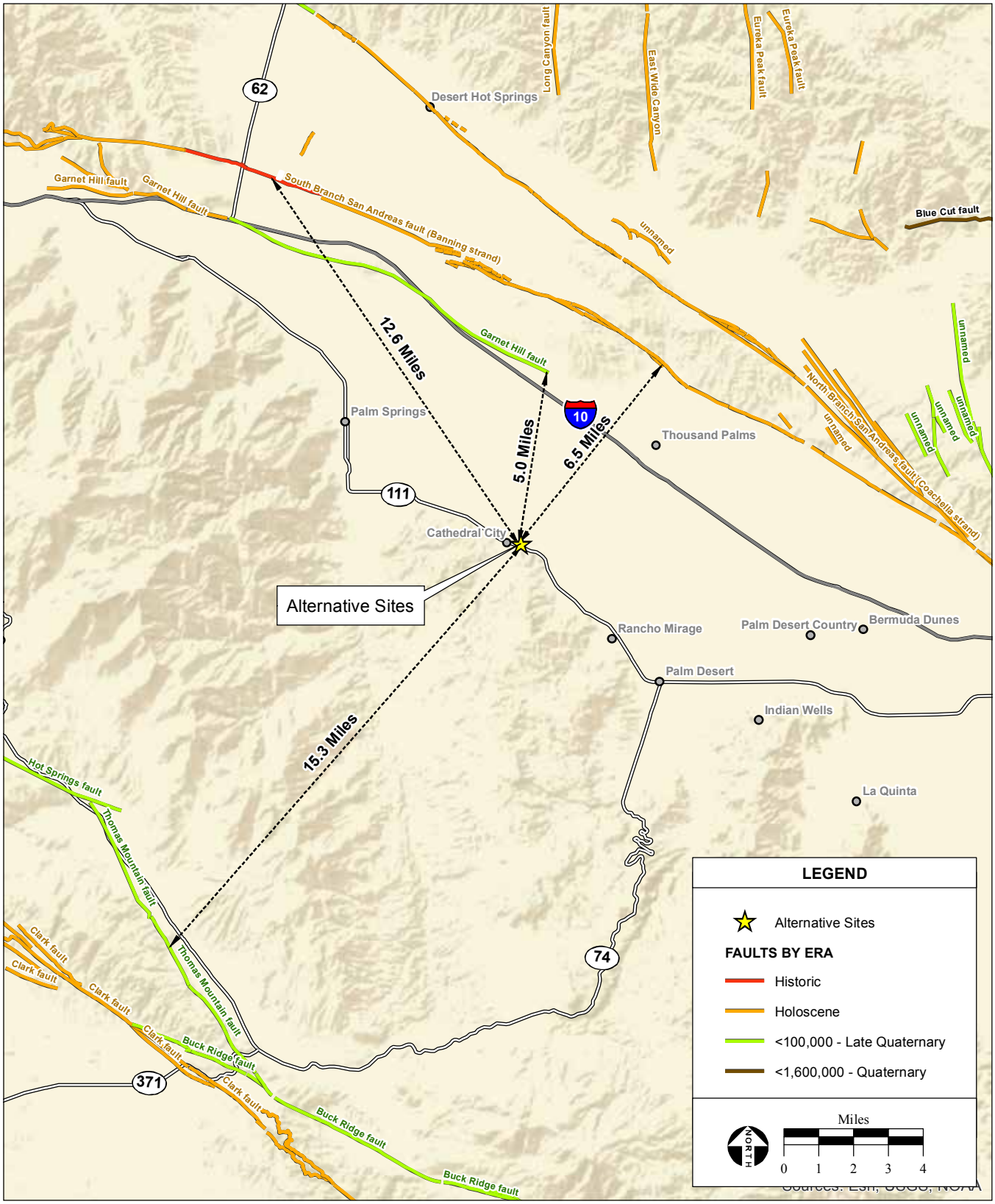
Soil Types and Characteristics

It is typical where soils are deep and soft and the ground surface is relatively flat and comprised of alluvium or depositional sediment. This movement in soils is generally due to failure along a weak sub-layer that is formed within an underlying liquefied layer. Cracks develop within the weakened material, while blocks of soil move laterally toward the free face, resembling a flowing liquid.

The hydrologic soil group is a classification based on the runoff potential of the soils when thoroughly saturated by a long duration storm. Soils are grouped into four classes lettered from A to D, with A being coarse-grained soils with high infiltration and low runoff potential, and D being mostly fine-grained clays with extremely slow infiltration and high runoff potential.

Saturated hydraulic conductivity is a quantitative measurement of the movement of water through saturated soil, abbreviated "Ksat." Ksat is a factor in determining the hydrologic soil group, and is often used in the design of water and wastewater disposal applications such as percolation ponds and septic systems. Ksat measures transport only in the vertical direction under completely saturated conditions, which is an analog of the percolation pond application. It is considered an inherent property irrespective of a soil's native surroundings, and does not account for site-specific variations such as confining layers, degree of saturation, or topography. The following descriptions for the range of measured Ksat are used by the Natural Resources Conservation Service (NRCS; NRCS, 2018):

- Very High > 100 µm/s,
- High 10 - 100 µm/s,
- Moderately High 1 - 10 µm/s,
- Moderately Low 0.1 - 1 µm/s,



SOURCE: USGS Earthquake Hazards Program, 2010; AES, 6/12/2018

Figure 3.1-1
Regional Faults

- Low 0.01 - 0.1 μm/s, and
- Very Low < 0.01 μm/s

The drainage class is a measure of the frequency and duration of wet periods under the conditions in which the soil developed. While this classification is similar to Ksat, drainage class accounts for conditions of the soil in its natural state. In an excessively drained soil such as that present on the Proposed Project site, water is rapidly removed from the soil. Free moisture is not likely to be encountered except at very deep levels (NRCS, 2018).

The United States Department of Agriculture (USDA) NRCS aggregates soil survey and mapping data. Each survey maps soil units and provides a summary of major physical characteristics for each unit with management recommendations. The soil types on the alternative sites are shown in **Figure 3.1-2** and described in detail in **Table 3-2**. As shown in the figure, the majority of the North Site is comprised of Carsitas gravelly sand and the majority of the South Site is comprised of Carsitas cobbly sand. These soils form from gravelly alluvium derived from granite and are found as channel deposits. They are fairly deep and excessively drained, with low runoff potential but high susceptibility to wind erosion (NRCS, 2018).

TABLE 3-2
SITE SOIL PROPERTIES

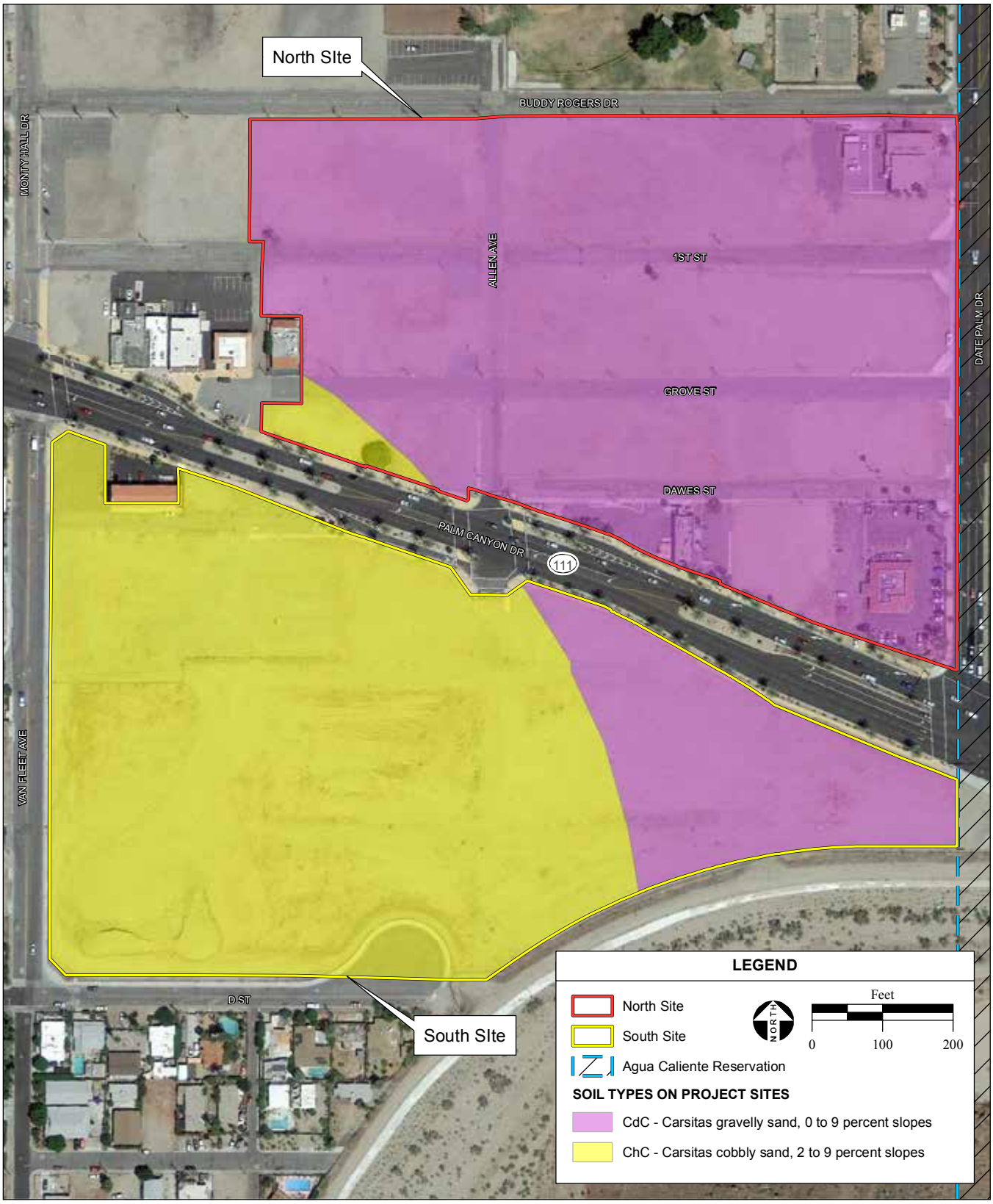
Soil	Hydrologic Soil Group	Drainage Class	Saturated Hydraulic Conductivity: Ksat (in/hr)	Erosion Susceptibility	Wind Erodibility	Corrosion of Concrete	Corrosion of Steel	Linear Extensibility
Carsitas gravelly sand, 0-9 percent slopes	A	Excessively drained	High	Low	High	Moderate	Moderate	Low
Carsitas cobbly sand, 2-9 percent slopes	A	Excessively drained	High	Low	High	Moderate	Moderate	Low
Source: NRCS, 2018.								

The Carsitas soils on the alternative sites have a hydrologic rating of A, indicating the soils are deep and well-drained with a high rate of water transmission (NRCS, 2018).

Moderate wind erosion hazard zones are areas partially protected from erosive winds, where soils show evidence of wind removal and/or accumulation in hummocks up to 48 inches high. The alternative sites are in a moderate, near-severe, wind erosion hazard zone (City of Cathedral City, 2009: Exhibit V-2). The wind erodibility index is a numerical value indicating the susceptibility of soil to wind erosion, or the tons per acre per year that can be expected to be lost to wind erosion. According to the soils report, the alternative sites have a Wind Erodibility Index of 220 (NRCS, 2018).

Soil Hazards

Expansive soils are largely comprised of clays, which may increase in volume when water is absorbed, and shrink when dried. Expansive soils are of concern because building foundations may rise during the rainy season and fall during the dry season in response to the clay's action, potentially causing structural distortion. A majority of the soil classifications on the alternative sites have low shrink-swell potential (NRCS, 2018).



SOURCE: USDA NRCS Soil Survey of Riverside County, Coachella Valley, 2013-2017; LandStatusPublic, 9/11/2017; Riverside County GIS, 2017; Digitalglobe aerial photograph, 4/2017; ESRI Data, 2017; AES, 7/20/2018

Figure 3.1-2
NRCS Soil Survey

Corrosivity pertains to a soil-induced electrochemical or chemical action that corrodes concrete or steel. The soils within the alternative sites are classified as moderately corrosive to concrete (NRCS, 2018). Additionally, the soils on the alternative sites are moderately corrosive to steel (NRCS, 2018).

Flooding and ponding on the alternative sites' soils is not probable. The soils on the alternative sites generally have a high-saturated hydraulic conductivity (Ksat). Saturated hydraulic conductivity refers to the ease with which pores in a saturated soil transmit water (NRCS, 2018).

3.2 WATER RESOURCES

The following discussion describes the existing surface water hydrology, flooding conditions, groundwater hydrology, and water quality in the vicinity of the alternative sites. Wetlands and Waters of the U.S. are discussed in **Section 3.4**.

3.2.1 REGULATORY SETTING

The water resources regulatory setting is summarized in **Table 3-3**, and described in detail below.

Executive Orders 11988 and 13690

EO 13690, which amends EO 11988, requires that federal agencies evaluate the potential effects of any actions they may take in a floodplain. Specifically, EO 11988 states that agencies shall first determine whether the proposed action will occur in a floodplain. EO 11988 defines a floodplain as an area that has a one percent or greater chance of flooding in any given year. Second, if an agency proposes to allow an action to be located in a floodplain, "the agency shall consider alternatives to avoid adverse effects and incompatible development in the floodplains," which EO 13690 amended to add that, "[w]here possible, an agency shall use natural systems, ecosystem processes, and nature-based approaches when developing alternatives for consideration." If the only practicable alternative action requires siting in a floodplain, the agency shall "minimize potential harm to or within the floodplain." Additionally, EO 13960 established a Federal Flood Risk Management Standard for federal actions that are located in or affect floodplains, and also expanded the definition of a floodplain to which the Federal Flood Risk Management Standard would apply to those areas subject to flooding by the 0.2 percent annual chance flood (FEMA, 2016).

Clean Water Act

The federal Clean Water Act (CWA), 33 United States Code (USC) Section 1251(a)(2), sets forth national goals that waters shall be "fishable, swimmable" waters (CWA Section 101 [a][2]). The CWA addresses both point and non-point sources of pollution (Sections 402 and 319, respectively), both of which are controlled through NPDES. A NPDES permit must be obtained in order to discharge pollutants into "Waters of the U.S." In some states, the USEPA has delegated permitting authority to the regional water quality agency, in this case the SWRCB. However, the USEPA retains authority to regulate discharges to waters on tribal lands. The CWA also directs states to establish water quality standards for waterways in their jurisdiction and to review and update these standards every three years (Section 303[c]).

TABLE 3-3
FEDERAL AND STATE WATER RESOURCES REGULATIONS

Regulation	Description
Federal	
Executive Order (EO) 11988	▪ Requires that federal agencies evaluate the potential effects of any actions they may take in a floodplain ▪ Defines a floodplain as an area that has a one percent or greater chance of flooding in any given year ▪ Requires agencies proposing that an action be allowed in a floodplain to consider alternatives to avoid adverse effects ▪ If the only practicable alternative action requires siting in a floodplain, requires the agency to minimize potential harm to or within the floodplain
EO 13690	▪ Amends EO 11988 to require agencies to use natural systems and nature-based approaches when developing alternatives for consideration ▪ Established a Federal Flood Risk Management Standard ▪ Extended the definition of a floodplain to which the Federal Flood Risk Management Standard would apply to areas subject to flooding by the 0.2 percent annual chance flood
Clean Water Act (CWA)	▪ Establishes national water quality goals ▪ Regulates both point and non-point sources of pollution through the National Pollution Discharge Elimination System (NPDES) ▪ Requires an NPDES permit be obtained to discharge pollutants into "Waters of the U.S." ▪ Requires states to establish water quality standards for waters in their jurisdiction and to periodically prepare a list of surface waters where beneficial uses are impaired by pollutants
Safe Drinking Water Act (SDWA)	▪ The United States Environmental Protection Agency (USEPA) sets National Primary Drinking Water Regulations (primary standards) that apply to public water systems ▪ Defines National Secondary Drinking Water Regulations (secondary standards) for contaminants that cause cosmetic and aesthetic effects, but not health effects ▪ Primary and secondary standards are expressed as either Maximum Contaminant Levels (MCLs), which define the highest level of contaminant allowed in drinking water, or MCL Goals, which define the level of a contaminant below which there is no known or expected health risk
State	
Porter-Cologne Water Quality Act	▪ Requires the State, through the State Water Resources Control Board (SWRCB) and Regional Water Quality Control Boards (RWQCBs), to designate beneficial uses of surface and groundwaters and to specify water quality objectives for those uses ▪ Water quality objectives are described in Regional Water Quality Control Plans
Sustainable Groundwater Management Act	▪ Established a definition of "sustainable groundwater management" based on halting overdraft and balancing levels of pumping from and recharge of groundwater basins ▪ Requires the adoption of a Groundwater Sustainability Plan (GSP) for the most important groundwater basins in the State ▪ Encourages local agencies to form or join Groundwater Sustainability Agencies (GSAs) to draft GSPs for their respective groundwater basins ▪ Contemplates the voluntary participation of Indian tribes in the preparation or administration of a GSP or groundwater management plan through a joint powers authority or other agreement with local agencies and basins ▪ Acknowledges the federally reserved water rights of Indian tribes for purposes of adjudicating or managing these rights and mandates that these rights be respected in full ▪ Recognizes that federal law prevails in the adjudication or management of tribal federally reserved water rights

Section 303(d) of the CWA requires states to periodically prepare a list of all surface waters in their respective jurisdictions for which beneficial uses of the water – such as for drinking, recreation, aquatic habitat, and industrial use – are impaired by pollutants. These include water bodies that do not meet state surface water quality standards and are not expected to improve within the next two years. States establish a priority ranking of these impaired waters for purposes of developing water quality control plans that include Total Maximum Daily Loads (TMDLs). A TMDL is a calculation of the maximum

amount of a pollutant that a water body can receive and still meet water quality standards, and includes an allocation for each of the pollutant's sources. These water quality control plans describe how an impaired water body will meet water quality standards through the use of TMDLs.

Safe Drinking Water Act

Under the mandate of the Safe Drinking Water Act, the USEPA sets legally enforceable National Primary Drinking Water Regulations (primary standards) that apply to public water systems. These standards are established to protect human health by limiting the levels of contaminants in drinking water. The USEPA does not oversee the construction and permitting of groundwater wells, but requires that public health standards, such as an effectively installed sanitary seal, are in place, and recommends that water systems be installed to meet California Department of Public Health Standards. The USEPA will also primarily establish monitoring and operational requirements, which will typically be specific to the alternative sites.

The USEPA also defines National Secondary Drinking Water Regulations (secondary standards) for contaminants that cause cosmetic and aesthetic effects, but not health effects. The USEPA recommends that these secondary standards be met. Both primary and secondary drinking water standards are expressed as either MCLs, which define the highest level of a contaminant allowed in drinking water, or Maximum Contaminant Level Goals, which define the level of a contaminant below which there is no expected risk to health.

Porter-Cologne Water Quality Act

The Porter-Cologne Water Quality Control Act provides the basis for surface water and groundwater quality regulation within California. The act established the authority of the SWRCB and the nine RWQCBs. The act requires the State, through the SWRCB and the RWQCBs, to designate beneficial uses of surface waters and groundwater and specify water quality objectives designed to protect those uses. These water quality objectives are presented in the Regional Water Quality Control Plans. The Colorado River Basin Water Quality Control Plan (Basin Plan) designates beneficial uses for groundwater within the Coachella Hydrologic Area, sets water quality objectives based on these uses, and proposes a plan to implement these objectives.

The surface water quality standards for State of California include both narrative and numerical water quality objectives to keep California's waters swimmable, fishable, drinkable, and suitable for use by industry, agriculture, and the citizens of the state. The water quality objectives for surface waters within the scope of the Colorado River Basin Plan are summarized in **Table 3-4**. The water quality objectives for groundwater within the Colorado River Basin Plan are summarized in **Table 3-5**.

TABLE 3-4
WATER QUALITY OBJECTIVES FOR SURFACE WATER WITHIN THE COLORADO RIVER BASIN PLAN

Constituent	Objectives
Aesthetic Qualities	All waters shall be free from substances attributable to wastewater of domestic or industrial origin or other discharges which adversely affect beneficial uses not limited to: setting to form objectionable deposits; floating as debris, scum, grease, oil, wax, or other matter that may cause nuisances; and producing objectionable color, odor, taste, or turbidity.
Tainting Substances	Water shall be free of unnatural materials which individually or in combination produce undesirable flavors in the edible portions of aquatic organisms.

<table>
<tr><th>Constituent</th><th>Objectives</th></tr>
<tr><td>Toxicity</td><td>All waters shall be maintained free of toxic substances in concentrations which are toxic to, or which produce detrimental physiological responses in human, plant, animal, or indigenous aquatic life. Compliance with this objective will be determined by use of indicator organisms, analyses of species diversity, population density, growth anomalies, 96-hour bioassay or bioassays of appropriate duration or other appropriate methods as specified by the Regional Board. Effluent limits based upon bioassays of effluent will be prescribed where appropriate, additional numerical receiving water objectives for specific toxicants will be established as sufficient data become available, and source control of toxic substances will be encouraged.
The survival of aquatic life in surface waters subjected to a waste discharge or other controllable water quality factors, shall not be less than that for the same water body in areas unaffected by the waste discharge, or other control water which is consistent with the requirements for "experimental water" as described in Standards Methods for the Examination of Water and Wastewater, 18th Edition. As a minimum, compliance with this objective as stated in the previous sentence shall be evaluated with a 96-hour bioassay.</td></tr>
<tr><td>Temperature</td><td>The natural receiving water temperature of surface waters shall not be altered by discharges of wastewater unless it can be demonstrated to the satisfaction of the Regional Board that such alteration in temperature does not adversely affect beneficial uses.</td></tr>
<tr><td>pH</td><td>Since the regional waters are somewhat alkaline, pH shall range from 6.0-9.0. Discharges shall not cause any changes in pH detrimental to beneficial water uses.</td></tr>
<tr><td>Dissolved Oxygen</td><td>The dissolved oxygen concentration shall not be reduced below the following minimum levels at any time: 5.0 mg/L for waters designated “Warm,” 8.0 mg/L for waters designated “Cold,” and 8.0 mg/L for waters designated “Warm and Cold.”</td></tr>
<tr><td>Suspended Solids and Settleable Solids</td><td>Discharges of wastes or wastewater shall not contain suspended or settleable solids in concentrations which increase the turbidity of receiving waters, unless it can be demonstrated to the satisfaction of the Regional Board that such alteration in turbidity does not adversely affect beneficial uses.</td></tr>
<tr><td>Total Dissolved Solids (TDS)</td><td>Discharges of wastes or wastewater shall not increase the TDS content of receiving waters, unless it can be demonstrated to the satisfaction of the Regional Board that such an increase in TDS does not adversely affect beneficial uses of receiving waters.
Additionally, any discharge, excepting discharges from agricultural sources, shall not cause concentration of TDS in surface waters to exceed the following limits:
<table>
<tr><th rowspan="2">Water Body</th><th colspan="2">TDS (mg/L)</th></tr>
<tr><th>Annual Average</th><th>Maximum</th></tr>
<tr><td>New River</td><td>4,000</td><td>4,500</td></tr>
<tr><td>Alamo River</td><td>4,000</td><td>4,500</td></tr>
<tr><td>Imperial Valley Drains</td><td>4,000</td><td>4,500</td></tr>
<tr><td>Coachella Valley Drains</td><td>2,000</td><td>2,500</td></tr>
<tr><td>Palo Verde Valley Drains</td><td>2,000</td><td>2,500</td></tr>
</table></td></tr>
<tr><td>Bacteria</td><td>In waters designated for water contact recreation (REC I) or noncontact water recreation (REC II), the following bacterial objectives apply. Although the objectives are expressed as fecal coliforms, E. coli, and enterococci bacteria, they address pathogenic microorganisms in general1 (e.g., bacteria, viruses, and fungi).
Based on a statistically sufficient number of samples (generally not less than five samples equally spaced over a 30-day period), the geometric mean of the indicated bacterial densities should not exceed one or the other of the following:</td></tr>
</table>

<table>
<tr><th>Constituent</th><th>Objectives</th></tr>
<tr><td></td><td>
<table>
<tr><th>Bacteria</th><th>REC I</th><th>REC II</th></tr>
<tr><td>E. coli</td><td>126 per 100 ml</td><td>630 per 100 ml</td></tr>
<tr><td>enterococci</td><td>33 per 100 ml</td><td>165 per 100 ml</td></tr>
</table>
nor shall any sample exceed the following maximum allowables:
<table>
<tr><th>Bacteria</th><th>REC I</th><th>REC II</th></tr>
<tr><td>E. coli</td><td>400 per 100 ml</td><td>2,000 per 100 ml</td></tr>
<tr><td>enterococci</td><td>100 per 100 ml</td><td>500 per 100 ml</td></tr>
</table>
except that for the Colorado River, the following maximum allowables shall apply:
<table>
<tr><th>Bacteria</th><th>REC I</th><th>REC II</th></tr>
<tr><td>E. coli</td><td>235 per 100 ml</td><td>1,175 per 100 mL</td></tr>
<tr><td>enterococci</td><td>61 per 100 ml</td><td>305 per 100 ml</td></tr>
</table>
In addition to the objectives above, in waters designated for water contact recreation (REC I), the fecal coliform concentration based on a minimum of not less than five samples for any 30-day period, shall not exceed a log mean of 200 MPN per 100 ml, nor shall more than ten percent of total samples during any 30-day period exceed 400 MPN per 100 ml.
</td></tr>
<tr><td>Biostimulatory Substances</td><td>Waters shall not contain biostimulatory substances in concentrations that promote aquatic growths to the extent that such growths cause nuisance or adversely affect beneficial uses. Nitrate and phosphate limitations will be placed on industrial discharges to New and Alamo Rivers and irrigation basins on a case-by-case basis, taking into consideration the beneficial uses of these streams.</td></tr>
<tr><td>Sediment</td><td>The suspended sediment load and suspended sediment discharge rate to surface waters shall not be altered in such a manner as to cause nuisance or adversely affect beneficial uses.</td></tr>
<tr><td>Turbidity</td><td>Waters shall be free of changes in turbidity that cause nuisance or adversely affect beneficial uses.</td></tr>
<tr><td>Radioactivity</td><td>
Radionuclides shall not be present in waters in concentrations which are deleterious to human, plant, animal or aquatic life or that result in the accumulation of radionuclides in the food web to an extent which presents a hazard to human, plant, animal or aquatic life.
Waters designated for use as domestic or municipal supply (MUN) shall not contain concentrations of radionuclides in excess of the limits specified in the California Code of Regulations (CCR), Title 22, Chapter 15, Article 5, Section 64443, as listed below:
<table>
<tr><th>Constituent</th><th>MCL (pc/L)</th></tr>
<tr><td>Combined Radium-226 and Radium-228</td><td>5</td></tr>
<tr><td>Gross Alpha particle activity (including Radium-226 but excluding Radon and Uranium)</td><td>15</td></tr>
<tr><td>Tritium</td><td>20,000</td></tr>
<tr><td>Strontium-90</td><td>8</td></tr>
<tr><td>Gross Beat particle activity</td><td>50</td></tr>
<tr><td>Uranium</td><td>20</td></tr>
</table>
</td></tr>
</table>

<table>
<tr><th>Constituent</th><th>Objectives</th></tr>
<tr><td>Chemical Constituents</td><td>
No individual chemical or combination of chemicals shall be present in concentrations that adversely affect beneficial uses. There shall be no increase in hazardous chemical concentrations found in bottom sediments or aquatic life. Waters designated for use as domestic or MUN shall not contain concentrations of chemical constituents in excess of the limits specified below:
<table>
<tr><th>Inorganic Chemical Constituent</th><th>MCL (mg/L)</th></tr>
<tr><td>Arsenic</td><td>0.05</td></tr>
<tr><td>Barium</td><td>1.0</td></tr>
<tr><td>Cadmium</td><td>0.01</td></tr>
<tr><td>Chromium</td><td>0.05</td></tr>
<tr><td>Lead</td><td>0.05</td></tr>
<tr><td>Mercury</td><td>0.002</td></tr>
<tr><td>Nitrate (as Nitrogen)</td><td>10.0</td></tr>
<tr><td>Selenium</td><td>0.01</td></tr>
<tr><td>Silver</td><td>0.05</td></tr>
</table>
<table>
<tr><th>Organic Chemical Constituent</th><th>MCL (mg/L)</th></tr>
<tr><td>Chlorinated Hydrocarbons</td><td></td></tr>
<tr><td>Endrin</td><td>0.002</td></tr>
<tr><td>Lindane</td><td>0.004</td></tr>
<tr><td>Methoxychlor</td><td>0.1</td></tr>
<tr><td>Toxaphene</td><td>0.005</td></tr>
<tr><td>Chlorophenoxys</td><td></td></tr>
<tr><td>2,4-D</td><td>0.1</td></tr>
<tr><td>2,4,5-TP Silvex</td><td>0.01</td></tr>
</table>
<table>
<tr><th colspan="6">Limiting Concentrations of Fluoride</th></tr>
<tr><th colspan="2">Annual Average of Maximum Daily Air Temperature</th><th colspan="4">Fluoride Concentrations (mg/L)</th></tr>
<tr><th>Degrees Fahrenheit</th><th>Degrees Celsius</th><th>Lower</th><th>Optimum</th><th>Upper</th><th>Contaminant Level</th></tr>
<tr><td>Below 53.8</td><td>Below 12.1</td><td>0.9</td><td>1.2</td><td>1.7</td><td>2.4</td></tr>
<tr><td>53.8 to 58.3</td><td>12.1 to 14.6</td><td>0.8</td><td>1.1</td><td>1.5</td><td>2.2</td></tr>
<tr><td>58.4 to 63.8</td><td>14.7 to 17.6</td><td>0.8</td><td>1.0</td><td>1.3</td><td>2.0</td></tr>
<tr><td>63.9 to 70.6</td><td>17.7 to 21.4</td><td>0.7</td><td>0.9</td><td>1,2</td><td>1.8</td></tr>
<tr><td>70.7 to 79.2</td><td>21.5 to 26.2</td><td>0.7</td><td>0.8</td><td>1.0</td><td>1.6</td></tr>
<tr><td>79.3 to 90.5</td><td>26.3 to 32.5</td><td>0.6</td><td>0.7</td><td>0.8</td><td>1.4</td></tr>
</table>
</td></tr>
<tr><td>Pesticide Wastes</td><td>The discharge of pesticidal wastes from pesticide manufacturing processing or cleaning operations to any surface water is prohibited.</td></tr>
<tr><td colspan="2">Source: CRRWQCB, 2017.</td></tr>
</table>

TABLE 3-5
WATER QUALITY OBJECTIVES FOR GROUNDWATER WITHIN THE COLORADO RIVER BASIN PLAN

Constituent	Objectives
Tastes and Odors	Ground waters for use as domestic or municipal supply shall not contain taste or odor-producing substances in concentrations that adversely affect beneficial uses as a result of human activity.
Bacteriological Quality	In ground waters designated for use as domestic or municipal supply (MUN), the concentration of total coliform organisms shall not exceed the limits specified in Section 64426.1 of Title 22 of the CCR
Chemical and Physical Quality	Ground waters designated for use as domestic or municipal supply (MUN) shall not contain concentrations of chemical constituents in excess of the maximum contaminant levels (MCLs) specified in the following provisions of Title 22 of the CCR, which are incorporated by reference into this plan: Table 64431-A of Section 64431 (Inorganic Chemicals), Table 64444-A of Section 64444 (Organic Chemicals), and Table 64678-A of Section 64678 (Determination of Exceedances of Lead and Copper Action Levels). This incorporation is prospective, including future revisions to the incorporated provisions as the revisions take effect. The Regional Board acknowledges that specific treatment requirements are imposed by state and federal drinking water regulations on the consumption of surface waters under specific circumstances. To protect all beneficial uses, the Regional Board may apply limits more stringent than MCLs.
Brines	Discharges of water softener regeneration brines, other mineralized wastes, and toxic wastes to disposal facilities which ultimately discharge in areas where such wastes can percolate to ground waters usable for domestic and municipal purposes are prohibited.
Radioactivity	Ground waters designated for use as domestic or municipal supply (MUN) shall not contain radioactive material in excess of the maximum contaminant levels (MCLs) specified in Tables 64442 and 64443 of Sections 64442 and 64443, respectively, of Title 22 of the CCR, which are incorporated by reference into this plan. This incorporation-by-reference is prospective, including future changes to the incorporated provisions as the revisions take effect.
Ground Water Overdraft	A number of ground water basins in the Region are in overdraft, and in some areas there have been indications of possible increase of mineral content of the ground water. Investigative studies will be conducted to develop ground water objectives and implementation plans for the following ground water basins: ▪ Indio Subarea of the Whitewater Hydrologic Unit ▪ Warren Subunit of the Joshua Tree Hydrologic Unit ▪ Twentynine Palms Subunit of the Dale Hydrologic Unit ▪ Borrego Subarea of the Anza-Borrego Hydrologic Unit ▪ Lucerne Hydrologic Unit ▪ Terwilliger Subarea of the Anza-Borrego Hydrologic Unit ▪ Ocotillo Subunit of the Anza-Borrego Hydrologic Unit

Source: CRRWQCB, 2017.

Sustainable Groundwater Management Act (SGMA)

The intent of the California Sustainable Groundwater Management Act (SGMA; Water Code § 10720 et seq.) is to "enhance local management of groundwater consistent with rights to use or store groundwater… [and] to preserve the security of water rights in the state to the greatest extent possible consistent with the sustainable management of groundwater." The SGMA states that "any local agency or combination of local agencies overlying a groundwater basin may elect to be a groundwater sustainability agency [GSA] for that basin" (Water Code § 10723). A GSA will be formed within each groundwater basin to prepare and implement a plan for long-term groundwater sustainability (GSP). Finally, the SGMA (i) contemplates the voluntary participation of Indian tribes in the preparation or administration of a GSP or groundwater management plan through a joint powers authority or other agreement with local

agencies and basins; (ii) acknowledges the federally reserved water rights of Indian tribes for purposes of adjudicating or managing these rights and mandates that these rights be respected in full; and (iii) recognizes that federal law prevails in the adjudication or management of tribal federally reserved water rights.

Under the SGMA, several water agencies in the Coachella Valley elected to form or join GSAs. The GSA for the Indio Subbasin, which underlies the alternative sites, consists of the Coachella Valley Water District (CVWD), Desert Water Agency (DWA), Indio Water Authority, Coachella Water Authority, and Mission Springs Water District. In 2016, the GSA for the Indio Subbasin adopted a modified version of the Coachella Valley Water Management Plan (CVWMP) as an SGMA bridge document based on the fact that its contents are functionally equivalent to the elements of a GSP required by Articles 5 and 7 of CCR Title 23, Division 2, Chapter 1.5, Subchapter 2, and that the CVWMP would be able to achieve the objectives of the SGMA. Specifically, the 2010 Update to the CVWMP, which is one of several documents incorporated into the SGMA bridge document, includes an intention to reduce water use intensity within the Indio Subbasin by 20 percent by 2020 (MWH, 2016).

3.2.2 ENVIRONMENTAL SETTING

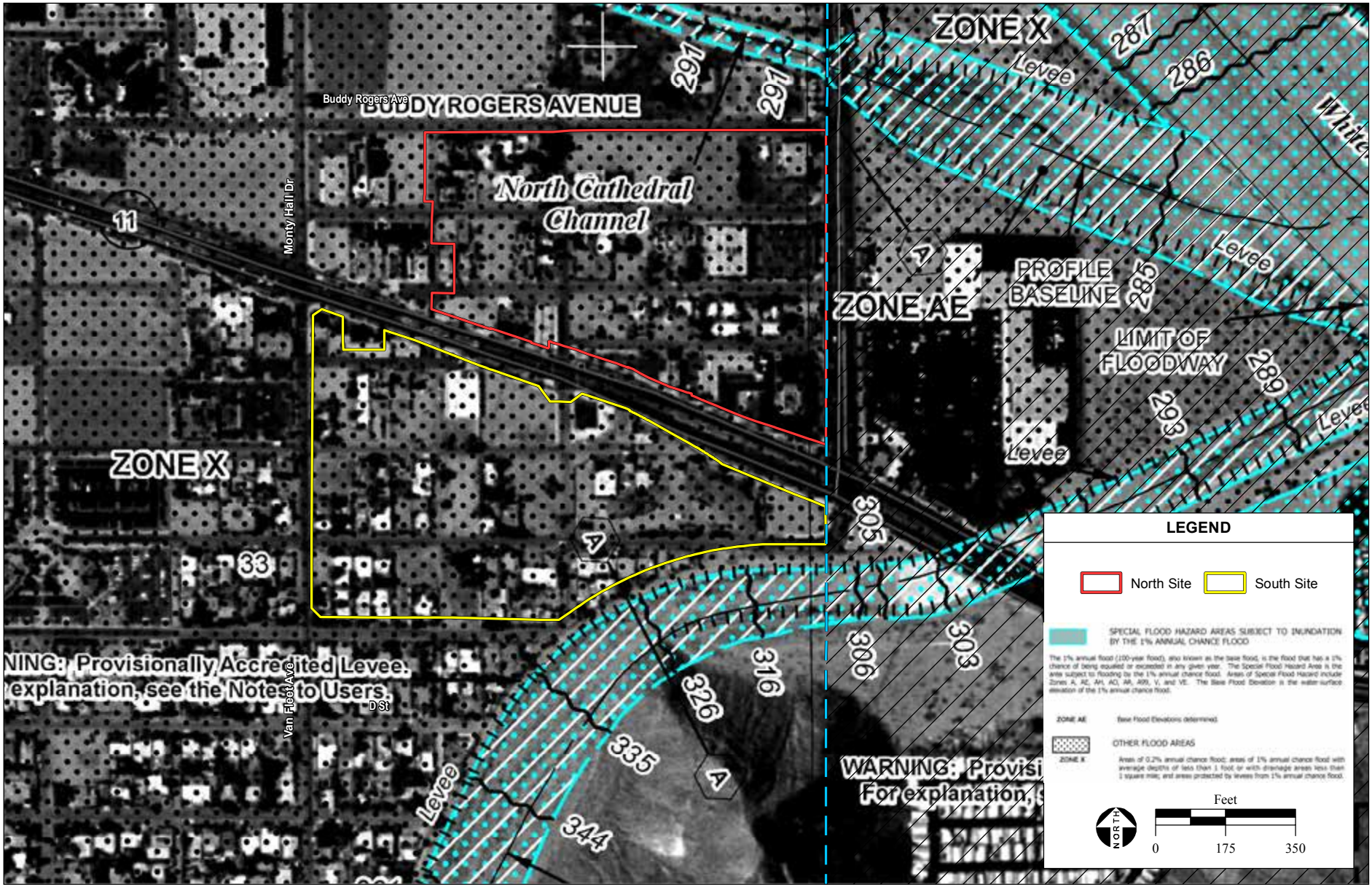
Floodplain

Both alternative sites are located within Flood Insurance Rate Map (FIRM) number 06065C1589G. As shown in **Figure 3.2-1**, the sites are located in Flood Zone X (FEMA, 2017). This portion of Zone X is determined to be outside the 1 percent annual chance (100-year) flood plains, but within the 0.2 percent annual chance (500-year) flood plain (FEMA, 2017).

Surface Water

Regional Watershed

The alternative sites are located within the Cathedral Canyon-Whitewater River Subwatershed of the Upper Whitewater River Watershed, which is located within the Whitewater River Subbasin of the Salton Sea Basin (USEPA, 2018a). The alternative sites are also located within the Whitewater Hydrologic Unit, as designated by the Colorado River RWQCB (CRRWQCB). Specifically, the alternative sites are located within the Indio Hydrologic Subarea of the Coachella Hydrologic Area, which is encompassed by the Whitewater Hydrologic Unit (Caltrans, 2018a). The surface waterbody nearest to the alternative sites is the Whitewater River, which runs generally northwest to southeast through the City approximately 0.1 mile northeast of the alternative sites (USEPA, 2018a). The portion of the Whitewater River nearest to the alternative sites flows through the Coachella Valley Stormwater Channel (CVSC), which follows the natural alignment of the River. While this portion of the Whitewater River is usually completely void of surface flow, the CVSC was built to withstand flood flows of up to 80,000 cubic feet per second (cfs) resulting from extreme precipitation events (CVWD, 2018a). Other ephemeral drainages in the area include Palm Canyon Wash and Cathedral Canyon, the latter of which runs adjacent to the South Site's southeastern boundary. Like the CVSC, these features rarely experience surface water flow. However, during extreme precipitation events, flows from these features are contained and funneled to the CVSC by a system of channels and levees (CVWD, 2018a).



SOURCE:FEMA FIRM, effective, 8/28/2008; AES, 7/20/2018

Figure 3.2-1
FEMA FIRM

There are no water bodies listed on the California state 303(d) list of impaired waters on or adjacent to the alternative sites. The nearest impaired waterbody is the segment of the Whitewater River/CVSC running from the Washington Street bridge in La Quinta, California in the west to the Salton Sea in the east. At its closest point, this segment of the CVSC is approximately 10.2 miles east of both the alternative sites. Portions of CVSC are impaired for dichlorodiphenyltrichloroethane (DDT), dieldrin, indicator bacteria, polychlorinated biphenyls (PCBs), and toxaphene; however, TMDLs have not yet been completed (SWRCB, 2017).

Site Drainage

The North Site is relatively flat with a gradual slope to the northeast corner (Appendix G of the EA). Existing stormwater flows on the North Site generally consist of overland sheet flows to the northern and northeastern boundaries, where the runoff is conveyed by gutters, culverts, and storm drains on adjacent roadways (including Buddy Rogers Avenue and Date Palm Drive) and conveyed north to the North Cathedral Channel (Appendix G of the EA). Similar gutters and storm drains exist on Hillery Road, on Monty Hall Road, and are adjacent to the western portion of the North Site, and these facilities also convey stormwater to the North Cathedral Channel. There is an existing 48-inch storm drain pipe that runs south-to-north through the North Site beneath Allen Avenue from Date Palm Drive to the North Cathedral Channel.

The South Site is relatively flat with a gentle slope to the northeast, near the intersection of East Palm Canyon Drive and Date Palm Drive (Appendix G of the EA). Existing stormwater flows generally consist of overland sheet flows to the northern boundary of the South Site, where the flows are collected and conveyed by gutters and storm drains in East Palm Canyon Drive to the North Cathedral Channel.

Groundwater

The alternative sites are located within the 525-square mile Indio Subbasin, which is located within the broader Coachella Valley Groundwater Basin (DWR, 2004). The Indio Subbasin is referred to as the Whitewater River Subbasin by the DWA, which supplies water to the portion of the City in which the alternative sites are located (DWA, 2016). Neither the Indio Subbasin nor the Coachella Valley Groundwater Basin is adjudicated, meaning that a court has not defined and quantified groundwater rights for all users within the basin (DWA, 2016). The Salton Sea is the Indio Subbasin's primary discharge point (DWR, 2004). The predominant water-bearing materials in the Indio Subbasin are unconsolidated alluvial deposits. These deposits consist of older alluvium and the Ocotillo Conglomerate Formation, a sequence of poorly bedded coarse sand and gravel that is over 1,000 feet thick in many areas (DWR, 2004).

Groundwater Supply

This most significant historical sources of groundwater recharge to the Indio Subbasin are surface runoff and subsurface inflow (DWR, 2004). From approximately 1950 to 2010, the Indio Subbasin experienced a continuous decline in groundwater availability as a result of groundwater extraction rates exceeding the rate of groundwater recharge (DWA, 2016). Due to the substantial overdraft in the Subbasin, DWA and the CVWD have used imported surface water to artificially recharge the Subbasin since the early 1960s (DWA, 2016). Water is diverted from the Colorado River to the Whitewater River via the All-American

and Coachella Canals eventually flowing to the Whitewater River Spreading Grounds, located approximately 10 miles northeast of the alternative sites, where it percolates into the Indio Subbasin (DWA, 2016). In the western portion of the Subbasin where the alternative sites are located total outflows exceed total inflows in the 10-year historical moving average (CVWD, 2018b).

Groundwater data from the California Department of Water Resources (DWR) Water Data Library indicate there are 1 active and 6 historic wells located within a one-mile radius of the alternative sites (DWR, 2018a). Groundwater elevations in the vicinity of the alternative sites were measured at State Well Number (SWN) 337850N1164647W001, located approximately 0.3 miles from the northern boundary of the North Site. The groundwater elevation at SWN 337850N1164647W001 was 185.6 feet below ground surface (BGS) on September 18, 2017 (DWR, 2018b), the most recent date for which groundwater level data are available. From April 2011 to September 2017, groundwater elevations at this well have ranged from 173.2 feet BGS at their highest in March 2015 to 201.8 feet BGS at their lowest in September 2011 (DWR, 2018b).

Groundwater Quality

The alternative sites are located within the boundaries of the CRRWQCB. Beneficial uses for groundwater within the Coachella Hydrologic Area, in which the alternative sites are located, include municipal and domestic supply, agriculture supply, and industrial service supply (CRRWQCB, 2017). Contaminants of concern in the Indio Subbasin include mineral concentration, salinity, total dissolved solids (TDS), arsenic, chromium-6, uranium, nitrate, and perchlorate. The sources of these contaminants are thought to include diversions from the Colorado River, artificial recharge, fertilizer application, septic discharges, wastewater infiltration, as well as natural occurring contaminants.

3.3 AIR QUALITY

3.3.1 REGULATORY SETTING

The air quality and greenhouse gas (GHG) regulatory setting is summarized in **Table 3-6**, and described in detail below.

National Ambient Air Quality Standards

The CAA of 1970, as amended, authorizes the USEPA to identify common air pollutants that impact air quality on a national level and establish corresponding NAAQS to protect public health and welfare. Accordingly, the USEPA has identified six CAPs: O_3, CO, PM, NO_2, SO_2, and Pb. The NAAQS are divided into primary standards, to protect public health, and secondary standards, to protect public welfare. Areas are designated attainment, nonattainment, or maintenance by the USEPA depending on whether concentrations of CAPs in each area exceed the established NAAQS. Non-attainment areas are required to take steps towards attainment within a specific period of time. Once an area reaches attainment for a particular CAP, then the area is re-designated as attainment or maintenance. The CAA places most of the responsibility on states to achieve compliance with the NAAQS. States, municipal statistical areas, and counties that contain areas of non-attainment are required to develop a SIP that outlines policies and procedures designed to bring the nonattainment area into compliance with the NAAQS.

TABLE 3-6
REGULATORY POLICIES AND PLANS RELATED TO AIR QUALITY

Regulation	Description
Federal	
Federal Clean Air Act (CAA) of 1970	▪ CAA created the National Ambient Air Quality Standards (NAAQS) for six criteria air pollutants (CAPs): ozone (O_3), carbon monoxide (CO), particulate matter (PM), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), and lead (Pb) ▪ States are required to have State Implementation Plans (SIPs) for areas that are not achieving the NAAQS (non-attainment areas) ▪ General Conformity Rule requires demonstrating a proposed federal action will conform to the applicable SIP ▪ Prevention of Significant Deterioration (PSD) program protects Class I areas ▪ Tribal minor new source review (NSR) permits are required if emissions would exceed certain standards ▪ CAA authorizes technology-based National Emissions Standards for Hazardous Air Pollutants (NESHAPs)
State	
California Clean Air Act (CCAA) of 1988	▪ CCAA requires nonattainment areas to achieve and maintain California Ambient Air Quality Standards (CAAQs)
Executive Order (EO) S-3-05	▪ EO S-3-05 set GHG emission reductions targets ▪ Climate Action Team (CAT) created
California Global Warming Solutions Act of 2006 (AB 32)	▪ AB 32 codifies GHG emission reduction goals, including reducing GHG emissions to 2000 levels by 2010, to 1990 levels by 2020, and to 80 percent below 1990 levels by 2050
EO S-1-07	▪ Mandates a statewide goal to reduce carbon intensity of transportation fuels by at least 10 percent by 2020 from a 2010 baseline level
EO B-30-15	▪ Set interim GHG target of 40 percent below 1990 levels by 2030
Local	
Cathedral City Climate Action Plan (CCCAP)	▪ Provides 77 measures to reduce GHG emissions over 8 years within the City and the Tribe's Reservation, with a reduction goal of 23.4 percent from 2010 emissions

Ozone

Photochemical reactions involving reactive organic gases (ROGs) and oxides of nitrogen (NO_X) resulting from the incomplete combustion of fossil fuels are the largest source of ground-level O_3. Because photochemical reaction rates depend on the intensity of ultraviolet light and air temperature, O_3 is primarily a summer air pollution problem. As a photochemical pollutant, O_3 is formed only during daylight hours under appropriate conditions, but is destroyed throughout the day and night. O_3 is considered a regional pollutant, as the reactions forming it take place over time and are often most noticeable downwind from the sources of the emissions.

PM_{10}

Particle pollution is a mixture of microscopic solids and liquid droplets suspended in air. This pollution is made up of a number of components, including acids (such as nitrates and sulfates), organic chemicals, metals, soil or dust particles, and allergens (such as fragments of pollen or mold spores). The size of particles is directly linked to their potential for causing health problems. Particles larger than 10 µm (PM_{10}) are referred to as "coarse" PM. Small particles less than 10 µm, also referred to as "respirable suspended particulates," pose the greatest problems, because they can be inhaled deep into the lungs.

In addition to the above-listed CAPs, HAPs, CO hotspots, DPM, and odor can be considered pollutants of concern in the vicinity of the alternative sites.

Hazardous Air Pollutants

In the vicinity of the alternative sites, HAPs are primarily emitted by mobile sources, such as diesel trucks and airplanes. Other sources of HAP emissions in the region include landfills and fossil fuel electric power generation.

Diesel Particulate Matter

An additional pollutant of concern in the region is DPM. DPM is not defined by the USEPA as a HAP; however, its components are defined as HAPs. According to the California Air Resources Board (CARB), the estimated health risk from HAPs can be primarily attributed to relatively few compounds, including DPM. DPM differs from other HAPs in that it is not a single substance but a complex mixture of air HAPs, composed of gaseous and solid material from the combustion of diesel fuels. The visible emissions in diesel exhaust include PM and carbon particles or "soot." Due to the potential impact of DPM on air quality, an assessment has been included in Section 4.3 of the EA.

Carbon Monoxide

CO is not readily dispersed throughout the atmosphere; therefore, it is considered a localized air quality issue, close to the emission source. CO emissions generally cause acute (short-term) health threat. CO is a pollutant of concern at major signalized intersections (greater than 100,000 vehicles per day) that exhibit prolonged vehicle idling times. The SSAB is not designated as nonattainment or maintenance for CO.

State Implementation Plan

Nonattainment areas must take steps towards attainment by a specific timeline. These steps are consolidated within the SIP as mandated by the CAA. The SIP sets forth the state's strategy for achieving NAAQS.

Federal General Conformity

Under the General Conformity Rule, the lead agency with respect to a federal action conducted in an area designated nonattainment or maintenance for any CAP is required to demonstrate that the proposed federal action conforms to the applicable SIP before the action is taken. The purpose of the rule is to ensure that federal activities do not cause or worsen existing violations of the NAAQs, or delay attainment for maintenance areas. There are two phases to a demonstration of general conformity:

1) The Conformity Review process, which entails an initial review of the federal action to assess whether a full conformity determination is necessary; and
2) The Conformity Determination process, which requires that a proposed federal action be demonstrated to conform to the applicable SIP.

The Conformity Review requires the lead agency to compare estimated emissions of CAPs to the applicable general conformity *de minimis* levels (40 Code of Federal Regulations [CFR] 153 (b)(1) and (2)). If the emission estimates from step one are below the applicable threshold(s), then a general conformity determination is not necessary and the full Conformity Determination is not required. If emission estimates are greater than the applicable threshold(s), the lead agency must conduct a Conformity Determination.

Hazardous Air Pollutants

In addition to CAPs, the CAA requires the USEPA to regulate HAPs; a group of chemical pollutants that can cause adverse effects to human health and/or the environment. The USEPA maintains a list of over 180 airborne chemicals that are recognized as HAPs. Section 112 of the CAA includes provisions for the promulgation of NESHAPs. NESHAPs are not based on effects to human health since specific concentrations of HAPs have not been evaluated to determine health-based thresholds; instead, NESHAPs are technology-based, meaning that they represent the best available control technology that an industrial sector can reasonably afford. The NESHAPs are additional federal emission limitations established for less widely emitted, but highly dangerous or toxic air pollutants that are not covered by the NAAQS.

Federal Class I Areas

Title 1, Part C of the CAA was established, in part to preserve, protect, and enhance the air quality in national parks, national wilderness areas, national monuments, national seashores, and other areas of special national or regional natural, recreational, scenic, or historic value. The CAA designates all international parks, national wilderness areas, and memorial parks larger than 5,000 acres and national parks larger than 6,000 acres as "Class I areas." The CAA prevents significant deterioration of air quality in Class I areas under the PSD program. The PSD program protects Class I areas by allowing only a small increment of air quality deterioration in these areas by requiring assessment of potential impacts on air quality related values of Class I areas.

Tribal New Source Review

A Tribal NSR permit is required prior to construction in both attainment and nonattainment areas if the projected aggregate operational emissions from stationary sources at the proposed facility exceed the minor NSR thresholds listed in 40 CFR 49.153 and shown in **Table 3-7** below. NSR programs must comply with the standards and control strategies of the Tribal Implementation Plan (TIP) or SIP. If there is not an applicable SIP or TIP, the USEPA issues permits and implements the program. If applicable, the Tribe would apply for and obtain a site-specific or, if promulgated prior to the start of construction, a general minor NSR permit in accordance with the USEPA guidelines and Tribal NSR regulations.

California Air Resources Board

The CARB, a part of the California EPA, is responsible for the coordination and administration of both federal and State air pollution control programs within California. In this capacity, CARB conducts research, sets CAAQS, compiles emission inventories, develops suggested control measures, and provides oversight of local programs. CARB establishes emissions standards for motor vehicles sold in California, consumer products (such as hairspray or aerosol paints), and various types of commercial equipment. It

also sets fuel specifications to further reduce vehicular emissions. CARB also has primary responsibility for the development of California's SIP, for which it works closely with Air Quality Management Districts and the USEPA.

TABLE 3-7
TRIBAL MINOR NEW SOURCE REVIEW THRESHOLDS

Pollutant	Emissions Thresholds for Attainment Areas (tpy)	Emissions Thresholds for Nonattainment Areas (tpy)
NOx	10	5
ROGs	5	2
PM	10	5
PM_{10}	5	1
$PM_{2.5}$	3	0.6
CO	10	5
SO_2	10	5
Pb	0.1	0.1
Source: 40 CFR 49.153.		

California Clean Air Act and Regional Air Quality Standards

The California Clean Air Act of 1988 requires non-attainment areas to achieve and maintain the CAAQS by the earliest practicable date, as well as requires local air districts to develop plans for attaining the State standards for O_3, CO, SO_2, and NO_X.

Global Climate Change

State

California has been a leader among the states in outlining and aggressively implementing a comprehensive climate change strategy that is designed to result in a substantial reduction in total statewide GHG emissions in the future. California's climate change strategy is multifaceted and involves a number of State agencies implementing a variety of State laws and policies. California laws and policies summarized below would assist in reducing GHG emissions from patrons of the Proposed Project.

Executive Order S-3-05

EO S-3-05 was signed by the Governor on June 1, 2005. EO S-3-05 established the following statewide emission reduction targets:

- Reduce GHG emissions to 2000 levels by 2010;
- Reduce GHG emissions to 1990 levels by 2020; and
- Reduce GHG emissions to 80 percent below 1990 levels by 2050.

EO S-3-05 created a "Climate Action Team" or "CAT" headed by the California EPA and including several other State jurisdictional agencies. The CAT is tasked by EO S-3-05 with outlining the effects of climate change on California and recommending an adaptation plan. The CAT is also tasked with

creating a strategy to meet the target emission reductions. In April 2006, the CAT published an initial report that accomplished these two tasks.

The CARB and CAT have identified approximately 126 strategies and measures that may be utilized by the state to meet its emissions reduction targets in 2010, 2020, and 2050. Most of these measures focus on statewide action meant to curb emissions by changes in statewide planning or policies rather than changes to individual development projects. However, some of the measures may be directly applicable to specific industries or individual commercial developments. Should a development alternative comply with all directly applicable measures, the alternative would support the State's efforts to significantly reduce its cumulative contribution to global climate change (to levels recommended by the Intergovernmental Panel on Climate Change (IPCC) and CARB's 2014 and 2017 Updated Climate Change Scoping Reports and the associated impacts.

California Global Warming Solutions Act of 2006 (AB 32)

Signed by the Governor on September 27, 2006, AB 32 codifies a key requirement of EO S-3-05: the requirement to reduce Statewide GHG emissions to 1990 levels by 2020. AB 32 tasks CARB with monitoring State sources of GHGs and designing emission reduction measures to comply with the law's emission reduction requirements. However, AB 32 also continues the CAT's efforts to meet the requirements of EO S-3-05 and states that the CAT should coordinate overall state climate policy.

In order to accelerate the implementation of emission reduction strategies, AB 32 requires that CARB identify a list of discrete early action measures that can be implemented relatively quickly. In October 2007, CARB published a list of early action measures that could be implemented and would serve to meet about a quarter of the required 2020 emissions reductions (CARB, 2007). In order to assist CARB in identifying early action measures, the CAT published a report in April 2007 that updated their 2006 report and identified strategies for reducing GHG emissions (CAT, 2007). In the October 2007 report, CARB cited the CAT strategies and other existing strategies that may be utilized in achieving the remainder of the emissions reductions. AB 32 required that CARB prepare a comprehensive "scoping plan" that identifies all strategies necessary to fully achieve the required 2020 emissions reductions.

Executive Order S-01-07

EO S-01-07 was signed by the Governor on January 18, 2007. It mandates a statewide goal to reduce the carbon intensity of transportation fuels by at least 10 percent by 2020 from a 2010 baseline level. This target reduction was identified by CARB as one of the AB 32 early action measures in its October 2007 report.

Executive Order B-30-15

EO B-30-15 was signed by the Governor on April 29, 2015. It sets interim GHG targets of 40 percent below 1990 by 2030, to ensure California will meet its 2050 targets set by AB 32.

California's Scoping Plan and Cap and Trade Program

In the 2008 initial Climate Change Scoping Plan, CARB lays out the GHG reductions that need to be achieved and the types of measures that will be used to reach them. The Plan predicts that under a "business as usual" scenario, 2020 GHG emissions would equal 596 million metric tons (MMT) CO_2e. Consequently, compared to the 1990 GHG emissions inventory, emissions would need to be reduced by 169 MMT CO_2e in 2020. The initial Scoping Plan establishes an overall framework for the measures that will be adopted to reduce California's GHG emissions. The Scoping Plan evaluates opportunities for sector-specific reductions, integrates all CARB and CAT early actions and additional GHG reduction measures by both entities, identifies additional measures to be pursued as regulations, and outlines the role of a cap-and-trade program. Some of the key elements of the Scoping Plan are, expanding and strengthening existing energy efficiency programs, and building and appliance standards, achieving a statewide renewables energy mix of 33 percent, developing a California cap-and-trade program that links with other Western Climate Initiative partner programs to create a regional market system and caps sources contributing 85 percent of California's GHG emissions, and establishing targets for transportation-related GHG emissions for regions throughout California, and pursuing policies and incentives to achieve those targets.

The 2008 Scoping Plan set forth approximately 126 strategies and measures currently under consideration that would ensure a statewide reduction in GHG emissions, most strategies and measures are planning-level measures, or they apply to particular industries. There are several that can be applied to a project level analyses, such as the following:

- Diesel Anti-Idling: In July 2004, the CARB adopted a measure to limit diesel-fueled commercial motor vehicle idling;
- Achieve 50 percent statewide Recycling Goal: Achieving the State's 50 percent waste diversion mandate as established by the Integrated Waste Management Act of 1989, (AB 939, Sher, Chapter 1095, Statutes of 1989);
- Water Use Efficiency: Approximately 19 percent of all electricity, 30 percent of all natural gas, and 88 million gallons of diesel are used to convey, treat, distribute and use water and wastewater. Increasing the efficiency of water transport and reducing water use would reduce greenhouse gas emissions.

The first update to the 2007 Climate Action Scoping Plan was released in May 2014 (CARB, 2014). The purpose of the update is to identify the next steps for California's leadership on climate change. The updated Plan outlines the progress California has made to date regarding near-term 2020 GHG limits, such as cleaner and more efficient energy, cleaner transportation, and the CARB's Cap-and-Trade Program. The 2007 Plan identifies six key areas where further control strategies are needed, which are: energy, transportation (vehicles/equipment, sustainable communities, housing, fuels, and infrastructure), agriculture, water, waste management, and natural and working lands.

In 2017 CARB provided a draft Scoping Plan, which provides strategies for achieving California's 2030 GHG reduction target. The 2017 draft Scoping Plan provides a summary of recent legislation, such as AB 398, EO B-30-15, Senate Bill (SB) 350, SB 32, SB 1383, etc.). Climate change mitigation policies provided in the draft Scoping Plan include the following:

- Implementing SB 350 by 2030, which will reduce GHG emissions in the electricity sector;
- Implement Mobile Source Strategy (cleaner technology and fuels), which will reduce GHG emissions in the transportation sector;
- Increase stringency of SB 375 (sustainable communities strategy);
- Develop pricing policies to support low-GHG transportation;
- Adopt Low Carbon Fuel Standard with and carbon Intensive reduction of 18 percent;
- Develop regulation and programs to support organic waste landfill reductions;
- Implement carbon accounting framework for natural and working lands (SB 859); and
- Implement forest carbon plan.

In addition to the new mitigation policies provided in the 2017 draft Scoping Plan it incorporates past policies from the initial and first updated Scoping Plans.

Local

Cathedral City Climate Action Plan (CCCAP)

The 2013 Cathedral City Climate Action Plan (CCCAP) was approved by the City Council of Cathedral City on November 13, 2013. The CCCAP provides 77 measures to reduce GHG emissions over eight years within the City and the Agua Caliente Indian Reservation, which was included in the CCCAP for that portion included within the City limits. The CCCAP provides a GHG emission reduction goal of 23.4 percent from 2010 emissions. Implementation of applicable measures, including those listed below, would show consistency with Cathedral City GHG emissions goals.

Solid waste emissions can be reduced by employing the following measures:

- **Solid Waste Diversion**. Increase solid waste diversion to achieve an average annual goal of 65% through 2020.
- **Food Waste Composting at Restaurants**. Restaurant composting program for food waste with a goal to reach all restaurants that serve more than 100 meals a day.
- **Recyclable Take-Out Containers**. Promote/mandate take-out alternative containers with a goal to eliminate the use of polystyrene packaging.

GHG emissions related to water use can be reduced by employing the following measures:

- **Water Conservation Ordinance**. Build on and exceed current CVWD water conservation ordinance by 15% community-wide by 2020.
- **Drought Tolerant Planting**. Promote and augment City, DWA and CVWD rebates for drought tolerant planting, turf replacement and buy-back.
- **Water Conservation Ordinance**. Build on ordinance with goal to exceed current commercial-sector water conservation ordinance by 20% community-wide by 2020.

Commercial buildings can reduce emissions be employing the following measures:

- **Peak Demand Reduction**. Collaborate with SCE [Southern California Edison] and encourage 200 businesses to enroll in Energy Efficiency and Demand Response programs such as the Summer Discount Program.

- **Energy-Efficient, Commercial-Sector Lighting**. With DCEP promote and leverage existing incentives for efficient lighting with special local focus on building owner education and action with goal to eliminate any remaining T-12 lamps in commercial buildings.
- **"The Temperature Club"**. Promote community partnership through policies to adjust indoor temperatures to save/degree.
- **Lighting Controls**. Promote SCE programs to encourage energy-efficient lighting linked to building controls and occupancy sensors.
- **"Cool Roofs"**. Promote the installation of reflective roofing on commercial properties in the community with recognition for first ten early adopters.

Governmental incentives can reduce emissions by employing the following measures:

- **Commercial PACE Program**. Partner and aggressively promote commercial PACE program to provide commercial property owners —from retail to resorts—with property-secured funding for 100% of the cost of energy efficiency upgrades/renewable energy installations.
- **Green Building Program**. Promote Voluntary Green Building Program to prepare for enhanced Title 24 requirements and green building standards.
- **Green Building Support Services**. Advance the Voluntary Green Building Program to mandatory green building requirement with technical support services.
- **New and Efficient Construction**. Promote the Savings by Design Program from SCE for new commercial buildings.

Transportation emissions can be reduced by employing the following measures:

- **Car-Pooling and Mass Transit**. Promote "Shared Vehicle at Work" programs with a goal to increase carpooling and mass transit by 20% with a "guaranteed-ride home".
- **Charging Stations**. Foster public/private partnerships to promote 10 additional public access electric vehicle (EV) charging stations for existing EV and NEV fleets.
- **Biking and Walking**: Expand bikeways, trails, and walking paths connecting residential neighborhoods and commerce.
- **Bike, Walking, NEV "Parkway:"** Support Parkway 1e11 as a Valley amenity and means to alternative forms of transportation and to promote health in Cathedral City.
- **Van Pools**: Partner and recognize all CC major employers with over 50 employees for van pools.
- **Car Sharing**: Promote ZIP and/or other Car Share programs through preferential parking and promotion with signage with a goal to serve 5% of existing drivers who each reduce their driving by 25%.
- **Plug In Electric Vehicle Charging Stations**. Seek grant funding to install 10 EV charging stations on public and private property and promote Plug In Electric Vehicles for public use.
- **Visitor Shuttles**. Collaborate with local hotels and resorts to support and establish effective point-to-point transportation for visitors, e.g. shuttles to airport, hotels, business district.

Carbon Monoxide Hot Spot Analysis

In accordance with 40 CFR §93.123, quantitative analysis is required if the following criteria are met:

- For projects in or affecting locations, areas, or categories of sites which are identified in the applicable implementation plan as sites of violation or possible violation;
- For projects affecting intersections that are at Level of Service (LOS) D, E, or F, or those that will change to LOS D, E, or F because of increased traffic volumes related to the project;
- For any project affecting one or more of the top three intersections in the CO nonattainment or maintenance area with highest traffic volumes, as identified in the applicable implementation plan; and
- For any project affecting one or more of the top three intersections in the CO nonattainment or maintenance area with the worst LOS, as identified in the applicable implementation plan.

3.3.2 ENVIRONMENTAL SETTING

Regional Air Quality

National Ambient Air Quality Standards Designations

The alternative sites are located in Cathedral City within the Coachella Valley, east of Los Angeles in the Salton Sea Air Basin (SSAB). Air pollutants of concern for an air basin include CAPs that are currently listed as having a nonattainment or maintenance status according to the applicable NAAQS and violation criteria. Areas that have not been classified are assumed to be in attainment. As shown in **Table 3-8**, the USEPA has designated the Riverside County – Coachella Valley region of the SSAB as nonattainment for O_3 and PM_{10} (particulate matter less than 10 microns in diameter).

Sources of Emissions

CAPs in the vicinity of the alternative sites are primarily emitted by mobile sources associated with transportation due to the urban nature of Cathedral City, Palm Springs, Rancho Mirage, and other cities in the vicinity of the alternative sites. Emissions are estimated and documented through the combined effort of the Riverside County and CARB. **Table 3-9** summarizes estimated 2020 emissions of CAPs from major categories of air pollutant sources in Riverside County.

TABLE 3-8
NAAQS ATTAINMENT STATUS FOR SSAB (RIVERSIDE COUNTY – COACHELLA VALLEY)

Pollutant	NAAQS
O_3 (8-hour)	Nonattainment (Severe 15)
PM_{10}	Nonattainment
$PM_{2.5}$	Unclassified/Attainment
CO	Unclassified/Attainment
NO_2	Unclassified/Attainment
SO_2	Unclassified
Pb	Unclassified/Attainment
Source: USEPA, 2018b.	

TABLE 3-9
RIVERSIDE COUNTY ESTIMATED ANNUAL AVERAGE EMISSIONS – 2020

Sources	ROG	CO	NO_X	SO_X	PM_{10}	$PM_{2.5}$
	tons per day					
Stationary Sources	17.5	3.1	4.4	0.68	5.3	2.4
Area Sources	26.5	15.3	2.9	0.08	79.8	13.3
Mobile Sources	34.8	292.3	74.6	0.95	6.4	4.7
Grand total for Riverside County	**78.8**	**310.6**	**82.1**	**1.7**	**91.6**	**20.5**

Notes: ROG = Reactive Organic Gas
Source: CARB, 2016.

Sensitive Receptors

Sensitive receptors are facilities that house or attract children, the elderly, people with illnesses, or others who are especially sensitive to the effects of air pollutants. Hospitals, schools, convalescent facilities, and residential areas are examples of sensitive receptors.

The nearest residences to the North Site include an apartment building located approximately 440 feet to the northwest and single family homes located approximately 500 feet to the southwest, across East Palm Canyon Drive and Monty Hall Drive. The nearest residences to the South Site include a single family residential neighborhood located 40 feet directly to the south and west. There are no hospitals within two miles of the alternative sites. The closest public school to the alternative sites is the Cathedral City Elementary School of Palm Springs Unified School District (PSUSD) located 4,000 feet north of the alternative sites. The closest park to the alternative sites is the Second Street Park and Cathedral City Dog Park located 25 feet north of the North Site (625 feet from the South Site).

3.3.3 CLIMATE CHANGE ENVIRONMENTAL SETTING

Existing Climate Setting

Climate change is a global phenomenon attributable to the sum of all human activities and natural processes. Certain gases in the earth's atmosphere, classified as GHGs, play a critical role in determining the earth's surface temperature. GHGs include all of the following: carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF_6) (California Health and Safety Code §38505[g]).

In 2014, transportation generated 39 percent of California's GHG emissions, followed by the industrial sector (23 percent), electricity generation in state (11 percent), electricity generation imports (8 percent), commercial and residential (5 percent), agriculture and forestry (8 percent), high-global warming potential (4 percent) and recycling and waste (2 percent; CARB, 2017).

California Implications

Climate change could impact California's natural environment in the following ways (CEC, 2012):

- extreme heat conditions, such as heat waves and very high temperatures, which could last longer and become more frequent;

- an increase in heat-related human deaths and infectious diseases and a higher risk of respiratory problems caused by deteriorating air quality;
- reduced stream flow in the mountains, affecting water supplies;
- potential increase in the severity of winter storms, affecting peak stream flows and flooding;
- changes in growing season conditions that could affect California agriculture, causing variations in crop quality and yield; and
- changes in distribution of plant and wildlife species due to changes in temperature, competition of colonizing species, changes in hydrologic cycles, and other climate-related effects.

3.4 BIOLOGICAL RESOURCES

3.4.1 REGULATORY SETTING

The regulatory setting concerning biological resources is summarized in **Table 3-10**, and described in detail below.

TABLE 3-10
REGULATORY POLICIES AND PLANS RELATED TO BIOLOGICAL RESOURCES

Regulation	Description
Federal	
Federal Endangered Species Act (FESA)	▪ Enforced by the United States Fish and Wildlife Service (USFWS) for terrestrial species. ▪ Provisions protect federally-listed wildlife and their habitat from take. ▪ Requires consultation under Section 7 of the FESA for federal agencies if take of a listed species is necessary to complete an otherwise lawful activity. ▪ Considers habitat loss an impact to the species. ▪ Defines critical habitat as specific geographic areas within a listed species range that contain features considered essential for the conservation of the listed species.
Migratory Bird Treaty Act (MBTA)	▪ Protects migratory birds and requires project-related disturbances to be reduced or eliminated during the nesting season (February 15 through September 15).
Bald and Golden Eagle Protection Act	▪ Prohibits take, possession, and commerce of bald and golden eagles and associated parts, feathers, nests, or eggs with limited exceptions. ▪ The bald eagle was federally delisted under the FESA in 2007; however, provisions of the act remain in place for bald and golden eagles.
Wetlands and Waters of the U.S.	▪ Natural drainage channels and adjacent wetlands may be considered "Waters of the United States" subject to jurisdiction of the United States Army Corps of Engineers (USACE). ▪ The USACE regulates the filling or dredging of Waters of the U.S. under the authority of Section 404 of the CWA.
State and Local	
California Endangered Species Act (CESA)	▪ Provisions protect species of wildlife designated by the California Fish and Game Commission as endangered, threatened, or candidate species and their habitat from take.
California Fish and Game Code	▪ Prohibits take of a species listed under the CESA or otherwise special-status. ▪ Allows the California Department of Fish and Wildlife (CDFW) to issue an incidental take permit for a state-listed species if specific criteria outlined in Title 14 of the CCR, Sections 783.4(a), (b) and CDFW Code Section 2081(b) are met.
Native Plant Protection Act of 1977	▪ Administered by the CDFW. ▪ Designates special-status plant species and provides protection measures for identified

Regulation	Description
	populations.
City of Cathedral City General Plan	▪ The Biological Resources Element provides for the preservation and conservation of environmental resources within Cathedral City. ▪ Includes goals, policies, programs, and maps of preservation areas and habitat for fish and wildlife species. ▪ Portions of the alternative sites fall within City-designated "Core Areas" for the Palm Springs pocket mouse (*Perognathus longimembris bangsi*), Palm Springs ground squirrel (*Spermophilus tereticaudus chlorus)*, and the desert tortoise (*Gopherus agassizii*).
Coachella Valley Multiple Species Habitat Conservation Plan	▪ Participants include cities within Riverside County, the CVWD, Mission Springs Water District, Imperial Irrigation District, Coachella Valley Association of Governments, California State Parks, Coachella Valley Mountains Conservancy, and Caltrans. ▪ Managed by the Coachella Valley Conservation Commission. ▪ Received a California state permit in September 2008, a federal permit in October 2008, and an amendment was completed in August 2016. ▪ Conserves and protects over 240,000 acres of open space and 27 plant and animal species. The alternative sites are designated as "private/non-conservation" areas.

Federal

Federal Endangered Species Act

The USFWS enforces the provisions of FESA for all terrestrial species. Provisions of the FESA, as amended (16 USC 1531), protect federally-listed threatened and endangered wildlife and their habitat from take (50 CFR §17.11, 17.12). Under the FESA, "take" includes activities that "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect" as well as any "attempt to engage in any such conduct" (16 USC 1531[3]). USFWS defines the term "harm" to include "significant habitat modification or degradation" (50 CFR §17.3). On June 29, 1995, the Supreme Court ruled that harm may include habitat modification "where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering" (U.S. No. 94-859; [1995]). If "take" of a listed species is necessary to complete an otherwise lawful activity, this triggers the need for consultation under Section 7 of the FESA for federal agencies. A Section 7 Biological Opinion with incidental take provisions from the USFWS would be required.

The USFWS and the National Oceanic and Atmospheric Administration's National Marine Fisheries Service (NMFS) implement §10(a)(1)(b) of the FESA, which allows non-federal entities under consultation with the USFWS and NMFS to obtain incidental take permits for federally listed wildlife. Compliance with §10(a)(1)(b) is not required for federally-listed plants.

Pursuant to the requirements of the FESA, a federal agency reviewing a proposed project within its jurisdiction must determine whether any federally-listed species may be present on the alternative sites and whether the Proposed Project will have a potentially significant impact on such species. A discussion of regionally-listed species is provided in consideration of potential impacts associated with project implementation under each alternative below. Under the FESA, habitat loss is considered to be an impact to the species. In addition, the agency is required to determine whether the project is likely to jeopardize the continued existence of any species that is proposed for listing under the FESA or to result in the destruction or adverse modification of critical habitat proposed to be designated for such species (16 USC

§1536[3], [4]). Therefore, should it be determined that a project would result in impacts to these species, or their habitats, it would be considered significant and require mitigation.

Critical Habitat

Critical habitat is defined under the FESA as specific geographic areas within a listed species range that contain features considered essential for the conservation of the listed species. Designated critical habitat for a given species supports habitat deemed by USFWS to be important for the recovery of the species. Under FESA, habitat loss is considered to be an impact to the species.

Migratory Bird Treaty Act

Migratory birds are protected under the federal MBTA of 1918 (16 USC 703-712). The MBTA makes it unlawful to take, possess, buy, sell, purchase, or barter any migratory bird (50 CFR 10), including feathers or other parts, nests, eggs, or products, except as allowed by implementing regulations (50 CFR 21). The direct injury or death of a migratory bird, due to construction activities or other construction-related disturbance that causes nest abandonment, nestling abandonment, or forced fledging would be considered take under federal law. As such, project-related disturbances must be reduced or eliminated during the nesting season. The general nesting season extends from February 15 through September 15.

Bald and Golden Eagle Protection Act

The Bald and Golden Eagle Protection Act was originally enacted in 1940 to protect bald eagles and was later amended to include golden eagles (16 USC §668-668). This act prohibits take, possession, and commerce of bald and golden eagles and associated parts, feathers, nests, or eggs with limited exceptions. The definition of take is the same as the definition under the FESA. The USFWS established five recovery programs in the mid-1970's based on geographical distribution of the species, with California located in the Pacific Recovery Region. Habitat conservation efforts in the Pacific Recovery Region, including laws and management practices at federal, state, and community levels, have helped facilitate bald eagle population increases. Critical habitat for bald and golden eagles was not designated as part of the Pacific Recovery Plan created under FESA. Likewise, critical habitat was not designated by regulation under FESA. In 1995, the USFWS reclassified the bald eagle from endangered to threatened under FESA in the contiguous 48 states, excluding Michigan, Minnesota, Wisconsin, Oregon, and Washington where it had already been listed as threatened. In 2007, the bald eagle was federally delisted under FESA. However, the provisions of the act remain in place for protection of bald eagles and golden eagles.

Wetlands and Waters of the U.S.

Natural drainage channels and adjacent wetlands may be considered "Waters of the United States" subject to jurisdiction of USACE. The extent of jurisdiction has been defined in the CFR and is subject to interpretation of federal courts. The USACE regulates the filling or dredging of Waters of the U.S. under the authority of Section 404 of the CWA. The extent of jurisdiction within drainage channels is defined by "ordinary high water mark" on opposing channel banks. All activities that involve the discharge of dredge or fill material into Waters of the U.S. are subject to the permit requirements of the USACE. Such permits are typically issued on the condition that the applicant agrees to provide mitigation that result in

"no net loss" of wetland functions or values. No permit can be issued until the USEPA issues a Section 401 Water Quality Certification verifying that the proposed activity will meet water quality standards.

The term "Waters of the U.S." is defined as:

- All waters currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters subject to the flow of the tide;
- All interstate waters including interstate wetlands;
- All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sand flats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use or degradation of which could affect interstate or foreign commerce including any such waters; or
- Tributaries of waters identified in the bulleted items above.

The term "Wetlands" is defined as:

- Waters of the U.S. that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands that meet these criteria during only a portion of the growing season are classified as seasonal wetlands.

State and Local

California Endangered Species Act

CESA declares that deserving plant or animal species will be given protection by the state because they are of ecological, educational, historical, recreational, aesthetic, economic, and scientific value to the people of the state. The CESA established that it is state policy to conserve, protect, restore, and enhance state-listed species and their habitats. Under State law, plant and animal species may be formally listed by the California Fish and Game Commission.

The CESA authorizes that private entities may take listed species under FESA and CESA, pursuant to a federal incidental take permit issued in accordance with Section 10 of the FESA, if the CDFW certifies that the incidental take statement or incidental take permit is consistent with the CESA (Fish & Game Code §2080.1[a]).

California Fish and Game Code

The California Fish and Game Code defines "take" (§86) and prohibits take of a species listed under the CESA (California Fish and Game Code §2080), or otherwise special-status (California Fish and Game Code §3511, 4700, and 5050). Section 2081(b) and (c) of the CESA allows CDFW to issue an incidental take permit for a state-listed species if specific criteria outlined in Title 14 CCR, §783.4(a), (b) and CDFW Code §2081(b) are met. The CDFW Code §3503 states that it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by the code. Section 3503.5 states that it is unlawful to take, possess, or destroy any birds in the order *Falconiformes* or *Strigiformes* (birds of prey) or to take, possess, or destroy the nest or eggs of any such bird. Section 3513 states that it is unlawful to take or possess any migratory nongame bird as designated in the MBTA or any part of such

migratory nongame bird except as provided by rules and regulations adopted by the Secretary of the Interior under provisions of the MBTA. If a project is planned in an area where a species or specified bird occurs, an applicant must design the project to avoid all take; the CDFW cannot provide take authorization under the CESA.

Native Plant Protection Act of 1977

Native Plant Protection Act of 1977 and implementing regulations in §1900 et seq. of the California Fish and Game Code designate special-status plant species, and provide specific protection measures for identified populations. The CDFW administers the Native Plant Protection Act.

Waters of the State

Lake or Streambed Alteration Agreements pursuant to Fish and Game Code Subsection 1601-1616, 5650 are required if a project were to result in the alteration or degradation of a stream, river, or lake in California. The RWQCB may require State Water Quality Certification (CWA Section 401 permit) before other permits are issued.

City of Cathedral City General Plan

The City General Plan was prepared pursuant to state law, which requires cities and counties to adopt a general plan. The General Plan guides growth and land development of the community, and is the foundation for establishing goals, purposes, and zoning and activities. The Biological Resources Element provides for the preservation and conservation of environmental resources within Cathedral City. The element includes goals, policies, programs, and maps of preservation areas and habitat for fish and wildlife species. Portions of the North and South Sites fall within City-designated "Core Areas" for the Palm Springs pocket mouse, Palm Springs ground squirrel, and the desert tortoise.

Coachella Valley Multiple Species Habitat Conservation Plan

The Coachella Valley Multi-Species Habitat Conservation Plan (Plan) became effective on October 2, 2008, and is implemented by the City, Riverside County, and other Coachella Valley cities. The Plan is a comprehensive approach to conserving protected species and associated habitats, and establishes a uniform mechanism for mitigating the effects of development through the payment of a Local Development Mitigation Fee (fee). The fee applies to projects within the Plan's jurisdiction, and the amount varies based on the type and extent of a project. Indian reservation land is not subject to the Plan or fee. The North and South Sites are designated as "private/non-conservation" areas.

3.4.2 METHODOLOGY

Throughout this document, federal special-status species include the federally-listed species and species of concern as identified by the USFWS official species list. State special-status species are those that are formally listed by the state and/or recognized by state agencies or other local jurisdictions because of their rarity or vulnerability to habitat loss or population decline. Prior to conducting the biological survey on the alternative sites, the following information was obtained and reviewed:

- USFWS Official Species List, dated January 23, 2018, of federal special-status species with the potential to occur on the alternative sites (Appendix I of the EA);
- California Native Plant Society (CNPS) query, dated January 5, 2018, of federal and state special-status plant species known to occur on the Cathedral City quadrangle (Appendix I of the EA);
- California Natural Diversity Database (CNDDB) query, dated January 5, 2018, of state and federal special-status species known to occur on the Cathedral City quadrangle (Appendix I of the EA);
- USFWS National Wetlands Inventory map of wetland features (USFWS, 2018a);
- Soil Report of the alternative sites (NRCS, 2018); and
- A critical habitat map (USFWS, 2018b).

Biological Surveys

A biological survey was conducted on the alternative sites on December 26 and 27, 2017. The purpose of the biological survey was to identify biological communities, special-status species, and potential habitat for special-status species. Species and habitat types encountered were classified using the *General Rare Plant Survey Guidelines* (CDFW, 2002), *Botanical Survey Guidelines of the California Native Plant Society* (CNPS, 2001), and *The Jepson Manual* (Baldwin et al., 2012).

Analysis

The USFWS, CNDDB, and CNPS lists of regionally occurring federal and state special-status species are included for reference purposes within Appendix I of the EA. An analysis to determine special-status species with the potential to occur on the alternative sites was conducted. Habitat requirements for each species were assessed and compared to the type and quality of habitat observed during the biological survey. Several regionally occurring species were eliminated due to a lack of suitable habitat, elevation range, lack of suitable substrate/soils, and/or geographic distribution.

3.4.3 VEGETATION AND HABITAT

The alternative sites consist entirely of disturbed/developed habitat (**Figure 3.4-1**), and are designated as "urban" in the City General Plan (City of Cathedral City, 2009). Site photographs are shown in **Figure 3.4-2**. Several structures, paved parking areas, remnant bisecting roadways, power poles, hydrants, manhole covers, roofing tile fragments, plowed soil, and gravel, were observed during the biological survey. Vegetation is minimal and consists of ornamental species planted along roadsides and sidewalks, including palms and non-managed areas dominated by immature non-native ruderal species. No wildlife was observed on the alternative sites. Surrounding areas are highly disturbed by development, including commercial and residential buildings, major roadways, sidewalks, and fencing. No sensitive habitat types, wetlands, or Waters of the U.S. occur on or adjacent to the alternative sites.



SOURCE: LandStatusPublic, 9/11/2017; Riverside County GIS, 2017;
Digitalglobe aerial photograph, 4/2017; ESRI Data, 2017; AES, 7/20/2018

Figure 3.4-1
HabitatTypes



PHOTO 1: View of the North site from the northern boundary facing south.



PHOTO 2: View of the North site from the western boundary facing east.



PHOTO 3: View of the South site from the western boundary facing east.



PHOTO 4: View of the South site from the eastern boundary facing west.



PHOTO 5: Fencing bordering the eastern boundary of the South site.

SOURCE: AES, 1/25/2018

Figure 3.4-2
Site Photographs

3.4.4 SPECIAL-STATUS SPECIES

Appendix I of the EA includes a table listing special-status species with the potential to occur in the region and a discussion of their potential to occur within the alternative sites. Based on biological desktop review and survey results, no federally listed special-status species have the potential to occur within the alternative sites, and only one state-listed special-status species has the potential to occur within the alternative sites: western yellow bat. This special-status species is further discussed below. Although portions of the alternative sites are designated by the City General Plan as "Core Areas" for the Palm Springs pocket mouse (*Perognathus longimembris bangsi*), Palm Springs ground squirrel (*Spermophilus tereticaudus chlorus)*, and the desert tortoise (*Gopherus agassizii*) (City of Cathedral City, 2009) (see **Figure 3.4-3**), suitable habitat for these species does not occur within the alternative sites (Appendix I of the EA). It should be noted that the areas within the North Site designated in the City's General Plan as potential habitat for these species are currently developed with a fast-food restaurant and parking areas.

Western Yellow Bat (*Lasiurus xanthinus*)

Federal Status: None
State Status: Species of Special Concern

The western yellow bat is primarily distributed in Mexico and Central America, with a range that extends into the southern portions of California, Arizona, New Mexico, and potentially southwestern Texas. The first recorded western yellow bat in California occurred in Palm Springs in 1945 (Pierson and Rainey, 1998). Western yellow bats are a foliage-roosting species associated with dry, thorny vegetation in desert regions. This species can occur in palm oases, and has been observed roosting in ornamental palm skirts used in landscaping up to elevations of approximately 2,000 meters (Pierson and Rainey, 1998). The nearest documented occurrence of this species was observed approximately 5.5 miles from the alternative sites in 1998 (CDFW, 2018b). Potential roosting habitat may occur within the palms located on the outer perimeter of the alternative sites along roadways and sidewalks, although unlikely, as surrounding areas are highly disturbed.

Critical Habitat

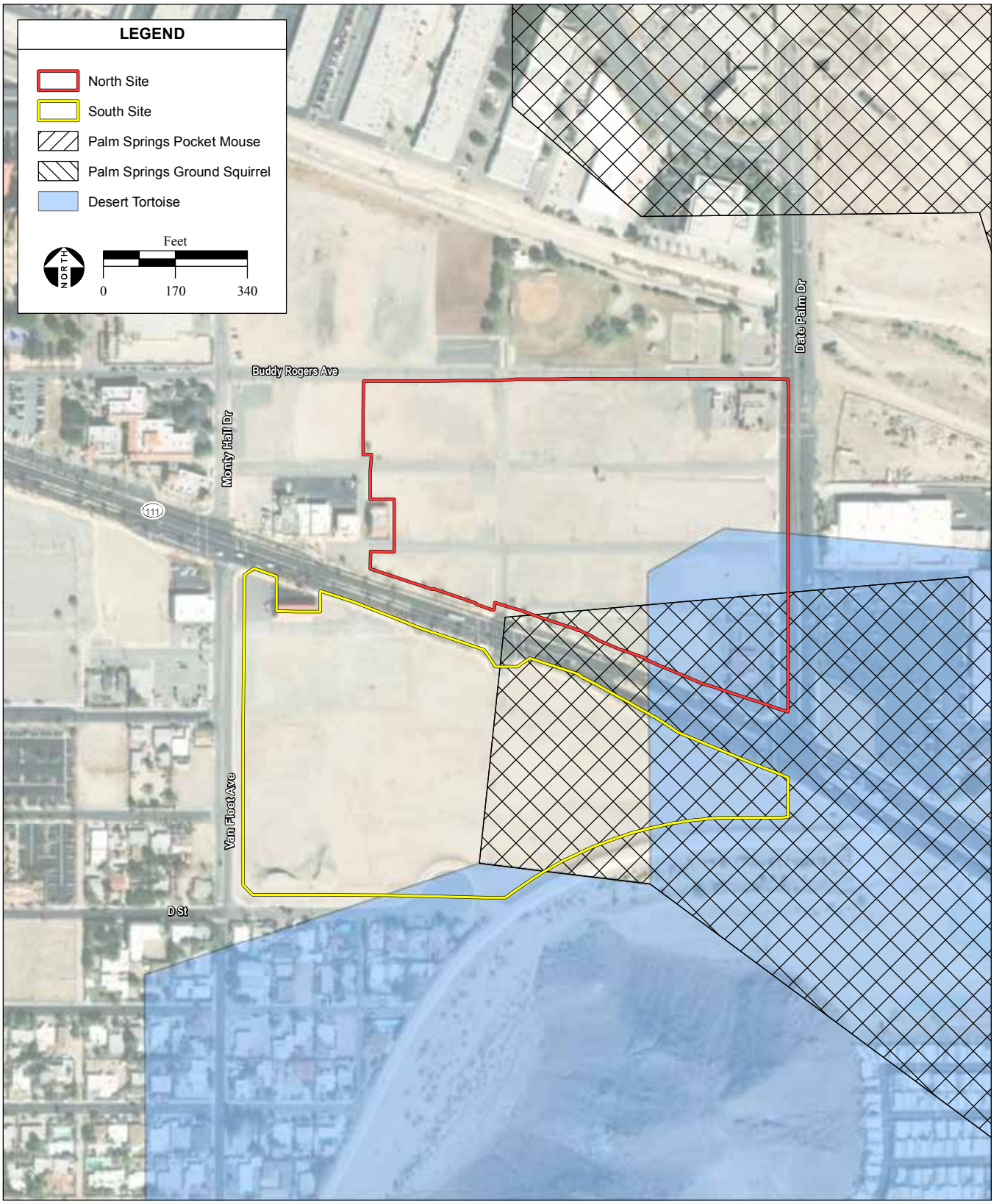
No designated critical habitat occurs on or in the immediate vicinity of the alternative sites.

Migratory Birds and Other Birds of Prey

Migratory birds and other birds of prey have the potential to nest and forage on and near the alternative sites. Birds such as the western bluebird (*Sialia mexicana*), hooded oriole (*Icterus cucullatus*), and Scott's oriole (*Icterus parisorum*) may nest within palms located on the outer perimeter of the alternative sites. The nesting season ranges from February 15 through September 15.

3.4.5 WETLANDS AND WATERS OF THE U.S.

The alternative sites do not contain potentially jurisdictional wetlands or Waters of the U.S. No evidence of hydrophytic vegetation, hydric soils, or wetland hydrology were observed.



SOURCE: Terra Nova, 6/24/2009; ESRI Data, 2018; AES, 7/20/2018

Figure 3.4-3
General Plan Core Habitats

3.5 CULTURAL RESOURCES

3.5.1 REGULATORY SETTING

The cultural resources regulatory setting information is summarized in **Table 3-11**, and described in detail below.

TABLE 3-11
REGULATORY POLICIES AND PLANS RELATED TO CULTURAL RESOURCES

Regulation	Description
Section 106 of the National Historic Preservation Act (NHPA)	▪ Federal agencies must identify cultural resources that may be affected by actions involving federal lands, funds, or permitting actions ▪ Significance of the resources must be evaluated for National Register of Historic Places (NRHP) eligibility ▪ If a NRHP-eligible resource will be adversely affected, measures to avoid or reduce adverse effects must be taken
Archaeological Resources Protection Act	▪ Archaeological resources and sites on public and Indian lands are protected resources
Native American Graves Protection and Repatriation Act	▪ Includes provisions governing the intentional and inadvertent discovery of Native American burials and cultural items on federal and tribal lands, and penalties for noncompliance and illegal trafficking
Paleontological Resources Preservation Act	▪ Paleontological resources on federal lands are protected resources

Cultural resources include buildings, sites, structures, or objects, which may have historical, architectural, archaeological, cultural, and/or scientific importance. Numerous laws, regulations, and statutes at the federal and state level govern archaeological and historic resources deemed to have scientific, historic, or cultural value. The pertinent regulatory framework, as it applies to the proposed action appears below.

Section 106 of the National Historic Preservation Act

Section 106 of the NHPA as amended, and its implementing regulations found at 36 CFR Part 800, require federal agencies to identify cultural resources that may be affected by actions involving federal lands, funds, or permitting actions. The proposed project may involve a Federal undertaking and therefore be subject to Section 106 review.

The significance of the resources must be evaluated using established criteria outlined at 36 CFR §60.4, as described below. If a resource is determined to be an *historic property*, Section 106 of the NHPA requires that effects of the undertaking on the resource be determined. A historic property is:

> *…any prehistoric or historic district, site, building, structure or object included in, or eligible for inclusion in the National Register of Historic Places, including artifacts, records, and material remains related to such a property…(NHPA Sec. 301[5])*

Section 106 of the NHPA prescribes specific criteria for determining whether an undertaking would adversely affect an historic property, as defined in 36 CFR §800.5. An impact is significant when the following occurs to prehistoric or historic archaeological sites, structures, or objects that are NRHP listed, or eligible for NRHP listing:

- physical destruction or damage to all or part of the property;
- alteration of a property;
- removal of the property from its historic location;
- change of the character of the property's use or of physical features within the property's setting that contribute to its historic significance;
- introduction of visual, atmospheric, or audible elements that diminish the integrity of the property's significant historic features; or
- neglect of a property that causes its deterioration; and the transfer, lease, or sale of the property.

If it is determined that a historic property would be adversely affected by implementation of a proposed action, prudent and feasible measures to avoid or reduce adverse impacts must be taken. The State Historic Preservation Officer (SHPO) must be provided an opportunity to review and comment on these measures prior to implementation of the proposed action.

National Register of Historic Places

The eligibility of a resource for listing in the NRHP is determined by evaluating the resource using criteria defined in 36 CFR 60.4, as quoted below.

> The quality of significance in American history, architecture, archaeology, and culture is present in districts, sites, buildings, structures, and objects of state and local importance that possess integrity of location, design, setting, materials, workmanship, feeling, association, and:
>
> A. That are associated with events that have made a significant contribution to the broad patterns of our history;
> B. That are associated with the lives of persons significant in our past;
> C. That embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
> D. That has yielded, or may be likely to yield, information important to prehistory or history.

Sites less than 50 years old, unless of exceptional importance, are not eligible for listing in the NRHP. In addition to meeting at least one of the criteria outlined above, the property must also retain enough integrity to enable it to convey its historic significance.

While most historic buildings and many historic archaeological properties are significant because of their association with important events, people, or styles (Criteria A, B, and C), the significance of prehistoric and historic-period archaeological properties is usually assessed under Criterion D. This criterion stresses the importance of the information contained in an archaeological site, rather than its intrinsic value as a

surviving example of a type or its historical association with an important person or event. It places importance not on physical appearance but rather on information potential.

Archaeological Resources Protection Act (ARPA)

The Archaeological Resources Protection Act of 1979 (ARPA; PL 96-95; 16 USC §470aa-mm), provides for the protection of archaeological resources and sites which are on public and Indian lands, and fosters increased cooperation and exchange of information between governmental authorities, the professional archaeological community, and private individuals having collections of archaeological resources and data which were obtained before October 31, 1979. ARPA also provides for penalties for noncompliance and illegal trafficking.

Native American Tribes

In 1992, the NHPA was amended to allow Native American tribes the opportunity to assume the functions of the SHPO in the Section 106 process for undertakings on tribal lands. The responsibilities can include identifying and maintaining inventories of culturally significant properties, nominating properties for inclusion on national and tribal registers of historic places, and conducting Section 106 reviews of federal agency projects on tribal lands and on tribal ancestral lands. This includes designating a Tribal Historic Preservation Office (THPO) with whom federal agencies are required to consult in lieu of the SHPO for undertakings occurring on or affecting historic properties on tribal lands or on tribal ancestral lands.

Native American Graves Protection and Repatriation Act

NAGPRA is a federal law passed in 1990. NAGPRA provides a process for museums and federal agencies to return certain Native American cultural items -- human remains, funerary objects, sacred objects, or objects of cultural patrimony -- to lineal descendants, and culturally affiliated Indian tribes and Native Hawaiian organizations. NAGPRA includes provisions for unclaimed and culturally unidentifiable Native American cultural items, intentional and inadvertent discovery of Native American burials and cultural items on federal and tribal lands, and penalties for noncompliance and illegal trafficking.

Paleontological Resources Preservation Act

The Paleontological Resources Preservation subtitle of the Omnibus Public Land Management Act, 16 USC §470aaa to aaa-11 requires the USDA and the U.S. Department of the Interior to issue implementation regulations to provide for the preservation, management, and protection of paleontological resources on Federal lands, and ensure that these resources are available for current and future generations to enjoy as part of America's national heritage.

Paleontological resources are defined as the traces or remains of prehistoric plants and animals. Such remains often appear as fossilized or petrified skeletal matter, imprints or endocasts, and reside in sedimentary rock layers. Fossils are important resources, due to their scientific and educational value. Fossil remains of vertebrates are considered significant. Invertebrate fossils are considered significant if they function as index fossils. Index fossils are those that appear in the fossil record for a relatively short

and known period of time, allowing geologists to interpret the age range of the geological formations in which they are found.

3.5.2 ENVIRONMENTAL SETTING

Prehistoric Setting

The prehistory of this portion of southern California, beginning 12,000 years ago, is the history of people adapting to a changing environment through the development of an increasingly sophisticated technological base, exploitation of seasonally available resources, and by the development of trade networks. Detailed information regarding the prehistory and ethnographic history of the region may be found in the cultural resources report in Appendix J of the EA.

Historic Setting

Spanish explorers arrived in what would become Riverside County in the late 18th century; missions established in neighboring counties nonetheless exerted influence within Riverside County. However, the establishment of railroads allowed bulk shipping of orange crops and brought people to Palm Springs, where mineral springs were developed for tourism. With the arrival of the automobile, the region rapidly developed as more people came for the spas and resorts, eventually becoming a Hollywood playground in the 1950s. Detailed information regarding the history of the region may be found in the cultural resources report in Appendix J of the EA.

Cultural Resources Investigation

A record search was completed on October 30, 2017, at the Eastern Information Center (EIC) of the California Historical Resources Information System (CHRIS). The EIC search included the alternative sites and a 1.0-mile buffer zone. This record search included, but was not necessarily restricted, to a review of the following sources: NRHP, California Register of Historical Resources (CRHR), California Historical Landmarks, California Inventory of Historic Resources, and the Historic Properties directory.

The EIC identified 72 previously recorded cultural resources within the record search area, 22 of which are within the North Site, 26 of which are within the South Site, and 24 of which are outside of the alternative sites. Taken as a whole, these resources are largely related to a 1920s-1940s residential community. A total of 45 cultural resource inventories have been completed within the record search area, two of which include at least a portion of the project footprint. The known prehistoric sites within the search radius include trails, quarries, and lithic scatters.

The OHP Directory of Historic Properties includes three properties that have been found potentially eligible for listing on the NRHP; of these, only one—a 1925 Pueblo Revival-style residence—was located within the South Site; however, the residence has been razed. Analytical Environmental Services (AES) examined General Land Office (GLO) records for Township 4 South, Range 5 East, Section 33 from 1856 and 1886, both of which depicted a trail crossing near the alternative sites (BLM, 2017a, b); this trail appears to be the precursor to East Palm Canyon Drive (Highway 111). The only land patents in the area are those made to the Southern Pacific Railroad.

Petra Geosciences reviewed historic aerial photographs from 1953, 1966, 1972, 1984, 1996, 2002, 2005, 2009, 2010, and 2012 and historical USGS topographic maps of the alternative sites' vicinity from 1904, 1941, 1944, 1947, 1958, 1972, 1981 and 2012, all of which confirmed the presence of a mostly residential community on both the alternative sites beginning in the 1920s which has since been razed, leaving the alternative sites vacant except for the modern fire station and limited commercial development (Appendix J of the EA).

Paleontological Resources

A search of the online archives of the University of California Museum of Paleontology (UCMP, 2017) shows that 1870 fossil specimens have been recorded in the County. Those closest to the alternative sites include bivalves and gastropods 15 miles to the west in San Gorgonio Pass, gastropods and invertebrates 9 miles to the northeast in Willis Palms, mammals 15 miles to the east in Indio, and invertebrates 10 miles to the northeast in Indio Hills.

Native American Coordination

On October 19, 2017, AES sent a letter to the Native American Heritage Commission (NAHC) requesting a Sacred Lands File search and a list of Native American contacts who may have information about the Area of Potential Effects (APE). The NAHC responded in a letter dated October 24, 2017, that the Sacred Lands file does not indicate the presence of Native American cultural resources in the APE, but that this does not indicate they are absent. The NAHC provided names of two individuals who might have information about the area. A copy of the NAHC response is included in Appendix J of the EA. It is assumed that any consultation with these, or other individuals, will be completed by the Bureau of Indian Affairs (BIA) in compliance with the requirements of the NHPA and 36 CFR §800.

Field Survey

On December 26, 2017, AES Senior Archaeologist Charlane Gross, who meets the requirements of the Secretary of the Interior's Standards and Guidelines for Archaeology, completed a pedestrian survey of the alternative sites using meandering transects spaced approximately 30 meters apart. There was 100 percent ground surface visibility. While the record search results depicted numerous residences and commercial buildings on both the alternative sites, by the time of the survey, all historic-era structures had been razed and the sites cleared of any residual features or artifacts except for power poles, remnant bisecting roadways, and a thin scatter of roofing tile fragments, plastic, gravel, concrete, asphalt, wire, and brown bottle glass. One glazed whiteware cup fragment was also noted.

3.6 SOCIOECONOMIC CONDITIONS/ENVIRONMENTAL JUSTICE

3.6.1 REGULATORY SETTING

The socioeconomic regulatory setting is summarized in **Table 3-12**, and described in detail below.

TABLE 3-12
REGULATORY POLICIES AND PLANS RELATED TO SOCIOECONOMICS

Regulation	Description
EO 12898	▪ Disproportionately high impacts to minority or low-income populations should be considered. ▪ A minority population is defined as a Census tract containing greater than 50 percent minorities, or a Census tract with a meaningfully greater percentage of minorities than surrounding tracts. Minority races include American Indian or Alaskan Native, Asian or Pacific Islander, Black (not of Hispanic origin), and Hispanic. ▪ A low-income population is defined as a Census tract with a median household income lower than the poverty threshold.

Executive Order 12898

EO 12898, Federal Actions to Address Environmental Justice in Minority and Low-Income Populations, directs federal agencies to develop an Environmental Justice Strategy that identifies and addresses disproportionately high and adverse human health or environmental effects of their programs, policies, and activities on minority populations and low-income populations. The Council on Environmental Quality (CEQ) has oversight responsibility of the federal government's compliance with EO 12898 and NEPA, and, in consultation with the USEPA and other agencies, has developed guidance to ensure environmental justice concerns are effectively identified and addressed.

According to guidance from the CEQ (1997) and USEPA (1998), agencies should consider the composition of the affected area to determine whether minority populations, low-income populations, or Indian tribes are present in the area affected by a proposed action and, if so, whether there may be disproportionately high and adverse environmental effects to those populations. The geographic scale of this analysis is the Census tract. Census tracts are small, relatively permanent statistical subdivisions of a county designed to be relatively homogeneous units with respect to population characteristics, economic status, and living conditions at the time of establishment. Therefore, statistics of Census tracts provide a more accurate representation of a community's racial and economic composition.

Communities may be considered "minority" if one of the following characteristics apply:

- The cumulative percentage of minorities within a Census tract is greater than 50 percent (primary method of analysis); or
- The cumulative percentage of minorities within a Census tract is less than 50 percent, but the percentage of minorities is meaningfully greater than the minority population percentage in the general population or other appropriate unit of geographic analysis (secondary method of analysis).

The following races are considered minorities under EO 12898:

- American Indian or Alaskan Native;
- Asian or Pacific Islander;
- Black, not of Hispanic origin; and
- Hispanic.

Populations of two or more races and populations classified as "other" were also considered to be minority races for the purpose of the environmental justice analysis.

According to USEPA, either the county or the state can be used when considering the scope of the "general population." A definition of "meaningfully greater" is not given by the CEQ or USEPA, although the latter has noted that any affected area that has a percentage of minorities above the state's percentage is a potential minority community and any affected area with a minority percentage double that of the state's is a definite minority community under EO 12898.

Communities may be considered "low-income" if one of the following characteristics applies:

- The median household income for a Census tract is below the poverty line (primary method of analysis); or
- Other indications are present that indicate a low-income community is present within the Census tract (secondary method of analysis).

In most cases, the primary method of analysis will suffice to determine whether a low-income community exists in the affected environment. However, when a Census tract income may be just over the poverty line or where a low-income pocket within the tract appears likely, the secondary method of analysis may be warranted. Other indications of a low-income community under the secondary method of analysis include limited access to health care, overburdened or aged infrastructure, and dependence on subsistence living.

3.6.2 ENVIRONMENTAL SETTING

Economy and Employment

The average unemployment rate of people 16 years of age and older from 2012-2016, the most recent five-year estimate available, was approximately 8.7 percent statewide, 11.3 percent for the County, and 9.9 percent for the City (U.S. Census Bureau, 2016a). In 2016, the City and County had a labor force of 24,805 and 1,067,758, respectively (U.S. Census Bureau, 2016a).

Demographics and Housing

In 2017, the population of the County was 2,423,266, and the population of the City was 54,596. Between 2010 and 2017, the County's population increased by approximately 10.7 percent relative to its 2010 population of 2,189,753, while the City's population increased by approximately 6.52 percent compared its 2010 population of 51,254 (U.S. Census Bureau, 2017). The on-Reservation population of the Agua Caliente Band of Cahuilla Indians (Tribe) is 25,575, which includes both members and non-members (U.S. Census Bureau, 2016b).

Based on the 2012-2016 American Community Survey (ACS) 5-Year Estimates, the County has 820,300 housing units, with a vacancy rate of 14.0 percent (U.S. Census Bureau, 2016c). The City has a 19 percent vacancy rate, which is expected to decline in the next five years (U.S. Census Bureau, 2016c).

Property Taxes

The total assessed value of the North Site for fiscal year 2017-2018 is $8,515,491.00, with collected property taxes of $105,367. The total assessed value of the South Site for fiscal year 2017-2018 is $7,543,575, with collected property taxes of $94,427 (Appendix E of the EA).

Gaming Market

There are nine existing gaming facilities within 50 miles of the alternative sites whose market areas may overlap with the potential market area of the project, as described in Appendix E of the EA. The two nearest gaming facilities are owned and operated by the Tribe. The nearest tribal gaming facility not owned by the Tribe is the Fantasy Springs Resort Casino, which is located approximately 15 miles southeast and owned by the Cabazon Band of Mission Indians.

Schools, Libraries, and Parks

The alternative sites and vicinity are served by the PSUSD. PSUSD currently operates 13 elementary schools, five middle schools, five high schools, and two alternative schools. The 2017-2018 enrollment at PSUSD elementary schools was 10,625; the middle school enrollment was 5,087; the high school enrollment was 7,188; the alternative school enrollment was 203; for a total of 23,103 students (CDE, 2018). The closest public school to the alternative sites is the Cathedral City Elementary School of PSUSD located 4,000 feet north of the alternative sites.

The closest library to the alternative sites is the Cathedral City Branch Library at Date Palm Drive and Dave Kelley Road, approximately 1.6 miles north of the sites.

The closest park to the alternative sites is the Second Street Park and Cathedral City Dog Park located adjacent to the northern boundary of the North Site (625 feet from the South Site). The next closest park is the Town Square Park located approximately 650 feet west of the northwestern corner of the North Site (720 feet from the South Site).

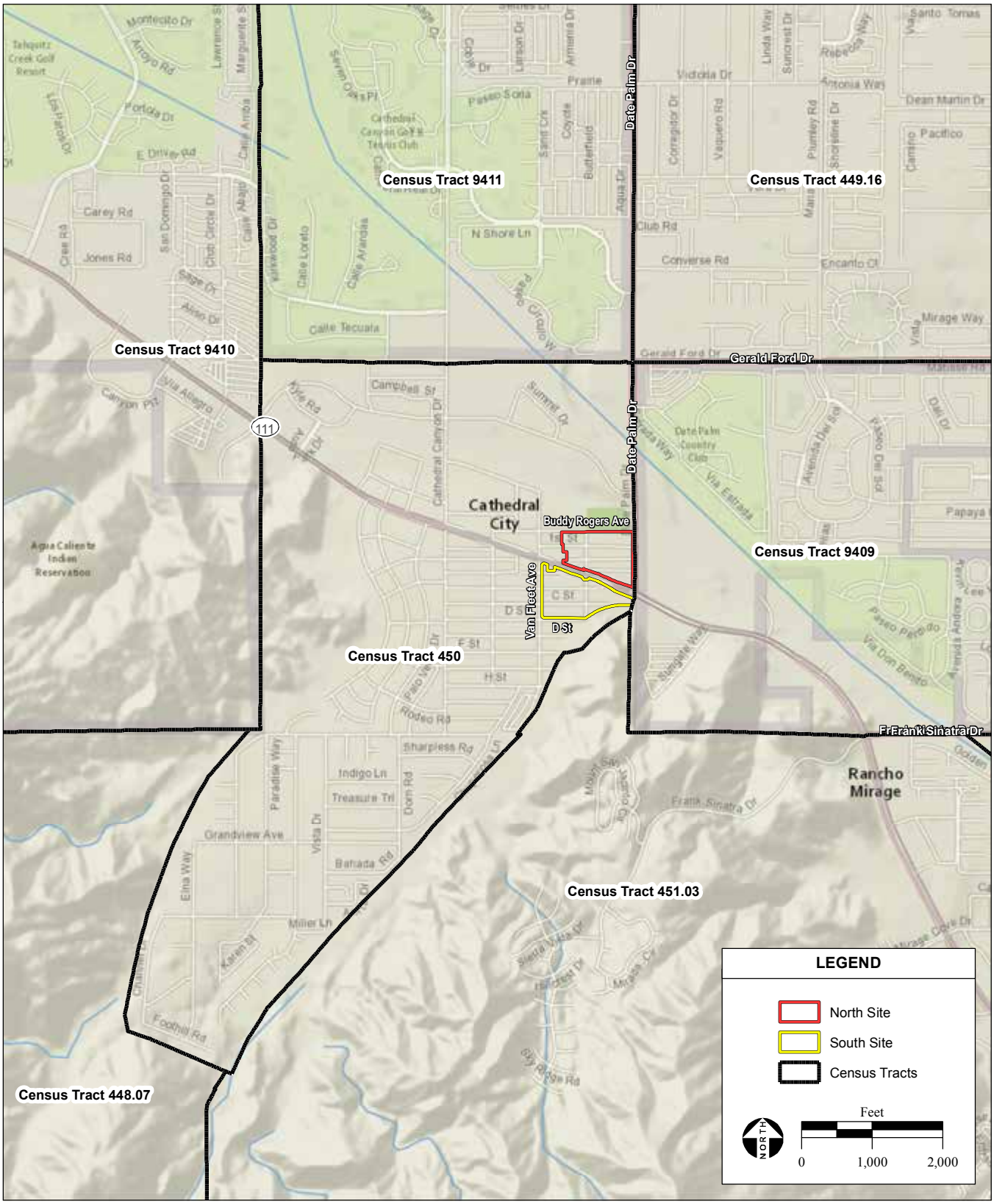
Environmental Justice

Census tracts that are analyzed within this EA include Census tract 450, which contains the alternative sites, as well as adjacent Census tracts. Refer to **Figure 3.6-1** for the location of each tract.

Race

The U.S. Census Bureau 2012-2016 ACS 5-Year Estimates provide the most current racial data available by Census tract. The racial composition of the Census tracts is not expected to have changed substantially since the time the data was reported. **Table 3-13** displays the population of each minority race by Census tract in the vicinity of the alternative sites.

The State of California has a 61.7 percent minority population out of over 38 million residents. The population in the Census tract containing the alternative sites (Census tract 450) is composed of approximately 55.0 percent minorities, qualifying it as a minority population. Adjacent Census tracts vary in minority population numbers, several of which include substantial minority populations.



SOURCE: 2010 US Census/American Factfinder; NatGeo, 2017; AES, 7/20/2018

Figure 3.6-1
Census Tracts

TABLE 3-13
MINORITY POPULATION – ALTERNATIVE SITES AND ADJACENT CENSUS TRACTS

Area (State, County, Census Tract)	Total Population	White (alone)	Black or African American	American Indian or Alaska Native	Asian	Native Hawaiian or Other Pacific Islander	Other Race	Two or More Races	Hispanic or Latino (of any race)	Total Minority Population	Percent Minority
California State	38,654,206	14,837,242	2,185,363	136,582	5,280,818	138,956	90,413	1,107,850	14,903,982	23,843,964	61.7%
Riverside County	2,323,892	865,631	137,779	9,407	139,108	6,262	3,749	58,988	1,102,968	1,458,261	62.8%
City of Cathedral City	53,268	16,654	1,364	95	2,225	33	108	676	32,213	36,714	68.9%
448.07	1,466	977	20	0	123	7	0	0	339	489	33.4%
449.16	4,973	2,293	212	0	209	11	0	29	2,219	2,680	53.9%
450 (contains North Site and South Site)	3,187	1,434	86	0	0	0	0	36	1,631	1,753	55.0%
451.03	3,403	2,602	48	0	96	0	0	27	630	801	23.5%
9409	1,914	1,620	30	11	24	4	2	40	183	294	15.4%
9410	3,727	3,019	45	26	78	0	0	83	476	708	19.0%
9411	1,814	1,685	6	2	22	0	0	15	84	129	7.1%

Source: U.S. Census Bureau, 2016b.

Members of the Tribe, regardless of where they reside, are considered a minority population. The Tribe is considered to be a minority community for the purposes of the required EO 12898 analysis.

Income

A low-income community is defined as a Census tract where the median household income falls below the poverty limit. The U.S. Census Bureau's 2012-2016 ACS 5-Year Estimates is the most current household income dataset available by Census tract. The alternative sites are within Census Tract 450, which is surrounded by the following Census tracts: 448.07, 449.16, 451.03, 9409, 9410, and 9411. **Table 3-14** displays the median household income and poverty income limit for the State of California, the County, the City, and each identified Census tract.

TABLE 3-14
POVERTY LEVEL – ALTERNATIVE SITES AND ADJACENT CENSUS TRACTS

Area (State, County, Census Tract)	Median Household Income	Average Household Size	Poverty Threshold
California State	$63,783	2.99	$20,160
Riverside County	$57,972	3.20	$24,300
City of Cathedral City	$41,696	2.82	$20,160
448.07	$38,571	1.84	$16,020
449.16	$41,403	2.04	$20,160
450 (contains North Site and South Site)	$35,617	1.94	$16,020
451.03	$49,167	1.89	$16,020
9409	$50,227	1.77	$16,020
9410	$38,883	1.46	$16,020
9411	$37,013	1.57	$16,020
Source: U.S. Census Bureau, 2016a; U.S. Census Bureau, 2016c; HHS, 2016.			

The poverty threshold for each Census tract was determined from the average household size of the Census tract. The poverty threshold assumes average household size is conservatively rounded up to the nearest person. As shown in **Table 3-14**, in the State, County, City, and nearby Census tracts, the median household income is more than twice the poverty threshold. No low-income communities have been identified in the vicinity of the alternative sites.

3.7 TRANSPORTATION/CIRCULATION

Automobiles are the primary mode of travel for most trips in the vicinity of the alternative sites. This section describes the existing transportation system, traffic volumes, and transit, bicycle, and pedestrian systems in the project area. Information in this section is summarized from the Traffic Impact Analysis (TIA) prepared for the project alternatives by Albert A. Webb Associates (Appendix K of the EA).

3.7.1 ROADWAY SYSTEM

Existing roadways in the vicinity of the alternative sites are shown in Figure 3-A of Appendix K of the EA and described in Section 3.1.1 of Appendix K of the EA.

To determine the appropriate peak hour periods, traffic counts at similar nearby casinos were conducted Thursday, March 1, 2018, through Saturday March 3, 2018, from 7:00 am to 7:00 pm each day. The peak hour periods were determined to be the PM peak hour (4:00 pm to 5:00 pm) and the Saturday mid-day (MD) peak hour (1:00 pm to 2:00 pm). Existing PM and Saturday MD peak hour traffic volumes at the study intersections and average daily traffic (ADT) roadway segments, shown on Figures 3-C through 3-E of Appendix K of the EA, were conducted by Counts Unlimited, Inc. between April 7 and April 14, 2018. A traffic signal warrant analysis was conducted at each unsignalized study intersection to evaluate the potential need for a traffic signal. "Signal warrants" refers to the list of established criteria in the California Manual on Uniform Traffic Control Devices (MUTCD) to determine the need for a traffic signal at an unsignalized intersection.

Intersections

The following intersections in the vicinity of the alternative sites were identified as intersections of concern in coordination with City staff:

1. Project Driveway (western)-Allen Avenue/Buddy Rogers Avenue
2. Date Palm Drive/Buddy Rogers Avenue
3. Date Palm Drive/East Palm Canyon Drive
4. Project Driveway-Allen Avenue/East Palm Canyon Drive
5. Monty Hall Drive/East Palm Canyon Drive
6. Date Palm Drive/Project Driveway-Hillery Road
7. Project Driveway (eastern)/Buddy Rogers Avenue
8. Monty Hall Drive/Buddy Rogers Avenue
9. Buddy Rogers Avenue/East Palm Canyon Drive
10. Cathedral Canyon Drive/East Palm Canyon Drive
11. Perez Road/East Palm Canyon Drive
12. Canyon Plaza Drive/East Palm Canyon Drive
13. Golf Club Drive/East Palm Canyon Drive
14. Cathedral Canyon Drive/Officer David Vasquez Road
15. Cathedral Canyon Drive/Perez Road
16. Cathedral Canyon Drive/Paseo Real
17. Cathedral Canyon Drive/Dinah Shore Drive
18. Date Palm Drive/Gerald Ford Drive
19. Date Palm Drive/Dinah Shore Drive
20. Date Palm Drive/Ramon Road
21. Da Vall Drive/Dinah Shore Drive
22. Da Vall Drive/Gerald Ford Drive
23. East Palm Canyon Drive/Frank Sinatra Drive
24. East Palm Canyon Drive/Mirage Cove Drive
25. East Palm Canyon Drive/Country Club Drive
26. Morningside/Frank Sinatra Drive
27. Van Fleet Street/B Street
28. Van Fleet Street/D Street
29. Project Driveway/D Street

Table 3-4 of Appendix K of the EA presents the existing peak hour delay and LOS for each of the above study intersections.

Roadways

The following roadway segments in the vicinity of the alternative sites were identified as roadway segments of concern in coordination with City staff:

1. East Palm Canyon Drive between Golf Club Drive and Canyon Plaza Drive
2. East Palm Canyon Drive between Canyon Plaza Drive and Perez Road
3. East Palm Canyon Drive between Perez Road and Cathedral Canyon Drive
4. East Palm Canyon Drive between Cathedral Canyon Drive and Date Palm Drive
5. East Palm Canyon Drive between Date Palm Drive and Frank Sinatra Drive
6. East Palm Canyon Drive between Frank Sinatra Drive and Country Club Drive
7. Cathedral Canyon Drive between East Palm Canyon Drive and Perez Road
8. Cathedral Canyon Drive between Perez Road and Dinah Shore Drive
9. Date Palm Drive between East Palm Canyon Drive and Gerald Ford Drive
10. Date Palm Drive between Gerald Ford Drive and Dinah Shore Drive

Table 3-5 of Appendix K of the EA presents the existing ADT for each of the above roadway segments.

3.7.2 LEVEL OF SERVICE STANDARDS

Traffic operations have been quantified through determination of LOS. LOS was calculated using the methodology described in the 2010 Highway Capacity Manual (HCM; Transportation Research Board, 2010). In accordance with the HCM, intersections are rated between LOS A and F, representing progressively worsening traffic conditions. For signalized intersections and all-way stop controlled (AWSC) intersections, the LOS is determined by the weighted average control delay. For two-way stop controlled (TWSC) intersections, the LOS is determined based on the highest control delay of all controlled movements. Roadway segment LOS is evaluated based on daily volume and roadway capacity. These criteria are shown below in Tables 3-1, 3-2, and 3-3 of Appendix K of the EA, respectively. For all study intersections and roadway segments, LOS D is considered to be acceptable, based on local General Plan documents (including the City, the City of Rancho Mirage, and the City of Palm Springs General Plans). With the exception of Cathedral Canyon Drive and Paseo Real, all study area intersections and roadway segments operate at an acceptable LOS in existing conditions (Appendix K of the EA).

3.7.3 TRANSIT, BICYCLE, AND PEDESTRIAN FACILITIES

The alternative sites are currently served by Sunline Transit Agency Routes 30 and 111. There are two bus stops located on East Palm Canyon Drive at Allen Avenue and Date Palm Drive at Grove Street, directly adjacent to the North Site, and across the street from the South Site. (Appendix K of the EA)

Sidewalks existing along study area roadways near the alternative sites, including along Date Palm Drive and East Palm Canyon Drive. Designated bike lanes do not generally existing along study area roadways, except along certain roadways, including Frank Sinatra Drive.

3.8 LAND USE

3.8.1 REGULATORY SETTING

The land use regulatory setting is summarized in **Table 3-15**, and described in detail below.

TABLE 3-15
REGULATORY POLICIES AND PLANS RELATED TO LAND USE

Regulation	Description
State	
Farmland Mapping and Monitoring Program (FMMP)	▪ Provides data to decision makers for use in planning for the present and future of California's agricultural land resources. ▪ Provides maps and statistical data to the public; academia; and local, state, and federal governments to assist them in making informed decisions for the best utilization of California's farmland.
Williamson Act	▪ Designed to preserve farmlands and open space lands by discouraging premature and unnecessary conversion to urban uses. ▪ Landowners contract with the County to maintain agricultural or open space use of their lands in return for a reduced property tax assessment. ▪ The contract is self-renewing and the landowner may notify the county at any time of intent to withdraw the land from its preserve status.
Local	
Riverside County Airport Land Use Compatibility Plan	▪ Ensures incompatible development does not occur near airports; but does not have jurisdiction over federal lands, including trust land
City General Plan	▪ Alternative sites are designated as Downtown Commercial (DTC) in the City General Plan, which allows residential neighborhoods or mixed use commercial development (including lodging and entertainment establishments)
Date Palm Drive Corridor Plan and Date Palm Drive Specific Plan	▪ Designate the North Site for Downtown/Art and Design Village development, which allows mixed uses within the art and design theme (including small businesses, residential uses, and landscaping with a major retail anchor). This designation specifically calls for a casino on the North Site
City Zoning Ordinance	▪ Alternative sites are zoned for Mixed Use Commercial (MXC; allows retail, dining, spas, hotels, performing arts facilities, professional services, etc) and Downtown Residential Neighborhood (DRN; allows home occupations, single and multi-family housing, etc)
Tribal-Cathedral City Land Use Contract	▪ This contract states that City land use controls do not apply to tribal trust land ▪ Cathedral City Council Resolution 2017-44 supports the Tribe's use of the North Site for gaming

State

Farmland Mapping and Monitoring Program

The State of California developed the FMMP to provide data to decision makers for use in planning for the present and future of California's agricultural land resources. To meet this goal, FMMP's objective is to provide maps and statistical data to the public; academia; and local, state, and federal governments to assist them in making informed decisions for the best utilization of California's farmland. The Center for Disease Control and Prevention classifies lands into seven agriculture-related categories: Prime Farmland, Farmland of Statewide Importance, Unique Farmland, Farmland of Local Importance, Grazing Land, Urban and Built-Up Land, and Other Land.

Williamson Act

The California Land Conservation Act of 1965, commonly known as the Williamson Act, is designed to preserve farmlands and open space lands by discouraging premature and unnecessary conversion to urban uses. Under the provisions of the Williamson Act, landowners contract with the county to maintain agricultural or open space use of their lands in return for a reduced property tax assessment. The contract

is self-renewing and the landowner may notify the county at any time of intent to withdraw the land from its preserve status. Withdrawal involves a 10-year period of tax adjustment to full market value before protected open space can be converted to urban uses. Alternatively, landowners can petition the County Board of Supervisors to withdraw prematurely from a Williamson Contract. In order to cancel a contract without instituting the 10-year tax adjustment period, the Board of Supervisors make the required findings that the cancellation is consistent with the purposes of the Williamson Act, and that cancellation is in the public interest.

Local

While local land use policies would not apply to lands taken into federal trust, impacts to the community may occur in terms of a federal project's relation to growth and development visions as described in these guidance documents.

Riverside County Airport Land Use Compatibility Plan (ALUCP)

The purpose of the Riverside County Airport Land Use Compatibility Plan (ALUCP) is to ensure that incompatible development does not occur on lands surrounding airports. The enforcement of the ALUCP falls upon local governments (such as the City) via their general plan.

As stated therein, the Airport Land Use Commission (ALUC) has no jurisdiction over federal lands, including trust land; however, as the North and South Sites are not yet in federal trust status, the ALUCP currently applies to the sites.

The ALUCP identifies six distinct zones, referred to as Airport Compatibility Zones, which represent relative noise levels and safety risks in the event of an airport contingency. These Airport Compatibility Zones and risk factors are summarized in **Table 3-16** below.

TABLE 3-16
RIVERSIDE COUNTY AIRPORT COMPATIBILITY ZONES

Zone	Noise and Overflight Factors	Safety and Airspace Protection Factors
A	*Noise Impact: Very High* ▪ Includes 65-CNEL [Community Noise Equivalency Level] contour at airports where this contour extends beyond RPZs *Note: In all zones, contours for peak-season average day, rather than annual average day, are used for airports with strong seasonal activity characteristics*	*Risk Level: Very High* ▪ Lateral to runways, zone boundary defined by the Building Restriction Line as depicted on adopted Airport Layout Plan drawing ▪ Length set to include Runway Protection Zones as indicated on Airport Layout Plan drawing ▪ Nearly 40% of off-runway general aviation accidents near airports occur in this zone
B1	*Noise Impact: High* ▪ Generally encompasses 60-CNEL contour (55-CNEL at outlying airports) ▪ Single-event noise sufficient to disrupt wide range of land use activities including indoors if windows open	*Risk Level: High* ▪ Encompasses areas overflown by aircraft at low altitudes—typically only 200 to 400 feet above runway ▪ Some 10% to 20% of off-runway general aviation accidents near airports take place here ▪ Object heights restricted to as little as 50 feet
B2	*Noise Impact: Moderate to High* ▪ Encompasses 55-CNEL contour lateral to runway	*Risk Level: Low to Moderate* ▪ Area not normally overflown by aircraft; primary risk is with aircraft (especially twins) losing directional control on takeoff ▪ About 3% of off-runway general aviation accidents near airports happen in this zone

Zone	Noise and Overflight Factors	Safety and Airspace Protection Factors
	▪ Exposed to loud single-event noise from takeoffs and jet thrust-reverse on landing; also from pre-flight run-ups	▪ Object heights restricted to as little as 35 feet
C	*Noise Impact: Moderate* ▪ Encompasses most of 55-CNEL contour beyond runway ends ▪ Aircraft typically below 1,000 feet altitude on arrival; individual events occasionally loud enough to intrude upon indoor activities	*Risk Level: Moderate* ▪ Includes areas where aircraft: ▪ Turn from base to final approach legs of standard traffic pattern and descend from traffic pattern altitude ▪ On departure, normally complete transition from takeoff power and flap settings to climb mode and begin turns to en route heading ▪ On an instrument approach procedure, have descended below about 500 feet AGL ▪ Some 10% to 15% of off-runway general aviation accidents near airports occur in this zone ▪ Object heights restricted to as little as 50 feet
D	*Noise Impact: Moderate* ▪ Contains remaining 55-CNEL contour, if any ▪ Aircraft at or above traffic pattern except for instrument approaches ▪ More concern with respect to individual loud events than with cumulative noise contours ▪ Residential density criteria for this zone provide two options on basis that noise concerns can be minimized either by limiting number of dwelling units in affected areas or by allowing high-density development which tends to have comparatively high ambient noise levels	*Risk Level: Low* ▪ Aircraft on instrument approaches below 1,000 feet ▪ About 20% to 30% of general aviation accidents take place in this zone, but large area encompassed means low likelihood of accident occurrence in any given location ▪ Risk concern is primarily with uses for which potential consequences are severe (e.g. very-high intensity activities in a confined area) ▪ Object height limits generally at least 100 feet
E	*Noise Impact: Low* ▪ Beyond 55-CNEL contour ▪ Occasional overflights intrusive to some outdoor activities	*Risk Level: Low* ▪ Only 10% to 15% of near-airport accidents here ▪ Risk concern only with uses for which potential consequences are severe (e.g. very-high-intensity activities in a confined area)
* Height Review Overlay	*Noise Impact: Low* ▪ Individual noise events slightly louder because high terrain reduces altitude of overflights	*Risk Level: Moderate* ▪ Modest risk because high terrain constitutes airspace obstruction ▪ Concern is tall single objects (e.g., antennas)
Source: Riverside County, 2004.		

The North Site and South Site are located approximately 3.0 miles southeast of the Palm Springs International Airport, within Zone D (Primary Traffic Patterns) (Riverside County, 2004; City of Palm Springs, 2015). Zone D generally limits building heights to less than 100 feet, and is often within the 55-CNEL noise contour (Riverside County, 2004). The 55-CNEL noise contour for the Palm Springs International Airport is not designated within the ALUCP or the Palm Springs International Airport Master Plan (2015). The Airport Master Plan provides this same information; however, the purpose of the master plan is to assess the demand for the airport and provide a development plan for the airport to meet existing and anticipated demands.

City of Cathedral City General Plan

The central purpose of the City General Plan is to provide goals, policies, programs, and implementation mechanisms that provide decision-makers with direction as they consider development within the City.

The North Site and South Site lie within the City's boundaries, as well as the planning boundaries set forth in the City General Plan. The horizon year of the City General Plan is 2020. The plan consists of 24 elements, including a Land Use element (City of Cathedral City, 2009).

The City General Plan shows the land use designation of the North Site and South Site as Downtown Commercial, as shown on **Figure 3.8-1** (DTC; City of Cathedral City, 2009). The DTC designation allows for residential neighborhood or mixed use commercial development, including lodging and entertainment establishments.

Table 3-17 depicts the City General Plan's guiding and implementation policies that may be applicable to the North Site and South Site.

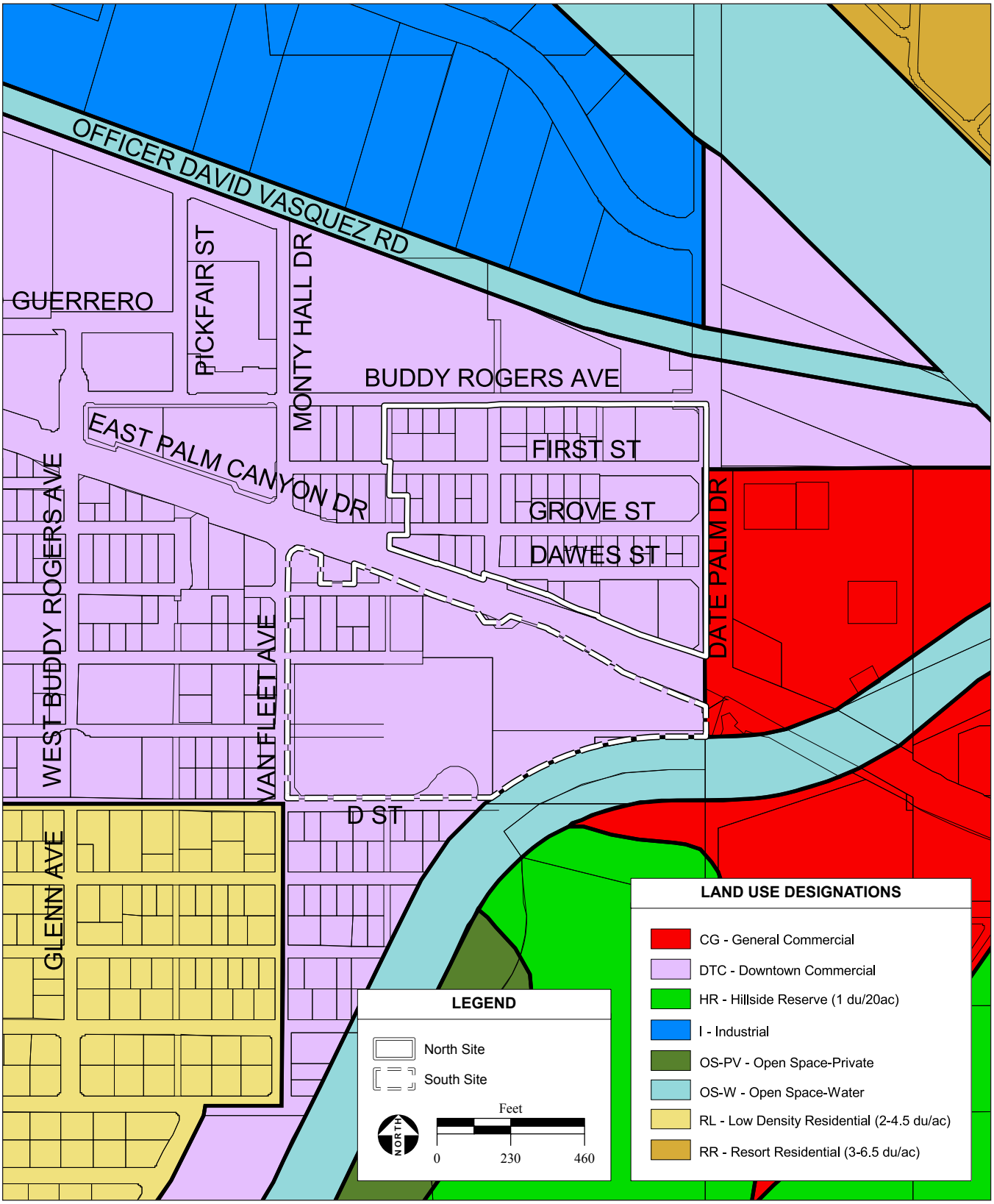
TABLE 3-17
SELECTED CITY GENERAL PLAN LAND USE POLICIES

Policy	Description
General: 2	All land use planning shall be directed toward the creation of internally integrated neighborhoods and development districts, which also enhance and optimize their connections to surrounding neighborhoods and districts.
General: 4	In-fill development and lot consolidation shall be encouraged as means of enhancing existing development and as a means of optimizing the use of existing roadways and utility infrastructure.
General: 9	The consideration of major development proposals shall include an assessment of their economic viability, and fiscal costs and benefits associated with such proposals.
Commercial: 2	Major community and regional commercial development shall be located where it can take advantage of major roadways and highways, such as Interstate-10 and East Palm Canyon Drive, maximizing the drive-by market along such arterials and minimizing impacts on residential neighborhoods.
Commercial: 3	Through implementation of the General Plan and by other means, the City shall enhance opportunities for the development of additional tourist/visitor-oriented commercial development, including business and resort hotels, theaters, golf courses and other recreational facilities.
Open Space: 2	All development proposals shall be reviewed for the degree or extent to which they encroach upon sensitive resource areas or may subject people and/or improvements to damage from environmental hazards. Mitigation measures shall be promulgated, to the extent practical, to avoid significant impacts and determine the feasibility of development proposals.

Source: City of Cathedral City, 2009.

Other City Plans

The Date Palm Drive Corridor Connector Plan reinforces the zoning designation, land use designation, and planned development identified in the City General Plan as it pertains to the North Site (City of Cathedral City, 2010b). Further, the Date Palm Drive Specific Plan Area fulfills an implementing action outlined in the Date Palm Drive Corridor Connector Plan (City of Cathedral City, 2012). Both the Date Palm Drive Corridor Connector Plan and the Date Palm Drive Specific Plan designate all or portions of the North Site as an area for Downtown/Art and Design Village developments, which allows for mixed uses within the art and design theme, including small businesses, residential uses, and landscaping with a major retail anchor at the northeast corner of Date Palm Drive and East Palm Canyon Drive. The downtown area, as presented at the 2018 "State of the City" meeting, include four anchors of development: (1) the renovation of the Mary Pickford Theatre, (2) construction of an amphitheater next to the City's parking structure, (3) renovation of the former Desert Cinemas into a live performing arts



SOURCE: City of Cathedral City, 5/12/2014; AES, 7/20/2018

Figure 3.8-1
Land Use Designations

theater, and (4) conversion of the North Site into a casino development and relocation of the fire station (City of Cathedral City, 2018).

City of Cathedral City Zoning Ordinance

The City's Zoning Ordinance provides the framework for the development process, and is the primary instrument for implementing City General Plan policies. The ordinance provides information on the permitted uses in each zone, as well as development standards for the use of property. The alternative sites are both zoned Mixed Use Commercial (MXC) and Downtown Residential Neighborhood (DRN), as shown on **Figure 3.8-2** (City of Cathedral City, 2010a). Land to the west of the sites are also zoned MXC and DRN; lands south of South Site are zoned DRN and Open Space (OS); lands to the east of the sizes are zoned OS, MXC, Planned Community Commercial (PCC), and Commercial Tourist and Recreation (CTR); and lands to the north of the North Site are zoned DRN (City of Cathedral City, 2010a).

The MXC zoning designation permits the following uses: retail, dining, spas, hotels (and resort hotels), performing arts facilities (100 seats or less), professional services (including government), and other similar uses (refer to the City's Zoning Code, Section 9.31.020 for a complete list of permitted uses). The DRN zoning designation permits home occupations, single and multiple family dwellings, and other housing uses (refer to the City's Zoning Code, Section 9.25.020 for a complete list of permitted uses).

Tribal-Cathedral City Land Use Contract

Exhibit N of the Fee-to-Trust Application is the Tribal-Cathedral City Land Use Contract, which states that land use controls applicable to allotted trust lands within City limits include general plans and specific plans; zoning laws and regulations; subdivision laws and regulations; building, grading, and other laws and regulations; design review laws and regulations; and environmental laws and regulations. This contract further states that it does not apply tribal trust land. Additionally, Cathedral City Council Resolution 2017-14, which is included as Exhibit H to the Fee-to-Trust Application, supports the Tribe's use of the North Site for gaming purposes.

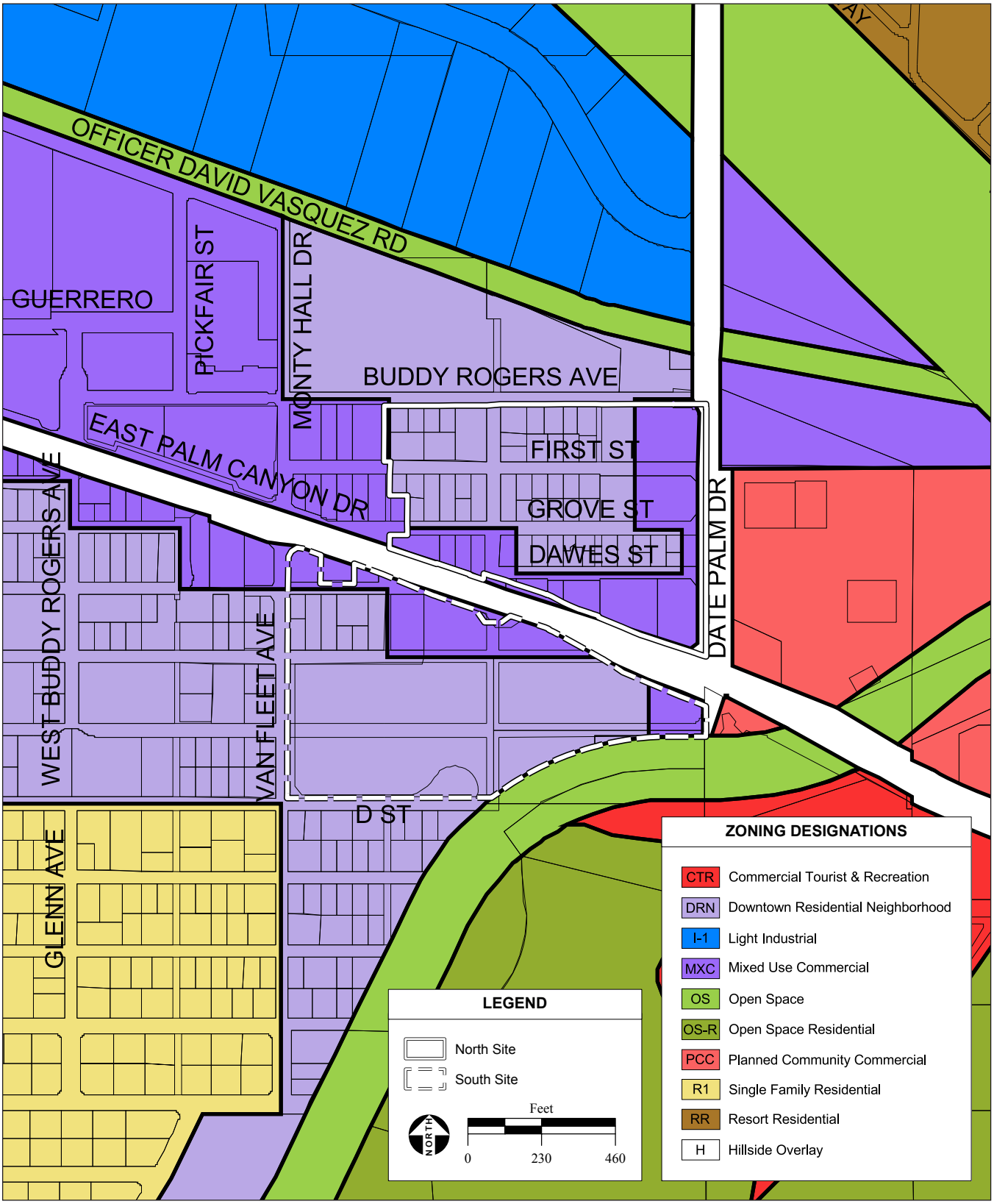
3.8.2 ENVIRONMENTAL SETTING

Regional Setting

The alternative sites are located within the incorporated boundaries of the City, in the County of Riverside, California. The City is located in the central-western portion of the Coachella Valley, which is a developed area with residential and commercial uses, including numerous golf courses and spa resorts. It is located approximately 50 miles east of the County seat, the City of Riverside, and adjacent to East Palm Canyon Drive (Highway 111). Locally, the City is served by East Palm Canyon Drive and Interstate 10 (I-10).

Local Land Use Setting

The approximately 13.6-acre North Site is comprised of 66 County tax parcels and is bound by Buddy Rogers Avenue to the north, Date Palm Drive to the east, East Palm Canyon Drive to the south, and adjacent parcels to the west between Monty Hall Drive and Allen Avenue. The approximately 13.9-acre



SOURCE: City of Cathedral City, 12/1/2010; AES, 7/20/2018

Figure 3.8-2
Zoning Designations

South Site is comprised of 15 County tax parcels and is bound by East Palm Canyon Road to the north, Van Fleet Street to the west, and D Street to the south.

The North Site was originally divided into 66 separate County parcels due to the previous commercial and residential development on the site which has since been demolished. The only remaining structures on the North Site include the fire station at the northeast corner of the site and a fast-food restaurant (Carl's Jr.) at the southeast corner of the site. The remainder of the North Site includes paved roadways, utilities infrastructure (aboveground and belowground), and gravel lots. Adjacent land uses include commercial buildings to the east, a public park and undeveloped land to the north, and undeveloped land with a few commercial buildings to the east.

The South Site was originally divided into 15 separate parcels due to the previous commercial and residential development on the site which has since been demolished. There are no remaining structures on the South Site. The South Site includes a paved parking lot, utilities infrastructure (aboveground and belowground), and a gravel ground surface. Adjacent land uses include undeveloped land and a dry canal to the south, and residential and commercial uses to the southwest and west.

3.9 PUBLIC SERVICES AND UTILITIES

3.9.1 REGULATORY SETTING

Desert Water Agency 2015 Urban Water Management Plan

The 2015 Final Urban Water Management Plan prepared for DWA (DWA, 2016) includes DWA's estimates of annual combined potable and recycled water supply and demand through the year 2040. These projections, which are based on existing data and historical consumption trends, include scenarios in which precipitation is normal over the entire 25-year period, in which a dry year occurs once every five years over the 25-year period, and multiple scenarios in which five consecutive dry years occur.

3.9.2 WATER SUPPLY

The alternative sites are within the service area of the DWA, a not-for-profit government agency that provides water supply services to customers within the City of Palm Springs and Cathedral City. A description of DWA's water supply system is provided within the Water and Wastewater Study included as Appendix F of the EA and is summarized below.

Water Supply Infrastructure

DWA's potable water supply system currently includes 29 active groundwater wells located throughout its service area in the western Coachella Valley (DWA, 2018a), approximately 392 miles of pipelines (DWA, 2018b), and two groundwater recharging stations, where surface water diverted from the Colorado River Aqueduct is discharged and allowed to percolate as a means of replenishing the regional groundwater aquifer (refer to **Section 3.2.2**).

As described in Section 2.2.2 of the EA, there is existing DWA water supply infrastructure on and adjacent to both alternative sites. There are currently 12-inch water mains running along the north and east boundaries of the North Site beneath Buddy Rogers Avenue and Date Palm Drive, the east, south,

and west boundaries of the South Site beneath D Street and Van Fleet Street, and the East Cathedral Channel levee near the southeastern boundary of the South Site. There are also 6-inch and 8-inch water mains in Hillery Road, Grove Street, Dawes Street, and Allen Avenue on the North Site, and in A Street on the South Site (Appendix F of the EA).

Water Supply Sources and Demand

Approximately 95 percent of DWA's potable water supply is pumped from deep groundwater wells in the Indio Subbasin in the western portion of the Coachella Valley. The remaining approximately 5 percent is surface water extracted from streams in the surrounding mountains, including Chino Creek, Snow Creek, and Falls Creek (DWA, 2018a). DWA also has annual rights to 55,750 acre-feet of surface water from the State Water Project, but because no aqueducts exist to convey water from the State Water Project to DWA's service area, DWA exchanges its State Water Project water with the Metropolitan Water District for water from the Colorado River via the Coachella Canal (DWA, 2018c). DWA uses this imported surface water to recharge the underlying groundwater basin (refer to **Section 3.2.2**), and it therefore does not constitute a direct source of potable water. DWA also operates a recycled water treatment facility, which treats secondary effluent discharged from the City of Palm Springs' wastewater treatment facility to tertiary standards. While this tertiary recycled water is not potable, it is of suitable quality to irrigate several locations in the cities of Palm Springs and Cathedral City (DWA, 2016).

As described in DWA's 2015 Final Urban Water Management Plan (refer to Appendix F of the EA), DWA projects that it will have a sufficient water supply to accommodate estimated demand through at least the year 2040, provided that natural and artificial recharge of the groundwater aquifer continues (DWA, 2016).

3.9.3 WASTEWATER SERVICE

While CVWD is the agency primarily responsible for wastewater collection and treatment in the region, wastewater flows generated on and in the vicinity of the alternative sites are currently collected by DWA sewer mains. These include a 12-inch main that runs along Date Palm Drive from its intersection with Buddy Rogers Drive at the eastern boundary of the North Site, the north side of the East Cathedral Channel levee (near the southeastern boundary of the South Site) to D Street, and D Street beyond Van Fleet Street. Additional 8-inch branch lines run south from the 12-inch main at F Street and Van Fleet Street, south of the South Site; west from Date Palm Drive along Grove Street through the North Site; north along Van Fleet Street from C Street; north along Monty Hall Drive (at the western boundary of the North Site) to the North Cathedral Channel; and east to a lift station near the intersection of Date Palm Drive and Buddy Rogers Avenue (Appendix F of the EA). Portions of a sanitary sewer network were also developed in the 1990s in East Palm Canyon Drive to provide future connectivity from the northern and southern segments of Allen Avenue and from A Street in the vicinity of the alternative sites; however, the best available evidence indicates that this network was never connected to any of the active systems in the area, and it remains an unused vestige (Appendix F of the EA).

The existing DWA sewer mains within the North Site conveys wastewater to a lift station at the northwest corner of the intersection of Buddy Rogers Avenue and Date Palm Drive, adjacent to the northeast corner of the North Site. From the lift station, the wastewater is pumped through a force main north on Date Palm Drive to a junction structure, from which it is discharged into a gravity sewer line owned and

operated by CVWD. The wastewater flows are ultimately conveyed to Water Reclamation Plant 10 (WRP-10), a wastewater treatment facility operated by CVWD located in Palm Desert approximately 6.7 miles east of the alternative sites. WRP-10 is the largest of five wastewater treatment facilities operated by CVWD and is capable of treating 18.0 million gallons per day (MGD) of wastewater and generating 15.0 MGD of tertiary treated wastewater (CVWD, 2017). WRP-10 collected and treated a total of 10,627 acre-feet (AF; or, on average, 9.5 MGD) of wastewater in 2015, the most recent year for which data are available (CVWD, 2016). The tertiary treated wastewater generated at WRP-10 is blended with Colorado River water and distributed to golf courses in Palm Desert for use in irrigation. During the winter months when the amount of treated wastewater generated exceeds the recycled water demand, excess secondary treated effluent is discharged to on-site percolation/evaporation ponds (CVWD, 2016). CVWD anticipates phasing out the use of percolation/evaporation ponds in the future as the regional demand for tertiary recycled water increases (CVWD, 2016).

3.9.4 SOLID WASTE SERVICE

The alternative sites are within the service area of Burrtec, a private waste management firm that provides residential and commercial solid waste services on behalf of the City. Burrtec operates one landfill, the Salton City Landfill in Salton City, California, approximately 18.5 miles east of the alternative sites. Burrtec also operates four transfer stations, including the Edom Hill Transfer Station, which is located within the City approximately 7.5 miles north of the alternative sites (Burrtec, 2018). Solid waste collected from the area in which the alternative sites are located is conveyed to the Edom Hill Transfer Station before being trucked to the Salton City Landfill for final disposal. Burrtec assumed ownership of the Salton City Landfill from Imperial County in 2008, and in 2014 began the first stage of construction in expanding the facility from 8 acres to approximately 287 acres (Desert Sun, 2014). Salton City Landfill is permitted to receive up to 6,000 tons per day of solid waste, and at the time of the issuance of its current permit in November 2013 had an estimated maximum capacity of 65,100,000 cubic yards. Salton City Landfill is designated as a Class III landfill by the State, and is permitted to receive construction and demolition waste, green materials, and mixed municipal waste (CalRecycle, 2018).

3.9.5 RECREATION

The alternative sites are not currently used for sanctioned recreational purposes. Of the 10 parks managed by the City, 5 are within one mile of the alternative sites. The nearest are Second Street Park and the Cathedral City Dog Park, which are located 25 feet from the northern boundary of the North Site and approximately 625 feet north of the South Site. Town Square Park is located immediately south of Cathedral City City Hall, less than 0.1 miles west of the alternative sites. Cathedral City Festival Lawn is located approximately 0.2 miles west of the alternative sites, and Memorial Park is located approximately 0.3 miles northwest of the alternative sites. There are also five private golf courses within an approximate one-mile radius of the alternative sites.

3.9.6 ELECTRICITY AND NATURAL GAS

SCE provides electrical services to the alternative sites and vicinity. Underground electrical utility lines run beneath the alternative sites, and electrical poles line Allen Avenue, Buddy Rogers Avenue, Grove Street, and Dawes Street within and adjacent to the North Site. Southern California Gas Company (SoCalGas) provides natural gas services to the alternative sites and vicinity.

Southern California Edison

SCE generates, transmits, and distributes electric power to a 50,000-square-mile territory that includes the County and all or portions of 13 other California counties. As of 2014, SCE was the third largest publicly-owned utility in the country in terms of customers served. SCE obtains electricity from a variety of sources, including hydrological dams, cogeneration plants, advanced renewable sources such as wind, solar, and biomass/landfill gas power, and obtains additional energy on the wholesale market (SCE, 2017a). In 2013, SCE operated 33 hydroelectric plants, five gas-fired peaking units, one combined-cycle gas plant, one diesel-driven electric generating plant, 24 solar photovoltaic (SPV) plants, and one ground-based SPV plant (SCE, 2013).

The region in which the alternative sites are located is served by SCE's Sumac 12kV Circuit and the Tamarisk 115/12 kV Substation, the latter of which is located approximately 1.1 miles northeast of the alternative sites and has a total generation capacity of approximately 112.0 MW (SCE, 2017b). The Tamarisk Substation is part of SCE's Mirage 220/115 kV System. There is existing SCE distribution infrastructure on and adjacent to the alternative sites, including overhead electrical lines throughout the North Site and underground electrical lines adjacent to the South Site.

Southern California Gas Company

SoCalGas provides natural gas service to approximately 21.6 million consumers in over 500 communities within a 20,000-square-mile service area in Central and Southern California. SoCalGas, the nation's largest natural gas distribution utility, provides natural gas service to customers throughout the County, including the City. SoCalGas maintains approximately 101,000 miles of natural gas distribution pipelines and delivers approximately 2.8 million cubic feet of natural gas per day via nearly 5.8 million metered connections (SoCalGas, 2013).

SoCalGas infrastructure in the vicinity of the alternative sites includes one high pressure distribution line running beneath East Palm Canyon Drive adjacent to the southern boundary of the North Site and the northern boundary of the South Site, as well as a second high pressure distribution line running beneath Date Palm Drive adjacent to the eastern boundary of the North Site (SoCalGas, 2018).

3.9.7 LAW ENFORCEMENT

The alternative sites are within the service boundary of the Cathedral City Police Department (CCPD), the headquarters of which are located at 68-700 Avenida Lalo Guerrero in Cathedral City California, less than 0.2 miles from both sites. CCPD's service area currently covers approximately 21.5 square miles and a population of approximately 52,000 residents. CCPD's patrol division consists of one lieutenant, four sergeants, and 25 patrol officers. The patrol division responds to an average of 42,500 calls for service per year, and has an average response time of approximately 4.8 minutes for priority-type calls (CCPD, 2018a). In addition to providing basic patrol, surveillance, investigative, and emergency response services, CCPD also maintains a special weapons and tactics team (SWAT), a detective bureau, a gang unit, and a school resource officer position (CCPD, 2018b).

3.9.8 FIRE PROTECTION AND EMERGENCY MEDICAL SERVICES

The alternative sites are within the service boundary of the Cathedral City Fire Department (CCFD) operating out of Station 411, which is currently located in the northeast corner of the North Site, less than 0.2 miles from the South Site. The City is currently planning to move Station 411 to a location immediately north of Buddy Rogers Avenue and immediately east of Second Street Park. Once relocated, Station 411 will be located immediately north of the North Site and will remain approximately 0.2 miles north of the South Site.

CCFD provides a range of services, including but not limited to fire suppression, emergency medical response, technical rescue, wild-land firefighting, and fire prevention. It employs a total of 40 individuals, 36 of whom work in fire suppression or paramedic service units (Appendix E of the EA). CCFD has two ambulances staffed with two firefighters/paramedics each, and its emergency medical services (EMS) team is the primary first response agency within the City's jurisdiction (Appendix E of the EA). In 2016, CCFD responded to a total of 5,660 incidents, including 159 incidents of fire and 4,378 incidents requiring EMS. Station 411 responded to 1,941 of the total incidents in 2016, including 47 of the fire incidents and 1,431 of the EMS incidents (CCFD, 2017). CCFD maintains automatic aid agreements for fire and EMS and mutual aid agreements with both the Riverside County Fire Department (RCFD) and the Palm Springs Fire Department (PSFD; City of Cathedral City, 2017). If the CCFD EMS team is unavailable to respond to a call, American Medical Response (AMR) or Riverside County EMS, both based in the City of Riverside, may also be contacted (Appendix E of the EA).

The closest medical facility to the alternative sites with a full-service emergency department is the Eisenhower Medical Center (EMC) located at 39000 Bob Hope Drive in Rancho Mirage, California, approximately 3.0 miles east of the alternative sites. The emergency department is open 24 hours a day and is staffed by physicians, registered nurses, pharmacists, X-ray technicians, and additional support staff. In 2009, EMC more than doubled the size of its emergency department, and now has 42 treatment areas. Additional expansions that would further increase the number of treatment areas are currently in the planning process (EMC, 2018).

3.10 VISUAL RESOURCES

3.10.1 REGULATORY SETTING

Development of the alternative sites is currently guided by the Cathedral City General Plan and Municipal Code. The visual resources regulatory setting is summarized in **Table 3-18**, and described in detail below.

City of Cathedral City General Plan

Development of the North and South Sites is currently guided by the City General Plan. Components of the General Plan relevant to the topic of aesthetics are included below:

Community Image and Urban Design Element

This element includes the following policies and programs related to visual resources:

TABLE 3-18
REGULATORY POLICIES AND PLANS RELATED TO VISUAL RESOURCES

Regulation	Description
City of Cathedral City General Plan	Policies and programs related to visual resources include: ▪ Development is subject to citywide design guidelines to protect scenic viewsheds. ▪ Commercial development requires adequate lighting, signage, and landscaping. ▪ Ensure outdoor lighting is shielded and downcast. ▪ Match building heights to existing development and include setbacks to protect scenic resources. ▪ Scenic corridors include East Palm Canyon Drive and Date Palm Drive and the intersection of the two streets. Design signage along these roadways to minimize visual impacts. ▪ Intersperse parking lots with landscaping and pedestrian paths. ▪ Implement Hillside Preservation Regulations, which protect natural scenic hillsides. ▪ Underground utility lines as much as possible.
City Municipal Code	▪ Ensure exterior light fixtures are fully or partially shielded and include filtering. ▪ Provide perimeter lighting during construction, as well as fencing and a uniformed security guard during nighttime hours.

Policy 1: Public and private sector development shall be subject to citywide design guidelines that include the Ahwahnee Principles and are intended to protect the community's scenic viewsheds, provide community cohesion, and enhance the image of Cathedral City as a residential and smart-growth community.

Policy 5: Areas of special interest, including entry points, landmarks, and scenic highway viewsheds, shall receive appropriate treatment whether part of public or private development proposals.

Program 7.A: The City shall review all commercial development to assure pedestrian-oriented circulation, safe and convenient ingress and egress, screening of outdoor storage/loading and other unsightly areas, lighting, signage, and the planting of mature landscaping to provide an immediate effect of permanency.

Policy 12: In an effort to preserve the value of the community's night sky, outdoor lighting shall be shielded downward and limited to the minimum height, number, and intensity of fixtures needed to provide sufficient security and identification on residential, commercial, and other development.

This element also includes a discussion of scenic resources and elements important to the City. The following text from the City General Plan describes scenic resources, viewsheds, and related guidance:

> *Building Proportions, Height and Setbacks*
> New structures should be similar in height to, and compatible with, other buildings in the vicinity, with the goals of preserving and enhancing design qualities of the built environment and preserving viewsheds. Setbacks should be compatible with those of surrounding structures and scenic resources, providing building presence without allowing the structure or development to dominate other buildings, the streetscape or the natural scenic viewshed….

Gateways, Crossroads, Corridors and Scenic Places
…The scenic resources of Cathedral City are most apparent to the traveling public. The natural vistas visible from City streets cannot be properly viewed or appreciated if screened by buildings, walls and landscaping, or the indiscriminate placement of signage.

…Other corridors [in addition to East Palm Canyon Drive] that exist in the city are Ramon Road, Date Palm Drive, Landau Boulevard, Cathedral Canyon Drive, Varner Road, Palm Drive and Perez Road. Crossroads, or major intersections, in Cathedral City are at Vista Chino Road/I-10/Date Palm Drive, Ramon Road/Date Palm Drive, Dinah Shore/Date Palm Drive, Date Palm Drive/East Palm Canyon Drive, Palm Drive/I-10, Palm Drive/Varner Road, Varner Road/Mountain View Road and Gerald Ford/Date Palm Drive….

Signage and Viewsheds of Public Rights-of-Way
The East Palm Canyon Drive commercial corridor, Date Palm Drive and Ramon Road are the most frequently traveled, and are most impacted by signage of businesses attempting to make their existence and location known. Enhancing commercial signage should be conducted in a manner that minimizes the adverse economic impact on business, while restoring the viewshed along existing and planned commercial corridors. Businesses located within Redevelopment project areas may be able to participate in and benefit from RDA sponsored sign renovation programs….

Transportation and Community Design
…Developers of new commercial projects should be encouraged to "break up" large expanses of parking with landscaping and pedestrian paths, locating buildings at the street and parking at the sides or rear of the buildings. This design approach also serves to provide the streets with a sense of vitality and community.

Scenic Highways
Especially striking are the mountain vista to the west and south as one descends into Cathedral City from the I-10 overpass and the hill and mountain vista. It is an essential and critical component of community design in Cathedral City, while effectively linking the City with other Coachella Valley communities. Many functional community design goals can be achieved through the detailed design and planning for the city's major gateways and corridors. The safe, functionally efficient and aesthetically pleasing design and buildout of these sites is a key element in the City's overall economic health and prosperity.

Water, Sewer, and Utilities Element
This element includes the following policy related to visual resources:

Policy 7: Utility lines shall be undergrounded, to the greatest extent practical. Those on major streets and scenic roadways shall have primary consideration for undergrounding.

City Municipal Code

The City's Municipal Code provides the following requirements regarding lighting:

9.89.050 General Requirements

A. *Shielding*. All exterior illuminating devices, except those exempt from this chapter and those regulated by Section 9.89.060, shall be fully or partially shielded as required in **Table 3-19** of this section.

1. "Fully shielded" means the fixture shall be shielded in such a manner that light rays emitted by the fixture, either directly from the lamp or indirectly from the fixture, are projected below a horizontal plane running through the lowest point on the fixture where light is emitted, thus preventing the emission of light above the horizontal.
2. "Partially shielded" means the fixture shall be shielded in such a manner that the bottom edge of the shield is below the plane centerline of the light source (lamp), minimizing the emission of light rays above the horizontal.

B. *Filtration*. Those outdoor light fixtures requiring a filter per **Table 3-19**, shall be equipped with a filter consisting of, but not including Quartz glass, a glass, acrylic or translucent enclosure.

C. *Requirements for Shielding and Filtering*. The requirements for shielding and filtering light emission from outdoor light fixtures shall be as set forth in **Table 3-19**.

TABLE 3-19
REQUIREMENTS FOR SHIELDING AND FILTERING OF OUTDOOR LIGHTING

Fixture Lamp Type	Shielding Requirement	Filtering Requirement
Low pressure sodium[1]	Partially	None
High pressure sodium	Fully	None
Metal halide[2]	Fully	Yes
Fluorescent	Fully[3]	Yes[4]
Quartz[5]	Fully	None
Incandescent, greater than 160 watts	Fully	None
Incandescent, 160 watts or less	None	None
Mercury vapor	Fully[6]	Yes
Fossil fuel	None	None
Glass tubes filled with neon, argon, or krypton	None	None
Other sources	As required by the city planner	As required by the city planner

Notes:
1 - This is the preferred light source to minimize undesirable light into the night sky affecting astronomical observations.
2 - Metal halide display lighting shall not be used for security lighting after eleven p.m. (or after closing hours if before eleven p.m.) unless fully shielded. Metal halide lamps shall be in enclosed luminaries.
3 - Outdoor advertising signs of the type constructed of translucent materials and wholly illuminated from within do not require shielding.
4 - Warm white and natural lamps are preferred to minimize detrimental effects.
5 - For the purposes of this section, quartz lamps shall not be considered an incandescent light source.
6 - Recommended for existing mercury vapor fixtures. The installation of new mercury fixtures is prohibited.

8.34.110 Construction site security provisions.

All new construction, on sites exceeding one acre in area, shall comply with the following security measures until the utilities have been released by the city:

A. Perimeter lighting shall be installed at a minimum of one hundred fifty foot intervals and at a height not less than fifteen feet from the ground. The light source used shall have a minimum

light output of two thousand lumens, and be lighted during the hours of darkness. Additional lighting shall be required if the construction site exceeds four acres in area.

B. In addition to perimeter lighting described in subsection A of this section, one of the following shall be used:

1. Fencing, not less than six feet in height, which is designed to preclude human intrusion, shall be installed along the perimeter boundaries of the construction site; or
2. A uniformed security guard, licensed according to Business and Professions Code, Chapter 11, shall be utilized to continually patrol the construction site during the hours when construction work has ceased.

3.10.2 ENVIRONMENTAL SETTING

Aesthetics

A viewshed is the geographical area that is visible from at least one location, referred to as a viewpoint. Each viewpoint provides a line of sight of the viewshed. The visual experience of an object within a viewshed is comprised of the overall visibility of the object within the viewshed, the amount of time the object is exposed to viewers within the viewshed, the distance of the viewer from the object, and the number of viewers anticipated to experience the viewshed.

There is no comprehensive list of specific features that automatically qualify as scenic resources; however, certain characteristics can be identified that contribute to the determination of a scenic resource. The following is a partial list of visual qualities and conditions that if present, may indicate the presence of a scenic resource:

- A tree that displays outstanding features of form or age;
- A landmark tree or a group of distinctive trees accented in a setting as a focus of attention;
- An unusual planting that has historical value;
- A unique, massive rock formation;
- A historic building that is a rare example of its period, style, or design, or that has special architectural features and details of importance;
- A feature specifically identified in applicable planning documents as having a special scenic value;
- A unique focus or a feature integrated with its surroundings or overlapping other scenic elements to form a panorama; or
- A vegetative or structural feature that has local, regional, or statewide importance.

North Site and South Site

The alternative sites lie within the downtown area of the City. The topography surrounding the sites is generally flat within the City and Coachella Valley, with mountainous terrain surrounding the valley. Both sites consist of empty gravel lots (the North Site has two remaining buildings in the northeast and southeast corners). The nearest residences to the North Site include an apartment building located approximately 440 feet to the northwest and single family homes located approximately 500 feet to the southwest, across East Palm Canyon Drive and Monty Hall Drive. The nearest residences to the South Site include a single family residential neighborhood located 40 feet directly to the south and west. The

residences have a clear view of both sites, as the intervening land is currently undeveloped. The sites can also be viewed by vehicles traveling along arterial roadways, including Date Palm Drive and East Palm Canyon Drive, and other surface streets including Buddy Rogers Avenue, Monty Hall Drive/Van Fleet Street, and D Street. There are no scenic resources immediately adjacent to the alternative sites.

Description of Viewsheds

Selected viewshed locations are shown on **Figure 3.10-1** and photographs of the alternative sites are shown in **Figure 3.10-2**. The locations of these individual viewpoints were selected based on their coverage of the sites and overall representation of typical viewsheds in the vicinity of the sites. The following are brief descriptions of the depicted viewpoints.

Viewpoint 1 – North Site

This northwest-facing photograph was taken from the intersection of Date Palm Drive and Palm Canyon Drive. It depicts a view of the existing fast-food restaurant and parking lot present on the southeast corner of the North Site from the perspective of a motorist traveling west on East Palm Canyon Drive.

Viewpoint 2 – North Site

This southeast-facing photograph was taken on Buddy Rogers Avenue along the northern border of the North Site. It depicts a view of an undeveloped gravel lot and utility lines from the perspective of a motorist travelling east along the Site's northern boundary.

Viewpoint 3 – South Site

This South-facing photograph was taken from the intersection of East Palm Canyon Drive and Allen Avenue of the South Site. It depicts an undeveloped gravel lot, a typical view of the South Site from the perspective of vehicles traveling on Allen Avenue as well as East Palm Canyon Drive. Views of the San Jacinto Mountains can be seen in the background.

Viewpoint 4 – South Site

This north-facing photograph was taken on D Street along the southern border of the South Site. It depicts a typical view of the undeveloped gravel lot from the perspective of existing residences on D Street. Long range views of the downtown Cathedral City and the Pickford Theatre can be seen in the background.

Scenic Highways

There are no state designated scenic highways or roads adjacent to or near the vicinity of the City; however, East Palm Canyon Drive (Highway 111), which is adjacent to both sites, is considered as an eligible State Scenic Highway (Caltrans, 2018b).



SOURCE: LandStatusPublic, 9/11/2017; Riverside County GIS, 2017;
Digitalglobe aerial photograph, 4/2017; ESRI Data, 2017; AES, 7/20/2018

Figure 3.10-1
Viewshed Locations



Viewpoint 1: View of the North Site from the southeast corner of the Site facing northwest.



Viewpoint 2: View of the North Site from the northern boundary facing southeast.



Viewpoint 3: View of the South Site from the northern boundary facing south.



Viewpoint 4: View of the South Site from the southern boundary facing north.

SOURCE: Google Maps, 2018; AES, 5/30/2018

Figure 3.10-2
Viewshed Photographs

Lighting and Shadows

No significant sources of lighting, shadow, or glare are currently present on the alternative sites. The only source of light within the North Site is from the existing structures on the eastern half of the site (the fire station and Carl's Jr). Sources of nighttime lighting and glare in the vicinity of the sites include street lights and adjacent commercial development.

3.11 NOISE

3.11.1 ACOUSTICAL BACKGROUND AND TERMINOLOGY

Sound is defined as any pressure variation in air that the human ear can detect, and is technically described in terms of loudness (amplitude) and frequency (pitch). The standard unit of sound measurement is the decibel (dB).

Community noise is commonly described in terms of the "ambient" noise level, which is defined as the all-encompassing noise level associated with a given noise environment. A common statistical tool to measure the ambient noise level is the average, or equivalent sound level (Leq) over a given time period (usually one hour). The Leq is the foundation of the Day-Night Average Level (Ldn) noise descriptor, and shows a very good correlation with community response to noise. The Ldn, similar to the CNEL, is based upon the average noise level over a 24-hour day, with a +10 dB weighing applied to noise occurring during nighttime (10:00 p.m. to 7:00 a.m.) hours.

Effects of Noise on People

There is no completely satisfactory way to measure the subjective effects of noise, or the corresponding reactions of annoyance and dissatisfaction. A wide variation in individual thresholds of annoyance exists, and different tolerances to noise tend to develop based on an individual's past experiences with noise. Human reaction to a new noise can be estimated through comparison of the new noise to the existing ambient noise level within a given environment. With regard to increases in A-weighted decibel (dBA) noise levels, the following relationships occur:

- Except in carefully controlled laboratory experiments, a 1-dBA change cannot be perceived.
- Outside of the laboratory, a 3-dBA change is considered a just-perceivable difference.
- A 5-dBA change is required before any noticeable change in human response is expected.
- A 10-dBA change is subjectively heard as approximately a doubling in loudness and can cause adverse response.

Generally, most noise is generated by transportation systems, principally motor vehicle noise, but also including aircraft noise and rail noise. The level of traffic noise depends on: l) the volume of the traffic, 2) the speed of the traffic, and 3) the number of trucks in the flow of the traffic. Because noise is measured on a logarithmic scale, 70 dBA plus 70 dBA does not equal 140 dBA. Instead, two sources of equal noise added together have been found to result in an increase of 3 dBA. That is, if a certain volume of traffic results in a noise level of 70 dBA, the addition of the same volume of traffic, or doubling, would result in a noise level of 73 dBA (Caltrans, 2013). As stated above, 3 dBA is just audible; therefore, if a project doubles the traffic volume there would be an audible increase in the ambient noise level.

Stationary point sources of noise attenuate (lessen) at a rate of 6 to 9 dBA per doubling of distance from the source, depending on environmental conditions (i.e., atmospheric conditions and noise barriers, vegetative or manufactured, etc.). Widely distributed noises, such as a large industrial facility or a street with moving vehicles would typically attenuate at a lower rate, of 4 to 6 dBA per doubling of distance.

3.11.2 REGULATORY SETTING

The noise regulatory setting is summarized in **Table 3-20**, and described in detail below.

TABLE 3-20
REGULATORY POLICIES AND PLANS RELATED TO NOISE

Regulation	Description
Federal Highway Administration (FHWA) Construction Noise Thresholds[1]	▪ Noise sensitive locations: (Daytime – 7 am to 6 pm) 78 dBA Leq or Baseline+5 (whichever is louder) ▪ Commercial areas: (Daytime) 83 dBA Leq or Baseline+5 (whichever is louder)
Federal Noise Abatement Criteria (NAC)[2]	▪ Applicable to traffic and other project-related noise sources ▪ Park and residential areas threshold: 67 dBA Leq ▪ Developed areas threshold: 72 dBA Leq
Federal Vibration Standards[3]	▪ Peak particle velocity (PPV) is the maximum instantaneous peak (inches per second) of the vibration signal, which is used to estimate Lv or VdB levels (vibration decibels with a reference velocity of one micro-inch per second). ▪ The Federal Transportation Administration's (FTA's) guideline vibration damage criteria for buildings is 90 VdB. ▪ The FTA's guideline for maximum vibration at sensitive receptors is 70 VdB. ▪ Background vibration velocity in residential areas is usually 50 VdB or lower.
Federal Interagency Committee on Noise (FICON)	▪ Provides guidance for setting thresholds for increases in noise levels ▪ Ambient noise less than 60 dB, + 5 dB is a significant increase; ambient 60-65 dB, +3 dB is significant; and ambient greater than 65 dB, +1.5 dB is significant
Source: 1 – FHWA, 2006; 2 – FHWA, 2011; 3 – FTA, 2006.; 4 – FICON, 1992	

Federal Highway Administration Construction Noise Thresholds

The FHWA provides construction noise level thresholds in its Construction Noise Handbook, 2006, which are presented as **Table 3-21**.

TABLE 3-21
FEDERAL CONSTRUCTION NOISE THRESHOLDS

Noise Receptor Locations and Land Uses	Daytime (7 am - 6 pm)	Evening (6 pm - 10 pm)	Nighttime (10 pm - 7 am)
	dBA, Leq[1]		
Noise-Sensitive Locations (residences, institutions, hotels, etc.)	78 or Baseline + 5 (whichever is louder)	Baseline + 5	Baseline + 5 (if Baseline < 70) or Baseline + 3 (if Baseline > 70)
Commercial Areas (businesses, offices, stores, etc.)	83 or Baseline + 5	None	None
Notes: [1] Leq thresholds were empirically determined (FHWA, 2006). Source: FHWA, 2006.			

Federal Noise Abatement Criteria

Operational noise standards used in this study are FHWA NAC for the assessment of noise consequences related to surface traffic and other project-related noise sources. These standards are discussed below.

The FHWA establishes NAC for various land uses that have been categorized based upon activity. Land uses are categorized on the basis of their sensitivity to noise as indicated in **Table 3-22**. Sensitive receptors with the potential to be impacted by the project alternatives include park land uses adjacent to the North Site; thus, the Category C noise standard (67 dBA Leq) would apply.

TABLE 3-22
FEDERAL NOISE ABATEMENT CRITERIA HOURLY A-WEIGHTED SOUND LEVEL DECIBELS[1]

Activity Category	Activity Criteria Leq (h), dBA	Evaluation Location	Activity Category Description
A	57	Exterior	Lands on which serenity and quiet are of extraordinary significance and serve an important public need and where the preservation of those qualities is essential if the area is to continue to serve its intended purpose.
B[1]	67	Exterior	Residential.
C[1]	67	Exterior	Active sport areas, amphitheaters, auditoriums, campgrounds, cemeteries, day care centers, hospitals, libraries, medical facilities, parks, picnic areas, places of worship, playgrounds, public meeting rooms, public or nonprofit institutional structures, radio studios, recording studios, recreation areas, Section 4(f) sites, schools, television studios, trails and trail crossings.
D	52	Interior	Auditoriums, day care centers, hospitals, libraries, medical facilities, places of worship, public meeting rooms, public or nonprofit institutional structures, radio studios, recording studios, schools, and television studios.
E[1]	72	Exterior	Hotels, motels, offices, restaurants/bars, and other developed lands, properties or activities not included in A-D or F.
F	--	--	Agriculture, airports, bus yards, emergency services, industrial, logging, maintenance facilities, shipyards, utilities (water resources, water treatment, electricity), and warehousing.
G	--	--	Undeveloped lands that are not permitted.

Notes: [1]Includes undeveloped lands permitted for this activity category.
Source: FHWA, 2011.

Federal Vibration Standards

The effects of groundborne vibrations typically cause only a nuisance to people, but at extreme vibration levels, damage to buildings may occur. Although groundborne vibration can be felt outdoors, it is typically an annoyance only indoors, where the associated effects of the building shaking can be notable. Groundborne noise is an effect of groundborne vibration and only exists indoors, since it is produced from noise radiated from the motion of the walls and floors of a room and may consist of the rattling of windows or dishes on shelves.

PPV is often used to measure vibration. PPV is the maximum instantaneous peak (inches per second) of the vibration signal. The PPV levels are used to estimate Lv or VdB levels (vibration decibels with a reference velocity of one micro-inch per second). Scientific studies have shown that human responses to vibration vary by the source of vibration, which is either continuous or transient. Continuous sources of

vibration include construction, while transient sources include truck movements. Generally, the thresholds of perception and annoyance are higher for transient sources than for continuous sources. **Table 3-23** summarizes the FTA's guideline vibration damage criteria for various structural categories. As shown therein, buildings extremely susceptible to vibration damage could be damaged if vibration levels exceed 90 VdB. Additionally, although sensitive receptors have a perceptibility threshold of 65 VdB, they begin to exhibit a significant response at 70 VdB for ground-borne vibration (FTA, 2006). Background vibration velocity in residential areas is usually 50 VdB or lower.

TABLE 3-23
CONSTRUCTION VIBRATION DAMAGE CRITERIA

Building Category	Approximate Lv (VdB)
Reinforced-concrete, steel, or timber (no plaster)	102
Engineered concrete and masonry (no plaster)	98
Non-engineered timber and masonry buildings	94
Buildings extremely susceptible to vibration damage	90
Source: FTA, 2006.	

Federal Interagency Committee on Noise

FICON was formed to review Federal policies that govern the assessment of airport noise impacts, focusing on technical, legal, and policy issues. FICON provided guiding policy recommendations, including the significance thresholds summarized in **Table 3-24**, below.

TABLE 3-24
EXTERIOR NOISE STANDARDS FOR NEW TRANSPORTATION NOISE SOURCES

Existing Traffic Noise Level (Ldn)	Increase in Noise Level Considered Significant (Ldn)
< 60 dB	+ 5 dB
60 dB – 65 dB	+ 3 dB
> 65 dB	+ 1.5 dB
Source: FICON, 1992.	

City General Plan Noise Element

The Noise Element in the City General Plan aims to avoid community exposure to excessive noise levels. The Noise Element provides land use compatibility criteria (shown in **Table 3-25**), which are divided by the type of land use affected by a project's generated noise (refer to Appendix L of the EA). The applicable standards to nearby receptors of the alternative sites include a limit to 55 dBA CNEL[1] at residential receptors, 62.5 dBA CNEL at neighborhood parks, and 62.5 dBA CNEL at commercial developments (City of Cathedral City, 2009). Further, the City limits one-hour average for outdoor noise levels in residential areas to 55 dBA (ordinance 11.96.030). **Table 3-26** provides policies and programs that may be applicable to the project.

[1] CNEL is the average of the intensity of a sound over a 24-hour period with corrections for time of day.

TABLE 3-25

CITY GENERAL PLAN LAND USE COMPATIBILITY FOR COMMUNITY NOISE ENVIRONMENTS

Land Use	CNEL (dBA)						
	50	55	60	65	70	75	80
Residential – Single Family Dwellings, Duplex, Mobile Homes							
Residential – Multiple Family							
Transient Lodging: Hotels and Motels							
School Classrooms, Libraries, Churches, Hospitals, Nursing Homes, Convalescent Hospitals							
Auditoriums, Concert Halls, Amphitheaters							
Sports Arenas, Outdoor Spectator Sports							
Playgrounds, Neighborhood Parks							
Golf Courses, Riding Stables, Water Recreation, Cemeteries							
Office Buildings, Business, Commercial and Professional							
Industrial, Manufacturing, Utilities, Agriculture							

Notes:

NORMALLY ACCEPTABLE: With no special noise reduction requirements assuming standard construction.

CONDITIONALLY ACCEPTABLE: New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design.

NORMALLY UNACCEPTABLE: New construction is discouraged. If new construction does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.

CLEARLY UNACCEPTABLE: New construction or development clearly should not be undertaken.

Source: City of Cathedral City, 2009.

TABLE 3-26
APPLICABLE CITY GENERAL PLAN NOISE POLICIES

Policy/Program	Description
Noise: 1	Protect noise sensitive land uses, including residential neighborhoods, schools, hospitals, libraries, churches, resorts and community open space, as well as land uses proposed in the vicinity of the railway, Interstate 10, the Mid-Valley Parkway, and Da Vall Drive from high noise levels generated by existing and future noise sources.
Noise: 1.B	Require building setbacks, the installation of wall and window insulation, soundwalls, earthen berms, and/or other mitigation measures in areas exceeding the City's noise limit standards for private development projects as they occur.

3.11.3 ENVIRONMENTAL SETTING

Existing Noise Levels

Existing noise levels in the vicinity of the alternative sites were measured at locations adjacent to sensitive noise receptors and where project-related noise has the potential to raise the ambient noise level. Measurement equipment consisted of Quest Sound Pro SE/DL sound level meters. An acoustical calibrator was used to calibrate the sound level meter before and after use. All instrumentation satisfies the Type II (precision) requirements.

The source of existing ambient noise in the vicinity of the alternative sites is primarily from traffic along Date Palm Drive and East Palm Canyon Road, in addition to noise generated by nearby commercial businesses. Noise measurements were taken at the locations shown in **Figure 3.11-1**. As shown in **Table 3-27**, readings at noise measurement sites 1, 2, and 3 were collected over a 24-hour period at locations near sensitive receptors and measurements at sites A, B, and C show a 15-minute noise level readings. These measurements provide the baseline noise levels at the alternative sites and along roadways that would experience an increase in traffic as a result of the project. Noise measurement output files are provided as Appendix L of the EA.

TABLE 3-27
SUMMARY OF 15-MINUTE AND 24-HOUR NOISE LEVEL MEASUREMENTS

Site	Date (2017)	Start Time	End Time	Noise Source	Receptor	Measure Noise Level (dBA Leq)[1]
1	12/26-12/27	14:29	11:33	Traffic at the intersection of Buddy Rogers Avenue and Monty Hall Drive	Commercial, Apartment complex	55.0
2	12/26-12/27	14:49	11:48	Traffic along Buddy Rogers Avenue and Date Palm Drive	Public Park	63.4
3	12/26-12/27	13:52	10:50	Traffic at the intersection of Van Fleet Street and D Street	Residences	58.9
A	12/27	11:39	11:54	Traffic on Date Palm Drive	Commercial	62.8
B	12/27	11:55	12:10	Traffic on East Palm Canyon Drive	Commercial	67.2
C	12/27	10:51	11:08	Traffic on D Street	Residences	66.0
Source: Appendix L of the EA.						

The Palm Springs International Airport is located approximately 3.0 miles northwest of the North Site. Neither of the alternative sites is within the noise level contours of the airport (Riverside County, 2004; City of Palm Springs, 2015).



SOURCE: LandStatusPublic, 9/11/2017; Riverside County GIS, 2017; Digitalglobe aerial photograph, 4/2017; ESRI Data, 2017; AES, 7/20/2018

Figure 3.11-1
Noise Monitoring Locations

Vibration Level

There are no existing vibration sources on or in the vicinity of the alternative sites with the potential to create audible vibration noise levels or cause noticeable ground-borne vibrations.

Noise Sensitive Receptors

Noise sensitive land uses are generally defined as land uses with the potential to be adversely affected by the presence of noise. Examples of noise sensitive land uses include residential housing, schools, and health care facilities. The nearest residences to the North Site include an apartment building located approximately 440 feet to the northwest and single family homes located approximately 500 feet to the southwest, across East Palm Canyon Drive and Monty Hall Drive. The nearest residences to the South Site include a single family residential neighborhood located 40 feet directly to the south and west. A public park is located 25 feet north of the North Site. Several commercial facilities are located adjacent to the western boundary of the North Site, approximately 100 feet east of the North Site, and adjacent to the northern boundary of the South Site. The nearest school to the alternative sites is the Cathedral City Elementary School located approximately 4,000 feet north. The nearest hospital to the alternative sites is EMC, located approximately 3.0 miles east.

3.12 HAZARDOUS MATERIALS

3.12.1 REGULATORY SETTING

The hazardous materials regulatory setting is summarized in **Table 3-28**, and described in detail below.

TABLE 3-28
REGULATORY POLICIES RELATED TO HAZARDOUS MATERIALS

Regulation	Description
Federal	
Clean Air Act (CAA)	▪ Regulates hazardous air pollutants.
Resource Conservation and Recovery Act (RCRA)	▪ Defines hazardous materials as substances that display one or more of the following characteristics: corrosivity, flammability, reactivity, or toxicity. ▪ Regulates land disposal of hazardous materials.
Comprehensive Environmental Response, Compensation and Liability Act (CERCLA)	▪ Provides a Federal Superfund to clean up uncontrolled or abandoned hazardous-waste sites.
OSHA regulations	▪ Requires facilities to document the potential risk associated with the storage, use, and handling of toxic and flammable substances.
Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA)	▪ Addresses the sale, distribution, and labeling of pesticides. ▪ Addresses certification and training of pesticide applicators. ▪ Provides pesticide labeling requirements, specific conditions, and when crops may be harvested after pesticide applications. ▪ Establishes pesticide recordkeeping and reporting requirements, imposes storage, disposal, and transportation requirements.
State	
22 CCR §66260.10	▪ Defines hazardous materials based on its characteristics as posing a significant hazard to human health and safety or to the environment if released.

Hazardous materials are those materials that may pose a material risk to human health or the environment. These materials are subject to numerous laws and regulations at several levels of government.

Federal

At the federal level, human exposure to chemical agents, and in some cases environmental and wildlife exposure to such agents, is regulated primarily by four agencies: the USEPA, the Food and Drug Administration (FDA), the Occupational Safety and Health Administration (OSHA), and the Consumer Product Safety Commission (CPSC). The USEPA administers several Congressional statutes pertaining to human health and the environment, including the CAA, which regulates hazardous air pollutants and the Resource Conservation and Recovery Act (RCRA; codified in 42 USC section 6901 *et seq*), which regulates land disposal of hazardous materials, which are defined as substances that display one or more of the following characteristics: corrosivity, flammability, reactivity, or toxicity (40 CFR section 261). The CPSC plays a limited role in regulating hazardous substances; it deals primarily with the labeling of consumer products. The FDA also plays a limited role in regulating hazardous substances; it primarily regulates food additives and contaminants, human drugs, medical devices, and cosmetics. OSHA regulations (codified in 29 CFR Parts 70-71, 2200-2205, 2400, and 1910) include provisions that require facilities to document the potential risk associated with the storage, use, and handling of toxic and flammable substances. In addition to these regulatory agencies, the United States Department of Transportation (DOT) regulates the interstate transport of hazardous materials. CERCLA provides a Federal Superfund to clean up uncontrolled or abandoned hazardous-waste sites, as well as accidental releases of pollutants and contaminants into the environment. The USEPA has the power to seek out responsible parties and gain their cooperation in the cleanup. The USEPA takes responsibility for hazardous sites when the responsible party cannot be identified or fails to act (USEPA, 2017).

The Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) addresses the sale, distribution, and labeling of pesticides, as well as the certification and training of pesticide applicators. The FIFRA also establishes recordkeeping and reporting requirements on certified applicators of restricted use pesticides, as well as imposing storage, disposal, and transportation requirements on registrants, and applicants for registration, of pesticides. Pesticide use is regulated through requirements to apply pesticides in a manner consistent with the label. The labeling requirement includes directions for use, warnings, and cautions, along with the uses for which the pesticide is registered (i.e., pests and appropriate applications). Labeling requirements also include specific conditions for the application, mixture, storage, and time period for re-entry to fields following pesticide application, and when crops may be harvested after applications. If a pesticide is used in a manner contrary to its labeling, the use constitutes a violation of the FIFRA.

State

"Hazardous material" is defined in CCR, Title 22, Division 4.5, Chapter 10, Article 2, § 66260.10, as "[Any] material that, because of its quantity, concentration, or physical or chemical characteristics, poses a significant present or potential hazard to human health and safety or to the environment if released into the workplace or the environment. "Hazardous materials" include, but are not limited to, hazardous substances, hazardous waste, and any material that a handler or the administering agency has a reasonable basis for believing that it would be injurious to the health and safety of persons or harmful to the environment if released into the workplace or the environment."

3.12.2 HAZARDOUS MATERIALS INVESTIGATIONS

North Site

A site visit of the North Site was conducted on December 26, 2017. No visible signs of gross contamination nor any odors indicative of hazardous materials releases were observed within the North Site.

Current Hazardous Materials Involvement

Current hazardous materials involvement on the North Site include small quantities of chemicals typically used for maintenance in commercial businesses, such as motor oil, hydraulic fluid, solvents, cleaners, lubricants, paint, and paint thinner. The amount and types of hazardous materials that are currently generated are common to commercial sites and do not pose unusual storage, handling, or disposal issues.

No potential asbestos-containing material were observed on site (Appendix M of the EA); however, based solely upon the age of the former residential development that previously existed on site, there is a potential for concrete water lines to contain asbestos. A majority of the septic tanks associated with the former on-site residential development were pumped, crushed, and filled per City code. Since asbestos was used to strengthen concrete, and considering the potential age of the septic systems, there is a small potential for the crushed in-place concrete tanks to contain asbestos.

2017 Phase I Environmental Site Assessment (ESA)

A Phase I Environmental Site Assessment (ESA) of the North Site was prepared in accordance with the American Society for Testing and Materials (ASTM) Practice E 1527-13 ESAs and is included in Appendix M of the EA. The purpose of this assessment was to identify recognized environmental conditions (RECs) and hazardous materials involvement that may pose a material risk to human health or to the environment, or in any way affect the proposed use of the sites. In addition to the site reconnaissance, a historical review was conducted to identify RECs associated with previous land uses, and database searches were conducted for records of known hazardous material generation, storage, or disposal sites in the vicinity of the North Site. A full listing of databases consulted is provided in the Phase I ESA, included in this document as Appendix M of the EA. The Phase I ESA revealed one Historical REC (HREC) and five potential RECs, described below.

Palm Springs Oil #9, formerly located on site on Assessor's Parcel Number (APN) 687-205-005, which is approximately 400 feet west of the North Site, is considered an HREC. It was identified as a former leaking underground storage tank (LUST) case where soil vapor extraction remediation reportedly removed most of the subsurface contamination. The case was closed in 2006 by the County of Riverside with hydrocarbon soil vapors left in-place at a depth of approximately 48 feet. No further assessment was recommended (Appendix M of the EA).

The five potential RECs include:

- Three historic auto stations:
    - Pyles Robert (service station), 68904 Palm Canyon Drive (APN 687-205-024, -025 and -026);

    - Bob's Choice Cars, 68920 E. Palm Canyon Drive (APN 687-205-023); and
    - Auto Truck Repair, 68930 E. Palm Canyon Drive (APN 687-208-022).
- A gasoline service station that existed at 68980 E. Palm Canyon Drive (APN 687-208-015) from at least 1966 to sometime after 1972 and before 1978.
- The existing Cathedral City Fire Station at 36913 Date Palm Drive (APN 687-202-015) was reported to contain a 1,000 gallon diesel underground storage tank (UST) from 1975 to at least 1988. The UST was possibly removed in 1998.

No regulatory oversight agency database records were found for these four former and one active on-site facilities indicating removal of USTs or cleanup of soil residues. The Phase I ESA recommended evaluation of potential petroleum hydrocarbon contamination due to these five sites (Appendix M of the EA).

2017 Limited Phase II Environmental Evaluation

An in-depth records review as well as a geophysical survey of seven parcels was conducted on October 11 and 12, 2017, to identify the existence of USTs and/or remnants of UST excavation (Appendix M of the EA). The findings of this investigation are summarized below:

- No agency records were found pertaining to the three sites identified in the Phase I ESA located on APNs 687-208-022 through -026. Based upon the absence of permits and/or documents verifying the use of the properties and/or the existence of former underground/aboveground fuel storage tanks, a geophysical survey was undertaken on the parcels. Results of the survey found no anomalies suggesting a backfilled, former UST excavation within the parcels; however, buried concrete structures and/or debris were encountered within these five parcels, particularly APNs 687-208-024 through -026. No further assessment was recommended for this site, and it was determined not to be a REC.
- Aerial photographs and historic agency database records indicate a gasoline service station likely existed at 68980 E. Palm Canyon Drive (APN 687-208-015) from at least 1966 to sometime after 1972 and before 1978. No agency records, however, were found pertaining to this site (located at the northwest corner of Date Palm Drive and E. Palm Canyon Drive), which has apparently been occupied by a Carl's Jr. Restaurant from at least 2004 to the present. Based upon the absence of permits and/or documents verifying the service station location and status of the underground fuel storage tanks, a geophysical survey was undertaken. Results of the survey suggested that a backfilled, former UST excavation was likely situated in the southeastern portion of the Carl's Jr. parking lot. Subsurface assessment of the possible former tank excavation was recommended to evaluate the potential for detectable levels of petroleum hydrocarbon soil residues to exist at elevated concentrations requiring remediation.
- One 1,000-gallon diesel UST was installed at the existing fire station (APN 687-202-015) in 1975. The UST was removed in June 1998, and analytical testing reported no detectable levels of petroleum hydrocarbons in the gasoline to heavy hydrocarbon range, nor were odors, staining, or holes in the UST noted. A No Further Action letter was issued in July 1998. No further assessment was recommended for this site, and it was determined not to be a REC.

2018 Second Phase of Limited Phase II Environmental Site Evaluation

The second phase of the Limited Phase II Environmental Site Evaluation focused on the parcel located at 68980 E. Palm Canyon Drive (APN 687-208-015), currently occupied by a Carl's Jr (Appendix M of the EA). Soil boring samples were taken on January 22, 2018 and tested for total petroleum hydrocarbons (TPH), lead, and pH. TPH was not detected in 11 of 12 samples, and sample 12 was below the applicable environmental screening level (ESL). Lead was not detected in any of the samples. The pH of the soil samples was moderately to strongly alkaline. No further evaluation or testing was recommended (Appendix M of the EA).

South Site

The South Site was originally divided into 15 separate parcels due to the previous residential development on the site which has since been demolished. There are no remaining structures on the South Site. The South Site includes a paved parking lot, utilities infrastructure (aboveground and belowground), and a gravel ground surface. Adjacent land uses include open space and a dry canal to the south, and residential and commercial uses to the southwest and west. A site visit of the South Site was conducted on December 26, 2017. No visible signs of gross contamination nor any odors indicative of hazardous materials releases were observed within the South Site.

Database Search

AES reviewed a database report for the South Site, prepared by Environmental Data Resources, Inc. (EDR), in March 2018. The environmental database report has been included in this document as Appendix M of the EA.

The South Site is listed in the on several databases for potential hazardous material involvement. HAZNET is a database of records received by the Department of Toxic Substances Control (DTSC) for the transportation and disposal of potentially hazardous materials. The HAZNET database identified former residences and commercial businesses that disposed of waste (including asbestos-containing, organic, and household waste) from 1993 to 2016. According to the EDR Historic Auto database, two historic auto stations were located on site. In addition, World Oil Co., an on-site LUST case that has been closed since 1996 is listed on several databases. The former on-site facilities Cathedral Tire/Automotive and Elite Tire are both noted on the Facility Index System (FINDS) registry as being part of the UST program. There are no open sites within a 1.0-mile radius of the South Site (Appendix M of the EA).

3.13 REFERENCES

Baldwin, B.G., Goldman, D., Keil, D.J., Patterson, R., Rosatti, T., 2012. *The Jepson Manual*. Vascular Plants of California. UC Press, Berkeley, CA. 2nd Ed.

Bureau of Land Management (BLM), 2017a, b. GLO Records. Available at: http://www.glorecords.blm.gov/default.aspx. Accessed November 2017.

Burrtec, 2018. Landfill / Transfer. Available online at: http://www.burrtec.com/landfill. Accessed January 2018.

California Air Resources Board (CARB). 2007. *Expanded List of Early Action Measures to Reduce Greenhouse Gas Emissions in California Recommended for Board Consideration*. Available online at: https://www.arb.ca.gov/cc/ccea/meetings/ea_final_report.pdf. Accessed August 8, 2017.

CARB. 2014. *Climate Change Scoping Plan*. Available online at: http://www.arb.ca.gov/cc/scopingplan/2013_update/first_update_climate_change_scoping_plan.pdf. Accessed August 8, 2017.

CARB, 2016. 2016 SIP Emission Projection Data; 2020 Estimated Annual Average Emissions for Riverside County. Available online at: https://www.arb.ca.gov/app/emsinv/2017/emseic1p_query.php. Accessed June 15, 2018.

CARB, 2017. California's 2017 Climate Change Scoping Plan. Available online at: https://www.arb.ca.gov/cc/scopingplan/scoping_plan_2017.pdf. Accessed May 5, 2018.

California Department of Conservation (DOC), 2007. *Geologic Atlas of California – Santa Ana Sheet*. Available online at: http://www.quake.ca.gov/gmaps/GAM/santaana/santaana.html. Accessed February, 2018.

DOC. 2016a. *The Alquist-Priolo Earthquake Fault Zoning Act*. Available online at: http://www.conservation.ca.gov/cgs/rghm/ap. Accessed August 8, 2017.

DOC, 2016b. *Seismic Hazards Mapping Act*. Available online at: http://www.conservation.ca.gov/cgs/shzp/Pages/prc_shmact.aspx. Accessed August 8, 2017.California Department of Education (CDE), 2018. *2017-18 Enrollment by Grade: Palm Springs Unified District Report (33-67173)*. Available online at: https://dq.cde.ca.gov/dataquest/dqcensus/EnrGrdLevels.aspx?cds=3367173&agglevel=313district&year=2017-18. Accessed May 30, 2018.

California Department of Fish and Wildlife (CDFW), 2002. General Rare Plant Survey Guidelines. Available online at: https://www.fws.gov/sacramento/es/Survey-Protocols-Guidelines/Documents/rare_plant_protocol.pdf. Accessed December 1, 2018.

CDFW, 2018b. California Natural Diversity Database (CNDDB). Available online at: https://map.dfg.ca.gov/find/view/RareFind.aspx. Accessed January 5, 2018.

California Department of Recycling and Recovery (CalRecycle), 2018. Facility/Site Summary Details: Salton City Solid Waste Site (13-AA-0011). Available online at: http://www.calrecycle.ca.gov/SWFacilities/Directory/13-AA-0011/Detail/. Accessed February 2018.

California Department of Transportation (Caltrans), 2013. *Technical Noise Supplement to the Traffic Noise Analysis Protocol*. September 2013. Available online at: http://www.dot.ca.gov/hq/env/noise/pub/TeNS_Sept_2013A.pdf. Accessed January 29, 2018.

Caltrans, 2018a. Water Quality Planning Tool. Available online at: http://svctenvims.dot.ca.gov/wqpt/wqpt.aspx. Accessed February 2017.

Caltrans, 2018b. *California Scenic Highway Mapping System: Riverside County*. Available online at: http://www.dot.ca.gov/hq/LandArch/16_livability/scenic_highways/. Accessed January 26, 2018.

California Department of Water Resources (DWR), 2004. Coachella Valley Groundwater Basin, Indio Subbasin. Available online at: http://www.water.ca.gov/pubs/groundwater/bulletin_118/basindescriptions/7-21.01.pdf. Accessed February 2018.

DWR, 2018a. Water Data Library Station Map. Available online at: http://www.water.ca.gov/waterdatalibrary/index.cfm. Accessed February 2018.

DWR, 2018b. Groundwater Levels for Station 337850N1164647W001. Available online at: http://www.water.ca.gov/waterdatalibrary/groundwater/hydrographs/brr_hydro.cfm?CFGRIDKEY=49818. Accessed February 2018.

California Energy Commission (CEC), 2012. *Our Changing Climate 2012 – Vulnerability & Adaptation to the Increasing Risks from Climate Change in California*. Available online at: http://www.energy.ca.gov/2012publications/CEC-500-2012-007/CEC-500-2012-007.pdf. Accessed June 15, 2018.

California Geological Survey (CGS), 1974. *Cathedral City Quadrangle, Special Studies Zones*. Available online at: http://gmw.conservation.ca.gov/SHP/EZRIM/Maps/CATH_CTY.PDF. Accessed February, 2018.

California Native Plant Society (CNPS), 2001. CNPS Botanical Survey Guidelines. Available online at: https://www.cnps.org/wp-content/uploads/2017/08/botanical-survey-guidelines_6-2-01.pdf. Accessed January 5, 2018.

California State Water Resources Control Board (SWRCB), 2017. Final 2014 and 2016 integrated Report (CWA Section 303(d) List/305(b) Report). Available online at: https://www.waterboards.ca.gov/water_issues/programs/tmdl/2014_16state_ir_reports/category5_report.shtml. Accessed January 2018.

Cathedral City Fire Department (CCFD), 2017. Cathedral City Fire – Annual Report, 2016. Available online at: http://docs.wixstatic.com/ugd/8eb484_0719fa6d3bb94e9aab94fd9d9fa9266a.pdf. Accessed January 2018.

Cathedral City Police Department (CCPD), 2018a. Departments – Patrol. Available online at: http://www.cathedralcitypolice.com/departments/patrol/. Accessed February 2018.

CCPD, 2018b. Departments. Available online at: http://www.cathedralcitypolice.com/departments/. Accessed February 2018.

City of Cathedral City. 2009. *Comprehensive General Plan*. Available online at: http://www.cathedralcity.gov/services/planning/documents/general-plan. Accessed January 25, 2018.

City of Cathedral City, 2010a. *City of Cathedral City Zoning Map*. December 10, 2010. Available online at: http://www.cathedralcity.gov/home/showdocument?id=5350. Accessed January 25, 2018.

City of Cathedral City, 2010b. *Date Palm Drive Corridor Connector Plan Compass Blueprint Demonstration Project*. June 9, 2010. Available online at: http://www.cathedralcity.gov/home/showdocument?id=3855. Accessed February 1, 2018.

City of Cathedral City, 2012. *Date Palm Drive Specific Plan*. June 2012. Available online at: . Accessed February 1, 2018.

City of Cathedral City, 2017. Local Hazard Mitigation Plan. Available online at: http://www.cathedralcity.gov/home/showdocument?id=6670. Accessed February 2018.

City of Cathedral City, 2018. *The State of Cathedral City is Bright, Hopeful, and Trendsetting*. Available online at: http://www.ccedd.org/the-state-of-cathedral-city-is-bright-hopeful-and-trendsetting/. Accessed May 31, 2018.

City of Palm Springs. 2015. *Palm Springs International Airport Master Plan*. Available online at: http://www.palmsprings-ca.gov/government/departments/planning/specific-plans/airport-master-plan. Accessed January 25, 2018.

Climate Action Team (CAT). 2007. *Proposed Early Actions to Mitigate Climate Change in California*. Available online at: http://www.climatechange.ca.gov/climate_action_team/reports/2007-04-20_CAT_REPORT.PDF. Accessed August 8, 2017.

Coachella Valley Water District (CVWD), 2016. 2015 Urban Water Management Plan Final Report. Available online at: http://www.cvwd.org/ArchiveCenter/ViewFile/Item/516. Accessed June 2018.

CVWD, 2017. CVWD Development Design Manual – Section 6: Design Criteria Sanitation Facilities. Available online at: https://www.cvwd.org/DocumentCenter/View/930/DDM---Section-6---Design-Criteria-Sanitation-Facilities-PDF. Accessed June 2018.

CVWD, 2018a. Stormwater Protection and Flood Control. Available online at: http://www.cvwd.org/165/Stormwater-Protection-Flood-Control. Accessed January 2018.

CVWD, 2018b. Engineer's Report on Water Supply and Replenishment Assessment – 2018-2019. Available online at: http://www.cvwd.org/ArchiveCenter/ViewFile/Item/664. Accessed June 2018.

Colorado River Regional Water Quality Control Board (CRRWQCB). 2017. *Water Quality Control Plan, Colorado River Basin – Region 7*. Available online at: https://www.waterboards.ca.gov/coloradoriver/water_issues/programs/basin_planning/docs/bp032014/entire_basinplan_combined.pdf. Accessed February 2018.

Council on Environmental Quality (CEQ). 1997. *Environmental Justice Guidance Under the National Environmental Policy Act*. Council on Environmental Quality (CEQ). December 10, 1997. Available online at: https://ceq.doe.gov/docs/ceq-regulations-and-guidance/regs/ej/justice.pdf. Accessed March 2017.

Desert Sun, 2014. Salton City Landfill Clears legal Hurdle. Available online at: https://www.desertsun.com/story/news/environment/2014/11/14/salton-city-landfill-expansion/19049207/. Accessed January 2018.

Desert Water Agency (DWA). 2016. *2015 Urban Water Management Plan*. Available online at: https://dwa.org/board-meeting-agenda/urban-water-management-plan/183-2015-urban-water-management-plan/file. Accessed February 2018.DWA, 2018a. Overview – Our Local Water System. Available online at: https://dwa.org/about-us/our-system/overview. Accessed February 2018.

DWA, 2018b. Pipelines. Available online at: https://dwa.org/about-us/our-system/pipelines. Accessed February 2018.

DWA, 2018c. Imported Water. Available online at: https://dwa.org/about-us/water-supply/imported-water. Accessed February 2018.

DWA, 2018d. Engineer's Report, Groundwater Replenishment and Assessment Program for the West Whitewater River Subbasin, Mission Creek Subbasin, and Garnet Hill Subbasin Areas of Benefit. Available online at: https://dwa.org/board-meeting-agenda/groundwater-replenishment-assessment-report/325-2018-2019-groundwater-replenishment-report-all-basins/file. Accessed July 2018.

Eisenhower Medical Center (EMC), 2018. Eisenhower Emergency Department at Eisenhower Medical Center. Available online at: https://www.eisenhowerhealth.org/health-services/other-health-services/tennity-emergency-department-at-eisenhower-medical-center/. Accessed February 2018.

Federal Emergency Management Agency (FEMA). 2016. *Federal Flood Risk Management Standard (FFRMS)*. August 23, 2016. Available online at: https://www.fema.gov/federal-flood-risk-management-standard-ffrms. Accessed May 23, 2017.

FEMA, 2017. FEMA Flood Map Service Center, Map 06065C1589G. Available online at: https://msc.fema.gov/portal. Accessed January 2018.

Federal Highway Administration (FHWA). 2006. *Construction Noise Handbook*. August 2006. Available online at: https://www.fhwa.dot.gov/environment/noise/construction_noise/handbook/. Accessed January 26, 2018.

FHWA. 2011. *Highway Traffic Noise: Analysis and Abatement Guidance*. December 2011. Available online at: https://www.fhwa.dot.gov/environment/noise/regulations_and_guidance/analysis_and_abatement_guidance/revguidance.pdf. Accessed January 26, 2018.

Federal Interagency Committee on Noise (FICON), 1992. *Federal Agency Review of Selected Airport Noise Analysis Issues*. August 1992. Available online at: http://www.gsweventcenter.com/Draft_SEIR_References/1992_08_Federal_Interagency_Committee_on_Noise.pdf. Accessed January 30, 2018.

Federal Transit Administration (FTA), 2006. *Transit Noise and Vibration Impact Assessment*. May 2006. Available online at: https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/FTA_Noise_and_Vibration_Manual.pdf. Accessed January 26, 2018.

MWH. 2016. *SGMA Alternative GSP – Bridge Document for the Indio Subbasin*. Available online at: http://www.cvwd.org/ArchiveCenter/ViewFile/Item/550. Accessed June 2018.

Natural Resources Conservation Service (NRCS). 2018. Custom Soil Resource Report for Riverside County, Coachella Valley Area, California, Agua Caliente.

Pierson, E.D., and W.E. Rainey, 1998. "Western mastiff bat, *Eumops perotis*." In *Terrestrial Mammal Species of Special Concern in California*, edited by B.C. Bolster. Available online at: www.dfg.ca.gov/wildlife/nongame/ssc/docs/mammal/species/17.pdf. Accessed January 25, 2018.

Riverside County. 2004. *Riverside County Airport Land Use Compatibility Plan*. October 14, 2004. Available online at: http://www.rcaluc.org/Plans/New-Compatibility-Plan. Accessed January 25, 2018.

Southern California Gas Company (SoCalGas), 2013. Pipeline Basics. Available online at: https://beea.socalgas.com/documents/news-room/fact-sheets/PipelineBasics.pdf. Accessed April 2017.

SoCalGas, 2018. Gas Transmission Pipeline Interactive Map – Riverside. Available online at: http://socalgas.maps.arcgis.com/apps/webappviewer/index.html?id=aaebac8286ea4e4b8e425e47771b8138. Accessed February 2018.

Southern California Edison (SCE), 2013. 2015 General Rate Case Application Workpapers. Available online at: http://www3.sce.com/sscc/law/dis/dbattach5e.nsf/0/4211FE938F68D16D88257C220075ADE4/$

FILE/APP%20SCE-05%20Vol.%2001%20C.%20I-II%20Pt.%2002.pdf. Accessed April 20, 017.

SCE, 2017a. About Us. Available online at: https://www.sce.com/wps/portal/home/about-us/. Accessed April 5, 2017.

SCE, 2017b. Distributed Energy Resource Interconnection Map (DERiM). Available online at: http://www.arcgis.com/home/webmap/viewer.html?webmap=e62dfa24128b4329bfc8b27c4526f6b7. Accessed May 17, 2017.

University of California Museum of Paleontology (UCMP), 2017. Specimen Database. Available online at: http://ucmpdb.berkeley.edu/. Accessed November 2017.

U.S. Census Bureau, 2016a. *Table DP03: Selected Economic Characteristics – 2012-2016 American Community Survey 5-Year Estimates*. Available online at: https://factfinder.census.gov/faces/nav/jsf/pages/guided_search.xhtml. Accessed May 30, 2018.

U.S. Census Bureau, 2016b. *Table DP05: ACS Demographic and Housing Estimates – 2012-2016 American Community Survey 5-Year Estimates*. Available online at: https://factfinder.census.gov/faces/nav/jsf/pages/guided_search.xhtml. Accessed May 30, 2018.

U.S. Census Bureau, 2016c. *Table DP04: Selected Housing Characteristics – 2012-2016 American Community Survey 5-Year Estimates*. Available online at: https://factfinder.census.gov/faces/nav/jsf/pages/guided_search.xhtml. Accessed May 30, 2018.

U.S. Census Bureau, 2017. *Quick Facts: Riverside County, California: Cathedral City city, California*. Available online at: https://www.census.gov/quickfacts/fact/table/riversidecountycalifornia,cathedralcitycitycalifornia/PST040217#viewtop. Accessed May 30, 2018.

United States Department of Health and Human Services (HHS), 2016. *Computations for the 2016 Poverty Guidelines*. April 25, 2016. Available online at: https://aspe.hhs.gov/computations-2016-poverty-guidelines. Accessed May 30, 2018.

United States Environmental Protection Agency (USEPA). 1998. *Final Guidance for Incorporating Environmental Justice Concerns in EPA's NEPA Compliance Analyses*. April 1998. Available online at: https://www.epa.gov/sites/production/files/2015-04/documents/ej-guidance-nepa-compliance-analyses.pdf. Accessed March 2017.

USEPA, 2017. Laws & Regulations. Summary of the Comprehensive Environmental Response, Compensation, and Liability Act (Superfund). Available online at: https://www.epa.gov/laws-regulations/summary-comprehensive-environmental-response-compensation-and-liability-act. Accessed July 19, 2018.

USEPA, 2018a. MyWATERS Mapper. Available online at: https://watersgeo.epa.gov/mwm/. Accessed January 2018.USEPA, 2018b. *Nonattainment Areas for Criteria Pollutants (Green Book)*. Available online at: https://www.epa.gov/green-book. Accessed on June 2018.

United States Fish and Wildlife Services (USFWS), 2018a. Critical Habitat for Threatened and Endangered Species. Available online at: https://fws.maps.arcgis.com/home/webmap/viewer.html?webmap=9d8de5e265ad4fe09893cf75b8dbfb77. Accessed January 23, 2018.

USFWS, 2018b. Information for Planning and Conservation (IPaC) Official Species List. Available online at: https://ecos.fws.gov/ipac/. Accessed January 23, 2018.

United States Geological Survey (USGS). 2008. *A Tapestry of Time and Terrain*. Last updated 2008. Available online at: http://pubs.usgs.gov/imap/i2720/i2720_pamphlet.pdf. Accessed January 2018.

APPENDIX I

BIOLOGICAL RESOURCES DOCUMENTS AND SPECIES LISTS

CDFW CNDDB SPECIES LIST

Selected Elements by Scientific Name

California Department of Fish and Wildlife

California Natural Diversity Database

Query Criteria: Quad IS (Cathedral City (3311674))

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Abronia villosa var. aurita chaparral sand-verbena	PDNYC010P1	None	None	G5T2T3	S2	1B.1
Astragalus lentiginosus var. coachellae Coachella Valley milk-vetch	PDFAB0FB97	Endangered	None	G5T1	S1	1B.2
Athene cunicularia burrowing owl	ABNSB10010	None	None	G4	S3	SSC
Desert Fan Palm Oasis Woodland Desert Fan Palm Oasis Woodland	CTT62300CA	None	None	G3	S3.2	
Dinacoma caseyi Casey's June beetle	IICOLX5010	Endangered	None	G1	S1	
Euphorbia arizonica Arizona spurge	PDEUP0D060	None	None	G5	S3	2B.3
Euphorbia platysperma flat-seeded spurge	PDEUP0D1X0	None	None	G3	S1	1B.2
Falco mexicanus prairie falcon	ABNKD06090	None	None	G5	S4	WL
Lasiurus xanthinus western yellow bat	AMACC05070	None	None	G5	S3	SSC
Macrobaenetes valgum Coachella giant sand treader cricket	IIORT22020	None	None	G1G2	S1S2	
Nemacaulis denudata var. gracilis slender cottonheads	PDPGN0G012	None	None	G3G4T3?	S2	2B.2
Phrynosoma mcallii flat-tailed horned lizard	ARACF12040	None	None	G3	S2	SSC
Polioptila californica californica coastal California gnatcatcher	ABPBJ08081	Threatened	None	G4G5T2Q	S2	SSC
Selaginella eremophila desert spike-moss	PPSEL010G0	None	None	G4	S2S3	2B.2
Stemodia durantifolia purple stemodia	PDSCR1U010	None	None	G5	S2	2B.1
Stenopelmatus cahuilaensis Coachella Valley jerusalem cricket	IIORT26010	None	None	G1G2	S1S2	
Toxostoma lecontei Le Conte's thrasher	ABPBK06100	None	None	G4	S3	SSC
Uma inornata Coachella Valley fringe-toed lizard	ARACF15010	Threatened	Endangered	G1Q	S1	
Xerospermophilus tereticaudus chlorus Palm Springs round-tailed ground squirrel	AMAFB05161	None	None	G5T2Q	S2	SSC

Record Count: 19

USFWS SPECIES LIST

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Carlsbad Fish And Wildlife Office
2177 Salk Avenue - Suite 250
Carlsbad, CA 92008-7385
Phone: (760) 431-9440 Fax: (760) 431-5901
http://www.fws.gov/carlsbad/

In Reply Refer To:
Consultation Code: 08ECAR00-2018-SLI-0454
Event Code: 08ECAR00-2018-E-01019
Project Name: Agua Caliente

January 23, 2018

Subject: List of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, and proposed species, designated critical habitat, and candidate species that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*), and projects affecting these species may require development of an eagle conservation plan (http://www.fws.gov/windenergy/eagle_guidance.html). Additionally, wind energy projects should follow the wind energy guidelines (http://www.fws.gov/windenergy/) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm; http://www.towerkill.com; and http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Carlsbad Fish And Wildlife Office
2177 Salk Avenue - Suite 250
Carlsbad, CA 92008-7385
(760) 431-9440

Project Summary

Consultation Code: 08ECAR00-2018-SLI-0454

Event Code: 08ECAR00-2018-E-01019

Project Name: Agua Caliente

Project Type: LAND - ACQUISITION

Project Description: Fee-to-trust

Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/place/33.778648021638276N116.46026478901481W



Counties: Riverside, CA

Endangered Species Act Species

There is a total of 7 threatened, endangered, or candidate species on this species list. Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

Mammals

NAME	STATUS
Peninsular Bighorn Sheep *Ovis canadensis nelsoni* Population: Peninsular CA pop. There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/4970	Endangered

Birds

NAME	STATUS
Least Bell's Vireo *Vireo bellii pusillus* There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/5945	Endangered
Southwestern Willow Flycatcher *Empidonax traillii extimus* There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/6749	Endangered

Reptiles

NAME	STATUS
Coachella Valley Fringe-toed Lizard *Uma inornata* There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/2069	Threatened
Desert Tortoise *Gopherus agassizii* Population: Wherever found, except AZ south and east of Colorado R., and Mexico There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/4481	Threatened

Insects

NAME	STATUS
Casey's June Beetle *Dinacoma caseyi* There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/4897	Endangered

Flowering Plants

NAME	STATUS
Coachella Valley Milk-vetch *Astragalus lentiginosus var. coachellae* There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/7426	Endangered

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

CNPS PLANT LIST

CNPS California Native Plant Society

Plant List

Inventory of Rare and Endangered Plants

13 matches found. *Click on scientific name for details*

Search Criteria

Found in Quad 3311674

Modify Search Criteria | Export to Excel | Modify Columns | Modify Sort | Display Photos

Scientific Name	Common Name	Blooming Period	CA Rare Plant Rank	State Listing Status	Federal Listing Status	Family
Abronia villosa var. aurita	chaparral sand-verbena	(Jan)Mar-Sep	1B.1			Nyctaginaceae
Almutaster pauciflorus	alkali marsh aster	Jun-Oct	2B.2			Asteraceae
Astragalus lentiginosus var. borreganus	Borrego milk-vetch	Feb-May	4.3			Fabaceae
Astragalus lentiginosus var. coachellae	Coachella Valley milk-vetch	Feb-May	1B.2		FE	Fabaceae
Cuscuta californica var. apiculata	pointed dodder	Feb-Aug	3			Convolvulaceae
Euphorbia arizonica	Arizona spurge	Mar-Apr	2B.3			Euphorbiaceae
Euphorbia platysperma	flat-seeded spurge	Feb-Sep	1B.2			Euphorbiaceae
Johnstonella costata	ribbed cryptantha	Feb-May	4.3			Boraginaceae
Johnstonella holoptera	winged cryptantha	Mar-Apr	4.3			Boraginaceae
Nemacaulis denudata var. gracilis	slender cottonheads	(Mar)Apr-May	2B.2			Polygonaceae
Selaginella eremophila	desert spike-moss	(May)Jun(Jul)	2B.2			Selaginellaceae
Stemodia durantifolia	purple stemodia	(Jan) Apr,Jun,Aug,Sep,Oct,Dec	2B.1			Plantaginaceae
Xylorhiza cognata	Mecca-aster	Jan-Jun	1B.2			Asteraceae

Suggested Citation

California Native Plant Society, Rare Plant Program. 2018. Inventory of Rare and Endangered Plants of California (online edition, v8-03 0.39). Website http://www.rareplants.cnps.org [accessed 05 January 2018].

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CNPS California Native Plant Society

Plant List

Inventory of Rare and Endangered Plants

13 matches found. *Click on scientific name for details*

Search Criteria

Found in Quad 3311674

Modify Search Criteria | Export to Excel | Modify Columns | Modify Sort | Display Photos

Scientific Name	Common Name	Blooming Period	CA Rare Plant Rank	State Listing Status	Federal Listing Status	Habitats	Lowest Elevation	Highest Elevation	Family
Abronia villosa var. aurita	chaparral sand-verbena	(Jan)Mar-Sep	1B.1			• Chaparral • Coastal scrub • Desert dunes	75 m	1600 m	Nyctaginaceae
Almutaster pauciflorus	alkali marsh aster	Jun-Oct	2B.2			• Meadows and seeps	240 m	800 m	Asteraceae
Astragalus lentiginosus var. borreganus	Borrego milk-vetch	Feb-May	4.3			• Mojavean desert scrub • Sonoran desert scrub	30 m	895 m	Fabaceae
Astragalus lentiginosus var. coachellae	Coachella Valley milk-vetch	Feb-May	1B.2		FE	• Desert dunes • Sonoran desert scrub (sandy)	40 m	655 m	Fabaceae
Cuscuta californica var. apiculata	pointed dodder	Feb-Aug	3			• Mojavean desert scrub • Sonoran desert scrub	0 m	500 m	Convolvulaceae
Euphorbia arizonica	Arizona spurge	Mar-Apr	2B.3			• Sonoran desert scrub (sandy)	50 m	300 m	Euphorbiaceae
Euphorbia platysperma	flat-seeded spurge	Feb-Sep	1B.2			• Desert dunes • Sonoran desert scrub (sandy)	65 m	100 m	Euphorbiaceae

Johnstonella costata	ribbed cryptantha	Feb-May	4.3	• Desert dunes • Mojavean desert scrub • Sonoran desert scrub	-60 m	500 m	Boraginaceae
Johnstonella holoptera	winged cryptantha	Mar-Apr	4.3	• Mojavean desert scrub • Sonoran desert scrub	100 m	1690 m	Boraginaceae
Nemacaulis denudata var. gracilis	slender cottonheads	(Mar)Apr-May	2B.2	• Coastal dunes • Desert dunes • Sonoran desert scrub	-50 m	400 m	Polygonaceae
Selaginella eremophila	desert spike-moss	(May)Jun(Jul)	2B.2	• Chaparral • Sonoran desert scrub (gravelly or rocky)	200 m	1295 m	Selaginellaceae
Stemodia durantifolia	purple stemodia	(Jan) Apr,Jun,Aug,Sep,Oct,Dec	2B.1	• Sonoran desert scrub (often mesic, sandy)	180 m	300 m	Plantaginaceae
Xylorhiza cognata	Mecca-aster	Jan-Jun	1B.2	• Sonoran desert scrub	20 m	400 m	Asteraceae

Suggested Citation

California Native Plant Society, Rare Plant Program. 2018. Inventory of Rare and Endangered Plants of California (online edition, v8-03 0.39). Website http://www.rareplants.cnps.org [accessed 05 January 2018].

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REGIONALLY OCCURRING SPECIES TABLE

TABLE 1
REGIONALLY OCCURRING SPECIAL-STATUS SPECIES

Scientific Name **Common name**	**Federal/ State/CNPS**	**Distribution**	**Habitat Requirements**	**Period of Identification**	**Potential to Occur on Site**
PLANTS					
Abronia villosa var. aurita chaparral sand-verbena	--/--/1B.1	Known to occur in Imperial, Orange, San Bernardino, Sierra, Los Angeles, Riverside, San Diego, and Ventura counties.	Found in sandy soils, in chaparral, coastal scrub, and desert dunes at elevations of 75 to 1600 meters.	January-September	**None.** The North and South sites do not contain suitable habitat for this species.
Almutaster pauciflorus alkali marsh aster	--/--/2B.2	Known to occur in Inyo, Kern, Riverside, and San Bernardino counties.	Found in alkaline soils in meadows and seeps at elevations of 240 to 800 meters.	June-October	**None.** The North and South sites are outside the suitable elevation range for this species.
Astragalus lentiginosus var. coachellae Coachella Valley milk-vetch	FE/--/1B.2	Known to occur in Riverside county.	Found in sandy soils in desert dunes and Sonoran desert scrub at elevations of 40 to 655 meters.	February-May	**None.** The North and South sites do not contain suitable habitat for this species.
Euphorbia arizonica Arizona spurge	--/--/2B.3	Known to occur in Imperial, Riverside, and San Diego counties.	Found in sandy soils in Sonoran desert scrub at elevations of 50 to 300 meters.	March-April	**None.** The North and South sites do not contain suitable habitat for this species.
Euphorbia platysperma flat-seeded spurge	--/--/1B.2	Known to occur in Imperial, Riverside, San Bernardino, and San Diego counties.	Found in sandy soils in desert dunes and Sonoran desert scrub at elevations of 65 to 100 meters.	February-September	**None.** The North and South sites do not contain suitable habitat for this species.
Nemacaulis denudata var. gracilis slender cottonheads	--/--/2B.2	Known to occur in Imperial, Riverside, San Bernardino, and San Diego counties.	Found in coastal dunes, desert dunes, and Sonoran desert scrub at elevations of -50 to 400 meters.	March-May	**None.** The North and South sites do not contain suitable habitat for this species.
Selaginella eremophila desert spike-moss	--/--/2B.2	Known to occur in Imperial, Riverside, and San Diego counties.	Found in gravelly or rocky soils in chaparral and Sonoran desert scrub at elevations of 200 to 1295 meters.	May-July	**None.** The North and South sites are outside the suitable elevation range for this species.
Stemodia durantifolia purple stemodia	--/--/2B.1	Known to occur in Riverside and San Diego counties.	Found in often mesic and sandy soils in Sonoran desert scrub at elevations of 180 to 300 meters.	January-December	**None.** The North and South sites are outside the suitable elevation range for this species.
Xylorhiza cognata mecca-aster	--/--/1B.2	Known to occur in Imperial and Riverside counties.	Found in Sonoran desert scrub at elevations of 20 to 400 meters.	January-June	**None.** The North and South sites do not contain suitable habitat for this species.

Scientific Name **Common name**	**Federal/ State/CNPS**	**Distribution**	**Habitat Requirements**	**Period of Identification**	**Potential to Occur on Site**
ANIMALS					
Invertebrates					
Dinacoma caseyi Casey's june beetle	FE/--/--	Known to occur in the Coachella Valley region of Riverside County, California.	Less than an inch long and dusty brown or whitish color, with brown and cream longitudinal stripes on its wing covers and back. This species inhabits areas associated with Sonoran desert scrub vegetation located on alluvial fans at the base of the Santa Rosa Mountains.	All Year	**None.** The North and South sites do not contain suitable habitat for this species.
Birds					
Athene cunicularia burrowing owl	--/CSC/--	Broadly distributed throughout western North America; also occurs in Florida, Central and South America, Hispaniola, Cuba, the northern Lesser Antilles, and the Bahamas.	Yearlong resident of open, dry grassland and desert habitats, as well as grass, forb and open shrub stages of pinyon-juniper and ponderosa pine habitats. Burrowing owls are between 7.5 to 10 inches tall with a wingspan of 21 to 24 inches. Owls can dig their own burrows for shelter and nesting, but often rely on burrows created by small mammals such as prairie dogs and desert tortoises. An active burrow will contain debris such as twigs or feathers at the entrance. Burrowing owls feed primarily on insects and small mammals but will also eat reptiles and amphibians.	All Year	**None.** The North and South sites do not contain suitable habitat for this species.
Vireo bellii pusillus least Bell's Vireo	FE/--/--	Known to occur in Butte, Fresno, Imperial, Inyo, Kern, Los Angeles, Mariposa, Merced, Monterey, Orange, Riverside, Sacramento, San Benito, San Bernardino, San Diego, San Joaquin, San Luis Obispo, Santa Barbara, Stanislaus, Sutter, Tehama, Ventura, Yolo, and Yuba counties. However some counties only have one occurrence.	Summer resident of Southern California in low riparian in vicinity of water or in dry river bottoms; below 600 meters. Nests placed along margins of bushes or on twigs projecting into pathways, usually willow, Baccharis, mesquite. Found in riparian forest, riparian scrub, and riparian woodland.	All Year	**None.** The North and South sites do not contain suitable habitat for this species.
Empidonax traillii extimus southwestern willow flycatcher	FE/--/--	Kern, Los Angeles, Orange, Riverside, San Bernardino, San Diego, and Santa Barbara counties. Breeding range occurs in California south of the Santa Ynez River.	Breeds in dense riparian habitats along rivers, streams, or other wetlands. Vegetation is often dominated by dense willows or other shrubs and medium-sized trees, with an overstory of cottonwood, tamarisk, or other large trees. Almost all breeding habitats are within close proximity (less than 60 feet) of water or saturated soil.	April-September	**None.** The North and South sites do not contain suitable habitat for this species.

Scientific Name **Common name**	**Federal/ State/CNPS**	**Distribution**	**Habitat Requirements**	**Period of Identification**	**Potential to Occur on Site**
Polioptila californica californica coastal California gnatcatcher	FT/CSC/--	Occurs in coastal southern California south of Los Angeles. Also known to occur in Mexico.	Prefers coastal sage scrub, but is occasionally found in chaparral, riparian and grassland habitats adjacent to coastal sage scrub.	March - August	**None.** The North and South sites do not contain suitable habitat for this species.
Toxostoma lecontei Le Conte's thrasher	--/CSC/--	Known to occur in the desert of southeastern California, northeastern Baja California, and northwestern Sonora.	Nesting areas require large, dense shrubs, and nests are generally placed in dense shrubs or portions of shrubs overhanging arroyos, rarely in direct sunlight.	All Year	**None.** The North and South sites do not contain suitable habitat for this species.
Mammals					
Lasiurus xanthinus western yellow bat	--/CSC/--	Known to occur in southern California.	Associated with dry, thorny vegetation in desert habitats. Commonly occurs in palm oases up to elevations of approximately 2,000 meters. Roosts in palm tree skirts and is limited by the availability of palm habitat.	All Year	**Low.** The North and South sites contain potential habitat for this species. This species was not observed during surveys.
Ovis canadensis nelson peninsular bighorn sheep	FE/--/--	Known to occur in San Diego, Riverside, and Imperial counties.	Inhabits rocky slopes and cliffs, canyons, washes, and alluvial fans. This species prefers rugged and open habitat, and eats a wide variety of desert plants, including cacti. In summer, distributions are often associated with scarce water sources.	All Year	**None.** The North and South sites do not contain suitable habitat for this species.
Xerospermophilus tereticaudus chlorus Palm Springs round-tailed ground squirrel	--/CSC/--	Known to occur in San Diego, Riverside, San Bernardino, and Imperial counties.	Inhabits sandy arid regions of lower sonoran life zone. Scrub and wash habitats include mesquite and creosote dominated sand dunes, creosote bush scrub, and saltbush/alkali scrub. Substrates include wind-blown sand, coarse sand, and packed silt. Burrows are dug at the base of shrubs, often creosote bushes.	All Year	**None.** The North and South sites do not contain suitable habitat for this species.
Perognathus longimembris bangsi Palm Springs pocket mouse	--/--/--	Known to occur throughout the Coachella Valley.	Found in sandy habitats on the Coachella Valley floor. Inhabits sandy arid regions in scrub and wash habitats with sparse to moderately dense vegetative cover, including mesquite sand dunes, creosote sand dunes, creosote bush scrub, creosote palo verde and saltbush and alkali scrub. Occupied habitat is restricted to areas with fine sandy soils necessary for burrow construction (Barrows, 2009). Burrows are dug at the base of shrubs, often creosote bushes, or burrows of other rodents may be utilized. Plant species associated with Palm Springs pocket mice include *Larrea tridentata*, *Encelia farinosa*, *Ambrosia dumosa*, and *Ephedra californica* (Barrows, 2009; Dodd, 1996 and 1998).	All Year	**None.** The North and South sites do not contain suitable habitat for this species.

Scientific Name Common name	Federal/ State/CNPS	Distribution	Habitat Requirements	Period of Identification	Potential to Occur on Site
Reptiles					
Gopherus agassizii desert tortoise	FT/CT/--	Occurs in the Mojave and Sonoran deserts north and west of the Colorado River in southwestern Utah, southern Nevada, southeastern California, and northwestern Arizona.	Found in sandy flats to rocky foothills, including alluvial fans, washes, and canyons where suitable soils for den construction might be found. Tortoises depend on bushes for shade and protection from predators, and live in dens that vary from 18 inches to eight feet long. This species often shares burrows. Occurs from near sea level to around 3,500 feet in elevation.	All Year	**None.** The North and South sites do not contain suitable habitat for this species.
Uma inornata Coachella Valley fringe-toed lizard	FT/CE/--	Known to occur in the Coachella Valley region of Riverside County, California.	Inhabits sparsely vegetated windblown sand dunes and sandy flats. Requires fine, loose sand for burrowing; scarce vegetation consisting of creosote bush or other scrubby growth, and perennial plants for shelter. This species seeks shelter underground, often in abandoned rodent burrows or by burying themselves in sand. The fringe-toed lizard is an insectivorous predator, with a diet comprised of insects, terrestrial invertebrates, and occasionally desert plant matter.	All Year	**None.** The North and South sites do not contain suitable habitat for this species.
Phrynosoma mcallii flat-tailed horned lizard	--/CSC/--	Known to occur in southern California.	Inhabits sandy desert flatlands with sparse vegetation. Occasionally occurs on low hills, mud hills, and alkali flats. This species is most abundant where surface soils contain loose or windblown sand. Vegetation in preferred habitat includes creosote bush, bur-sage, indigo bush, saltbush, and ocotillo. Abundance is positively correlated with density of perennial plants. The species does not normally occur in habitats characterized as rocky mountainous, new alluvial areas with sloping terrain, major dune systems, marshes and tamarisk-arrow weed thickets, and agricultural and developed areas (Turner et al. 1980).	All Year	**None.** The North and South sites do not contain suitable habitat for this species.

SOURCE: USFWS, 2018a; CDFW, 2018a; CNPS, 2018.

STATUS CODES

FEDERAL: USFWS
FE Federally Endangered
FT Federally Threatened
FC Candidate for Federal Listing

STATE: CDFW
CE California Listed Endangered
CT California Listed Threatened
CSC California Species of Special Concern

APPENDIX J

CULTURAL RESOURCES SURVEY

CULTURAL RESOURCES SURVEY
JULY 2018
BOUND SEPARATELY*

***THE CULTURAL RESOURCES SURVEY HAS BEEN BOUND SEPARATELY TO PROTECT POTENTIALLY SENSITIVE INFORMATION ABOUT THE LOCATION AND NATURE OF CULTURAL RESOURCES.**

APPENDIX K

TRAFFIC IMPACT ANALYSIS

ALBERT A. WEBB ASSOCIATES



TRAFFIC IMPACT ANALYSIS FOR AGUA CALIENTE CASINO

July 2018

www.webbassociates.com

TABLE OF CONTENTS

1.0 EXECUTIVE SUMMARY 1-1

1.1 Introduction ____ 1-1

1.2 Purpose of Report and Study Objectives ____ 1-1

1.3 Traffic and Transportation Project Design Features and Mitigation Measures ____ 1-1

1.3.1 Roadway & Safety Improvements for Alternatives A, B, and C ____ 1-1

1.3.2 Roadway & Safety Improvements for Alternative D ____ 1-2

1.3.3 Roadway Segment Mitigations and General Plan Consistency for Alternatives A, B, C or D ____ 1-2

1.3.4 Alternative A Project Design Features and Mitigation Measures ____ 1-3

1.3.5 Alternative B Project Design Features and Mitigation Measures Intersections Project Design Features ____ 1-4

1.3.6 Alternative C Project Design Features and Mitigation Measures ____ 1-5

1.3.7 Alternative D Project Design Features and Mitigation Measures ____ 1-6

1.4 Intersections and Project Fair Share Mitigation Summary ____ 1-7

2.0 INTRODUCTION 2-1

2.1 Purpose of Report and Study Objectives ____ 2-1

2.2 Site Location and Study Area ____ 2-1

2.3 Development Project Description ____ 2-1

2.3.1 Project Size and Description ____ 2-1

2.3.2 Existing Land Use and Zoning ____ 2-2

2.3.3 Proposed Land Use and Zoning ____ 2-2

2.3.4 Site Plan of Proposed Project ____ 2-2

2.3.5 Proposed Project Opening Year and Proposed Project Phasing ____ 2-8

2.3.6 Sphere of Influence ____ 2-8

3.0 AREA CONDITIONS 3-1

3.1 Existing Roadway Descriptions ____ 3-1

3.1.1 Collector ____ 3-1

3.1.2 Secondary Highway 3-1
3.1.3 Major Highway 3-1
3.1.4 Arterial Highway 3-2
3.1.5 Local Streets 3-3
3.2 Study Area Intersections and Roadways 3-3
3.3 Existing Traffic Controls and Intersection Geometrics 3-4
3.4 Existing Traffic Volumes 3-5
3.5 Level of Service Methodology 3-14
3.5.1 Signalized Intersections 3-14
3.5.2 Unsignalized Intersections 3-15
3.6 Acceptable Level of Service 3-16
3.6.1 City of Cathedral City 3-16
3.6.2 City of Palm Springs 3-16
3.6.3 City of Rancho Mirage 3-16
3.7 Determination of Significant Impact 3-16
3.8 Roadway Segments 3-17
3.9 Levels of Service – Existing (2018) Conditions 3-17
3.10 General Plan Circulation 3-20
3.11 Transit Service 3-20
4.0 PROJECTED FUTURE TRAFFIC 4-1
4.1 Method of Projection 4-1
4.2 Ambient Growth 4-1
4.3 Project Generated Traffic 4-1
4.3.1 Project Trip Generation 4-1
4.3.2 Project Trip Distribution 4-6
4.3.3 Project Modal Split 4-7
4.3.4 Project Trip Assignment 4-7
4.4 Cumulative Year (2040) Traffic 4-7

4.5 Planned Development Project Generated Traffic ____ 4-28

5.0 TRAFFIC ANALYSIS.....5-1

5.1 Capacity and Level of Service and Improvement Analysis ____ 5-1

5.1.1 Levels of Service – Project Opening Year with Project (2020) Conditions ____ 5-1
5.1.2 Levels of Service – Project Opening Year with Project (2020) with Improvements ____ 5-26
5.1.3 Levels of Service – Cumulative Year with Project (2040) Conditions ____ 5-28
5.1.4 Levels of Service – Cumulative Year with Project (2040) with Improvements 5-54

6.0 FINDINGS AND RECOMMENDATIONS.....6-1

6.1 Traffic Impacts and Level of Service Analysis ____ 6-1

6.1.1 Proposed Mitigation Measures – Opening Year with Project (2020) Conditions ____ 6-1
6.1.2 Proposed Mitigation Measures – Cumulative Year with Project (2040) Conditions ____ 6-1

6.2 Traffic Signal Warrants ____ 6-2

6.3 Traffic and Transportation Project Design Features and Mitigation Measures ____ 6-3

6.3.1 Roadway and Safety Improvements for Alternatives A, B, and C ____ 6-3
6.3.2 Roadway and Safety Improvements for Alternative D ____ 6-3
6.3.3 Roadways Segments Mitigations and General Plan Consistency for Alternatives A, B, C or D ____ 6-4
6.3.4 Alternative A Project Design Features and Mitigation Measures ____ 6-5
6.3.5 Alternative B Project Design Features and Mitigation Measures ____ 6-5
6.3.6 Alternative C Project Design Features and Mitigation Measures ____ 6-7
6.3.7 Alternative D Project Design Features and Mitigation Measures ____ 6-8

6.4 Intersections and Project Fair Share Mitigation Summary ____ 6-11

LIST OF TABLES

Table 1-1 – Project Fair Share Mitigation Summary – Alternative A Intersections....1-7
Table 1-2 – Project Fair Share Mitigation Summary – Alternative B Intersections....1-7
Table 1-3 – Project Fair Share Mitigation Summary – Alternative C Intersections....1-7
Table 1-4 – Project Fair Share Mitigation Summary – Alternative D Intersections....1-8
Table 1-5 – Project Fair Share Mitigation Summary - Roadways....1-8
Table 3-1 – Level of Service for Signalized Intersections....3-15
Table 3-2 – Level of Service for Unsignalized Intersections....3-15
Table 3-3 – Roadway Segment Capacity....3-17
Table 3-4 – Intersection Levels of Service – Existing (2018) Conditions....3-18
Table 3-5 – Roadway Segment Levels of Service – Existing (2018) Conditions....3-20
Table 4-1 – Casino Trip Generation Rates....4-3
Table 4-2 – Trip Generation Rates....4-3
Table 4-3 – Alternative A and D Trip Generation....4-4
Table 4-4 – Alternative B Trip Generation....4-5
Table 4-5 – Alternative C Trip Generation....4-6
Table 4-6 – Planned Development Projects within the Study Area....4-29
Table 5-1 – Intersection LOS – Alternative A Opening Year (2020) Conditions....5-1
Table 5-2 – Intersection LOS – Alternative B Opening Year (2020) Conditions....5-3
Table 5-3 – Intersection LOS – Alternative C Opening Year (2020) Conditions....5-5
Table 5-4 – Intersection LOS – Alternative D Opening Year (2020) Conditions....5-6
Table 5-5 – Roadway LOS – Alternative A Opening Year (2020) Conditions....5-8
Table 5-6 – Roadway LOS – Alternative B Opening Year (2020) Conditions....5-8
Table 5-7 – Roadway LOS – Alternative C Opening Year (2020) Conditions....5-9
Table 5-8 – Roadway LOS – Alternative D Opening Year (2020) Conditions....5-9
Table 5-9 – Intersection LOS – Alternative A Project Opening Year (2020) with Improvements....5-26
Table 5-10 – Intersection LOS – Alternative B Project Opening Year (2020) with Improvements....5-26
Table 5-11 – Intersection LOS – Alternative C Project Opening Year (2020) with Improvements....5-27
Table 5-12 – Intersection LOS – Alternative D Project Opening Year (2020) with Improvements....5-27
Table 5-13 – Intersection LOS – Alternative A Cumulative Year (2040) Conditions....5-28
Table 5-14 – Intersection LOS – Alternative B Cumulative Year (2040) Conditions....5-30
Table 5-15 – Intersection LOS – Alternative C Cumulative Year (2040) Conditions....5-32
Table 5-16 – Intersection LOS – Alternative D Cumulative Year (2040) Conditions....5-34
Table 5-17 – Roadway LOS – Alternative A Cumulative Year (2040) Conditions....5-36
Table 5-18 – Roadway LOS – Alternative B Cumulative Year (2040) Conditions....5-36
Table 5-19 – Roadway LOS – Alternative C Cumulative Year (2040) Conditions....5-37

Table 5-20 – Roadway LOS – Alternative D Cumulative Year (2040) Conditions 5-37
Table 5-21 – Intersection LOS – Alternative A Cumulative Year with Project (2040) with Improvements 5-54
Table 5-22 – Intersection LOS – Alternative B Cumulative Year with Project (2040) with Improvements 5-54
Table 5-23 – Intersection LOS – Alternative C Cumulative Year with Project (2040) with Improvements 5-54
Table 5-24 – Intersection LOS – Alternative D Cumulative Year with Project (2040) with Improvements 5-55
Table 6-1 – Project Fair Share Mitigation Summary – Alternative A Intersections.....6-11
Table 6-2 – Project Fair Share Mitigation Summary – Alternative B Intersections.....6-11
Table 6-3 – Project Fair Share Mitigation Summary – Alternative C Intersections 6-11
Table 6-4 – Project Fair Share Mitigation Summary – Alternative D Intersections 6-12
Table 6-5 – Project Fair Share Mitigation Summary - Roadways 6-12

LIST OF FIGURES

Figure 2-A – Alternative A Project Site Plan 2-4
Figure 2-B – Alternative B Project Site Plan 2-5
Figure 2-C – Alternative C Project Site Plan 2-6
Figure 2-D – Alternative D Project Site Plan 2-7
Figure 3-A – Study Area Intersections and Roadways 3-6
Figure 3-B – Existing Roadway System 3-7
Figure 3-C – Existing (2018) PM Peak Hour Intersection Volumes 3-9
Figure 3-D – Existing (2018) Saturday MD Peak Hour Intersection Volumes 3-11
Figure 3-E – Existing (2018) Daily Roadway Segment ADT Volumes 3-13
Figure 3-F – Cathedral City General Plan Circulation Element Roadways 3-21
Figure 4-A – Alternative A Distribution of Project Traffic 4-8
Figure 4-B – Alternative B Distribution of Project Traffic 4-9
Figure 4-C – Alternative C Distribution of Project Traffic 4-10
Figure 4-D – Alternative D Distribution of Project Traffic 4-11
Figure 4-E – Alternative A PM Peak Hour Intersection Volumes 4-12
Figure 4-F – Alternative B PM Peak Hour Intersection Volumes 4-14
Figure 4-G – Alternative C PM Peak Hour Intersection Volumes 4-16
Figure 4-H – Alternative D PM Peak Hour Intersection Volumes 4-18
Figure 4-I – Alternative A Saturday MD Peak Hour Intersection Volumes 4-20
Figure 4-J – Alternative B Saturday MD Peak Hour Intersection Volumes 4-22
Figure 4-K – Alternative C Saturday MD Peak Hour Intersection Volumes 4-24
Figure 4-L – Alternative D Saturday MD Peak Hour Intersection Volumes 4-26
Figure 4-M – Planned Development Project Locations within the Study Area 4-30
Figure 4-N – Planned Development Projects Only PM Peak Hour Intersection Volumes 4-31
Figure 4-O – Planned Development Projects Only Saturday MD Peak Hour Intersection Volumes 4-33
Figure 5-A – Alternative A Opening Year (2020) PM Peak Hour Intersection Volumes 5-10
Figure 5-B – Alternative B Opening Year (2020) PM Peak Hour Intersection Volumes 5-12
Figure 5-C – Alternative C Opening Year (2020) PM Peak Hour Intersection Volumes 5-14
Figure 5-D – Alternative D Opening Year (2020) PM Peak Hour Intersection Volumes 5-16
Figure 5-E – Alternative A Opening Year (2020) Saturday MD Peak Hour Intersection Volumes 5-18
Figure 5-F – Alternative B Opening Year (2020) Saturday MD Peak Hour Intersection Volumes 5-20
Figure 5-G – Alternative C Opening Year (2020) Saturday MD Peak Hour Intersection Volumes 5-22
Figure 5-H – Alternative D Opening Year (2020) Saturday MD Peak Hour Intersection Volumes 5-24
Figure 5-I – Alternative A Cumulative Year (2040) PM Peak Hour Intersection Volumes 5-38
Figure 5-J – Alternative B Cumulative Year (2040) PM Peak Hour Intersection Volumes 5-40

Figure 5-K – Alternative C Cumulative Year (2040) PM Peak Hour Intersection Volumes.....5-42
Figure 5-L – Alternative D Cumulative Year (2040) PM Peak Hour Intersection Volumes 5-44
Figure 5-M – Alternative A Cumulative Year (2040) Saturday MD Peak Hour Intersection Volumes.....5-46
Figure 5-N – Alternative B Cumulative Year (2040) Saturday MD Peak Hour Intersection Volumes.....5-48
Figure 5-O – Alternative C Cumulative Year (2040) Saturday MD Peak Hour Intersection Volumes.....5-50
Figure 5-P – Alternative D Cumulative Year (2040) Saturday MD Peak Hour Intersection Volumes 5-52
Figure 6-A –Intersection Improvements for Opening Year with Project (2020) Conditions 6-9
Figure 6-B – Intersection Improvements for Cumulative Year with Project (2040) Conditions.....6-10

LIST OF APPENDICES

Scoping Agreement ..... Appendix A
Cumulative Project Information ..... Appendix B
Traffic Count Worksheets ..... Appendix C
Signal Warrant Worksheets ..... Appendix D
Level of Service Calculation Worksheets ..... Appendix E

1.0 EXECUTIVE SUMMARY

1.1 Introduction

The Agua Caliente Band of Cahuilla Indians Cathedral City Fee-to-Trust Casino Project proposes to construct a casino, restaurants, and retail stores (Project) at the northwest corner of the intersection of Date Palm Drive and East Palm Canyon Drive (North Site) in the City of Cathedral City (City). There are four Project Alternatives that include a full project (Alternative A), a reduced project (Alternative B), a non-gaming alternative (Alternative C) , and an alternative (Alternative D) that moves the proposed Project to the southwest corner of the intersection (South Site).

1.2 Purpose of Report and Study Objectives

The purpose of this study is to evaluate the effects on traffic circulation produced from the proposed Project.

The objectives of this study include the following:

- Document Existing (2018) traffic conditions in the vicinity of the proposed Project;
- Determine the traffic generated from the proposed Project;
- Evaluate Project Opening Year (2020) traffic conditions;
- Evaluate Project Opening Year (2020) traffic conditions with each Project Alternative;
- Evaluate Cumulative Year (2040) traffic conditions for each Project Alternative;
- Determine if the level of service (LOS) required by the City of Cathedral City, City of Palm Springs, and City of Rancho Mirage will be maintained within the study area, and if not, determine the mitigation measures that will be necessary in order to maintain the required LOS;
- Determine if peak hour traffic signal warrants are met for any of the unsignalized study area intersections;
- Evaluate the adequacy of on-site circulation for the proposed Project; and
- Determine if safety and/or operational improvements are necessary due to the proposed Project.

1.3 Traffic and Transportation Project Design Features and Mitigation Measures

This traffic impact analysis demonstrates that the direct traffic impacts generated by Project Alternatives A, B, C, or D can be mitigated to meet the required level of service if the following recommended project design features and mitigation measures are adopted. Project design features are improvements that the Project had anticipated and is 100 percent responsible for since the improvements are proposed to provide Project access and safety for the proposed Project. Mitigation measures are proposed as a result of intersection and/or roadway segment impact due to the addition of project traffic. A fair share percentage responsibility or a project responsibility is determined based on the impacts.

1.3.1 Roadway & Safety Improvements for Alternatives A, B, and C

Project Design Features

- Construct full width improvements on all internal roadways.

- Construct roadway improvements to the northerly side of East Palm Canyon Drive to provide three lanes in the westbound direction of travel, which would be considered its ultimate cross-section as an arterial highway adjacent to the North Site south boundary line.
- Construct roadway improvements to the westerly side of Date Palm Drive to provide three lanes in the southbound direction, which would be considered at its ultimate cross-section as an arterial highway adjacent to the North Site east boundary line.
- Construct roadway improvements to the southerly side of Buddy Rogers Avenue to provide one lane in the eastbound direction of travel, which would be considered its ultimate cross-section as a local roadway adjacent to the North Site north boundary line.
- Construct modifications at existing traffic signals adjacent to the North Site as needed.
- Signing/striping modifications on adjacent roadways should be implemented in conjunction with detailed construction plans for the North Site.
- Sight distance at project driveways will be reviewed with respect to County of Riverside sight distance standards at the time of preparation of final grading, landscape, site development, and street improvement plans.
- Implement on-site traffic calming measures in parking lots and internal roadways as needed.

1.3.2 Roadway & Safety Improvements for Alternative D

Project Design Features

- Construct full width improvements on all internal roadways.
- Construct roadway improvements to the southerly side of East Palm Canyon Drive to provide three lanes in the eastbound direction of travel, which would be considered its ultimate cross-section, as an arterial highway adjacent to the South Site north boundary line.
- Construct roadway improvements to the easterly side of Van Fleet Street to provide one lane in the westbound direction of travel, which would be considered its ultimate cross-section as a collector roadway adjacent to the South Site west boundary line.
- Construct roadway improvements to the northerly side of D Street to provide one lane in the westbound direction of travel, which would be considered its ultimate cross-section as a collector roadway adjacent to the South Site south boundary line.
- Construct modifications at existing traffic signals adjacent to the South Site as needed.
- Signing/striping modifications on adjacent roadways should be implemented in conjunction with detailed construction plans for the South Site.
- Sight distance at project driveways will be reviewed with respect to County of Riverside sight distance standards at the time of preparation of final grading, landscape, site development, and street improvement plans.
- Implement on-site traffic calming measures in parking lots and internal roadways as needed.

1.3.3 Roadway Segment Mitigations and General Plan Consistency for Alternatives A, B, C or D

Opening Year 2020 Conditions

Unacceptable level of service along East Palm Canyon Drive is anticipated in the Opening Year (2020) scenario with and without the Project for the following segment:

4. East Palm Canyon Drive: Cathedral Canyon Drive to Date Palm Drive

The failing roadway segment is part of the TUMF program which has funding allocated to improve East Palm Canyon Drive's widening from four lanes to 6 lanes total in accordance with the approved *Cathedral City Downtown Circulation and Alignment Study* prepared by W2 Design, Inc. The study which was approved by Cathedral City in November 2009 analyzed the widening of East Palm Canyon to expand the roadway from four to six lanes to its City limits. The project would be responsible for its TUMF fees which would be used to contribute to the East Palm Canyon Drive expansion.

Build-Out Year 2040 Conditions

Impacts to roadway segments described below are considered significant and unavoidable in accordance to Cathedral City General Plan. The roadway would exceed capacity under ultimate build-out conditions. The General Plan does not propose any additional lanes to improve conditions.

Level of service for the following four segments along East Palm Canyon Drive are expected continue to operate at unacceptable levels of service under build-out conditions with and without the Project as shown below:

1. East Palm Canyon Drive: Golf Club Drive to Canyon Plaza Drive
2. East Palm Canyon Drive: Canyon Plaza Drive to Perez Road
5. East Palm Canyon Drive: Date Palm Drive to Frank Sinatra Drive
6. East Palm Canyon Drive: Frank Sinatra Drive to Country Club Drive

In accordance with the Cathedral City General Plan all four roadway segments were forecasted to exceed build-out capacity and anticipated to operate at unacceptable level of service of E or F. However, the proposed Mid-Valley Parkway has been proposed as *"an alternate route to Highway 111/East Palm Canyon Drive… The Transportation Uniform Mitigation Fee (TUMF) program has helped to pay for this facility and a wide range of other arterial roadways in the Coachella Valley."*

1.3.4 Alternative A Project Design Features and Mitigation Measures

Intersection Project Design Features

- Restripe the intersection of Buddy Rogers Avenue and Project Driveway (North) to include the following geometrics with one-way stop control:
  Northbound: One left turn lane. One shared through-right lane.
  Southbound: One shared left-through-right lane.
  Eastbound: One shared left-through-right lane.
  Westbound: One shared left-through-right lane.

- Restripe the intersection of East Palm Canyon Drive and Project Driveway (South) to include the following geometrics with signalized control:
  Northbound: Not Applicable.
  Southbound: One left turn lane. One right turn lane.
  Eastbound: One left turn lane. Two through lanes. One right turn lane.
  Westbound: One left turn lane. Three through lanes. One right turn lane.

Intersection Mitigation Measures

- Restripe the intersection of Buddy Rogers Avenue and Date Palm Drive to include the following geometrics with signalized control:
  Northbound: One left turn lane. Three through lanes.
  Southbound: Two through lanes. One shared through-right turn lane.
  Eastbound: One left turn lane. One right turn lane.
  Westbound: Not Applicable.

- Contribute fair share for installation of a traffic signal at the intersection of Cathedral Canyon Drive and Paseo Real and provide the following geometrics:
  Northbound: One left turn lane. One through lane. One shared through-right turn lane.
  Southbound: One left turn lane. One through lane. One shared through-right turn lane.
  Eastbound: One shared left-through-right lane.
  Westbound: One shared left-through-right lane.

1.3.5 Alternative B Project Design Features and Mitigation Measures

Intersection Project Design Features

- Restripe the intersection of Buddy Rogers Avenue and Project Driveway (Northwest) to include the following geometrics with one-way stop control:
  Northbound: One left turn lane. One shared through-right lane.
  Southbound: One shared left-through-right lane.
  Eastbound: One shared left-through-right lane.
  Westbound: One shared left-through-right lane.

- Restripe the intersection of Buddy Rogers Avenue and Project Driveway (Northeast) to include the following geometrics with one-way stop control:
  Northbound: One shared left-right turn lane.
  Southbound: Not Applicable.
  Eastbound: One shared through-right lane.
  Westbound: One shared left-through lane.

- Restripe the intersection of East Palm Canyon Drive and Project Driveway (South) to include the following geometrics with signalized control:
  Northbound: Not Applicable.
  Southbound: One left turn lane. One right turn lane.
  Eastbound: One left turn lane. Two through lanes. One right turn lane.
  Westbound: One left turn lane. Three through lanes. One right turn lane.

Intersection Mitigation Measures

- Install a traffic signal at the intersection of Buddy Rogers Avenue and Date Palm Drive and provide the following geometrics:
  Northbound: One left turn lane. Three through lanes.
  Southbound: Two through lanes. One shared through-right turn lane.

Eastbound: One left turn lane. One right turn lane.
Westbound: Not Applicable.

- Contribute fair share for installation of a traffic signal at the intersection of Cathedral Canyon Drive and Paseo Real and provide the following geometrics:
  Northbound: One left turn lane. One through lane. One shared through-right turn lane.
  Southbound: One left turn lane. One through lane. One shared through-right turn lane.
  Eastbound: One shared left-through-right lane.
  Westbound: One shared left-through-right lane.

1.3.6 Alternative C Project Design Features and Mitigation Measures

Intersection Project Design Features

- Restripe the intersection of Buddy Rogers Avenue and Project Driveway (Northwest) to include the following geometrics with one-way stop control:
  Northbound: One left turn lane. One shared through-right lane.
  Southbound: One shared left-through-right lane.
  Eastbound: One shared left-through-right lane.
  Westbound: One shared left-through-right lane.

- Restripe the intersection of Buddy Rogers Avenue and Project Driveway (Northeast) to include the following geometrics with one-way stop control:
  Northbound: One shared left-right turn lane.
  Southbound: Not Applicable.
  Eastbound: One shared through-right lane.
  Westbound: One shared left-through lane.

- Restripe the intersection of Date Palm Drive and Project Driveway (East) to include the following geometrics with one-way stop control:
  Northbound: Three through lanes.
  Southbound: Two through lane. One shared through-right lane.
  Eastbound: One right turn lane.
  Westbound: Not Applicable.

- Restripe the intersection of East Palm Canyon Drive and Project Driveway (South) to include the following geometrics with signalized control:
  Northbound: Not Applicable.
  Southbound: One left turn lane. One right turn lane.
  Eastbound: One left turn lane. Two through lanes. One right turn lane.
  Westbound: One left turn lane. Three through lanes. One right turn lane.

Intersection Mitigation Measures

- Install a traffic signal at the intersection of Buddy Rogers Avenue and Date Palm Drive and provide the following geometrics:

Northbound: One left turn lane. Three through lanes.
Southbound: Two through lanes. One shared through-right turn lane.
Eastbound: One left turn lane. One right turn lane.
Westbound: Not Applicable.

- Contribute fair share for installation of a traffic signal at the intersection of Cathedral Canyon Drive and Paseo Real and provide the following geometrics:
  Northbound: One left turn lane. One through lane. One shared through-right turn lane.
  Southbound: One left turn lane. One through lane. One shared through-right turn lane.
  Eastbound: One shared left-through-right lane.
  Westbound: One shared left-through-right lane.

1.3.7 Alternative D Project Design Features and Mitigation Measures

Intersection Project Design Features

- Restripe the intersection of Van Fleet Street and B Street to include the following geometrics with two-way stop control:
  Northbound: One left turn lane. One shared through-right lane.
  Southbound: One left turn lane. One shared through-right lane.
  Eastbound: One shared left-through-right lane.
  Westbound: One shared left-through-right lane.

- Restripe the intersection of D Street and Project Driveway (South) to include the following geometrics with one-way stop control:
  Northbound: Not Applicable.
  Southbound: One shared left-through-right lane.
  Eastbound: One shared left-through lane.
  Westbound: One shared through-right lane.

- Restripe the intersection of East Palm Canyon Drive and Project Driveway (North) to include the following geometrics with signalized control:
  Northbound: One left turn lane. One shared through-right lane.
  Southbound: One shared left-through-right lane.
  Eastbound: One left turn lane. Three through lanes. One right turn lane.
  Westbound: One left turn lane. Two through lanes. One right turn lane.

Intersection Mitigation Measures

- Contribute fair share for installation of a traffic signal at the intersection of Cathedral Canyon Drive and Paseo Real and provide the following geometrics:
  Northbound: One left turn lane. One through lane. One shared through-right turn lane.
  Southbound: One left turn lane. One through lane. One shared through-right turn lane.
  Eastbound: One shared left-through-right lane.
  Westbound: One shared left-through-right lane.

1.4 Intersections and Project Fair Share Mitigation Summary

The Project will participate in the cost of off-site improvements through the payment of "fair share" mitigation fees, including the following:

- Transportation Uniform Mitigation Fee (TUMF), current at time of construction.
- Transit Development Fee, current at time of construction.
- City Facilities Impact Fees, current at time of construction.

These fees will be collected and utilized as needed by the City of Cathedral City to construct the improvements necessary to assist in maintaining the required level of service in the transportation network.

Table 1-1, **Table 1-2, Table 1-3** and **Table 1-4** summarize the proposed mitigation measure and associated funding mechanism for the study intersections for Alternative A, Alternative B, Alternative C and Alternative D, respectively. The intersections of Date Palm Drive / Buddy Rogers Avenue and Cathedral Canyon Drive / Paseo Real require the installation of a traffic signal to improve the LOS to acceptable LOS of D or better.

Table 1-1 – Project Fair Share Mitigation Summary – Alternative A Intersections

Intersection	LOS Standard	Mitigation Measure	LOS with Mitigation		Existing Volume	Project Volume	2040 Alt A Volume	Net New Volume	Fair Share
			PM	SAT MD					
Date Palm Drive / Buddy Rogers Avenue	D	Install traffic signal	A	A	--				100%
Cathedral Canyon Drive / Paseo Real	D	Install traffic signal	A	A	1417	91	1976	559	16%

Table 1-2 – Project Fair Share Mitigation Summary – Alternative B Intersections

Intersection	LOS Standard	Mitigation Measure	LOS with Mitigation		Existing Volume	Project Volume	2040 Alt B Volume	Net New Volume	Fair Share
			PM	SAT MD					
Date Palm Drive / Buddy Rogers Avenue	D	Install traffic signal	A	A	--				100%
Cathedral Canyon Drive / Paseo Real	D	Install traffic signal	A	A	1417	81	1966	549	15%

Table 1-3 – Project Fair Share Mitigation Summary – Alternative C Intersections

Intersection	LOS Standard	Mitigation Measure	LOS with Mitigation		Existing Volume	Project Volume	2040 Alt C Volume	Net New Volume	Fair Share
			PM	SAT MD					
Date Palm Drive / Buddy Rogers Avenue	D	Install traffic signal	A	A	--				100%
Cathedral Canyon Drive / Paseo Real	D	Install traffic signal	A	A	1417	126	2011	594	21%

Table 1-4 – Project Fair Share Mitigation Summary – Alternative D Intersections

Intersection	LOS Standard	Mitigation Measure	LOS with Mitigation		Existing Volume	Project Volume	2040 Alt D Volume	Net New Volume	Fair Share
			PM	SAT MD					
Date Palm Drive / Buddy Rogers Avenue	D	Install traffic signal	A	A	1264	135	1611	347	39%
Cathedral Canyon Drive / Paseo Real	D	Install traffic signal	A	A	1417	91	1976	559	16%

Table 1-5 summarizes the proposed mitigation measure and associated funding mechanism for the Project as a result of the traffic study for the study area roadway segments. The anticipated LOS for buildout general plan conditions is also reported in the table below. All four roadway segments present unacceptable levels of service under all alternatives (Alternative A, Alternative B, Alternative C and Alternative D) as shown below. Roadway segments on East Palm Canyon Drive between Date Palm Drive and County Club Drive experience level of service F with and without Project traffic, but the increase in vehicle-to-capacity ratio is less than 0.05 with the Project traffic which is less than significant.

Table 1-5 – Project Fair Share Mitigation Summary - Roadways

East Palm Canyon Drive Roadway Segment	Jurisdiction	LOS Standard	General Plan Buildout LOS	LOS w/o Project	LOS w/ Project	Funding Mechanism
Golf Club Drive to Canyon Plaza Drive	Cathedral City	D	**E**	**E**	**E**	TUMF
Canyon Plaza Drive to Perez Road	Cathedral City	D	**E**	**E**	**E**	TUMF
Date Palm Drive to Frank Sinatra Drive	Cathedral City	D	**F**	**F**	**F**	TUMF
Frank Sinatra Drive to Country Club Drive	Cathedral City	D	**F**	**F**	**F**	TUMF

LOS = Unacceptable LOS, No significant impact

2.0 INTRODUCTION

2.1 Purpose of Report and Study Objectives

The purpose of this study is to evaluate the effects on traffic circulation produced from the proposed development of the Project.

The objectives of this study include the following:

- Document Existing (2018) traffic conditions in the vicinity of the proposed Project;
- Determine the traffic generated from the proposed Project;
- Evaluate Project Opening Year (2020) traffic conditions;
- Evaluate Project Opening Year (2020) traffic conditions with each Project Alternative;
- Evaluate Cumulative Year (2040) traffic conditions for each Project Alternative;
- Determine if the level of service (LOS) required by the City of Cathedral City, City of Palm Springs, and City of Rancho Mirage will be maintained within the study area, and if not, determine the mitigation measures that will be necessary in order to maintain the required LOS;
- Determine if peak hour traffic signal warrants are met for any of the unsignalized study area intersections;
- Evaluate the adequacy of on-site circulation for the proposed Project; and
- Determine if safety and/or operational improvements are necessary due to the proposed Project.

2.2 Site Location and Study Area

The proposed Project is located in the City of Cathedral City. Depending on the Project Alternative chosen, the Project would be located on the northwest (North Site) or southwest (South Site) corner of Date Palm Drive and East Palm Canyon Drive. The study area is located within the Downtown Commercial area in the Cathedral City General Plan.

2.3 Development Project Description

2.3.1 Project Size and Description

The North and South Sites both encompass approximately 14 acres, and are currently proposed for development of a casino, restaurant, and/or retail uses as shown below for trip generation rate purposes for each Project Alternative.

Alternative A – Casino with 40,000 square feet of gaming floor
24,000 square feet Shopping Center
14,000 square feet High-Turnover Sit-Down Restaurant
14,000 square feet Quality Restaurant
6,000 square feet Fast Casual Restaurant
2,000 square feet Coffee/Donut Shop Without Drive-Through Window

Alternative B – Casino with 40,000 square feet of gaming floor
15,200 square feet Shopping Center
8,500 square feet High-Turnover Sit-Down Restaurant

8,500 square feet Quality Restaurant
3,800 square feet Fast Casual Restaurant
2,000 square feet Coffee/Donut Shop Without Drive-Through Window

Alternative C – 36,000 square feet Shopping Center
22,000 square feet High-Turnover Sit-Down Restaurant
22,000 square feet Quality Restaurant
8,000 square feet Fast Casual Restaurant
2,000 square feet Coffee/Donut Shop Without Drive-Through Window

Alternative D – Casino with 40,000 square feet of gaming floor
24,000 square feet Shopping Center
14,000 square feet High-Turnover Sit-Down Restaurant
14,000 square feet Quality Restaurant
6,000 square feet Fast Casual Restaurant
2,000 square feet Coffee/Donut Shop Without Drive-Through Window

2.3.2 Existing Land Use and Zoning

Existing land use and zoning designations are as follows:

- Existing Zoning: Mixed Use Commercial, Downtown Residential Neighborhood
- Existing Land Use: Vacant and Commercial

2.3.3 Proposed Land Use and Zoning

Proposed land use and zoning designations are as follows:

- Proposed Zoning: Mixed Use Commercial
- Proposed Land Use: Commercial

2.3.4 Site Plan of Proposed Project

The proposed Project Alternative layouts are shown on **Figure 2-A, Figure 2-B, Figure 2-C,** and **Figure 2-D.** Project Alternatives A, B, and C will have access to Buddy Rogers Avenue north of the Project, Monty Hall Drive west of the Project, East Palm Canyon Drive south of the Project, and Date Palm Drive east of the Project. Alternative D will have access to East Palm Canyon Drive north of the Project, Van Fleet Street west of the Project, and D Street south of the Project.

The Alternative A site plan includes the following:

1. N/S driveway at Buddy Rogers Avenue with two-way stop control
2. N/S driveway at East Palm Canyon Drive with signalized control

The Alternative B site plan includes the following:

1. N/S driveway (western) at Buddy Rogers Avenue with two-way stop control
2. N/S driveway (eastern) at Buddy Rogers Avenue with one-way stop control
3. N/S driveway at East Palm Canyon Drive with signalized control

The Alternative C site plan includes the following:

1. N/S driveway (western) at Buddy Rogers Avenue with two-way stop control
2. N/S driveway (eastern) at Buddy Rogers Avenue with one-way stop control
3. E/W driveway at Date Palm Drive with one-way stop control
4. N/S driveway at East Palm Canyon Drive with signalized control

The Alternative D site plan includes the following:

1. N/S driveway at East Palm Canyon Drive with signalized control
2. N/S driveway at D Street with one-way stop control
3. E/W driveway at Van Fleet Street with two-way stop control

Figure 2-A – Alternative A Project Site Plan



Figure 2-B – Alternative B Project Site Plan



Figure 2-C – Alternative C Project Site Plan



Figure 2-D – Alternative D Project Site Plan



2.3.5 Proposed Project Opening Year and Proposed Project Phasing

For analysis purposes, it is assumed that the Project will be developed in a single phase and full development is anticipated by 2020.

2.3.6 Sphere of Influence

The Project is within one mile of the border of the City of Palm Springs and the City of Rancho Mirage.

3.0 AREA CONDITIONS

3.1 Existing Roadway Descriptions

3.1.1 Collector

- D Street is an undivided 2-lane east-west collector in the Project vicinity. It is classified as a collector in the Cathedral City General Plan Circulation Element and provides connectivity to Van Fleet Street and Cathedral Canyon Drive. Street parking is allowed. There are existing sidewalks on one side of the street, but designated bike lanes do not exist within the study area.

- Van Fleet Street is an undivided 2-lane north-south collector in the Project vicinity. It is classified as a collector in the Cathedral City General Plan Circulation Element and provides connectivity to D Street and East Palm Canyon Drive. Street parking is allowed. There are existing sidewalks on both sides of the street where development is complete, but designated bike lanes do not exist within the study area.

- Country Club Drive is a divided 4-lane east-west collector in the Project vicinity. It is classified as a collector in the Rancho Mirage General Plan Circulation Element and provides connectivity to East Palm Canyon Drive. Street parking is not allowed. There are existing sidewalks on both sides of the street where development is complete, but designated bike lanes do not exist within the study area.

- Morningside Drive is a divided 4-lane north-south collector roadway in the Project vicinity. It is classified as a major collector in the Rancho Mirage General Plan Circulation Element and provides connectivity to the major streets like Country Club Drive and Frank Sinatra Drive. There are no existing sidewalks, designated bike lanes exist within the study area.

3.1.2 Secondary Highway

- Cathedral Canyon Drive is a divided 4-lane north-south secondary highway in the Project vicinity with a two-way left-turn lane. It is classified as a secondary highway in the Cathedral City General Plan Circulation Element and provides connectivity from East Palm Canyon Drive to Ramon Road. Street parking is not allowed. There are existing sidewalks on both sides of the street, and designated bike lanes exist within the study area.

- Golf Club Drive is an undivided 4-lane secondary thoroughfare in the Project vicinity. It is classified as secondary thoroughfare in Palm Springs General Plan Circulation Element and provides connectivity to East Palm Canyon Drive. Street parking is not allowed. There are existing sidewalks on the both sides of the street, and designated bike lanes exist within the study area.

3.1.3 Major Highway

- Da Vall Drive is a divided 4-lane north-south major highway in the Project vicinity with a raised median. It is classified as a major highway in the Cathedral City General Plan Circulation Element and provides connectivity to Frank Sinatra Drive and 30th Avenue. Street parking is not allowed. There are existing

sidewalks on both sides of the street, but designated bike lanes do not exist within the study area.

- Frank Sinatra Drive is a divided 4-lane east-west major highway in the Project vicinity with a raised median. It is classified as a major highway in the Cathedral City General Plan Circulation Element and provides connectivity to East Palm Canyon Drive and the City of Rancho Mirage. Street parking is not allowed. There are existing sidewalks on both sides of the street, and designated bike lanes exist within the study area.

- Gerald Ford Drive is a divided 4-lane east-west major highway in the Project vicinity with a two-way left-turn lane. It is classified as a major highway in the Cathedral City General Plan Circulation Element and provides connectivity to Date Palm Drive and the City of Rancho Mirage. Street parking is not allowed. There are existing sidewalks on both sides of the street in most places, but designated bike lanes do not exist within the study area.

- Perez Road is a divided 4-lane east-west major highway in the Project vicinity. It is classified as a major highway in the Cathedral City General Plan Circulation Element and provides connectivity to East Palm Canyon Drive and Date Palm Drive. Street parking is allowed. There are existing sidewalks in most areas, but designated bike lanes do not exist within the study area.

3.1.4 Arterial Highway

- Date Palm Drive is a divided 4 to 6-lane north-south arterial highway in the Project vicinity. It is classified as an arterial highway in the Cathedral City General Plan Circulation Element and provides connectivity to East Palm Canyon and Interstate 10. Street parking is not allowed. There are existing sidewalks on both sides of the street where development is complete, but designated bike lanes do not exist within the study area.

- East Palm Canyon Drive is a divided 4 to 6-lane east-west arterial highway in the Project vicinity. It is classified as an arterial highway in the Cathedral City General Plan Circulation Element and provides connectivity to the City of Palm Springs and the City of Rancho Mirage. East Palm Canyon Drive is formerly known as State Route 111 under Caltrans jurisdiction, but control of the roadway has been relinquished to local agency control within the Project vicinity. Street parking is allowed in small areas. There are existing sidewalks on both sides of the street, but designated bike lanes do not exist within the study area.

- Dinah Shore Drive is a divided 4 to 6-lane east-west arterial highway in the Project vicinity. It is classified as an arterial highway in the City of Cathedral City General Plan Circulation Element and provides connectivity to the City of Palm Springs and the City of Rancho Mirage. Street parking is not allowed. There are existing sidewalks on both sides of the street where development is complete, but designated bike lanes do not exist within the study area.

- Ramon Road is a divided 6-lane east-west arterial highway in the Project vicinity. It is classified as an arterial in the Cathedral City General Plan Circulation Element and provides connectivity to the City of Palm Springs and the City of Rancho Mirage. Street parking is not allowed. There are existing sidewalks on both sides of the street, but designated bike lanes do not exist within the study area.

3.1.5 Local Streets

- Buddy Rogers Avenue is an undivided 2-lane east-west roadway in the Project vicinity. It provides connectivity to Date Palm Drive and East Palm Canyon Drive. There are existing sidewalks in some areas, but designated bike lanes do not exist.

- Allen Avenue is an undivided 2-lane north-south roadway in the Project vicinity. It provides connectivity to East Palm Canyon Drive and Buddy Rogers Avenue. There are no existing sidewalks and bike lanes do not exist.

- Paseo Real is a divided 2-lane east-west roadway in the Project vicinity. It provides connectivity to Date Palm Drive and Cathedral Canyon Drive. There are existing sidewalks on the both sides of the street, but designated bike lanes do not exist.

- Mirage Cove Drive is a 2-lane east-west roadway in the Project vicinity. It provides connectivity to East Palm Canyon Drive. There are existing sidewalks on the both sides of the street, but designated bike lanes do not exist.

- B Street is an undivided 2-lane east-west roadway in the Project vicinity. It provides connectivity to Cathedral Canyon Drive and Van Fleet Street. There is existing sidewalk in most areas, but designated bike lanes do not exist.

- Officer David Vasquez Road is an undivided 2-lane east-west roadway in the Project vicinity. It provides connectivity to Monty Hall Drive and Cathedral Canyon Drive. There are sidewalks in a few developed areas, but designated bike lanes do not exist.

- Monty Hall Drive is an undivided 2-lane north-south roadway in the Project vicinity. It provides connectivity to the East Palm Canyon Drive and Officer David Vasquez Road. There are existing sidewalks where development is complete, but designated bike lanes do not exist.

- Canyon Plaza Drive is an undivided 2-lane north-south roadway in the Project vicinity. It provides connectivity to East Palm Canyon Drive. There are few existing sidewalks, and designated bike lanes do not exist.

3.2 Study Area Intersections and Roadways

Key study intersections and roadway segments are typically selected based on their location in relation to the vicinity of the project and whether potential significant project-related traffic will pass through them. The key intersections and roadways were identified in coordination with the City of Cathedral City staff and are shown on **Figure 3-A**. The study area includes the following intersections:

1. North Project Driveway (Western)-Allen Avenue (NS) / Buddy Rogers Avenue (NS)
2. Date Palm Drive (NS) / Buddy Rogers Avenue (EW)
3. Date Palm Drive (NS) / East Palm Canyon Drive (EW)
4. South Project Driveway-Allen Avenue (NS) / East Palm Canyon Drive (EW)
5. Monty Hall Drive-Van Fleet Street (NS) / East Palm Canyon Drive (EW)

6. Date Palm Drive (NS) / East Project Driveway-Hillery Road (EW)
7. North Project Driveway (Eastern)-Allen Avenue (NS) / Buddy Rogers Avenue (NS)
8. Monty Hall Drive (NS) / Buddy Rogers Avenue (EW)
9. Buddy Rogers Avenue (NS) / East Palm Canyon Drive (EW)
10. Cathedral Canyon Drive (NS) / East Palm Canyon Drive (EW)
11. Perez Road (NS) / East Palm Canyon Drive (EW)
12. Canyon Plaza Drive (NS) / East Palm Canyon Drive (EW)
13. Golf Club Drive (NS) / East Palm Canyon Drive (EW)
14. Cathedral Canyon Drive (NS) / Officer David Vasquez Road (EW)
15. Cathedral Canyon Drive (NS) / Perez Road (EW)
16. Cathedral Canyon Drive (NS) / Paseo Real (EW)
17. Cathedral Canyon Drive (NS) / Dinah Shore Drive (EW)
18. Date Palm Drive (NS) / Gerald Ford Drive (EW)
19. Date Palm Drive (NS) / Dinah Shore Drive (EW)
20. Date Palm Drive (NS) / Ramon Road (EW)
21. Da Vall Drive (NS) / Dinah Shore Drive (EW)
22. Da Vall Drive (NS) / Gerald Ford Drive (EW)
23. East Palm Canyon Drive (NS) / Frank Sinatra Drive (EW)
24. East Palm Canyon Drive (NS) / Mirage Cove Drive (EW)
25. East Palm Canyon Drive (NS) / Country Club Drive (EW)
26. Thompson Road-Morningside Drive (NS) / Frank Sinatra Drive (EW)
27. Van Fleet Street (NS) / B Street-We (EW)
28. Van Fleet Street (NS) / D Street (EW)
29. South Project Driveway (NS) / D Street (EW)

The study area also includes the following roadway segments:

1. East Palm Canyon Drive between Golf Club Drive and Canyon Plaza Drive
2. East Palm Canyon Drive between Canyon Plaza Drive and Perez Road
3. East Palm Canyon Drive between Perez Road and Cathedral Canyon Drive
4. East Palm Canyon Drive between Cathedral Canyon Drive and Date Palm Drive
5. East Palm Canyon Drive between Date Palm Drive and Frank Sinatra Drive
6. East Palm Canyon Drive between Frank Sinatra Drive and Country Club Drive
7. Cathedral Canyon Drive between East Palm Canyon Drive and Perez Road
8. Cathedral Canyon Drive between Perez Road and Dinah Shore Drive
9. Date Palm Drive between East Palm Canyon Drive and Gerald Ford Drive
10. Date Palm Drive between Gerald Ford Drive and Dinah Shore Drive

Intersection numbering and roadway segment numbering is unique and consistent throughout each project alternative.

3.3 Existing Traffic Controls and Intersection Geometrics

The existing roadway system is shown on **Figure 3-B**. It identifies the existing intersection traffic controls (i.e. signals and signage), intersection geometrics, and the number of traffic lanes within the study area.

3.4 Existing Traffic Volumes

The casino land use is not a standard ITE land use and is not included in the ITE Trip Generation Manual. In addition, the proposed Project's peak traffic hours had to be determined since the hours of operation of a development with a casino land use would not fall under a typical weekday (a.m. peak and p.m. peak analysis). Therefore, Webb's sub-consultant, *Counts Unlimited, Inc.*, performed counts at two existing similar casinos in southern California and conducted trip generation counts at each location on Thursday, March 1 and Saturday, March 3. Vehicles entering and exiting each driveway were counted in 15 minute periods for 12 hours on each day (7AM to 7PM). The results from the two casinos were processed, and Webb determined that the highest two peak hours occurred between the hours of 4:00 PM to 5:00 PM (PM peak hour) on weekdays and 1:00 PM to 2:00 PM (Saturday mid-day (MD) peak hour) on weekends.

The existing PM peak hour and Saturday MD (mid-day) peak hour intersection turning movement counts at the 25 key study intersections were conducted by *Counts Unlimited, Inc*. on April 10 and 14, 2018. The daily roadway segment counts were conducted on April 7 and 10, 2018. The traffic count worksheets are provided in Appendix C. The PM and Saturday MD peak hour intersection turning movement volumes are presented on **Figure 3-C** and **Figure 3-D**, respectively. The daily roadway segment ADT volumes at the 10 key study roadways are presented on **Figure 3-E**.

Figure 3-A – Study Area Intersections and Roadways

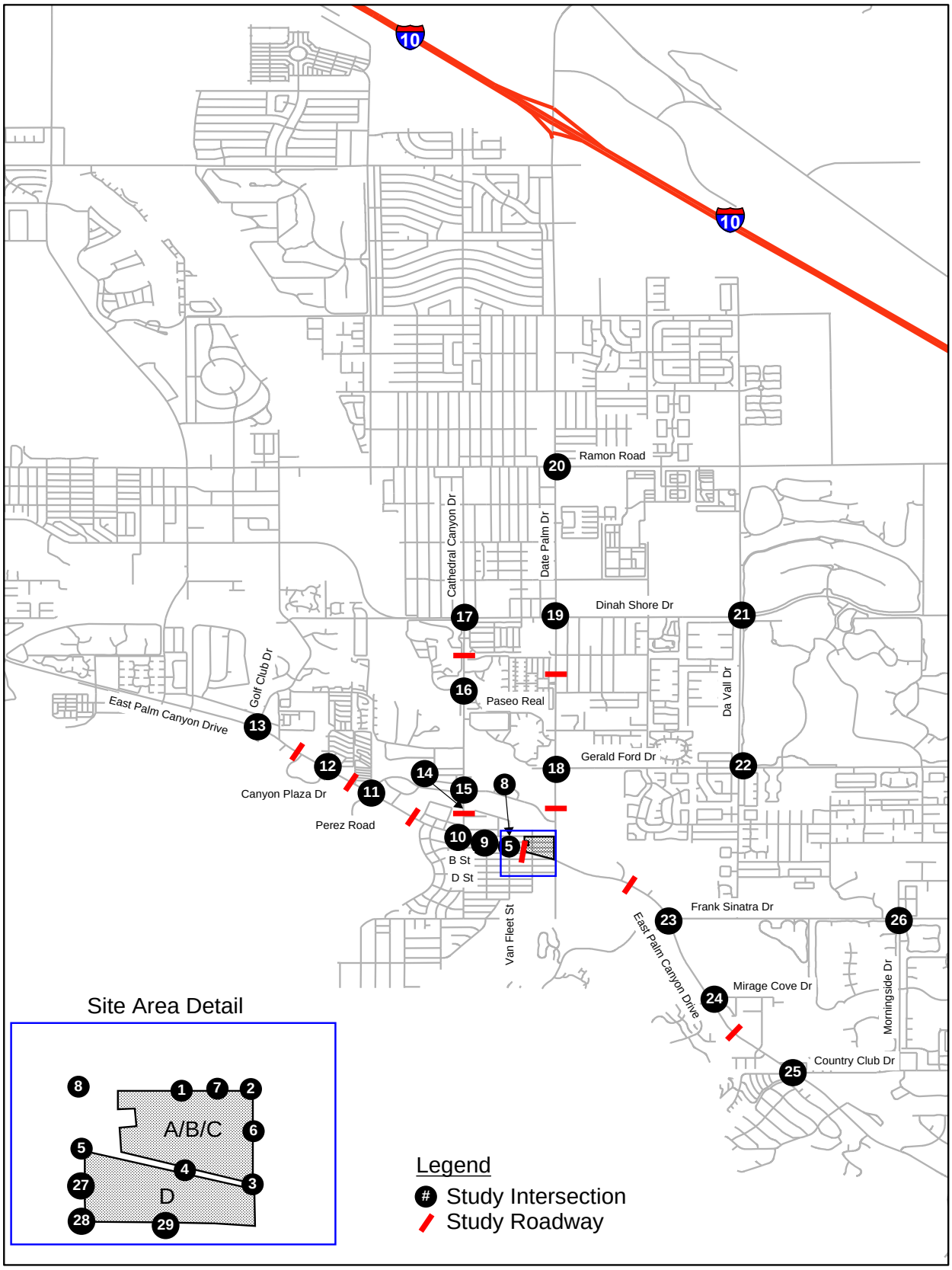


Figure 3-B – Existing Roadway System

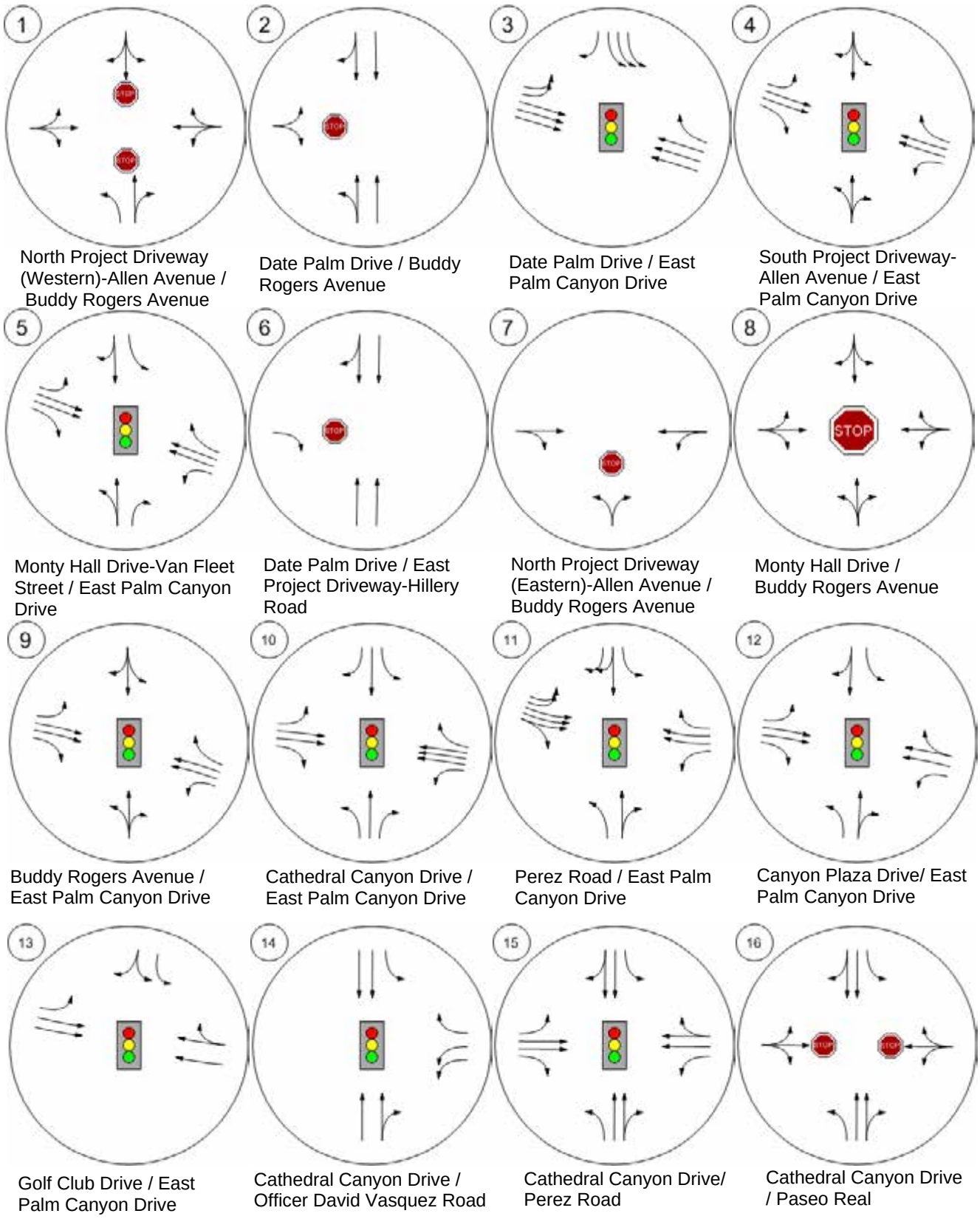


Figure 3-B (Continued) – Existing Roadway System

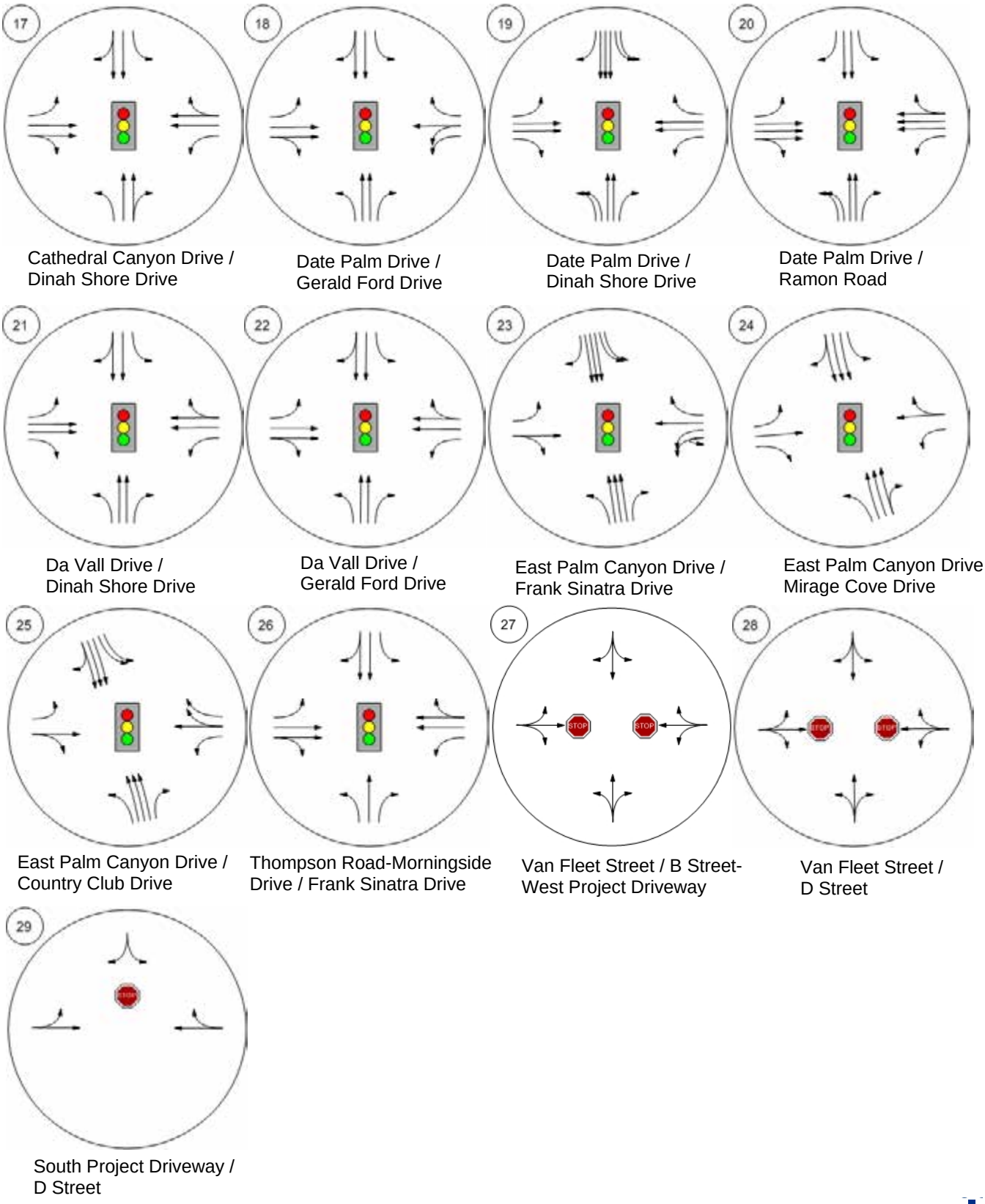


Figure 3-C – Existing (2018) PM Peak Hour Intersection Volumes

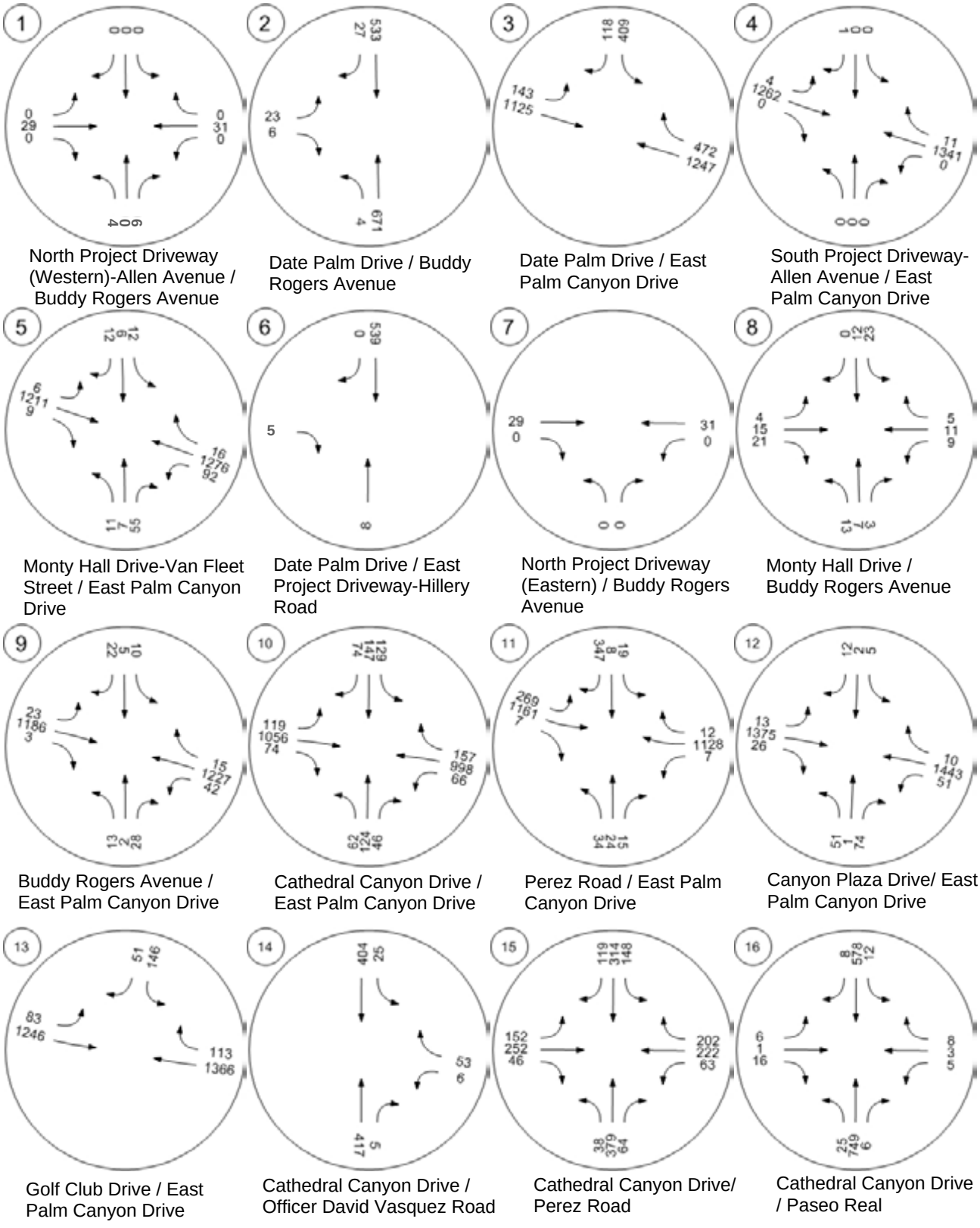


Figure 3-C (Continued) – Existing (2018) PM Peak Hour Intersection Volumes

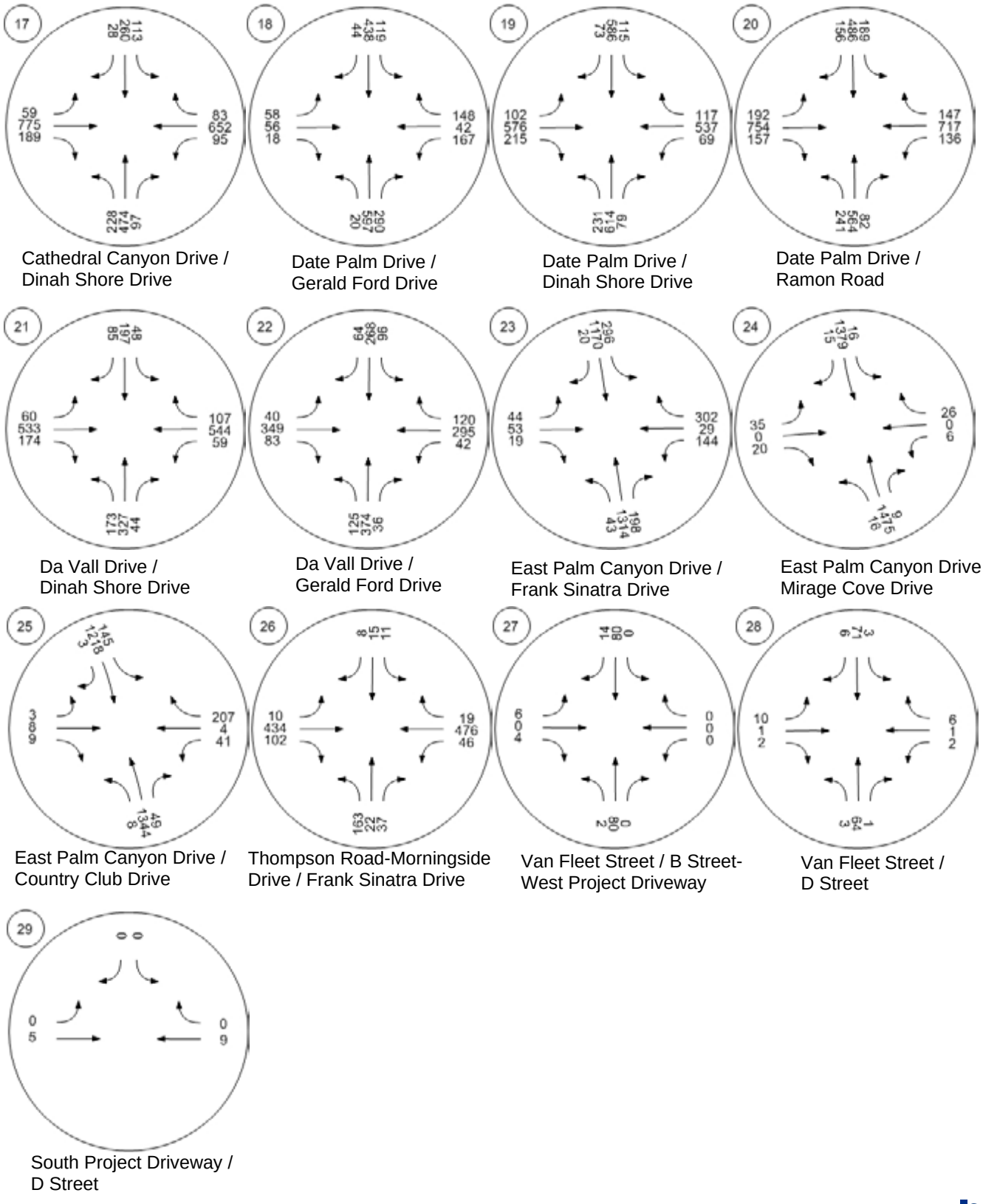


Figure 3-D – Existing (2018) Saturday MD Peak Hour Intersection Volumes

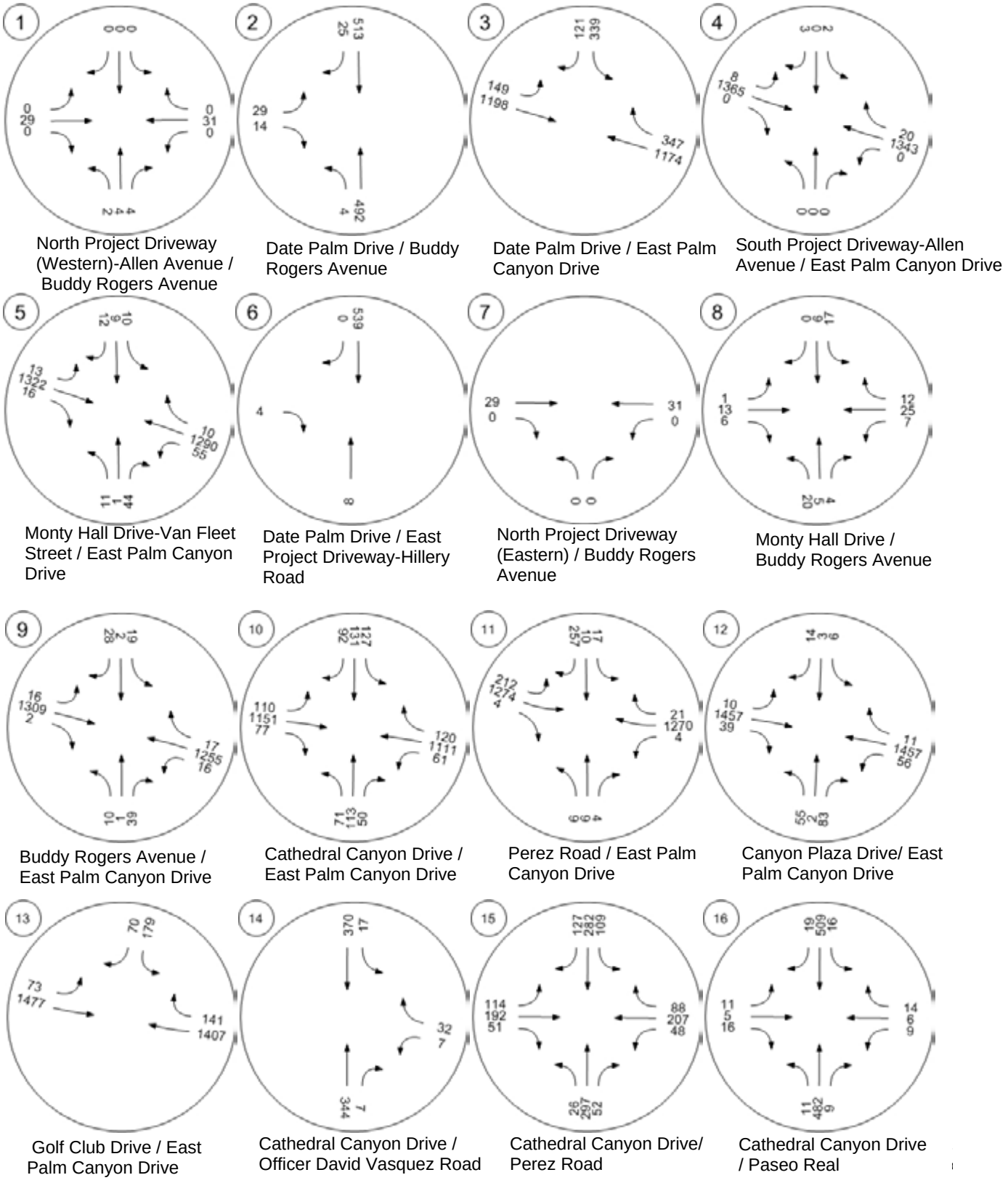


Figure 3-D (Continued) – Existing (2018) Saturday MD Peak Hour Intersection Volumes

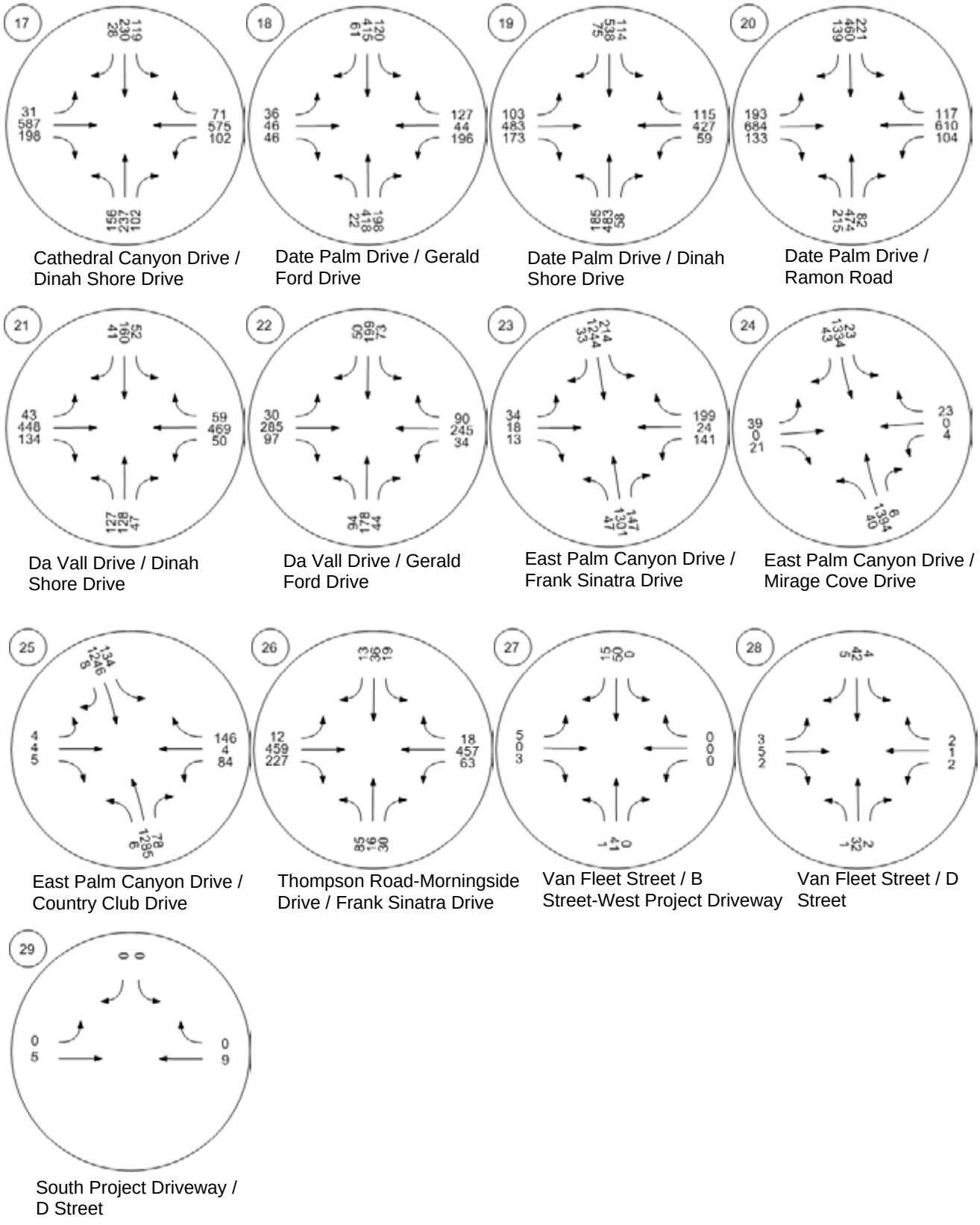
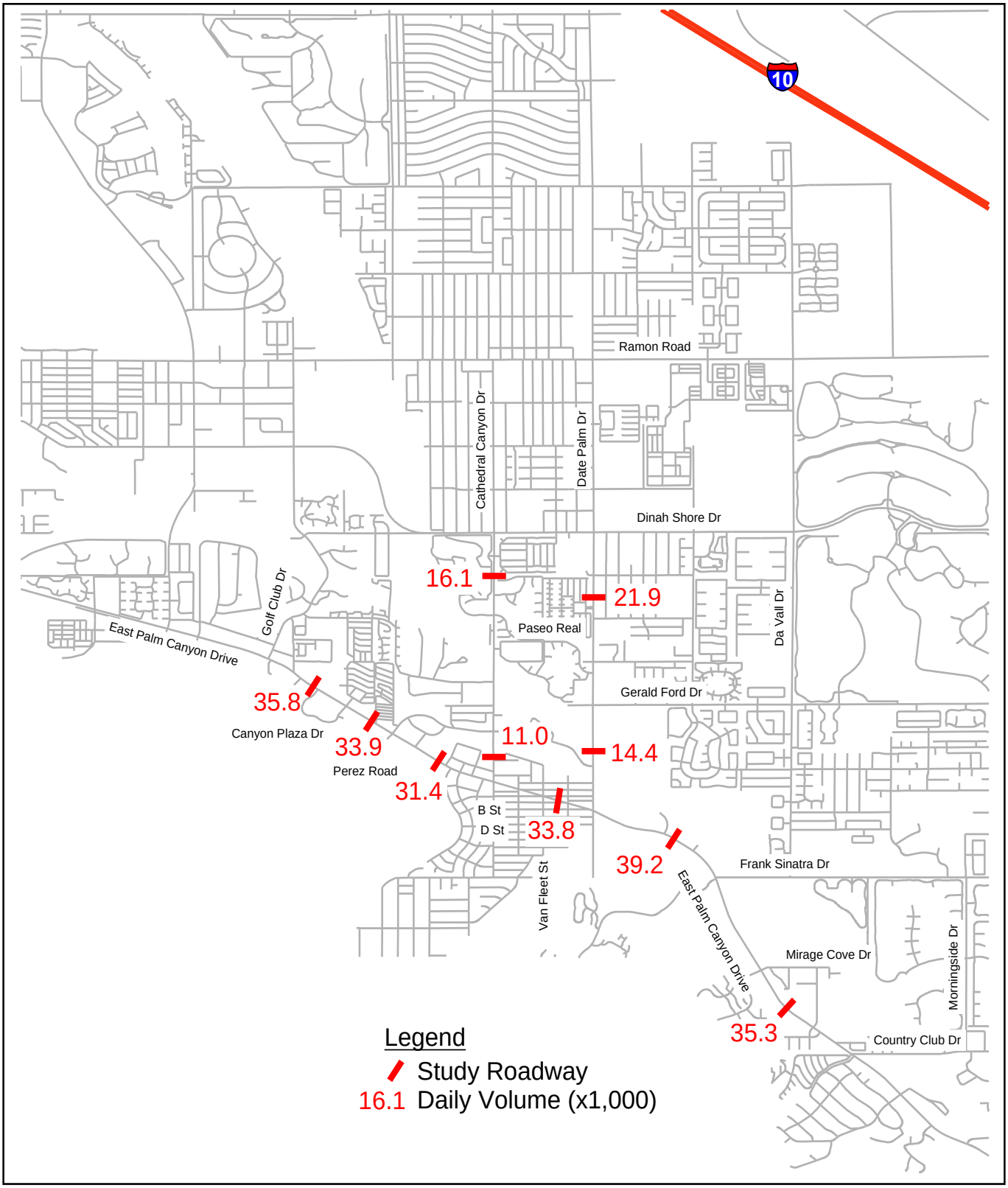


Figure 3-E – Existing (2018) Daily Roadway Segment ADT Volumes



3.5 Level of Service Methodology

The City of Cathedral City requires that the Transportation Research Board Highway Capacity Manual 2010 (HCM2010) or the most recent release of the HCM be used to analyze Level of Service (LOS).

Quality of service describes how well a transportation facility or service operates from the traveler's perspective. Level of service (LOS) is a quantitative stratification of a performance measure or measures that represent quality of service. LOS is measured on a familiar A to F scale where LOS A represents the best conditions from a traveler's perspective and LOS F the worst. A simple LOS letter system is used to hide much of the complexity of transportation facility performance in order to simplify decision making on whether facility performance is generally acceptable and whether a future change in performance is likely to be perceived as significant by the general public. One reason for the widespread adoption of the LOS concept by agencies is the concept's ability to communicate roadway performance to nontechnical decision makers.

The HCM2010 evaluates the LOS of intersections based upon the control delay per vehicle. Control delay is defined as the delay associated with vehicles slowing in advance of an intersection, the time spent stopped on an intersection approach, the time spent as vehicles move up in the queue, and the time needed for vehicles to accelerate to their desired speed. The methodology used to evaluate the intersection level of service differs on whether the intersection is signalized or unsignalized. Levels of service at signalized and unsignalized intersections have been evaluated using PTV Vistro 5.00 software, which is based upon HCM2010 methodologies.

3.5.1 Signalized Intersections

Signalized intersections have been evaluated using the Operational Method as described in Chapter 18 of the HCM2010. According to this methodology, the level of service for signalized intersections is based upon the weighted average control delay, in seconds per vehicle, of all vehicles passing through the intersection. **Table 3-1** shows the criteria used to determine the level of service for signalized intersections.

Table 3-1 – Level of Service for Signalized Intersections

Level of Service	Control Delay (sec/vehicle)	Description
A	≤ 10	Minimal delay and primarily free-flow operation. Most vehicles do not stop because they arrive during the green indication or only stop for a brief amount of time as the signal changes.
B	> 10 – 20	Short delay and reasonably unimpeded operation. Many vehicles do not stop because they arrive during the green indication or only stop for a short amount of time as the signal changes. More vehicles stop than with LOS A.
C	> 20 – 35	Moderate delay and stable operation. Individual cycle failures (i.e. when queued vehicles do not clear the signal during the next green indication) may begin to appear. The number of vehicles stopping is significant, although many vehicles still pass through the intersection without stopping.
D	> 35 – 55	Less stable operation in which small increases in vehicles may cause substantial increases in delay. Many vehicles stop and individual cycle failures are noticeable.
E	> 55 – 80	Significant delay and unstable operation. Most vehicles stop and individual cycle failures are frequent.
F	> 80	Considerable delay and extensive queuing. Almost all vehicles stop and most cycles fail to clear the queue.

Source: Transportation Research Board Highway Capacity Manual 2010 (HCM2010)

3.5.2 Unsignalized Intersections

Unsignalized intersections were evaluated using Chapter 19-20 of the HCM2010. According to this methodology, the level of service for all-way stop intersections is based upon the weighted average control delay, in seconds per vehicle, of all vehicles passing through the intersection. For two-way stop controlled intersections, the level of service is based on the highest control delay of all controlled movements for the intersection. **Table 3-2** shows the criteria used to determine the level of service for unsignalized intersections.

Table 3-2 – Level of Service for Unsignalized Intersections

Level of Service	Control Delay (sec/vehicle)	Description
A	≤ 10	Minimal delay. Usually no conflicting traffic.
B	> 10 – 15	Short delay. Occasionally some conflicting traffic.
C	> 15 – 25	Noticeable delay, but not inconveniencing. Usually some conflicting traffic.
D	> 25 – 35	Noticeable delay and irritating. A significant amount of conflicting traffic. Increased likelihood of risk taking.
E	> 35 – 50	Significant delay approaching tolerance level. Lots of conflicting traffic, but with some gaps of suitable size. Risk taking behavior likely.
F	> 50	Considerable delay exceeding tolerance level. Lots of conflicting traffic, with not enough gaps of suitable size. High likelihood of risk taking.

Source: Transportation Research Board Highway Capacity Manual 2010 (HCM2010)

3.6 Acceptable Level of Service

3.6.1 City of Cathedral City

The acceptable Level of Service (LOS) for the City of Cathedral City is based on the Cathedral City General Plan Circulation Element:

> *For General Plan purposes, the upper level of LOS D is assumed to be the "acceptable" level-of-service for a given roadway in the City. While the vast majority of roadways in the planning area are expected to operate at acceptable levels-of-service at General Plan buildout, several segments may operate at LOS E or F unless special design and/or control measures are implemented to mitigate traffic impacts in these areas.*

3.6.2 City of Palm Springs

The acceptable LOS for the City of Palm Springs is based on the City of Palm Springs General Plan Circulation Element:

> *The City has established that roadways and intersections shall operate at LOS D or better to maintain a successful circulation system and to be consistent with the Riverside County Congestion Management Program (CMP).*

3.6.3 City of Rancho Mirage

The acceptable LOS for the City of Rancho Mirage is based on the City of Rancho Mirage General Plan Circulation Element:

> *For peak operating periods, LOS D or a maximum volume to capacity ratio of 0.90 is now considered the generally acceptable service level.*

3.7 Determination of Significant Impact

Cathedral City, which follows Riverside County traffic impact analysis guidelines, states that an intersection should be analyzed if it assigns 50 or more peak hour trips to an intersection. Intersections should also be analyzed if they are currently experiencing failing levels of service and the project is expected to add traffic to it. If an intersection or roadway is currently operating acceptably and is found to operate at LOS E or F with the addition of project traffic, the project is considered to have a significant impact at that intersection or roadway if the impacts cannot be mitigated to an acceptable LOS through conditions of approval.

If an intersection is currently operating unacceptably and the project adds 50 or more trips to the intersection, this would constitute a significant impact at that intersection. If a roadway segment is currently operating unacceptably with a vehicle-to-capacity ratio less than 1.0 and the project increases the overall vehicle-to-capacity ratio to greater than 1.0, this would constitute a significant impact on the roadway segment. If a roadway segment is currently operating unacceptably with an overall vehicle-to-capacity ratio greater than 1.0, an increase of the vehicle-to-capacity ratio by 0.05 or greater with the addition of project traffic would constitute a significant impact on the roadway segment. These criteria are consistent with surrounding agencies' policies and other recent similar traffic impact studies.

3.8 Roadway Segments

Roadway segments are evaluated based on a roadway daily volume and its capacity. Roadway segment analysis compares the daily volume with the roadway capacity to arrive at a volume to capacity ratio (v/c). This study follows the "v/c" ratio stipulated by the Cathedral City General Plan Circulation Element, shown in **Table 3-3**. The target LOS for roadway segments will be considered as LOS D. Per the Cathedral City General Plan, it is projected that several roadway segments in the General Plan Buildout scenario (2035) are expected to operate at LOS E or LOS F. Roadways forecasted to operate at LOS E may be mitigated by the addition of turning lanes at key intersections. Roadways forecasted to operate at LOS F may require the construction of additional through lanes.

Table 3-3 – Roadway Segment Capacity

Roadway Classification	Number of Lanes	Maximum Two-Way Traffic Volume (ADT)*				
		LOS A	LOS B	LOS C	LOS D	LOS E
Collector	2-U	6,000	9,000	12,000	15,000	18,000
Secondary	4-U	10,000	15,000	20,000	25,000	30,000
Major	4-D	10,000	17,000	24,000	31,000	38,000
Arterial	6-D	17,000	27,500	38,000	48,500	59,000
Freeway	8-D	74,000	103,000	132,000	161,000	190,000

All capacity figures are based on optimum conditions and are intended as guidelines for planning purposes.
*Maximum two-way ADT values are based on the Cathedral City General Plan Circulation Element, 2009.
U - Undivided Roadway
D - Divided Roadway

3.9 Levels of Service – Existing (2018) Conditions

The intersection levels of service for existing (2018) conditions shown on **Table 3-4** are based upon the existing roadway system shown on **Figure 3-B** and the existing PM and Saturday MD peak hour intersection volumes shown on **Figure 3-C** and **Figure 3-D**, respectively. The roadway segment levels of service for existing (2018) conditions are shown on **Table 3-5** and are based upon existing roadway segment geometry. The level of service calculation worksheets are provided in Appendix E.

The following intersection is operating at an unacceptable level of service under existing (2018) conditions:

16. Cathedral Canyon Drive / Paseo Real – LOS E in the PM peak hour

The following roadway segments are operating at unacceptable levels of service under existing (2018) conditions:

1. East Palm Canyon Drive: From Golf Club Drive to Canyon Plaza Drive
2. East Palm Canyon Drive: From Canyon Plaza Drive to Perez Road
4. East Palm Canyon Drive: From Cathedral Canyon Drive to Date Palm Drive

Table 3-4 – Intersection Levels of Service – Existing (2018) Conditions

Intersection		LOS Standard	Peak Hour	Traffic Control	Delay (sec)	LOS
1	North Project Driveway (Western)-Allen Avenue / Buddy Rogers Avenue	D	PM	OWSC	9	A
			Sat-MD		9	A
2	Date Palm Drive / Buddy Rogers Avenue	D	PM	OWSC	19.8	C
			Sat-MD		18.0	C
3	Date Palm Drive / East Palm Canyon Drive	D	PM	Signalized	10.1	B
			Sat-MD		9.3	A
4	South Project Driveway-Allen Avenue / East Palm Canyon Drive	D	PM	Signalized	1.3	A
			Sat-MD		1.1	A
5	Monty Hall Drive-Van Fleet Street / East Palm Canyon Drive	D	PM	Signalized	8.1	A
			Sat-MD		7.0	A
6	Date Palm Drive / East Project Driveway-Hillery Road	D	PM	OWSC	10	A
			Sat-MD		10	A
7	North Project Driveway (Eastern)-Allen Avenue / Buddy Rogers Avenue	D	PM	Does Not Exist		
			Sat-MD			
8	Monty Hall Drive / Buddy Rogers Avenue	D	PM	AWSC	7.3	A
			Sat-MD		7.3	A
9	Buddy Rogers Avenue/ East Palm Canyon Drive	D	PM	Signalized	3.2	A
			Sat-MD		3.7	A
10	Cathedral Canyon Drive / East Palm Canyon Drive	D	PM	Signalized	14.7	B
			Sat-MD		14.4	B
11	Perez Road / East Palm Canyon Drive	D	PM	Signalized	20.6	C
			Sat-MD		15.4	B
12	Canyon Plaza Drive / East Palm Canyon Drive	D	PM	Signalized	9.0	A
			Sat-MD		9.6	A
13	Golf Club Drive / East Palm Canyon Drive	D	PM	Signalized	8.4	A
			Sat-MD		9.6	A
14	Cathedral Canyon Drive / Officer David Vasquez Road	D	PM	Signalized	6.6	A
			Sat-MD		4.0	A
15	Cathedral Canyon Drive / Perez Road	D	PM	Signalized	40.3	D
			Sat-MD		21.9	C
16	Cathedral Canyon Drive / Paseo Real	D	PM	TWSC	**37.9**	**E**
			Sat-MD		23.6	C
17	Cathedral Canyon Drive / Dinah Shore Drive	D	PM	Signalized	37.5	D
			Sat-MD		22.5	C

Table 3-4 (Continued) – Intersection Levels of Service – Existing (2018) Conditions

Intersection		LOS Standard	Peak Hour	Traffic Control	Delay (sec)	LOS
18	Date Palm Drive / Gerald Ford Drive	D	PM Sat-MD	Signalized	22.4 14.4	C B
19	Date Palm Drive / Dinah Shore Drive	D	PM Sat-MD	Signalized	23.8 20.8	C C
20	Date Palm Drive / Ramon Road	D	PM Sat-MD	Signalized	26.9 26.7	C C
21	Da Vall Drive / Dinah Shore Drive	D	PM Sat-MD	Signalized	31.0 17.3	C B
22	Da Vall Drive / Gerald Ford Drive	D	PM Sat-MD	Signalized	39.8 21.9	D C
23	East Palm Canyon Drive / Frank Sinatra Drive	D	PM Sat-MD	Signalized	30.0 25.3	C C
24	East Palm Canyon Drive / Mirage Cove Drive	D	PM Sat-MD	Signalized	38.7 19.0	D B
25	East Palm Canyon Drive / Country Club Drive	D	PM Sat-MD	Signalized	33.5 19.9	C B
26	Thompson Road-Morningside Drive / Frank Sinatra Drive	D	PM Sat-MD	Signalized	8.2 6.3	A A
27	Van Fleet Street / B Street-West Project Driveway	D	PM Sat-MD	TWSC	10.2 9.8	B A
28	Van Fleet Street / D Street	D	PM Sat-MD	TWSC	10.2 9.6	B A
29	South Project Driveway / D Street	D	PM Sat-MD	Does Not Exist		

Table 3-5 – Roadway Segment Levels of Service – Existing (2018) Conditions

Roadway Segment[1]	Roadway Classification	Lanes[2]	Roadway Capacity[3]	ADT	Volume/ Capacity Ratio	LOS
East Palm Canyon Drive						
1. Golf Club Drive to Canyon Plaza Drive	Arterial Highway	4	38,000	35,778	***0.94***	***E***
2. Canyon Plaza Drive to Perez Road	Arterial Highway	4	38,000	33,885	***0.89***	***E***
3. Perez Road to Cathedral Canyon Drive	Arterial Highway	6	59,000	31,368	0.53	C
4. Cathedral Canyon Drive to Date Palm Drive	Arterial Highway	4	38,000	33,773	***0.89***	***E***
5. Date Palm Drive to Frank Sinatra Drive	Arterial Highway	6	59,000	39,238	0.67	D
6. Frank Sinatra Drive to Country Club Drive	Arterial Highway	6	59,000	35,336	0.60	C
Cathedral Canyon Drive						
7. East Palm Canyon Drive to Perez Road	Secondary Highway	4	30,000	10,970	0.37	B
8. Perez Road to Dinah Shore Drive	Secondary Highway	4	30,000	16,098	0.54	C
Date Palm Drive						
9. East Palm Canyon Drive to Gerald Ford Drive	Arterial Highway	4	38,000	14,392	0.38	B
10. Gerald Ford Drive to Dinah Shore Drive	Arterial Highway	4	38,000	21,876	0.58	C

[1] Roadway segment is in City of Cathedral City.

[2] Number of through lanes.

[3] Source: Cathedral City General Plan Capacities.

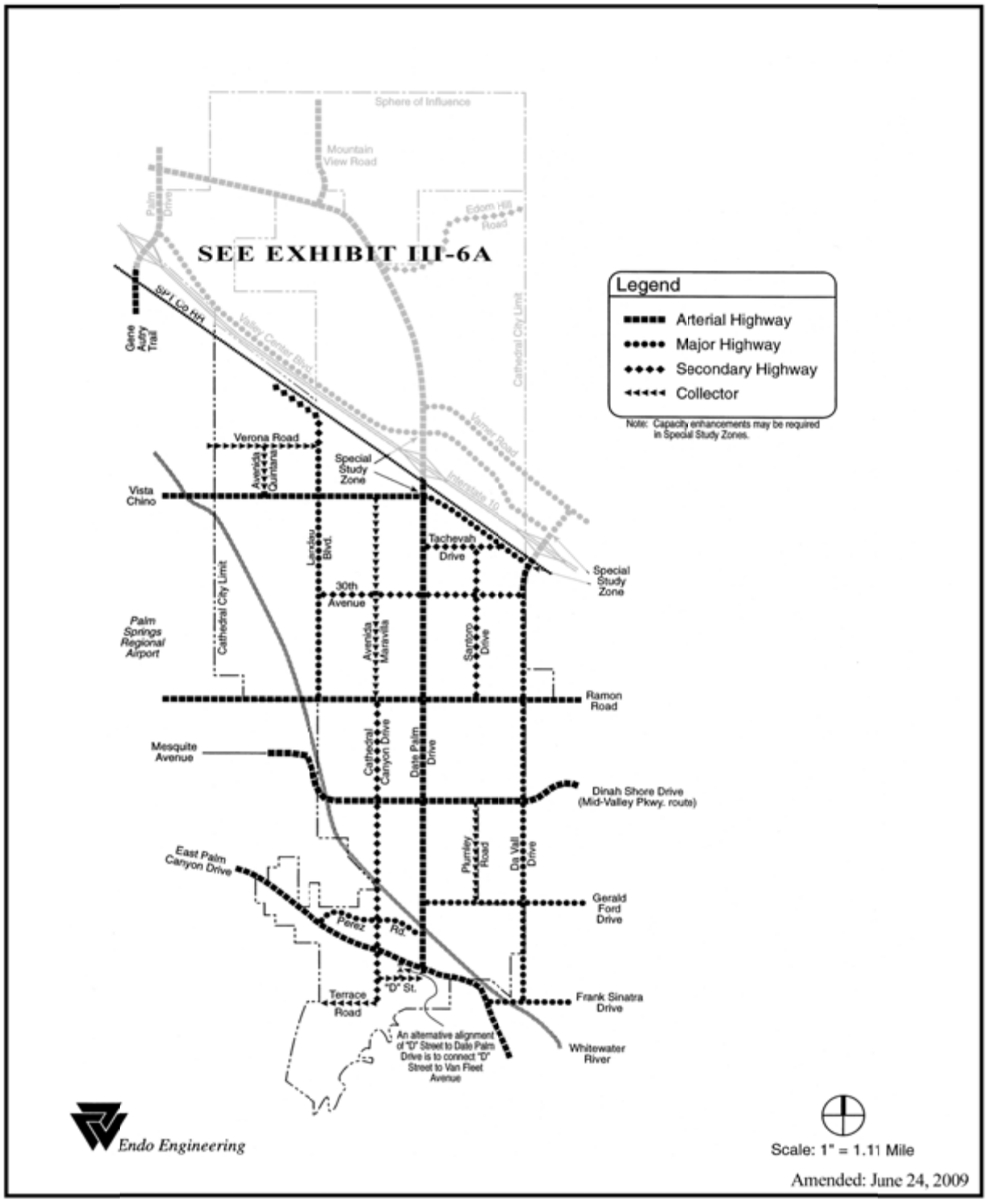
3.10 General Plan Circulation

The current Cathedral City General Plan Circulation Element Roadways Figure is shown on **Figure 3-F.**

3.11 Transit Service

The North and South Sites are currently served by Sunline Transit Agency Routes 30 and 111. The nearest bus stops are located on East Palm Canyon at Allen Avenue and Date Palm Drive at Grove Street. Both bus stops are directly adjacent to Project Alternatives A, B, and C (North Site) while the bus stops are across the street from Project Alternative D (South Site).

Figure 3-F – Cathedral City General Plan Circulation Element Roadways



TERRA NOVA®
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City of Cathedral City
General Plan
Buildout Roadway Classifications

Cathedral City

Exhibit
III-6

4.0 PROJECTED FUTURE TRAFFIC

4.1 Method of Projection

In order to estimate the traffic impact characteristics of the Project, a multi-step process has been utilized. The first step is traffic generation which estimates the total arriving and departing traffic during a peak hour and on a daily basis. The traffic generation potential is forecast by applying the appropriate vehicle trip generation rates to the project development tabulation. The second step of the forecasting process is traffic distribution, which identifies the origins and destinations of inbound and outbound project traffic based on existing/expected future travel patterns in the study area. The third step is traffic assignment, which involves the allocation of Project traffic to study area street segments and intersections. Traffic distribution patterns are indicated by general percentage orientation, while traffic assignment allocates specific volume forecasts to individual roadway segments and intersection turning movements throughout the study area. The impact of the Project is isolated by comparing operation level of service conditions at selected key study intersections using expected future traffic volumes with and without forecasted Project traffic.

The method of traffic projection is based on the following criteria:

- Existing traffic conditions (2018);
- Ambient growth projections;
- Project generated traffic; and
- Planned development Project generated traffic.

This report uses a project opening year of 2020 for analysis purposes.

4.2 Ambient Growth

In order to evaluate traffic conditions for the opening year, area wide growth on existing roadways must be projected. The majority of the anticipated growth within the study area is accounted for with other cumulative project traffic. The ambient traffic growth factor is intended to include unknown and future cumulative projects in the study area, as well as account for regular growth in traffic volumes due to the development of projects outside the study area. Per discussion with Cathedral City staff, this study will utilize a 2 percent per year growth rate for a total of 4 percent growth to opening year 2020.

4.3 Project Generated Traffic

4.3.1 Project Trip Generation

Trip Generation Rates

Trip generation represents the amount of traffic traveling to and from the proposed Project, which are defined as inbound and outbound trips. An inbound and outbound trip by the same vehicle is considered two separate trips. The traffic generation rates used in this study are based upon the development of the various land uses in each Project Alternative as shown below:

Alternative A – Casino with 40,000 square feet of gaming floor
24,000 square feet Shopping Center
14,000 square feet High-Turnover Sit-Down Restaurant
14,000 square feet Quality Restaurant
6,000 square feet Fast Casual Restaurant
2,000 square feet Coffee/Donut Shop Without Drive-Through Window

Alternative B – Casino with 40,000 square feet of gaming floor
15,200 square feet Shopping Center
8,500 square feet High-Turnover Sit-Down Restaurant
8,500 square feet Quality Restaurant
3,800 square feet Fast Casual Restaurant
2,000 square feet Coffee/Donut Shop Without Drive-Through Window

Alternative C – 36,000 square feet Shopping Center
22,000 square feet High-Turnover Sit-Down Restaurant
22,000 square feet Quality Restaurant
8,000 square feet Fast Casual Restaurant
2,000 square feet Coffee/Donut Shop Without Drive-Through Window

Alternative D – Casino with 40,000 square feet of gaming floor
24,000 square feet Shopping Center
14,000 square feet High-Turnover Sit-Down Restaurant
14,000 square feet Quality Restaurant
6,000 square feet Fast Casual Restaurant
2,000 square feet Coffee/Donut Shop Without Drive-Through Window

The trip generation rates for shopping center are based on the fitted curve equation for trip generation provided in the *Trip Generation Manual (10th Edition)* by the Institute of Transportation Engineers (ITE), 2017. The trip generation rates for the various restaurant types are based on the weighted average trip generation rates provided in the *ITE Trip Generation Manual*. The inbound and outbound peak hour trip generation rates are calculated by multiplying the total peak hour generation rate by the directional distribution provided in the *Trip Generation Manual*.

The fitted curve equation was used for the shopping center land use as it more accurately reflects the trip generation trends in shopping centers under 300,000 square feet than the weighted average trip generation rate. Furthermore, using the fitted curve equation for this Project resulted in a higher and more conservative trip generation estimate.

The casino land use is not a standard ITE land use and is not included in the ITE Trip Generation Manual. A similar land use included in the ITE Trip Generation Manual is Casino/Video Lottery Establishment, but this land use specifically states that it does not include casinos with restaurants or retail areas. In order to develop trip generation rates for the Project's casino land use, the analysis conducted trip generation counts at two existing similar casinos in southern California and counted traffic at each location on Thursday, March 1 and Saturday, March 3, 2018. Vehicles entering and exiting each driveway were counted in 15 minute periods for

12 hours on each day (7AM to 7PM). The results were then processed to determine peak hour volumes and rates for each casino. The existing casinos that were studied are as follows:

1. Soboba Casino – San Jacinto, CA – 74,000 Sqft. Gaming Area
2. Augustine Casino – Coachella, CA – 42,000 Sqft. Gaming Area

Both existing casinos are full-service casinos with gaming floors and interior restaurants and retail. The two existing casinos are relatively isolated and do not share their parking lots or driveways with other businesses. These two casinos also do not have hotels and their gaming floor square footages are similar to the proposed Project's gaming floor area. Gaming floor square footage was chosen as the independent variable that was used to determine the proposed Project's trip generation rate. This is similar to other ITE land uses that utilize gross floor area as the independent variable in the calculations. The calculated trip generation rates for the studied casinos are shown in **Table 4-1**. Counts from the two casinos are provided in Appendix C.

Table 4-1 – Casino Trip Generation Rates

Casino Trip Generation Rates									
Casino Name	Gaming Area	Unit	PM Peak Hour			Saturday MD Peak Hour			Daily
			Total	In	Out	Total	In	Out	
Soboba Casino	74	TSF	6.35	2.24	4.11	7	4.37	2.63	118.7
Augustine Casino	42	TSF	8.71	4.64	4.07	8.81	4.07	4.74	167.1
AVERAGE			7.21	3.11	4.10	7.66	4.26	3.40	130.6

Table 4-2 shows the PM and Saturday MD peak hour and daily trip generation rates for the proposed project by land use.

Table 4-2 – Trip Generation Rates

Land Use	Unit	PM Peak Hour Rates			Saturday MD Peak Hour Rates			Daily
		Total	In	Out	Total	In	Out	
Casino	TSF	7.21	3.11	4.10	7.66	4.26	3.40	130.6
HighTurn Over Sit Down Restaurant ITE Category: 932	TSF	9.77	6.06	3.71	11.19	5.71	5.48	112.18
Coffee Shop without Drive-Thru ITE Category: 936	TSF	36.31	18.16	18.16	59.01	28.91	30.10	754.55
Quality Restaurant ITE Category: 931	TSF	7.80	5.23	2.57	10.68	6.30	4.38	83.84
Fast Casual Restaurant ITE Category: 930	TSF	14.13	7.77	6.36	34.02	18.71	15.31	315.17
Shopping Center ITE Category: 820	TSF	3.81	1.83	1.98	4.50	2.34	2.16	37.75

TSF = Thousand Square Feet

Average Trip Generation Rates from Trip Generation Manual, ITE, 10th Edition (2017)

Project Trip Generation

The trip generations for the proposed Project Alternatives were forecast using ITE and casino-derived equations multiplied by the area of each land use. **Table 4-3, Table 4-4,** and **Table 4-5** present the daily, PM, and Saturday MD peak hour trip generation for each Alternative of the proposed Project.

Table 4-3 – Alternative A and D Trip Generation

Alternative A and Alternative D										
Land Use	Description	Qty	Unit	PM Peak Hour			Saturday Peak Hour			Daily
				Total	In	Out	Total	In	Out	
-	Casino	40	TSF	289	125	164	306	169	138	5,224
	Casino Subtotal			**289**	**125**	**164**	**306**	**169**	**138**	**5,224**
820	Shopping Center	24	TSF	189	91	98	200	118	82	2,278
Retail -> Restaurant Internal Trips				-82	-50	-32	-86	-52	-34	-98
Retail -> Casino Internal Trips				-64	-24	-40	-68	-39	-29	-1,308
	Shopping Center Subtotal			**43**	**17**	**26**	**46**	**26**	**19**	**872**
932	High-Turnover Sit-Down Restaurant	14	TSF	137	85	52	157	80	77	1,571
931	Quality Restaurant	14	TSF	109	73	36	150	89	62	1,174
930	Fast Casual Restaurant	6	TSF	85	47	38	204	112	92	1,891
936	Coffee/Donut Shop Without Drive-Through Window	2	TSF	73	37	36	118	58	60	1,510
Restaurant -> Retail Internal Trips				-97	-36	-61	-151	-56	-95	-113
Restaurant -> Casino Internal Trips				-184	-123	-61	-287	-170	-117	-3,620
	Restaurant Subtotal			**122**	**82**	**40**	**191**	**113**	**78**	**2,413**
Project Total				**455**	**224**	**230**	**543**	**308**	**235**	**8,509**

Table 4-4 – Alternative B Trip Generation

Alternative B										
ITE Land Use	Description	Qty	Unit	PM Peak Hour			Satuday Peak Hour			Daily
				Total	In	Out	Total	In	Out	
-	Casino	40	TSF	289	125	164	306	169	138	5,224
	Casino Subtotal			**289**	**125**	**164**	**306**	**169**	**138**	**5,224**
820	Shopping Center	15.2	TSF	135	65	70	140	73	67	1,670
Retail -> Restaurant Internal Trips				-59	-36	-23	-60	-37	-23	-75
Retail -> Casino Internal Trips				-46	-17	-28	-48	-22	-26	-957
	Shopping Center Subtotal			**30**	**12**	**19**	**32**	**14**	**17**	**638**
932	High-Turnover Sit-Down Restaurant	8.5	TSF	83	51	32	95	48	47	954
931	Quality Restaurant	8.5	TSF	66	44	22	91	54	37	713
930	Fast Casual Restaurant	3.8	TSF	54	30	24	129	71	58	1,198
936	Coffee/Donut Shop Without Drive-Through Window	2	TSF	73	37	36	118	58	60	1,510
Restaurant -> Retail Internal Trips				-68	-25	-43	-100	-37	-63	-84
Restaurant -> Casino Internal Trips				-125	-82	-42	-200	-116	-84	-2,575
	Restaurant Subtotal			**83**	**55**	**28**	**133**	**78**	**56**	**1,716**
Project Total				**403**	**191**	**211**	**472**	**261**	**211**	**7,578**

Table 4-5 – Alternative C Trip Generation

Alternative C										
ITE Land Use	Description	Qty	Unit	PM Peak Hour			Saturday Peak Hour			Daily
				Total	In	Out	Total	In	Out	
820	Shopping Center	36	TSF	255	122	133	276	144	132	3,001
	Retail Internal Trips			-100	-61	-39	-108	-65	-43	-116
	Shopping Center Subtotal			**155**	**61**	**94**	**168**	**79**	**89**	**2,885**
932	High-Turnover Sit-Down Restaurant	22	TSF	215	133	82	246	125	121	2,468
931	Quality Restaurant	22	TSF	172	115	57	235	139	96	1,844
930	Fast Casual Restaurant	8	TSF	113	62	51	272	150	122	2,521
936	Coffee/Donut Shop Without Drive-Through Window	2	TSF	73	37	36	118	58	60	2,020
	Restaurant Internal Trips			-100	-39	-61	-139	-54	-85	-116
	Restaurant Subtotal			**473**	**308**	**164**	**732**	**417**	**314**	**8,737**
Project Total				**628**	**369**	**258**	**900**	**496**	**404**	**11,622**

Internal Trips

Internal trips were also included in the total Project trip generation calculation. Internal trips are trips that occur between land uses on site and do not require users to drive a vehicle offsite. Internal trips between restaurants and retail land uses were calculated using the National Cooperative Highway Research Program (NCHRP) Report 684 which provides internal trip calculations between compatible land uses. These trips are then discounted from the total trip generation. Internal trip rates between the casino land use and other Project land uses were taken from previous studies on similar casino projects. The rates from previous studies ranged from 20% to 97.5%. This analysis will use 60% as a reasonable and conservative internal capture rate from the casino to the adjacent Project land uses. The casino is assumed to be the primary destination on the site with a majority of visitors using the restaurant and retail areas as part of their original trip to the casino.

4.3.2 Project Trip Distribution

Trip distribution represents the directional orientation of traffic to and from the North and South Sites. Trip distribution is influenced by the geographical location of the site, type of land use in the study area, such as residential areas and recreational sites, and proximity to the regional roadway system.

The trip directional orientation of traffic for the proposed Project was determined based upon the existing roadway system, existing traffic patterns, and existing and future land uses. The directional distribution for the Project Alternative traffic assumed in this study are shown on **Figure 4-A, Figure 4-B, Figure 4-C,** and **Figure 4-D**. They show the direction that vehicles will travel from the North and South Sites to their next destination.

4.3.3 Project Modal Split

The traffic-reducing potential of public transit has not been considered in this study. Therefore, the traffic projections provided in this report are considered conservative since public transit could reduce traffic volumes in the Project vicinity.

4.3.4 Project Trip Assignment

Trip assignment is the result of assigning the previously-discussed trip generation numbers to the City's circulation system using the aforementioned trip distribution. Project weekday PM peak hour and Saturday mid-day peak hour volumes are shown in **Figure 4-E, Figure 4-F, Figure 4-G, Figure 4-H, Figure 4-I, Figure 4-J, Figure 4-K,** and **Figure 4-L**.

4.4 Cumulative Year (2040) Traffic

Cumulative Year (2040) traffic is used to forecast traffic conditions at the projected year of the City's General Plan buildout. Cumulative Year (2040) traffic volumes are obtained from the City's General Plan Circulation Element which utilized a refined version of the Coachella Valley Area Transportation Study (CVATS) forecasting model which was developed by the Southern California Association of Governments (SCAG), the Coachella Valley Association of Governments (CVAG), and the Riverside County Transportation Commission (RCTC). The CVATS model was refined to include more accurate land uses and travel characteristics of the City. The model outputs daily traffic volumes on General Plan roadways for the Year 2035. Those volume outputs were then extrapolated to Year 2040 volumes by multiplying the volumes by 1.5 percent per year for 5 years. The growth rate between the existing roadway segment volumes and the projected Year 2040 roadway segment volumes was then calculated and applied to the existing intersection turning movement counts for the Year 2040 intersection analysis.

Figure 4-A – Alternative A Distribution of Project Traffic

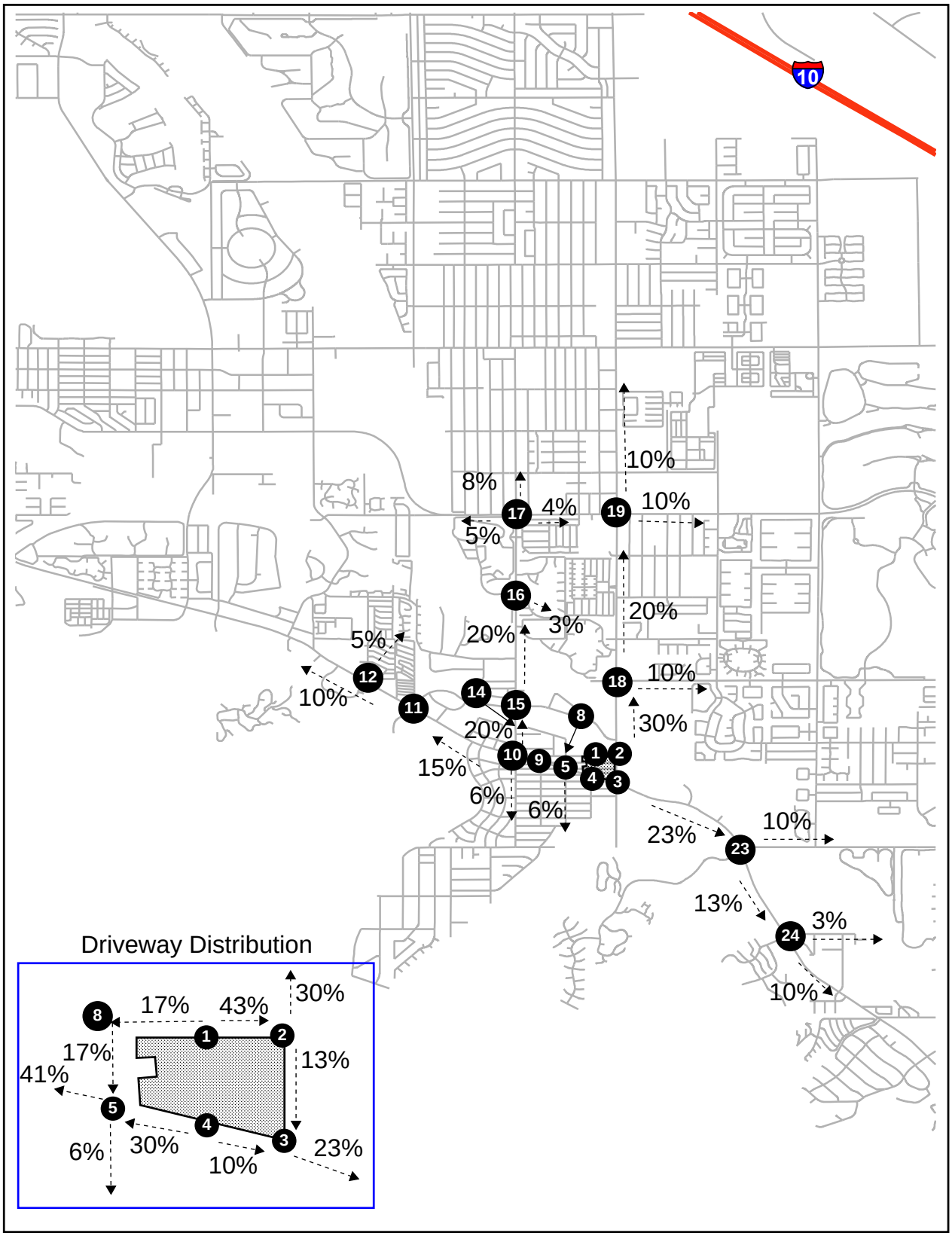


Figure 4-B – Alternative B Distribution of Project Traffic

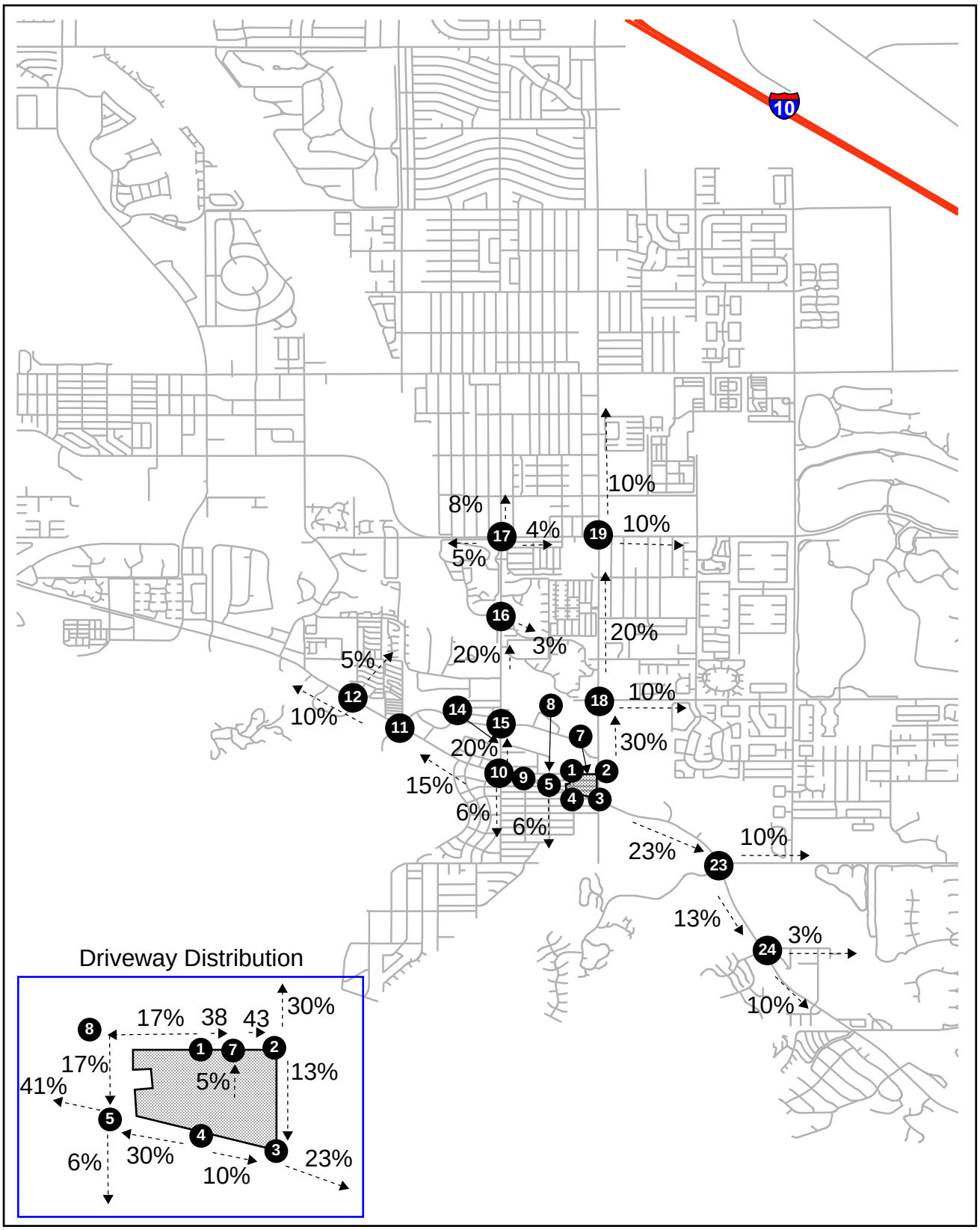


Figure 4-C – Alternative C Distribution of Project Traffic

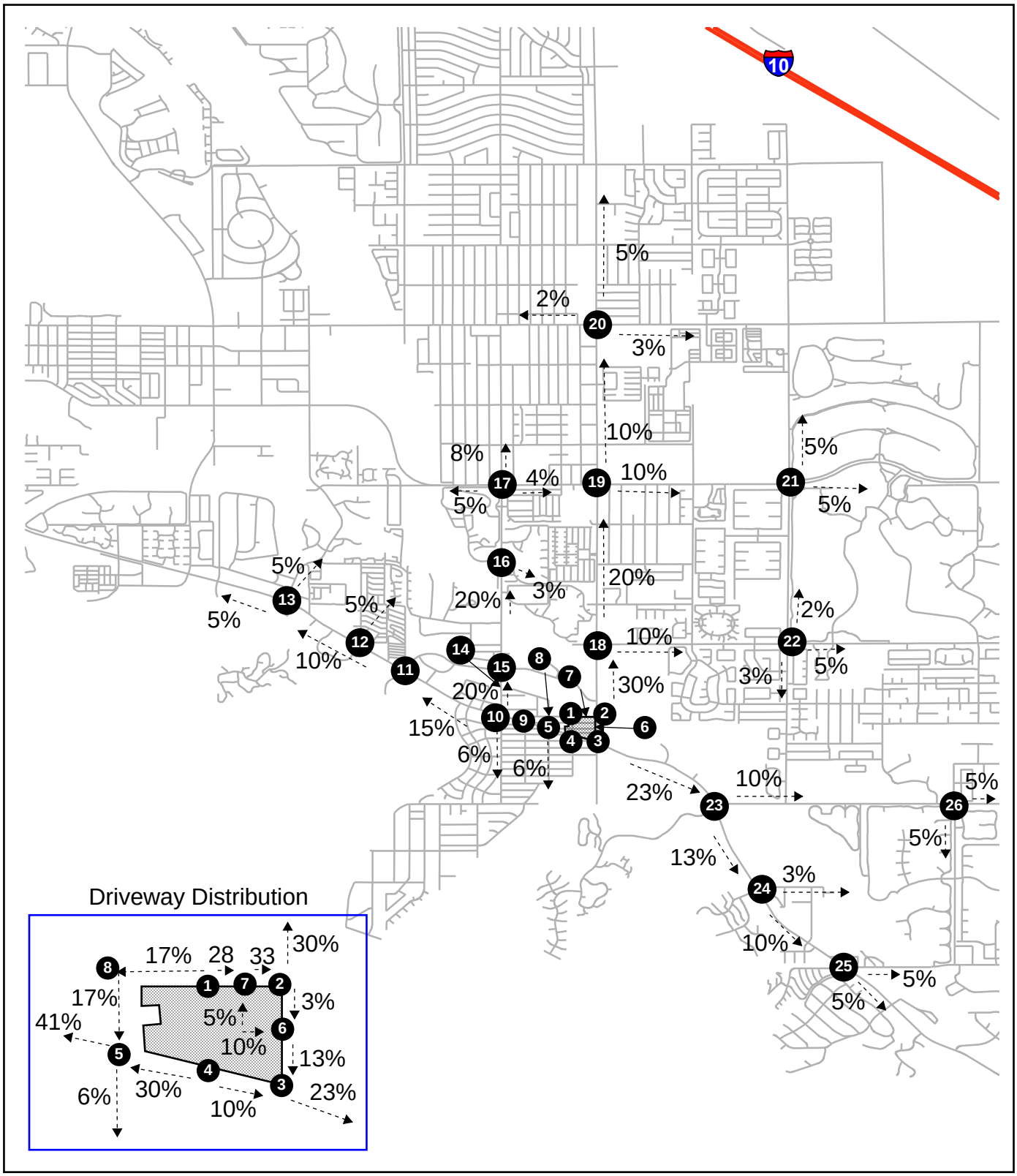


Figure 4-D – Alternative D Distribution of Project Traffic

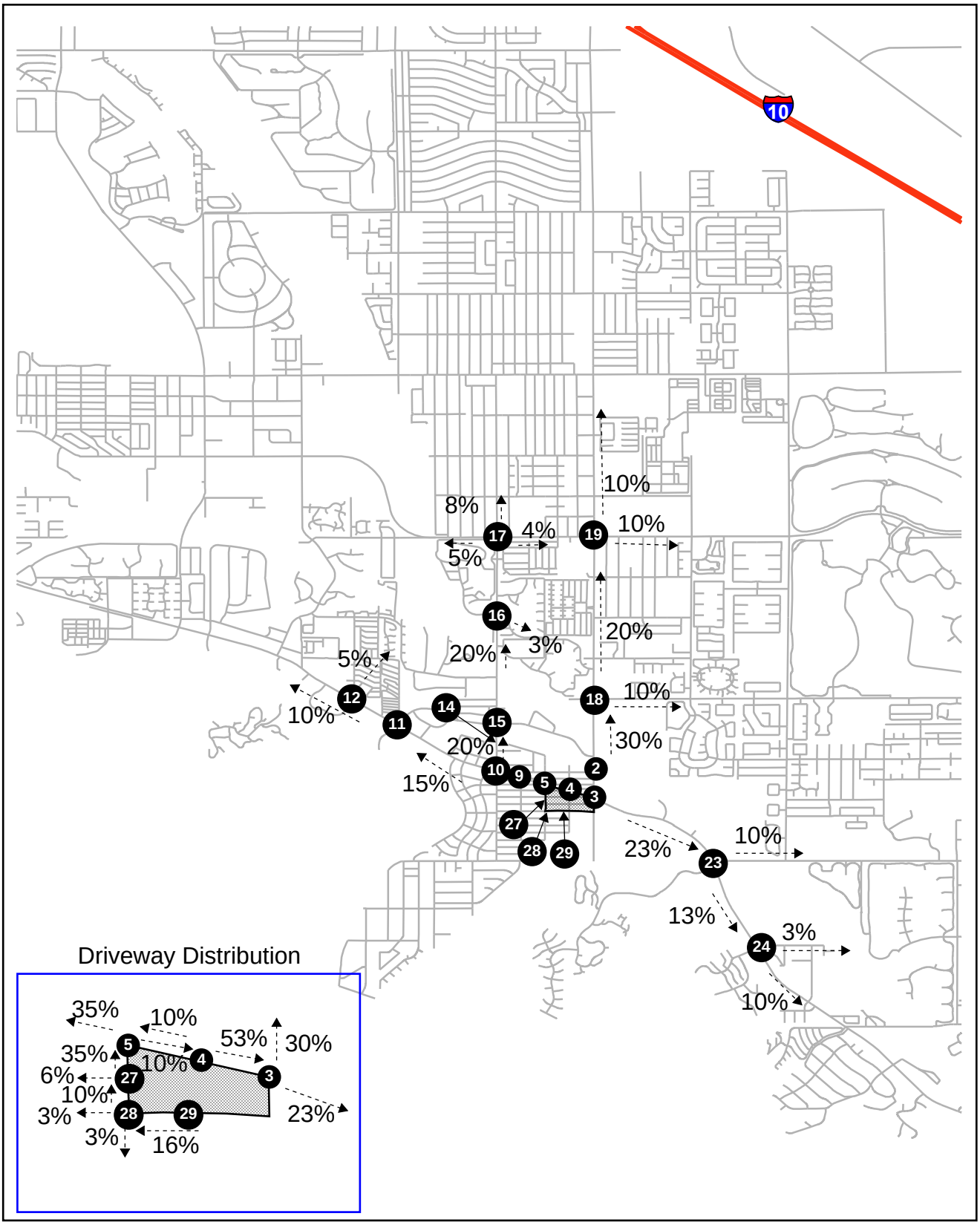


Figure 4-E – Alternative A PM Peak Hour Intersection Volumes

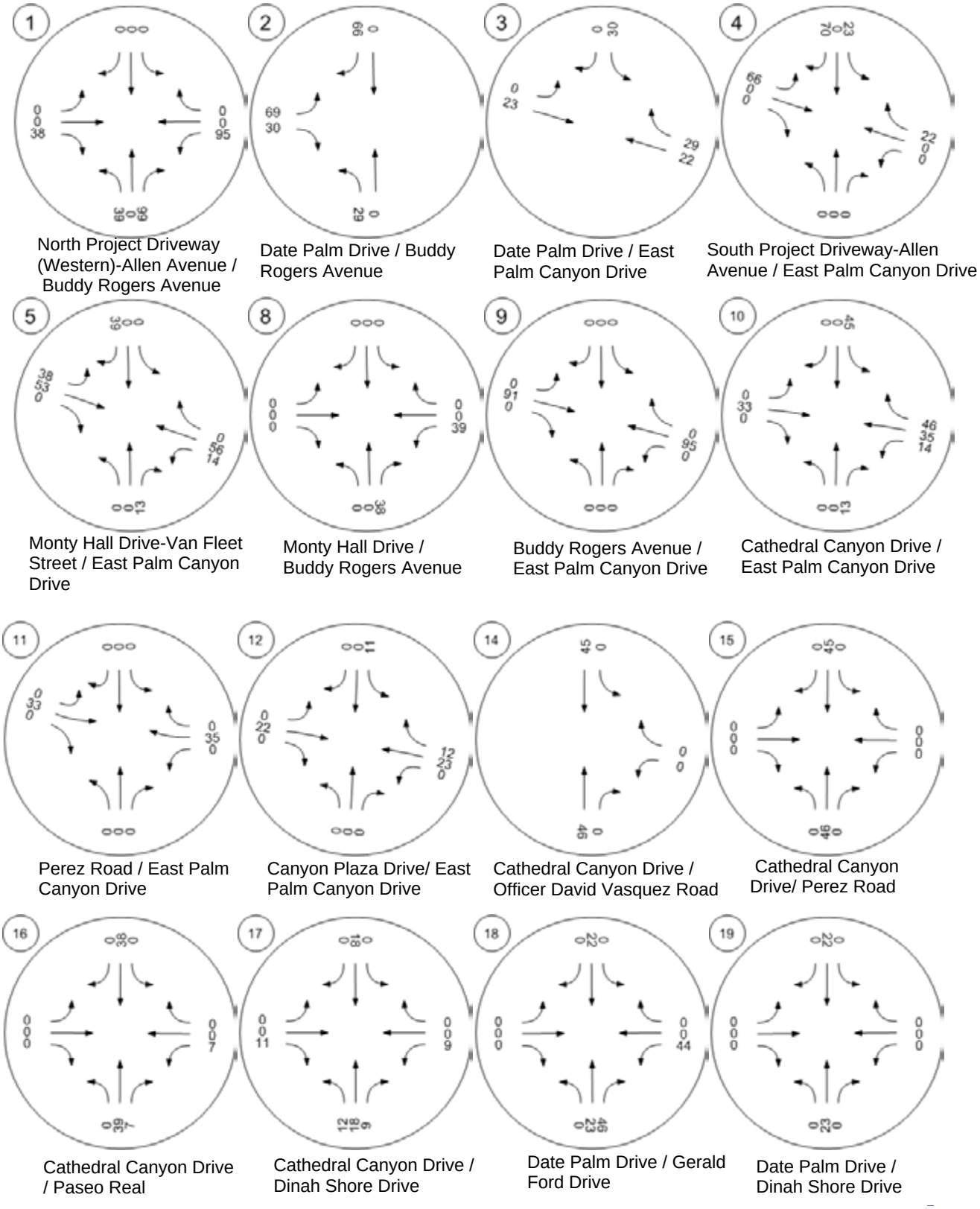
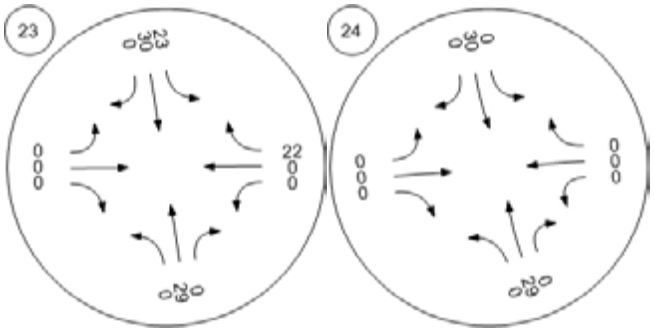


Figure 4-E (Continued) – Alternative A PM Peak Hour Intersection Volumes



East Palm Canyon Drive / Frank Sinatra Drive

East Palm Canyon Drive / Mirage Cove Drive

Figure 4-F – Alternative B PM Peak Hour Intersection Volumes

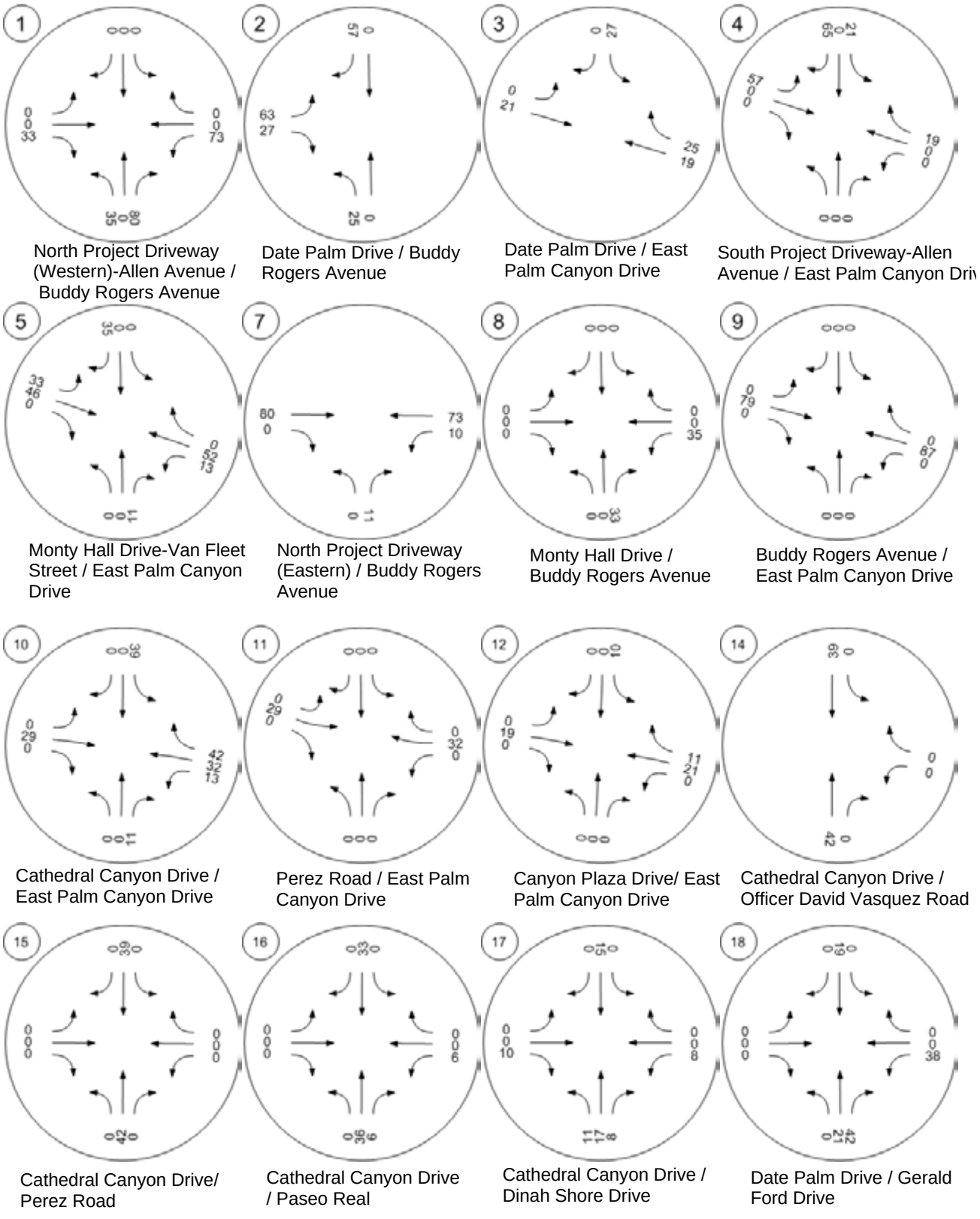
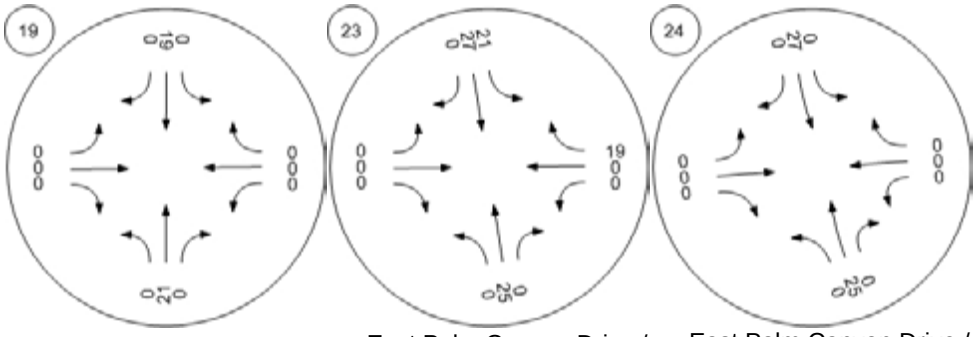


Figure 4-F (Continued) – Alternative B PM Peak Hour Intersection Volumes



Date Palm Drive / Dinah Shore Drive

East Palm Canyon Drive / Frank Sinatra Drive

East Palm Canyon Drive / Mirage Cove Drive

Figure 4-G – Alternative C PM Peak Hour Intersection Volumes

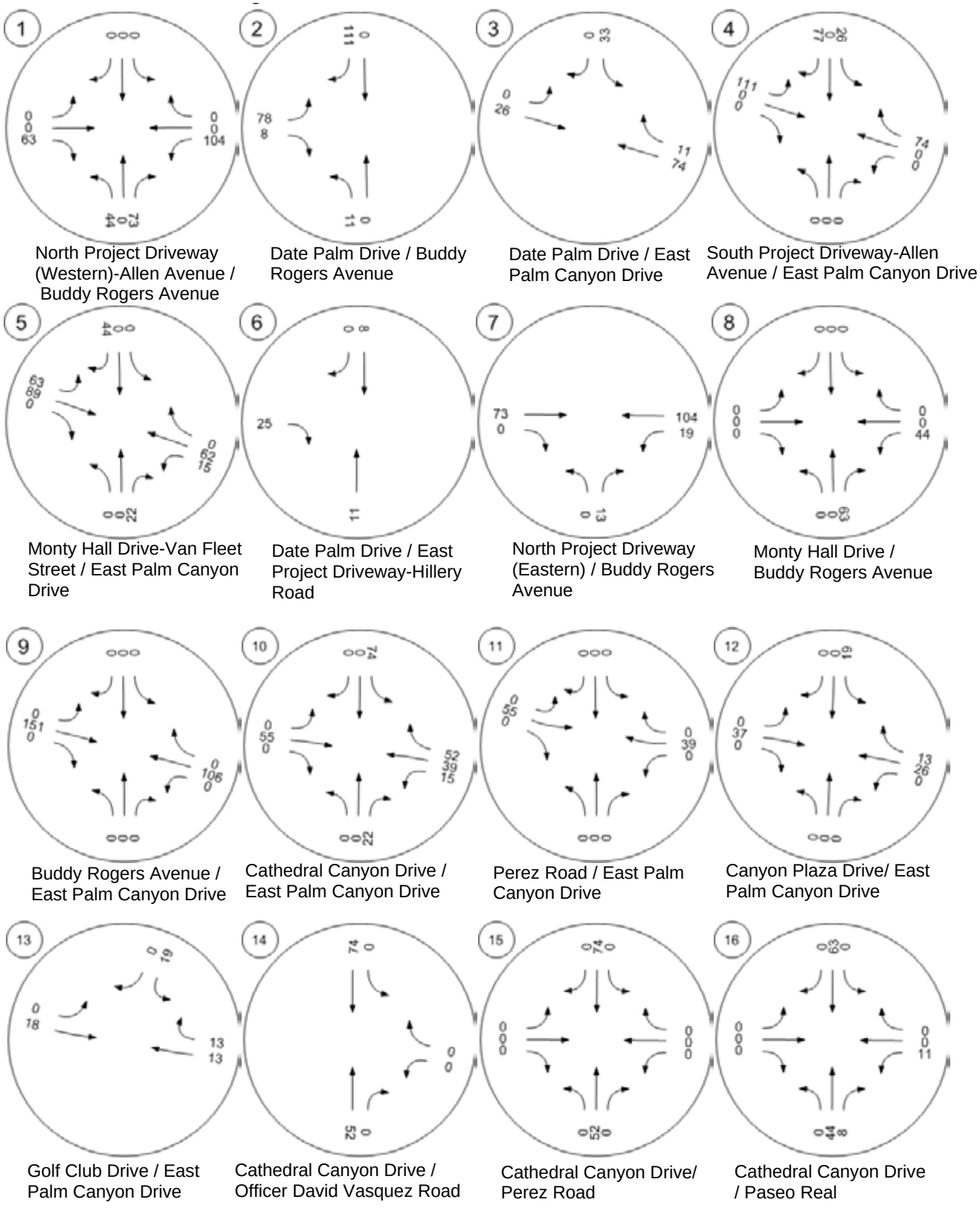
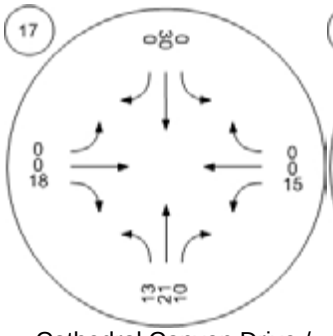
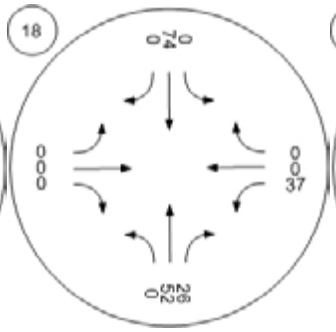


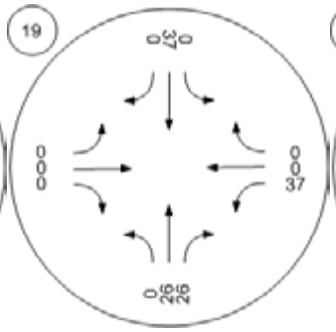
Figure 4-G (Continued) – Alternative C PM Peak Hour Intersection Volumes



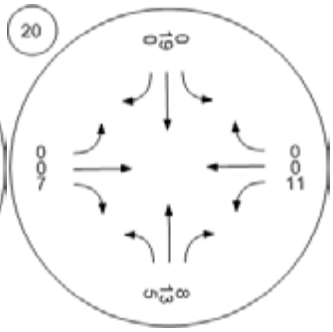
Cathedral Canyon Drive / Dinah Shore Drive



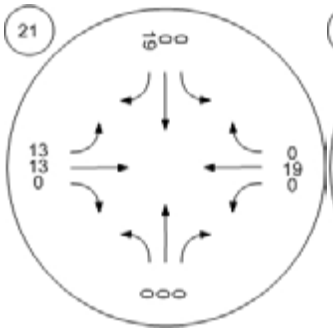
Date Palm Drive / Gerald Ford Drive



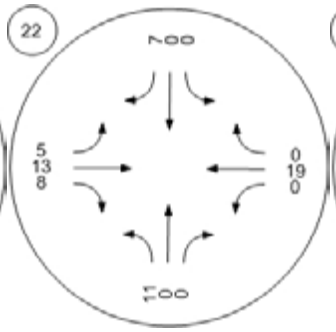
Date Palm Drive / Dinah Shore Drive



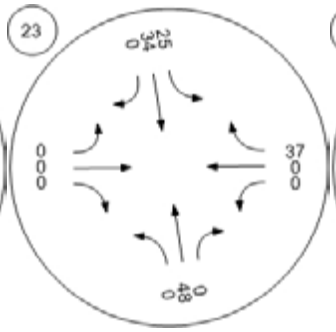
Date Palm Drive / Ramon Road



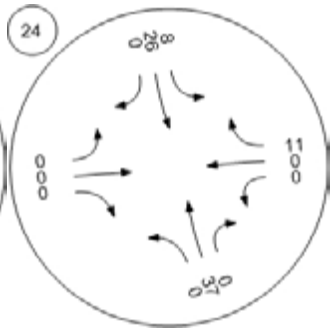
Da Vall Drive / Dinah Shore Drive



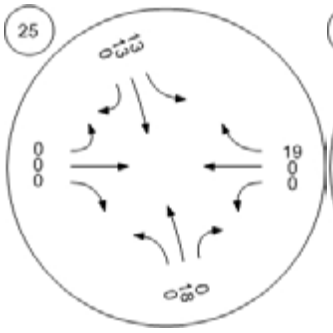
Da Vall Drive / Gerald Ford Drive



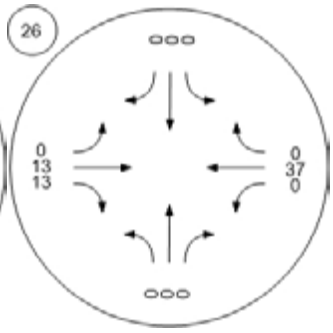
East Palm Canyon Drive / Frank Sinatra Drive



East Palm Canyon Drive / Mirage Cove Drive



East Palm Canyon Drive / Country Club Drive



Thompson Road-Morningside Drive / Frank Sinatra Drive

Figure 4-H – Alternative D PM Peak Hour Intersection Volumes

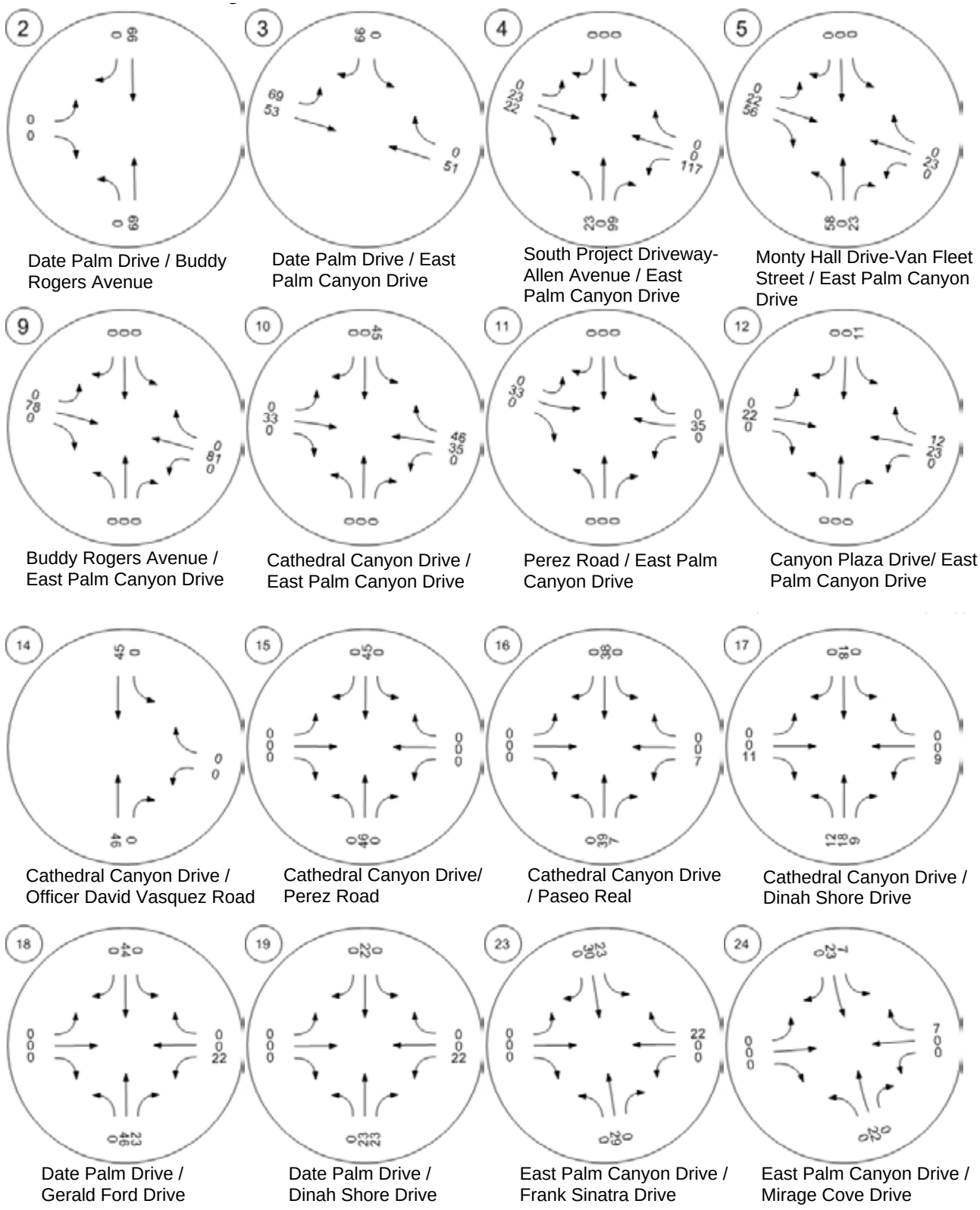
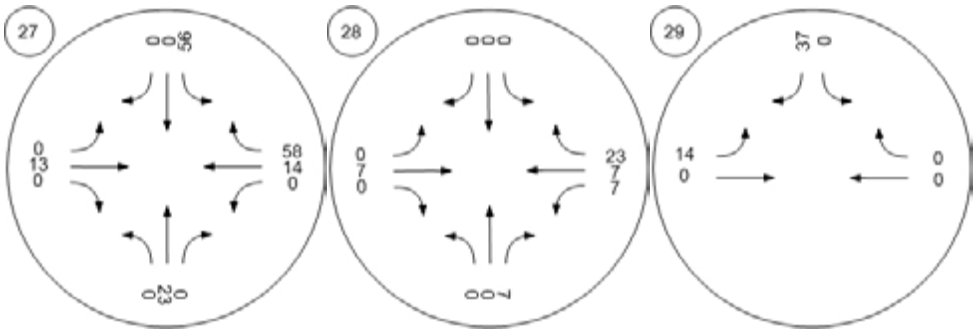


Figure 4-H (Continued) – Alternative D PM Peak Hour Intersection Volumes



Van Fleet Street / B Street-West Project Driveway

Van Fleet Street / D Street

South Project Driveway / D Street

Figure 4-I – Alternative A Saturday MD Peak Hour Intersection Volumes

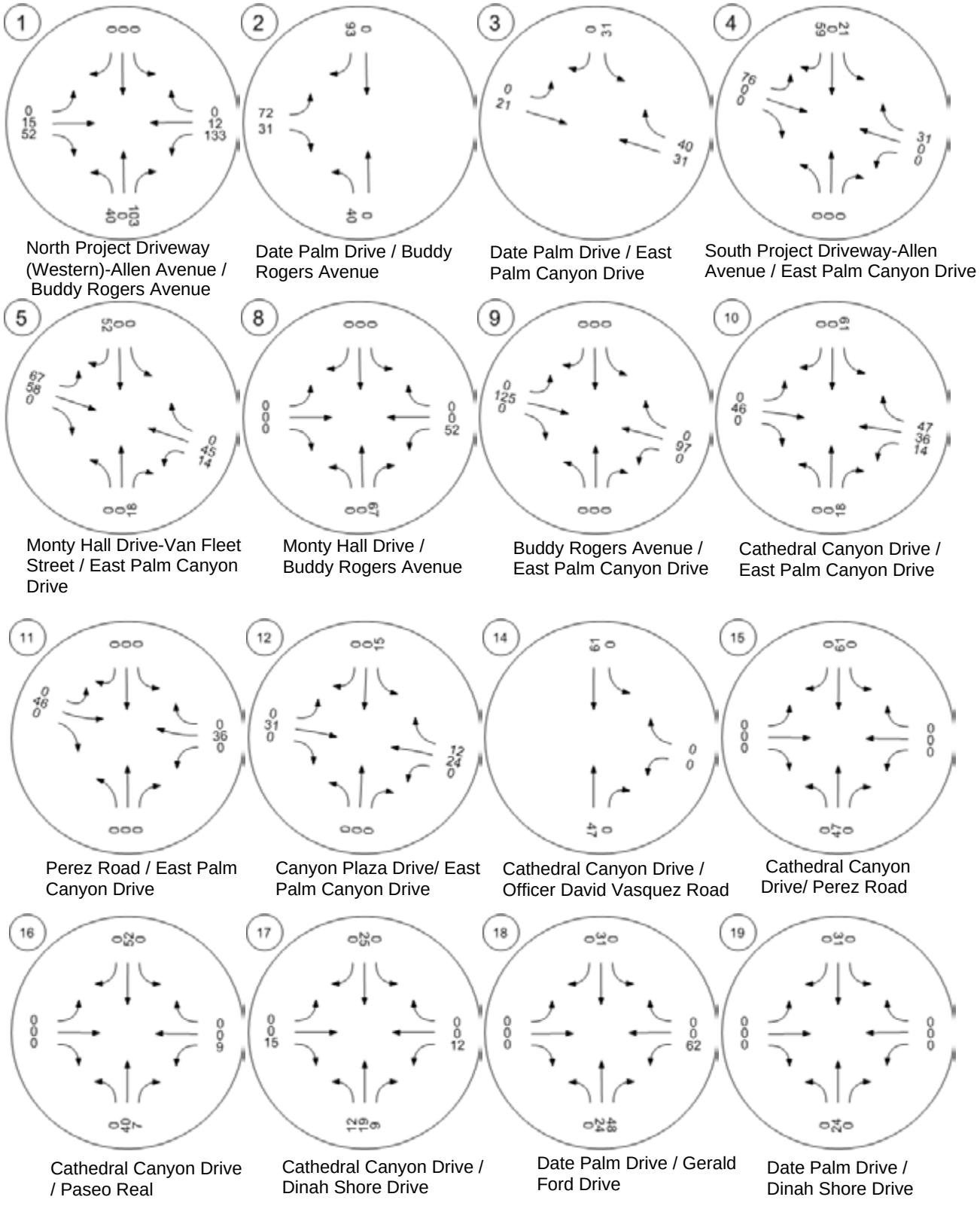


Figure 4-I (Continued) – Alternative A Saturday MD Peak Hour Intersection Volumes

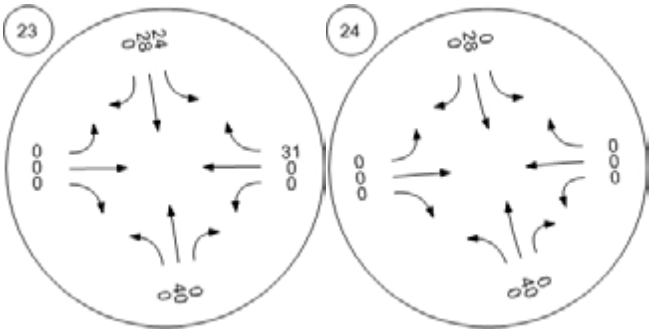

23
24
28
0
0
0
31
0
0
0

Figure 4-J – Alternative B Saturday MD Peak Hour Intersection Volumes

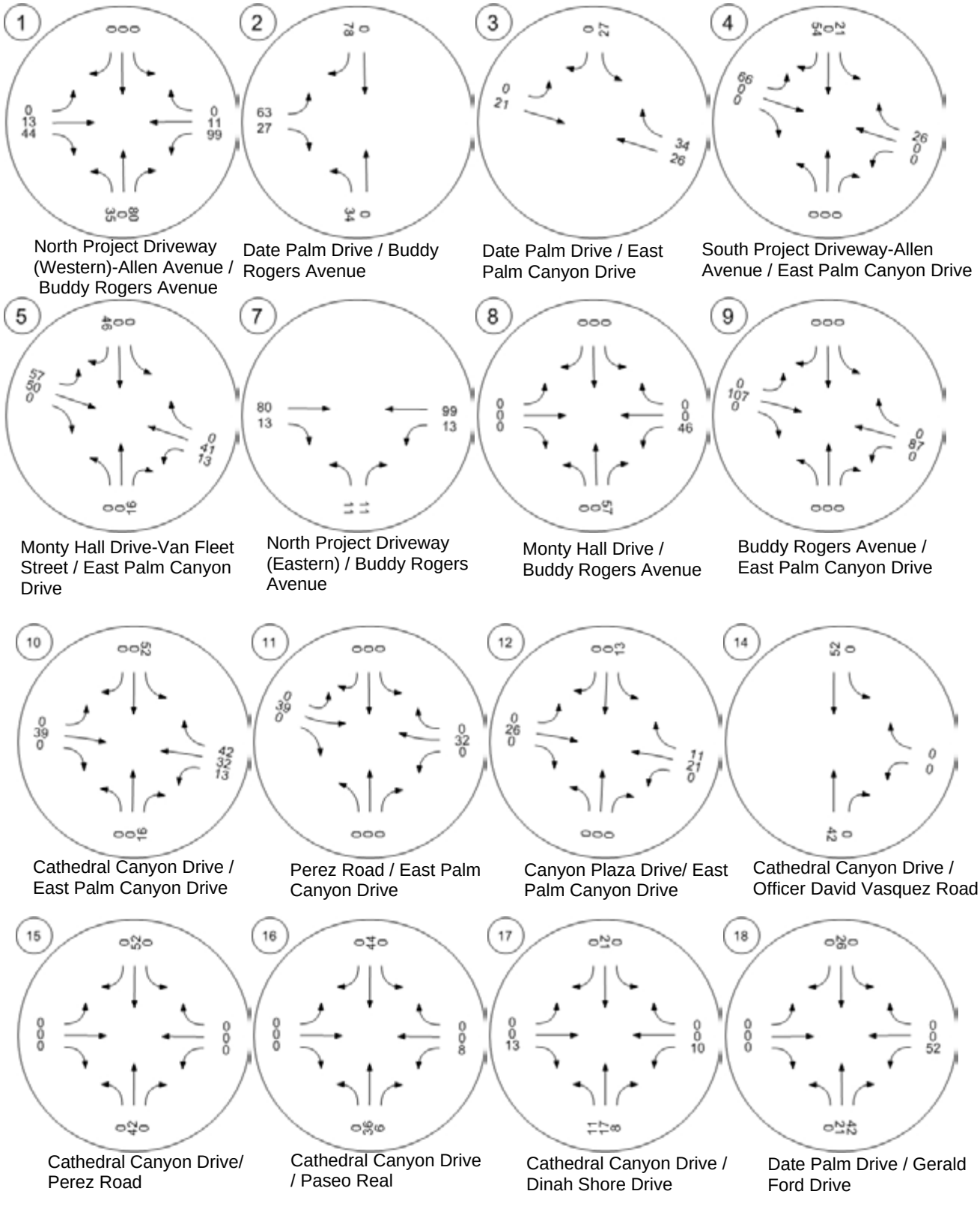
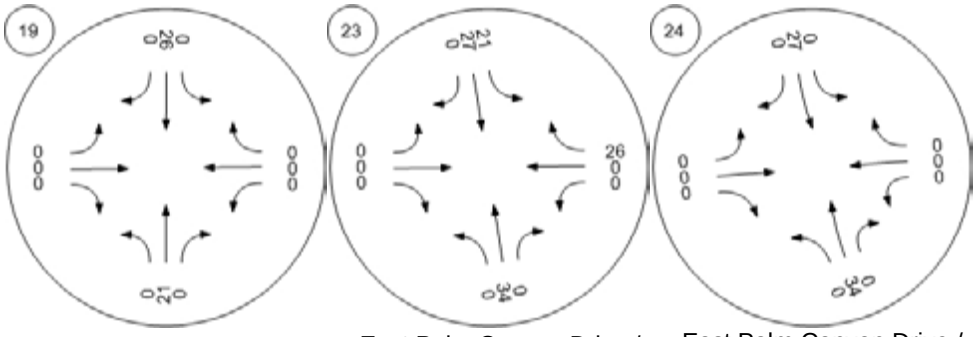


Figure 4-J (Continued) – Alternative B Saturday MD Peak Hour Intersection Volumes



Date Palm Drive / Dinah Shore Drive

East Palm Canyon Drive / Frank Sinatra Drive

East Palm Canyon Drive / Mirage Cove Drive

Figure 4-K – Alternative C Saturday MD Peak Hour Intersection Volumes

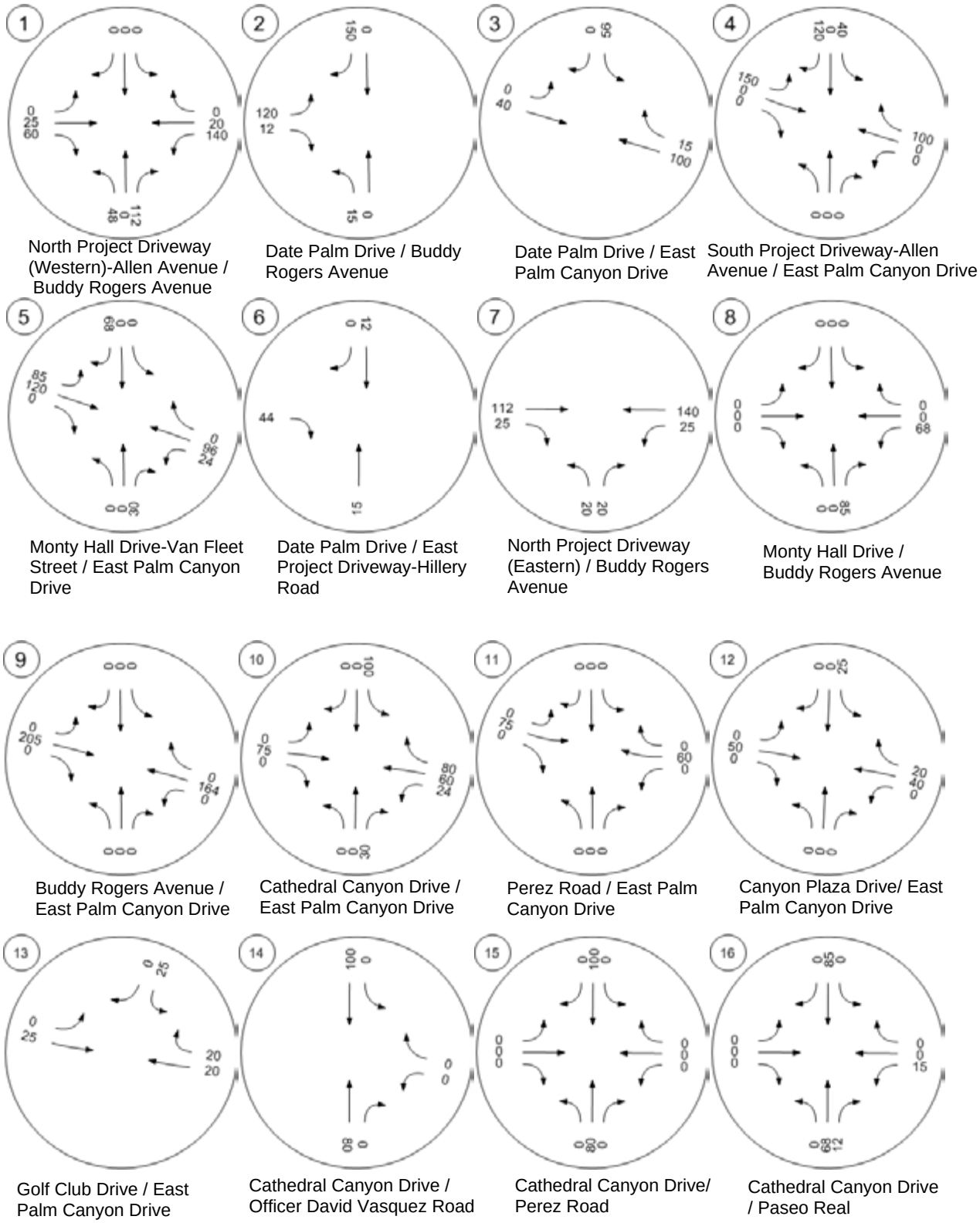
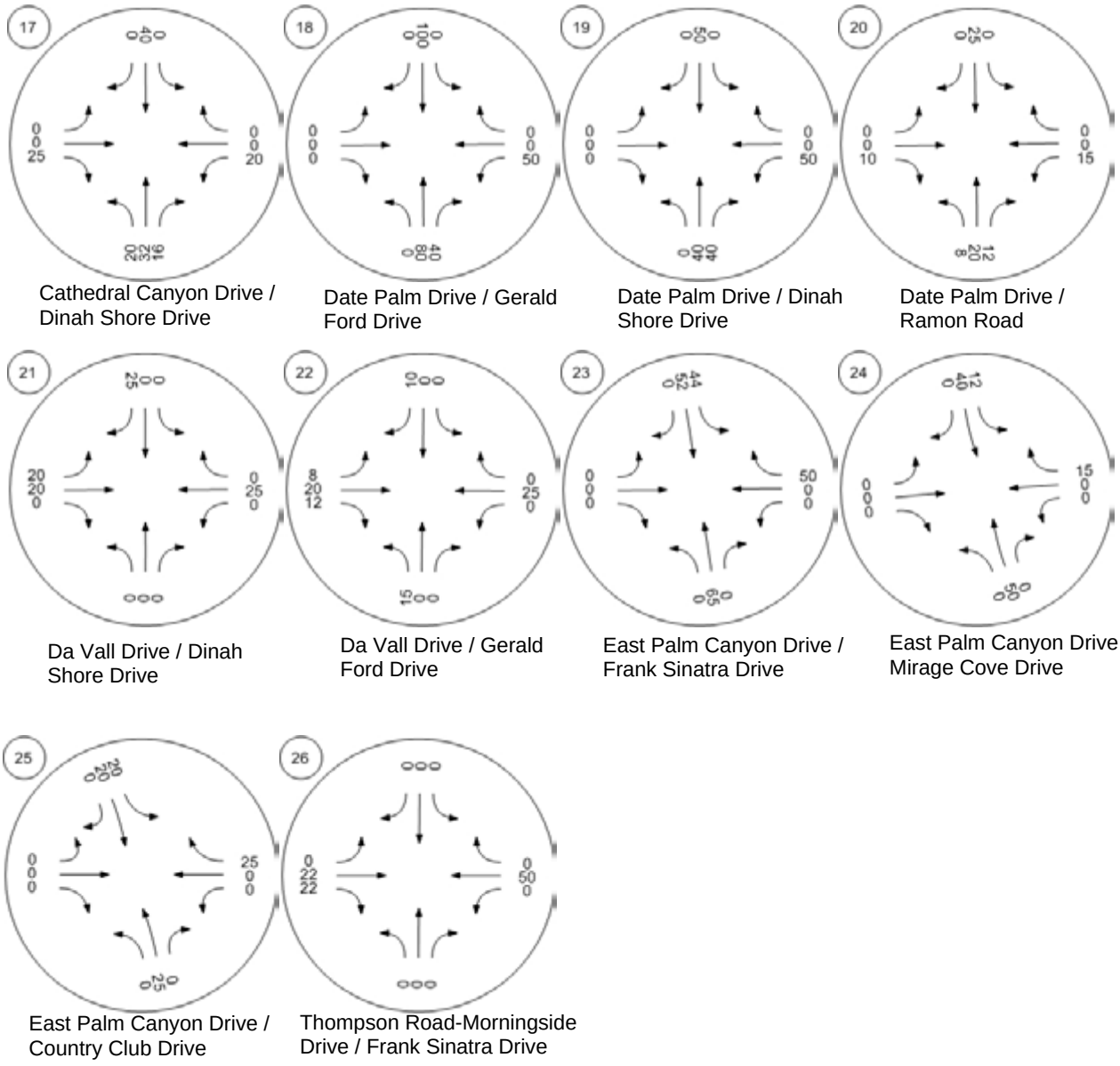


Figure 4-K (Continued) – Alternative C Saturday MD Peak Hour Intersection Volumes



Cathedral Canyon Drive / Dinah Shore Drive

Date Palm Drive / Gerald Ford Drive

Date Palm Drive / Dinah Shore Drive

Date Palm Drive / Ramon Road

Da Vall Drive / Dinah Shore Drive

Da Vall Drive / Gerald Ford Drive

East Palm Canyon Drive / Frank Sinatra Drive

East Palm Canyon Drive / Mirage Cove Drive

East Palm Canyon Drive / Country Club Drive

Thompson Road-Morningside Drive / Frank Sinatra Drive

Figure 4-L – Alternative D Saturday MD Peak Hour Intersection Volumes

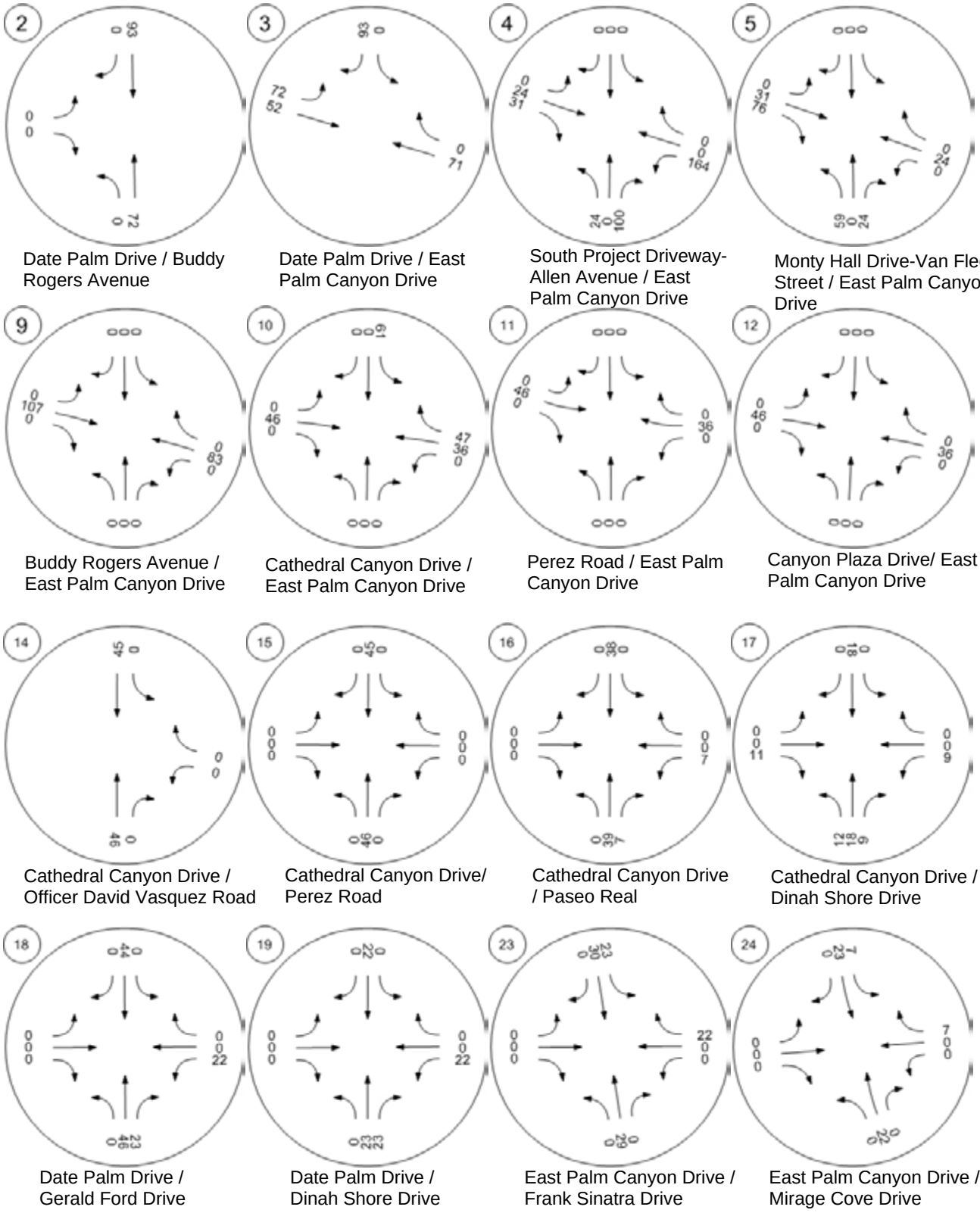
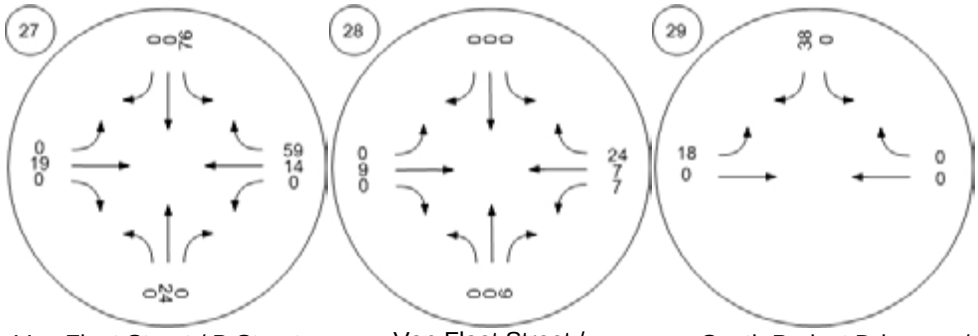


Figure 4-L (Continued) – Alternative D Saturday MD Peak Hour Intersection Volumes



Van Fleet Street / B Street-West Project Driveway

Van Fleet Street / D Street

South Project Driveway / D Street

4.5 Planned Development Project Generated Traffic

Planned development projects are those projects identified by the cities within the study area that are anticipated to be completed and contribute vehicle trips to the roadway network by the Project's opening year of 2020. The City of Cathedral City, City of Palm Springs, and City of Rancho Mirage provided a list of projects that are in development within the study area of this Project. Traffic from these planned development projects is expected to have an impact on levels of service. The planned development projects within the study area and each project's trip generation values are listed in **Table 4-6**. The location of these projects are shown on **Figure 4-M**. The PM and Saturday MD peak hour intersection turning movement volumes for cumulative projects are shown on **Figure 4-N** and **Figure 4-O**, respectively.

Table 4-6 – Planned Development Projects within the Study Area

Project/MAP ID	Land Use	Qty	Unit	PM Peak Hour			Saturday MD			Daily
City of Rancho Mirage				**Total**	**In**	**Out**	**Total**	**In**	**Out**	
1. Tract 34227 Toll Brothers and Kenneth Cokeley	Single Family Housing	10	DU	11	7	5	26	15	12	125
2. Bella Clancy	Single Family Housing	20	DU	22	14	9	35	19	17	237
3. Mirada Villas	Single Family Housing	46	DU	48	31	18	57	31	27	509
4. Ken Catanzarite	Single Family Housing	20	DU	11	7	5	26	15	12	125
5. Horizon Pacific, Rancho Cove, MSA Consulting	Hotel	100	Rooms	49	25	25	73	41	33	702
	Single Family Housing	35	DU	37	24	14	47	26	22	396
6. RMSW LLC	Resort	125	Rooms	10	5	6	10	5	6	100
	Condominium	48	DU	8	6	3	19	10	10	322
7. Rancho Mirage Rehabilitation Hospital, Inc.	Rehabilitation Center	70	Beds	18	9	9	19	9	11	182
City of Palm Springs										
8. Canyon View / Summit Project by EHOF Canyon View, LLC	Single Family Housing	92	DU	94	60	35	95	52	44	963
9. Porsche Car Dealership	Auto Sales	44.48	TSF	102	41	62	286	143	143	1,245
City of Cathedral City										
10. Ecoplex Park Phase 1	Cannabis Cultivation	43.44	TSF	8	4	4	23	12	12	107
Ecoplex Park Phase 2	Cannabis Cultivation	50	TSF	9	5	5	26	13	13	121
11. Horizon Gardens	Senior Living	80	OB	17	11	7	23	14	10	462
12. CCBC Restaurant	Restaurant	2.5	TSF	20	14	7	27	16	12	210
13. Quick Quack Carwash	Carwash	3.5	TSF	41	21	21	106	53	53	41
14. 7-Eleven	Gas Station	8	VFP	112	58	55	154	77	77	987
15. Ramon 19	Cannabis (Cultivation) Facility	486	TSF	90	45	45	261	131	131	1,213
	Dispensary	3	TSF	65	33	33	109	55	55	758
16. District East	Single Family Housing	48	DU	50	32	19	58	32	27	529
17. Alchemy Works	Cannabis Cultivation	39.6	TSF	7	4	4	21	11	11	97
TOTAL TRIPS				**829**	**456**	**391**	**1,501**	**780**	**738**	**9,431**

Figure 4-M – Planned Development Project Locations within the Study Area

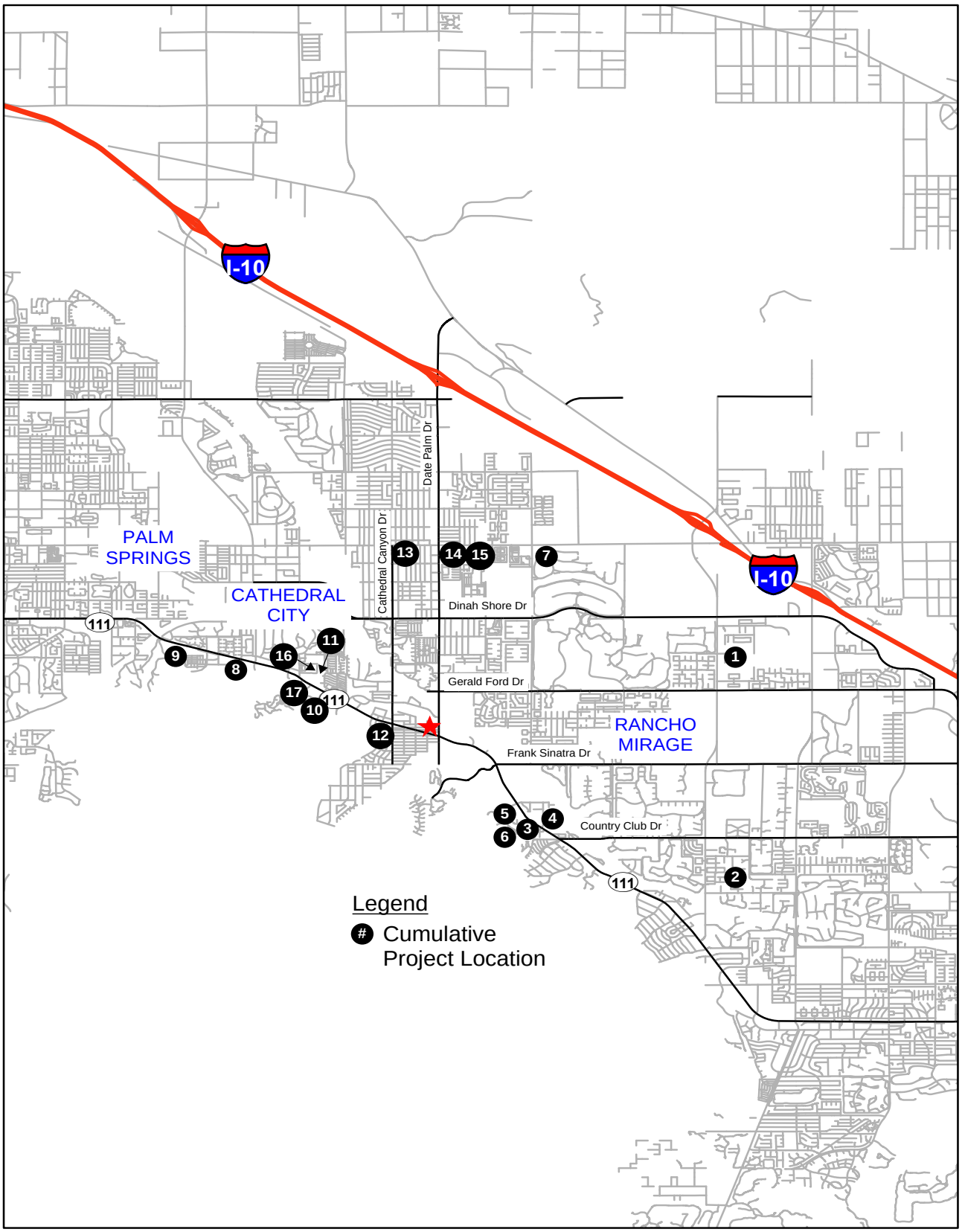


Figure 4-N – Planned Development Projects Only PM Peak Hour Intersection Volumes

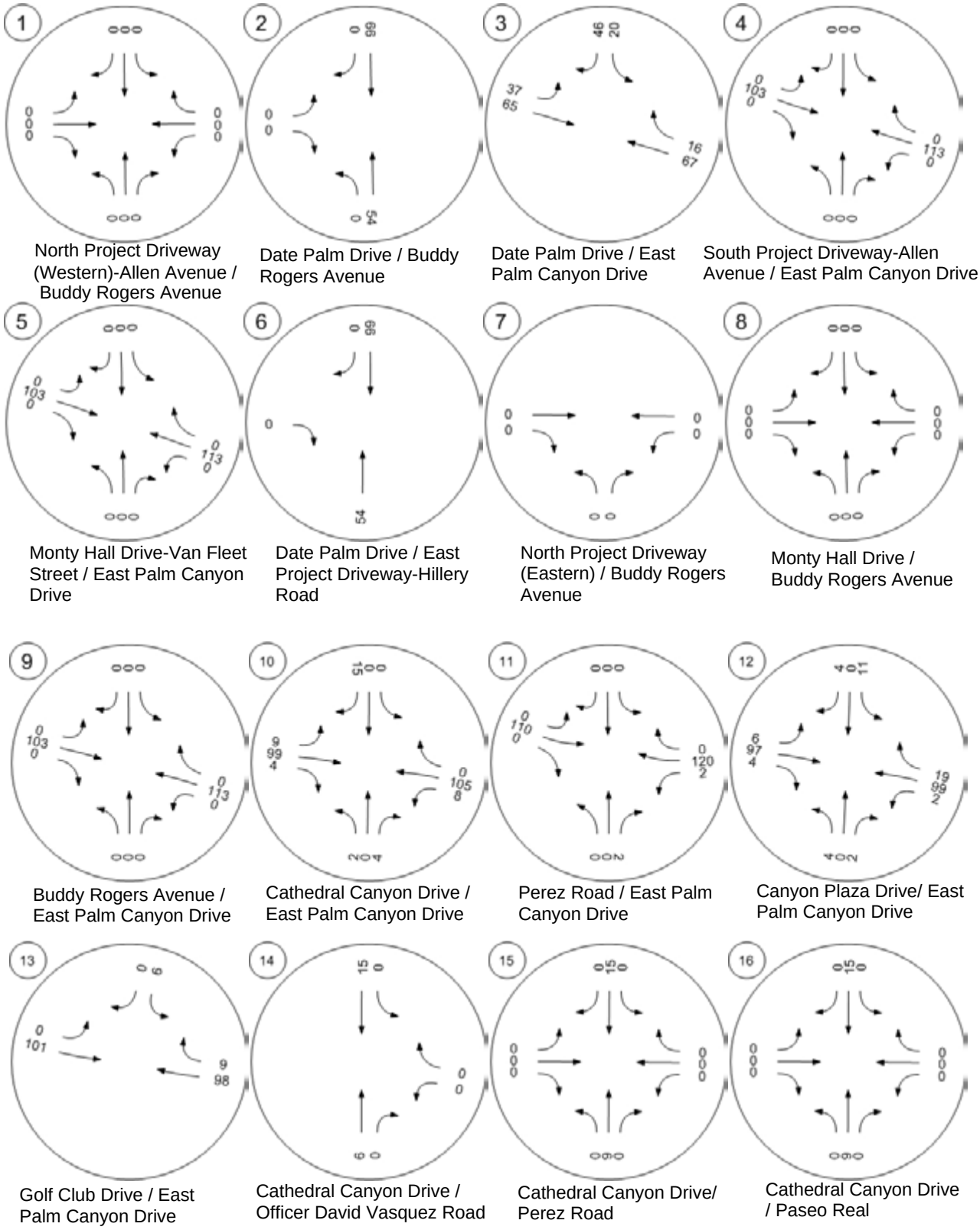
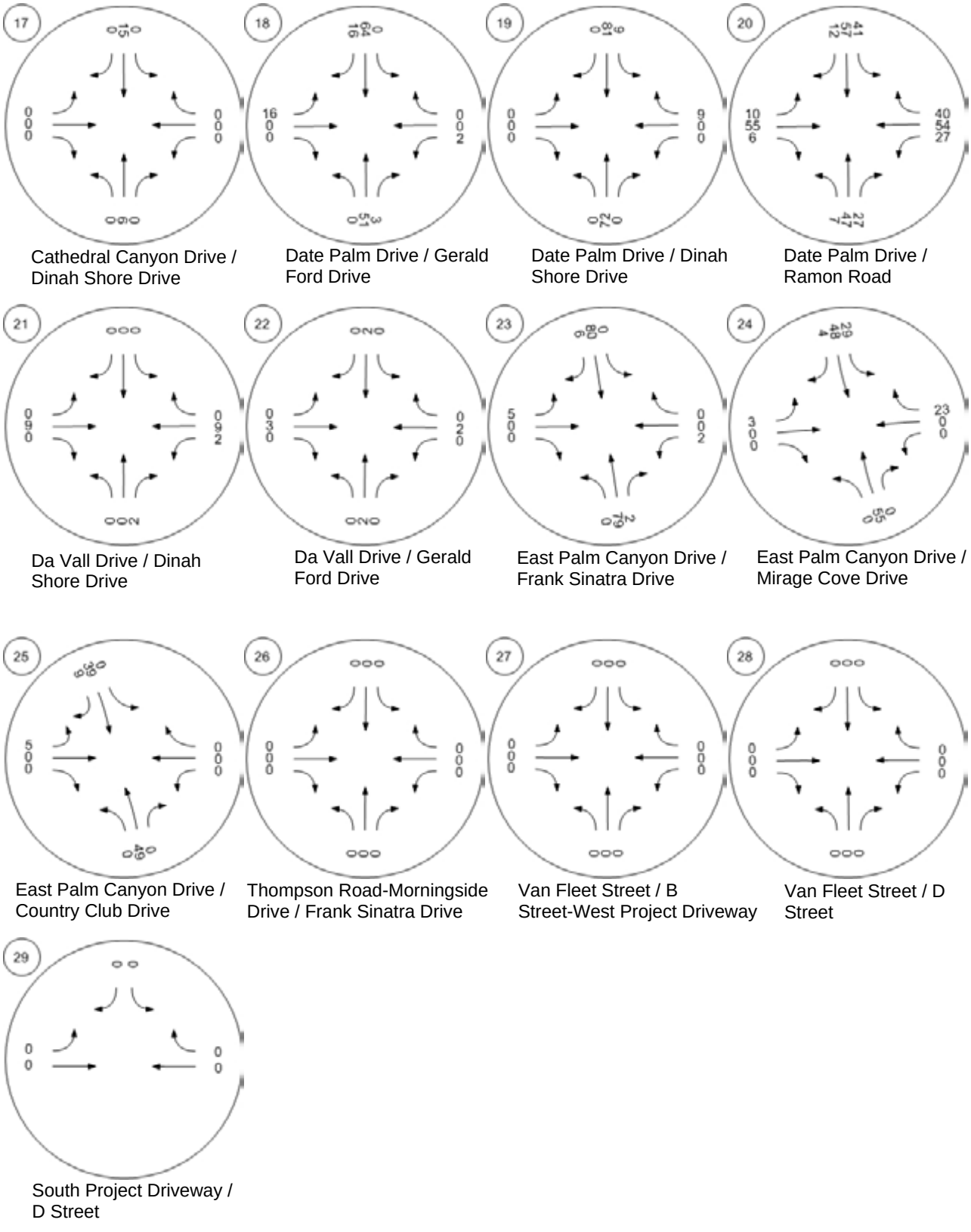


Figure 4-N (Continued) – Planned Development Projects Only PM Peak Hour Intersection Volumes



Cathedral Canyon Drive / Dinah Shore Drive

Date Palm Drive / Gerald Ford Drive

Date Palm Drive / Dinah Shore Drive

Date Palm Drive / Ramon Road

Da Vall Drive / Dinah Shore Drive

Da Vall Drive / Gerald Ford Drive

East Palm Canyon Drive / Frank Sinatra Drive

East Palm Canyon Drive / Mirage Cove Drive

East Palm Canyon Drive / Country Club Drive

Thompson Road-Morningside Drive / Frank Sinatra Drive

Van Fleet Street / B Street-West Project Driveway

Van Fleet Street / D Street

South Project Driveway / D Street

Figure 4-O – Planned Development Projects Only Saturday MD Peak Hour Intersection Volumes

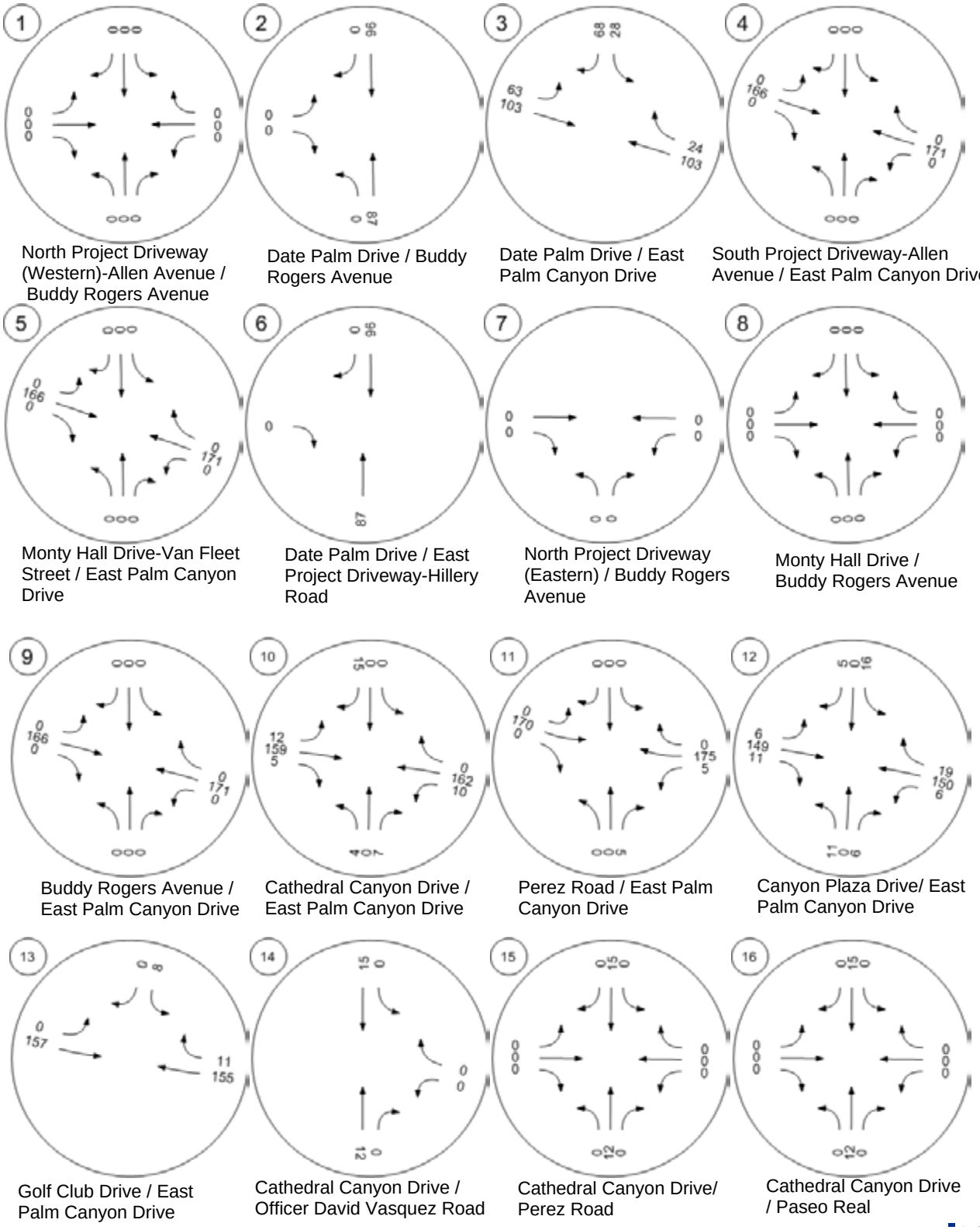
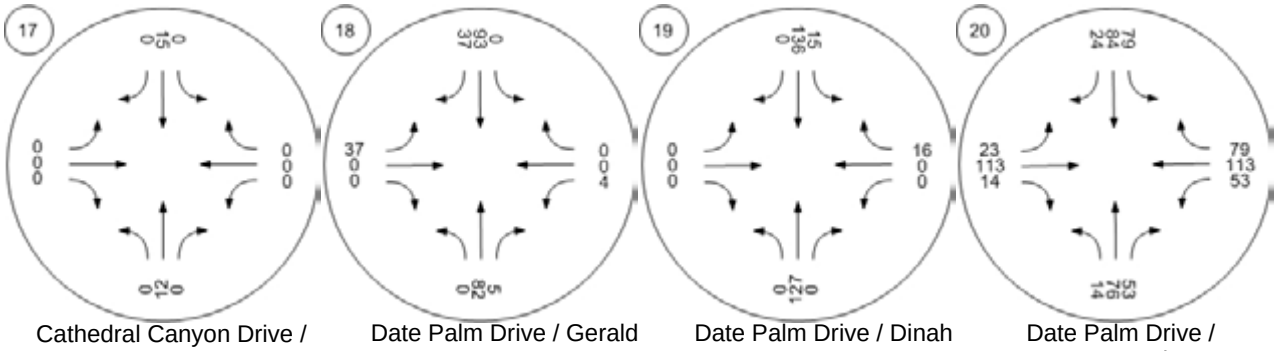


Figure 4-O (Continued) – Planned Development Projects Only Saturday MD Peak Hour Intersection Volumes

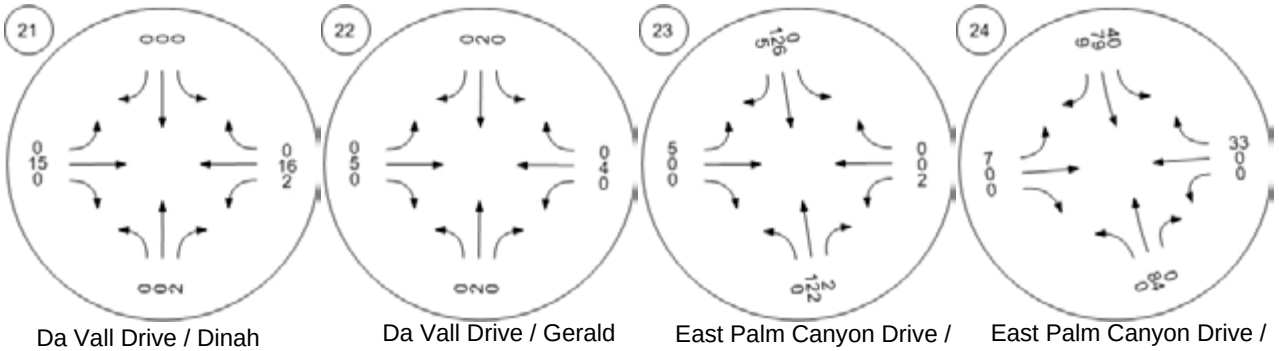


Cathedral Canyon Drive / Dinah Shore Drive

Date Palm Drive / Gerald Ford Drive

Date Palm Drive / Dinah Shore Drive

Date Palm Drive / Ramon Road

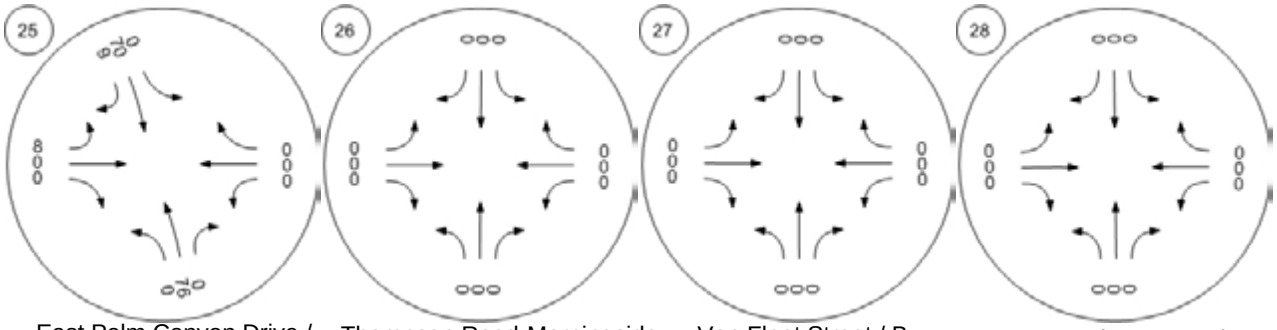


Da Vall Drive / Dinah Shore Drive

Da Vall Drive / Gerald Ford Drive

East Palm Canyon Drive / Frank Sinatra Drive

East Palm Canyon Drive / Mirage Cove Drive

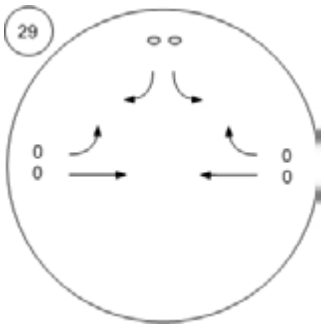


East Palm Canyon Drive / Country Club Drive

Thompson Road-Morningside Drive / Frank Sinatra Drive

Van Fleet Street / B Street-West Project Driveway

Van Fleet Street / D Street



South Project Driveway / D Street

5.0 TRAFFIC ANALYSIS

5.1 Capacity and Level of Service and Improvement Analysis

5.1.1 Levels of Service – Project Opening Year with Project (2020) Conditions

The Project Opening Year (2020) scenario includes existing traffic, planned development traffic, ambient growth traffic (2 percent per year), and Project traffic. **Table 5-1, Table 5-2, Table 5-3,** and **Table 5-4** provide the projected delay and levels of service at the study intersections under Project Opening Year conditions without off-site improvements. These levels of service vary from LOS A to F. The Project Opening Year PM peak hour intersection turning movement volumes for each Project Alternative are shown on **Figure 5-A, Figure 5-B, Figure 5-C,** and **Figure 5-D**. The Project Opening Year Saturday MD peak hour intersection turning movement volumes for each Project Alternative are shown on **Figure 5-E, Figure 5-F, Figure 5-G,** and **Figure 5-H**. The Project Opening Year daily roadway segment volumes and levels of service for each Project Alternative are shown on **Table 5-5, Table 5-6, Table 5-7,** and **Table 5-8**. The levels of service are based upon the existing geometrics for the study area intersections and roadways. The level of service calculation worksheets for the intersections are provided in Appendix E. The following study intersections are expected to operate at an unacceptable level of service:

1. Date Palm Drive (NS) / Buddy Rogers Avenue (EW)
2. Cathedral Canyon Drive (NS) / Paseo Real (EW)

One study roadway segment is expected to operate at an unacceptable level of service:

1. East Palm Canyon Drive between Cathedral Canyon Drive and Date Palm Drive

Table 5-1 – Intersection LOS – Alternative A Opening Year (2020) Conditions

Intersection		LOS Standard	Peak Hour	Traffic Control	Opening Year No Project		Opening Year Plus Project	
					Delay (sec)	LOS	Delay (sec)	LOS
1	North Project Driveway (Western)-Allen Avenue / Buddy Rogers Avenue	D	PM	OWSC	9.4	A	12.0	B
			Sat-MD		9.4	A	13.8	B
2	Date Palm Drive / Buddy Rogers Avenue	D	PM	OWSC	18.9	C	**55.6**	**F**
			Sat-MD		18.3	C	**58.2**	**F**
3	Date Palm Drive / East Palm Canyon Drive	D	PM	Signalized	10.7	B	12.1	B
			Sat-MD		10.2	B	19.5	B
4	South Project Driveway-Allen Avenue / East Palm Canyon Drive	D	PM	Signalized	1.1	A	3.9	A
			Sat-MD		1.9	A	4.8	A
5	Monty Hall Drive-Van Fleet Street / East Palm Canyon Drive	D	PM	Signalized	8.8	A	11.0	B
			Sat-MD		8.4	A	12.7	B

Table 5-1 (Continued) – Intersection LOS – Alternative A Opening Year (2020) Conditions

Intersection		LOS Standard	Peak Hour	Traffic Control	Opening Year No Project		Opening Year Plus Project	
					Delay (sec)	LOS	Delay (sec)	LOS
6	Date Palm Drive / East Project Driveway-Hillery Road	D	PM	TWSC	11.4	B	11.6	B
			Sat-MD		11.5	B	11.8	B
7	North Project Driveway (Eastern)-Allen Avenue / Buddy Rogers Avenue	D	PM	TWSC	8.8	A	10.0	B
			Sat-MD		8.8	A	10.5	B
8	Monty Hall Drive / Buddy Rogers Avenue	D	PM	AWSC	7.3	A	7.6	A
			Sat-MD		7.3	A	7.7	A
9	Buddy Rogers Avenue/ East Palm Canyon Drive	D	PM	Signalized	3.3	A	3.5	A
			Sat-MD		4.0	A	4.0	A
10	Cathedral Canyon Drive / East Palm Canyon Drive	D	PM	Signalized	16.0	B	16.7	B
			Sat-MD		17.5	B	18.4	B
11	Perez Road / East Palm Canyon Drive	D	PM	Signalized	22.9	C	23.0	C
			Sat-MD		17.0	B	17.7	B
12	Canyon Plaza Drive / East Palm Canyon Drive	D	PM	Signalized	10.5	B	10.9	B
			Sat-MD		11.0	B	12.0	B
14	Cathedral Canyon Drive / Officer David Vasquez Road	D	PM	Signalized	4.6	A	4.7	A
			Sat-MD		3.0	A	3.8	A
15	Cathedral Canyon Drive / Perez Road	D	PM	Signalized	25.6	D	25.8	C
			Sat-MD		21.0	C	22.4	C
16	Cathedral Canyon Drive / Paseo Real	D	PM	TWSC	**42.3**	**E**	**50.4**	**F**
			Sat-MD		25.0	D	29.9	D
17	Cathedral Canyon Drive / Dinah Shore Drive	D	PM	Signalized	28.6	D	29.8	C
			Sat-MD		22.0	C	23.9	C
18	Date Palm Drive / Gerald Ford Drive	D	PM	Signalized	17.9	C	18.3	B
			Sat-MD		17.0	C	18.1	B
19	Date Palm Drive / Dinah Shore Drive	D	PM	Signalized	23.8	D	24.1	C
			Sat-MD		20.0	C	20.5	C
23	East Palm Canyon Drive / Frank Sinatra Drive	D	PM	Signalized	11.0	C	25.6	C
			Sat-MD		11.9	B	21.1	C
24	East Palm Canyon Drive / Mirage Cove Drive	D	PM	Signalized	6.8	B	19.3	B
			Sat-MD		16.0	B	8.1	A

Table 5-2 – Intersection LOS – Alternative B Opening Year (2020) Conditions

Intersection		LOS Standard	Peak Hour	Traffic Control	Opening Year No Project		Opening Year Plus Project	
					Delay (sec)	LOS	Delay (sec)	LOS
1	North Project Driveway (Western)-Allen Avenue / Buddy Rogers Avenue	D	PM	OWSC	9.4	A	11.2	B
			Sat-MD		9.4	A	12.2	B
2	Date Palm Drive / Buddy Rogers Avenue	D	PM	OWSC	18.9	C	**47.5**	**E**
			Sat-MD		18.3	C	**51.0**	**F**
3	Date Palm Drive / East Palm Canyon Drive	D	PM	Signalized	10.7	B	10.7	B
			Sat-MD		10.2	B	10.5	B
4	South Project Driveway-Allen Avenue / East Palm Canyon Drive	D	PM	Signalized	1.1	A	4.4	A
			Sat-MD		1.9	A	4.3	A
5	Monty Hall Drive-Van Fleet Street / East Palm Canyon Drive	D	PM	Signalized	8.8	A	10.8	B
			Sat-MD		8.4	A	11.4	B
7	North Project Driveway 2 / Buddy Rogers Avenue	D	PM	OWSC	8.8	A	10.0	A
			Sat-MD		8.8	A	10.4	B
8	Monty Hall Drive / Buddy Rogers Avenue	D	PM	AWSC	7.3	A	7.5	A
			Sat-MD		7.3	A	7.6	A
9	Buddy Rogers Avenue/ East Palm Canyon Drive	D	PM	Signalized	3.3	A	3.4	A
			Sat-MD		4.0	A	4.0	A
10	Cathedral Canyon Drive / East Palm Canyon Drive	D	PM	Signalized	16.0	B	16.9	B
			Sat-MD		17.5	B	18.5	B
11	Perez Road / East Palm Canyon Drive	D	PM	Signalized	22.9	C	25.0	C
			Sat-MD		17.0	B	18.1	B
12	Canyon Plaza Drive / East Palm Canyon Drive	D	PM	Signalized	10.5	B	10.6	B
			Sat-MD		11.0	B	11.6	B
14	Cathedral Canyon Drive / Officer David Vasquez Road	D	PM	Signalized	4.6	A	6.2	A
			Sat-MD		3.0	A	3.9	A
15	Cathedral Canyon Drive / Perez Road	D	PM	Signalized	25.6	D	40.9	D
			Sat-MD		21.0	C	22.4	C
16	Cathedral Canyon Drive / Paseo Real	D	PM	TWSC	**42.3**	**E**	**49.3**	**E**
			Sat-MD		25.0	D	29.2	D
17	Cathedral Canyon Drive / Dinah Shore Drive	D	PM	Signalized	28.6	D	40.1	D
			Sat-MD		22.0	C	23.8	C

Table 5-2 (Continued) – Intersection LOS – Alternative B Opening Year (2020) Conditions

Intersection		LOS Standard	Peak Hour	Traffic Control	Opening Year No Project		Opening Year Plus Project	
					Delay (sec)	LOS	Delay (sec)	LOS
18	Date Palm Drive / Gerald Ford Drive	D	PM	Signalized	17.9	C	21.6	C
			Sat-MD		17.0	C	14.4	B
19	Date Palm Drive / Dinah Shore Drive	D	PM	Signalized	23.8	D	36.0	D
			Sat-MD		20.0	C	20.6	C
23	East Palm Canyon Drive / Frank Sinatra Drive	D	PM	Signalized	11.0	C	22.9	C
			Sat-MD		11.9	B	23.9	C
24	East Palm Canyon Drive / Mirage Cove Drive	D	PM	Signalized	6.8	B	15.4	B
			Sat-MD		16.0	B	19.0	B

Table 5-3 – Intersection LOS – Alternative C Opening Year (2020) Conditions

	Intersection	LOS Standard	Peak Hour	Traffic Control	Opening Year No Project		Opening Year Plus Project	
					Delay (sec)	LOS	Delay (sec)	LOS
1	North Project Driveway (Western)-Allen Avenue / Buddy Rogers Avenue	D	PM	OWSC	9.4	A	12.1	B
			Sat-MD		9.4	A	14.5	B
2	Date Palm Drive / Buddy Rogers Avenue	D	PM	OWSC	18.9	C	**44.4**	**E**
			Sat-MD		18.3	C	**51.1**	**F**
3	Date Palm Drive / East Palm Canyon Drive	D	PM	Signalized	10.7	B	10.9	B
			Sat-MD		10.2	B	10.7	B
4	South Project Driveway-Allen Avenue / East Palm Canyon Drive	D	PM	Signalized	1.1	A	6.1	A
			Sat-MD		1.9	A	15.2	B
5	Monty Hall Drive-Van Fleet Street / East Palm Canyon Drive	D	PM	Signalized	8.8	A	12.2	B
			Sat-MD		8.4	A	16.0	B
6	Date Palm Drive / East Project Driveway-Hillery Road	D	PM	OWSC	11.4	B	11.8	B
			Sat-MD		11.5	B	12.2	B
7	North Project Driveway (Eastern)-Allen Avenue / Buddy Rogers Avenue	D	PM	OWSC	8.8	A	10.4	B
			Sat-MD		8.8	A	11.5	B
8	Monty Hall Drive / Buddy Rogers Avenue	D	PM	AWSC	7.3	A	7.7	A
			Sat-MD		7.3	A	7.9	A
9	Buddy Rogers Avenue/ East Palm Canyon Drive	D	PM	Signalized	3.3	A	3.5	A
			Sat-MD		4.0	A	4.1	A
10	Cathedral Canyon Drive / East Palm Canyon Drive	D	PM	Signalized	16.0	B	17.7	B
			Sat-MD		17.5	B	24.7	C
11	Perez Road / East Palm Canyon Drive	D	PM	Signalized	22.9	C	24.9	C
			Sat-MD		17.0	B	18.9	B
12	Canyon Plaza Drive / East Palm Canyon Drive	D	PM	Signalized	10.5	B	10.9	B
			Sat-MD		11.0	B	13.2	B
13	Golf Club Drive / East Palm Canyon Drive	D	PM	Signalized	9.8	B	13.3	B
			Sat-MD		13.4	B	15.0	B
14	Cathedral Canyon Drive / Officer David Vasquez Road	D	PM	Signalized	4.6	A	6.0	A
			Sat-MD		3.0	A	3.8	A
15	Cathedral Canyon Drive / Perez Road	D	PM	Signalized	25.6	D	41.1	D
			Sat-MD		21.0	C	25.8	C
16	Cathedral Canyon Drive / Paseo Real	D	PM	TWSC	**42.3**	**E**	**54.6**	**F**
			Sat-MD		25.0	D	32.4	D
17	Cathedral Canyon Drive / Dinah Shore Drive	D	PM	Signalized	28.6	D	40.6	D
			Sat-MD		22.0	C	28.2	C

Table 5-3 (Continued) – Intersection LOS – Alternative C Opening Year (2020) Conditions

Intersection		LOS Standard	Peak Hour	Traffic Control	Opening Year No Project		Opening Year Plus Project	
					Delay (sec)	LOS	Delay (sec)	LOS
18	Date Palm Drive / Gerald Ford Drive	D	PM	Signalized	17.9	C	22.9	C
			Sat-MD		17.0	C	22.9	C
19	Date Palm Drive / Dinah Shore Drive	D	PM	Signalized	23.8	D	28.2	D
			Sat-MD		20.0	C	28.5	C
20	Date Palm Drive / Ramon Road	D	PM	Signalized	27.6	D	41.6	D
			Sat-MD		41.8	D	42.3	D
21	Da Vall Drive / Dinah Shore Drive	D	PM	Signalized	18.0	C	19.4	C
			Sat-MD		18.8	B	19.4	B
22	Da Vall Drive / Gerald Ford Drive	D	PM	Signalized	22.1	C	28.9	C
			Sat-MD		28.3	C	28.9	C
23	East Palm Canyon Drive / Frank Sinatra Drive	D	PM	Signalized	11.0	C	12.3	C
			Sat-MD		11.9	B	12.3	B
24	East Palm Canyon Drive / Mirage Cove Drive	D	PM	Signalized	6.8	B	16.8	B
			Sat-MD		16.0	B	16.8	B
25	East Palm Canyon Drive / Country Club Drive	D	PM	Signalized	9.8	B	29.0	B
			Sat-MD		28.0	C	29.0	C
26	Thompson Road-Morningside Drive / Frank Sinatra Drive	D	PM	AWSC	6.6	A	6.8	A
			Sat-MD		6.9	A	6.8	A

Table 5-4 – Intersection LOS – Alternative D Opening Year (2020) Conditions

Intersection		LOS Standard	Peak Hour	Traffic Control	Opening Year No Project		Opening Year Plus Project	
					Delay (sec)	LOS	Delay (sec)	LOS
2	Date Palm Drive / Buddy Rogers Avenue	D	PM	OWSC	18.9	C	20.4	C
			Sat-MD		18.3	C	20.6	C
3	Date Palm Drive / East Palm Canyon Drive	D	PM	Signalized	10.7	B	13.5	B
			Sat-MD		10.2	B	14.3	B
4	South Project Driveway-Allen Avenue / East Palm Canyon Drive	D	PM	Signalized	1.1	A	5.0	A
			Sat-MD		1.9	A	5.2	A
9	Buddy Rogers Avenue/ East Palm Canyon Drive	D	PM	Signalized	3.3	A	3.5	A
			Sat-MD		4.0	A	4.0	A

Table 5-4 (Continued) – Intersection LOS – Alternative D Opening Year (2020) Conditions

Intersection		LOS Standard	Peak Hour	Traffic Control	Opening Year No Project		Opening Year Plus Project	
					Delay (sec)	LOS	Delay (sec)	LOS
10	Cathedral Canyon Drive / East Palm Canyon Drive	D	PM	Signalized	16.0	B	19.7	B
			Sat-MD		17.5	B	22.2	C
11	Perez Road / East Palm Canyon Drive	D	PM	Signalized	22.9	C	25.0	C
			Sat-MD		17.0	B	19.2	B
12	Canyon Plaza Drive / East Palm Canyon Drive	D	PM	Signalized	10.5	B	10.8	B
			Sat-MD		11.0	B	12.0	B
14	Cathedral Canyon Drive / Officer David Vasquez Road	D	PM	Signalized	4.6	A	4.7	A
			Sat-MD		3.0	A	3.8	A
15	Cathedral Canyon Drive / Perez Road	D	PM	Signalized	25.6	D	25.8	C
			Sat-MD		21.0	C	22.4	C
16	Cathedral Canyon Drive / Paseo Real	D	PM	TWSC	**42.3**	**E**	**50.4**	**F**
			Sat-MD		25.0	D	29.9	D
17	Cathedral Canyon Drive / Dinah Shore Drive	D	PM	Signalized	28.6	D	39.6	D
			Sat-MD		22.0	C	24.0	C
18	Date Palm Drive / Gerald Ford Drive	D	PM	Signalized	17.9	C	21.9	C
			Sat-MD		17.0	C	19.0	B
19	Date Palm Drive / Dinah Shore Drive	D	PM	Signalized	23.8	D	36.2	D
			Sat-MD		20.0	C	30.0	C
23	East Palm Canyon Drive / Frank Sinatra Drive	D	PM	Signalized	11.0	C	27.6	C
			Sat-MD		11.9	B	28.6	C
24	East Palm Canyon Drive / Mirage Cove Drive	D	PM	Signalized	6.8	B	35.5	D
			Sat-MD		16.0	B	38.5	D
27	Van Fleet Street / B Street-West Project Driveway	D	PM	TWSC	10.2	B	12.2	B
			Sat-MD		10.0	B	12.8	B
28	Van Fleet Street / D Street	D	PM	AWSC	10.2	B	10.4	B
			Sat-MD		9.5	A	9.9	A
29	South Project Driveway / D Street	D	PM	OWSC	8.6	A	8.9	A
			Sat-MD		8.4	A	9.0	A

Table 5-5 – Roadway LOS – Alternative A Opening Year (2020) Conditions

Roadway Segment[1]	Roadway Classification	Roadway Capacity[3]	2020 No Project				2020 (Alternative A)			
			Lanes[2]	ADT	Volume/ Capacity Ratio	LOS	Lanes[2]	ADT	Volume/ Capacity Ratio	LOS
East Palm Canyon Drive										
1. Golf Club Drive to Canyon Plaza Drive	Arterial Highway	59,000	6	44,409	0.75	D	6	44,665	0.76	D
2. Canyon Plaza Drive to Perez Road	Arterial Highway	59,000	6	44,697	0.76	D	6	44,697	0.76	D
3. Perez Road to Cathedral Canyon Drive	Arterial Highway	59,000	6	40,910	0.69	D	6	40,910	0.69	D
4. Cathedral Canyon Drive to Date Palm Drive	Arterial Highway	38,000	4	38,130	***1.00***	***F***	4	39,576	***1.04***	***F***
5. Date Palm Drive to Frank Sinatra Drive	Arterial Highway	59,000	6	48,178	***0.82***	***E***	6	50,135	***0.85***	***E***
6. Frank Sinatra Drive to Country Club Drive	Arterial Highway	59,000	6	43,349	0.73	D	6	43,349	0.73	D
Cathedral Canyon Drive										
7. East Palm Canyon Drive to Perez Road	Secondary Highway	30,000	4	14,559	0.49	B	4	17,112	0.57	C
8. Perez Road to Dinah Shore Drive	Secondary Highway	30,000	4	20,822	0.69	D	4	22,524	0.75	D
Date Palm Drive										
9. East Palm Canyon Drive to Gerald Ford Drive	Arterial Highway	38,000	4	21,038	0.55	C	4	22,144	0.58	C
10. Gerald Ford Drive to Dinah Shore Drive	Arterial Highway	59,000	6	27,771	0.47	B	6	28,878	0.49	C

[1] Roadway segment is in City of Cathedral City.

[2] Number of through lanes.

[3] Source: Cathedral City General Plan Capacities.

LOS = Unacceptable LOS, No significant impact

LOS = Unacceptable LOS, Significant impact

Table 5-6 – Roadway LOS – Alternative B Opening Year (2020) Conditions

Roadway Segment[1]	Roadway Classification	Roadway Capacity[3]	2020 No Project				2020 (Alternative B)			
			Lanes[2]	ADT	Volume/ Capacity Ratio	LOS	Lanes[2]	ADT	Volume/ Capacity Ratio	LOS
East Palm Canyon Drive										
1. Golf Club Drive to Canyon Plaza Drive	Arterial Highway	59,000	6	44,409	0.75	D	6	44,409	0.75	D
2. Canyon Plaza Drive to Perez Road	Arterial Highway	59,000	6	44,697	0.76	D	6	45,455	0.77	D
3. Perez Road to Cathedral Canyon Drive	Arterial Highway	59,000	6	40,910	0.69	D	6	42,046	0.71	D
4. Cathedral Canyon Drive to Date Palm Drive	Arterial Highway	38,000	4	38,130	***1.00***	***F***	4	39,266	***1.03***	***F***
5. Date Palm Drive to Frank Sinatra Drive	Arterial Highway	59,000	6	48,178	***0.82***	***E***	6	49,922	***0.85***	***E***
6. Frank Sinatra Drive to Country Club Drive	Arterial Highway	59,000	6	43,349	0.73	D	6	43,349	0.73	D
Cathedral Canyon Drive										
7. East Palm Canyon Drive to Perez Road	Secondary Highway	30,000	4	14,559	0.49	C	4	15,847	0.53	C
8. Perez Road to Dinah Shore Drive	Secondary Highway	30,000	4	20,822	0.69	D	4	22,338	0.74	D
Date Palm Drive										
9. East Palm Canyon Drive to Gerald Ford Drive	Arterial Highway	38,000	4	21,038	0.55	C	4	22,024	0.58	C
10. Gerald Ford Drive to Dinah Shore Drive	Arterial Highway	59,000	6	27,771	0.47	B	6	29,515	0.50	C

[1] Roadway segment is in City of Cathedral City.

[2] Number of through lanes.

[3] Source: Cathedral City General Plan Capacities.

LOS = Unacceptable LOS, No significant impact

LOS = Unacceptable LOS, Significant impact

Table 5-7 – Roadway LOS – Alternative C Opening Year (2020) Conditions

Roadway Segment[1]	Roadway Classification	Roadway Capacity[3]	2020 No Project				2020 (Alternative C)			
			Lanes[2]	ADT	Volume/ Capacity Ratio	LOS	Lanes[2]	ADT	Volume/ Capacity Ratio	LOS
East Palm Canyon Drive										
1. Golf Club Drive to Canyon Plaza Drive	Arterial Highway	59,000	6	44,409	0.75	D	6	45,573	0.77	D
2. Canyon Plaza Drive to Perez Road	Arterial Highway	59,000	6	44,697	0.76	D	6	46,441	0.79	D
3. Perez Road to Cathedral Canyon Drive	Arterial Highway	59,000	6	40,910	0.69	D	6	42,654	0.72	D
4. Cathedral Canyon Drive to Date Palm Drive	Arterial Highway	38,000	4	38,130	***1.00***	***F***	4	42,896	***1.13***	***F***
5. Date Palm Drive to Frank Sinatra Drive	Arterial Highway	59,000	6	48,178	**0.82**	**E**	6	50,851	***0.86***	***E***
6. Frank Sinatra Drive to Country Club Drive	Arterial Highway	59,000	6	43,349	0.73	D	6	44,859	0.76	D
Cathedral Canyon Drive										
7. East Palm Canyon Drive to Perez Road	Secondary Highway	30,000	4	14,559	0.49	B	4	16,883	0.56	C
8. Perez Road to Dinah Shore Drive	Secondary Highway	30,000	4	20,822	0.69	D	4	23,146	0.77	D
Date Palm Drive										
9. East Palm Canyon Drive to Gerald Ford Drive	Arterial Highway	38,000	4	21,038	0.55	C	4	24,524	0.65	D
10. Gerald Ford Drive to Dinah Shore Drive	Arterial Highway	59,000	6	27,771	0.47	B	6	30,095	0.51	C

[1] Roadway segment is in City of Cathedral City.
[2] Number of through lanes.
[3] Source: Cathedral City General Plan Capacities.
LOS = Unacceptable LOS, No significant impact
LOS = Unacceptable LOS, Significant impact

Table 5-8 – Roadway LOS – Alternative D Opening Year (2020) Conditions

Roadway Segment[1]	Roadway Classification	Roadway Capacity[3]	2020 No Project				2020 No Project (Alternative D)			
			Lanes[2]	ADT	Volume/ Capacity Ratio	LOS	Lanes[2]	ADT	Volume/ Capacity Ratio	LOS
East Palm Canyon Drive										
1. Golf Club Drive to Canyon Plaza Drive	Arterial Highway	59,000	6	44,409	0.75	D	6	44,665	0.76	D
2. Canyon Plaza Drive to Perez Road	Arterial Highway	59,000	6	44,697	0.76	D	6	44,697	0.76	D
3. Perez Road to Cathedral Canyon Drive	Arterial Highway	59,000	6	40,910	0.69	D	6	41,761	0.71	D
4. Cathedral Canyon Drive to Date Palm Drive	Arterial Highway	38,000	4	38,130	***1.00***	***F***	4	42,640	***1.12***	***F***
5. Date Palm Drive to Frank Sinatra Drive	Arterial Highway	59,000	6	48,178	**0.82**	**E**	6	50,135	**0.85**	**E**
6. Frank Sinatra Drive to Country Club Drive	Arterial Highway	59,000	6	43,349	0.73	D	6	43,349	0.73	D
Cathedral Canyon Drive										
7. East Palm Canyon Drive to Perez Road	Secondary Highway	30,000	4	14,559	0.49	B	4	17,112	0.57	C
8. Perez Road to Dinah Shore Drive	Secondary Highway	30,000	4	20,822	0.69	D	4	22,524	0.75	D
Date Palm Drive										
9. East Palm Canyon Drive to Gerald Ford Drive	Arterial Highway	38,000	4	21,038	0.55	C	4	23,591	0.62	C
10. Gerald Ford Drive to Dinah Shore Drive	Arterial Highway	59,000	6	27,771	0.47	B	6	30,324	0.51	C

[1] Roadway segment is in City of Cathedral City.
[2] Number of through lanes.
[3] Source: Cathedral City General Plan Capacities.
LOS = Unacceptable LOS, No significant impact
LOS = Unacceptable LOS, Significant impact

Figure 5-A – Alternative A Opening Year (2020) PM Peak Hour Intersection Volumes

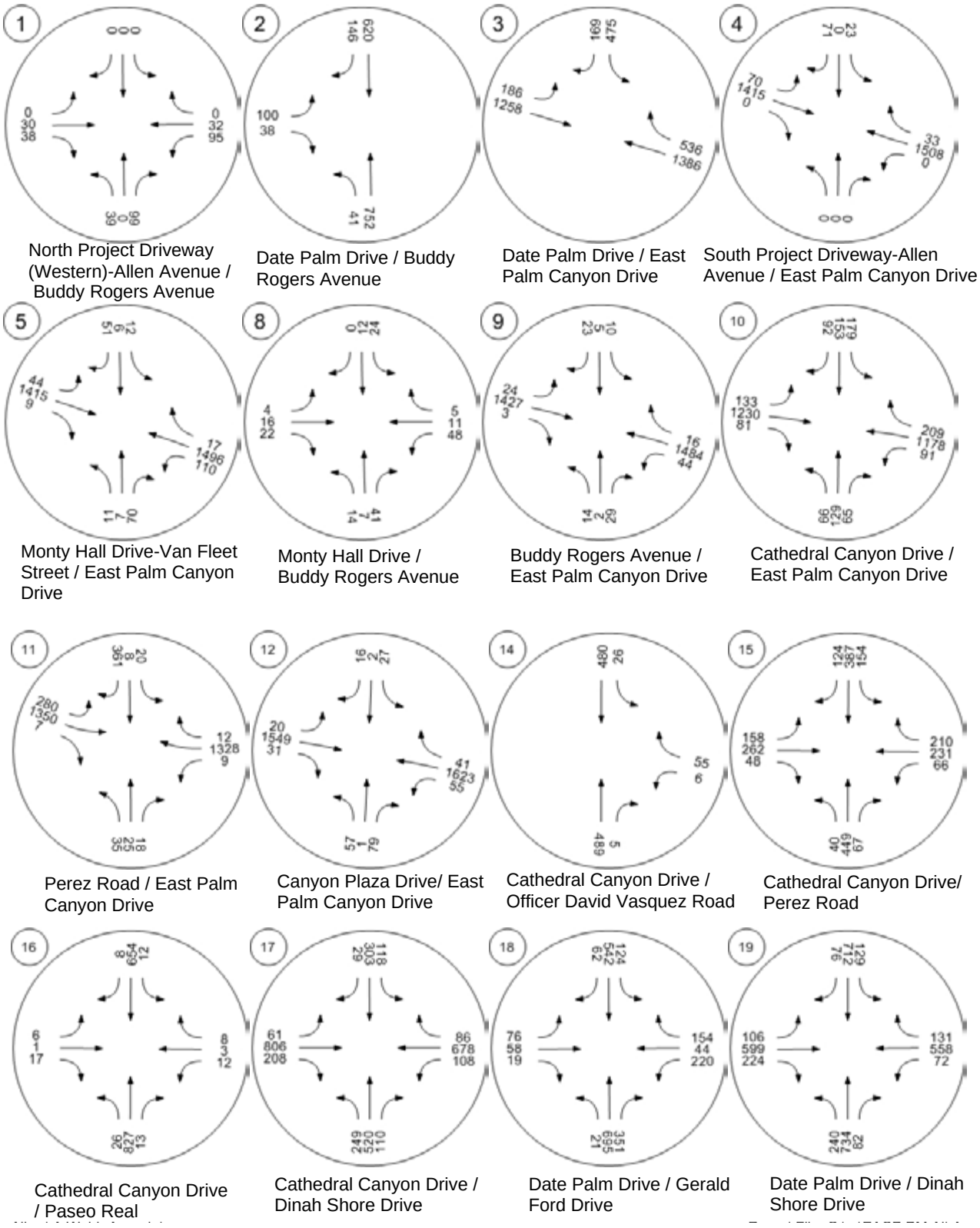
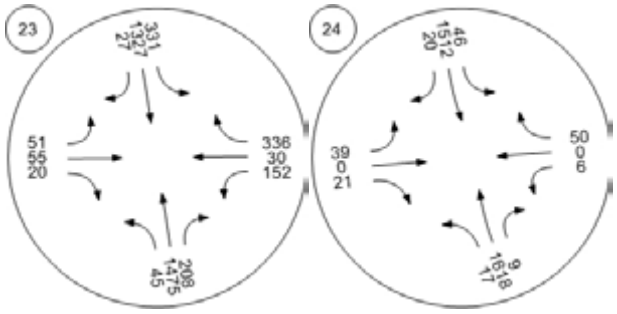


Figure 5-A (Continued) – Alternative A Opening Year (2020) PM Peak Hour Intersection Volumes



East Palm Canyon Drive / Frank Sinatra Drive

East Palm Canyon Drive / Mirage Cove Drive

Figure 5-B – Alternative B Opening Year (2020) PM Peak Hour Intersection Volumes

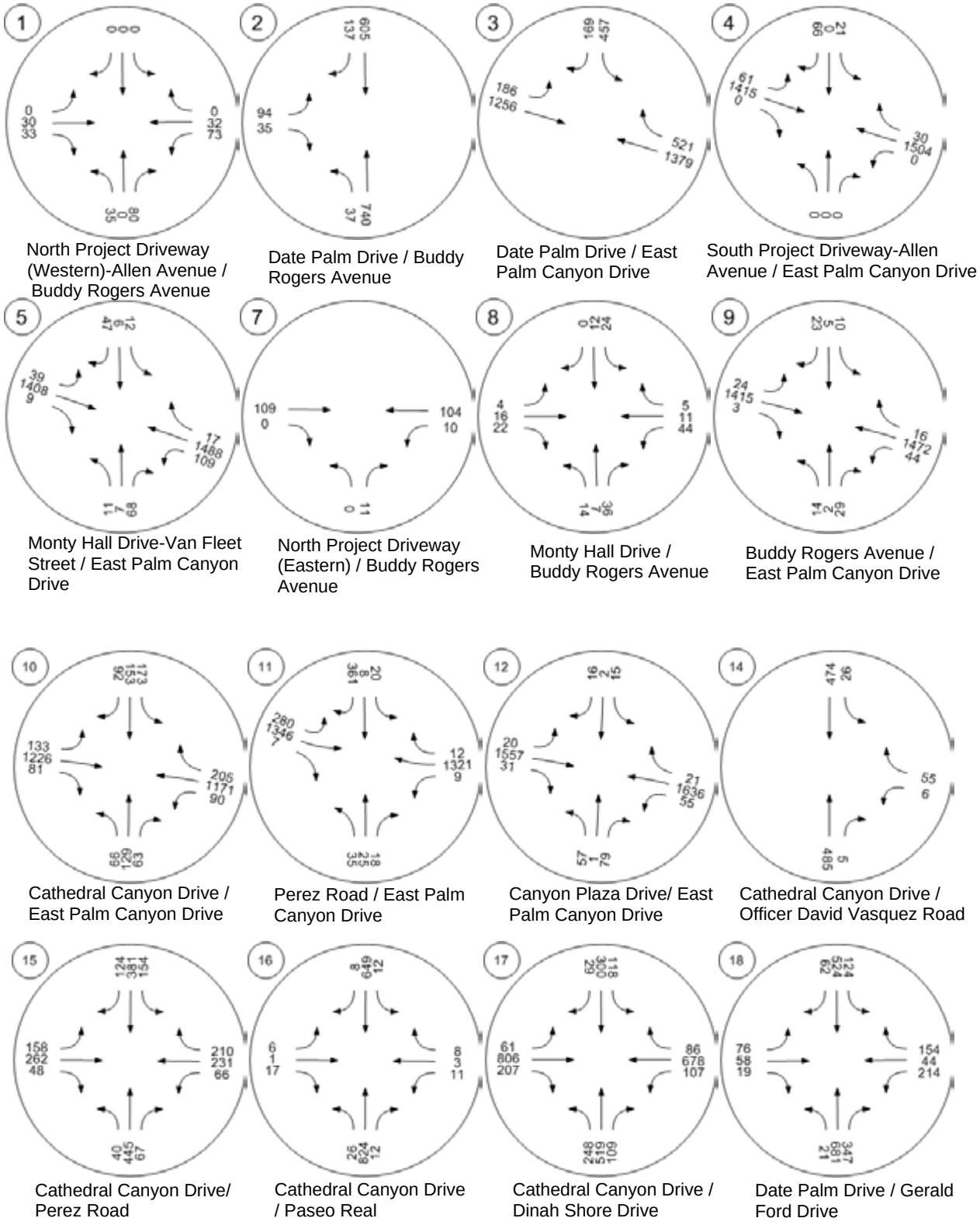
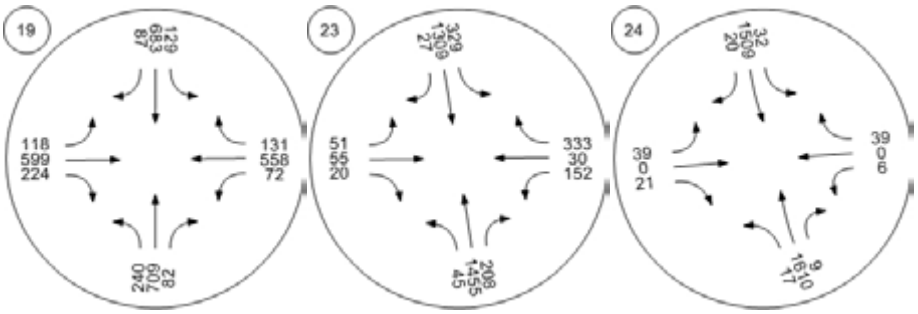


Figure 5-B (Continued) – Alternative B Opening Year (2020) PM Peak Hour Intersection Volumes



Date Palm Drive / Dinah Shore Drive

East Palm Canyon Drive / Frank Sinatra Drive

East Palm Canyon Drive / Mirage Cove Drive

Figure 5-C – Alternative C Opening Year (2020) PM Peak Hour Intersection Volumes

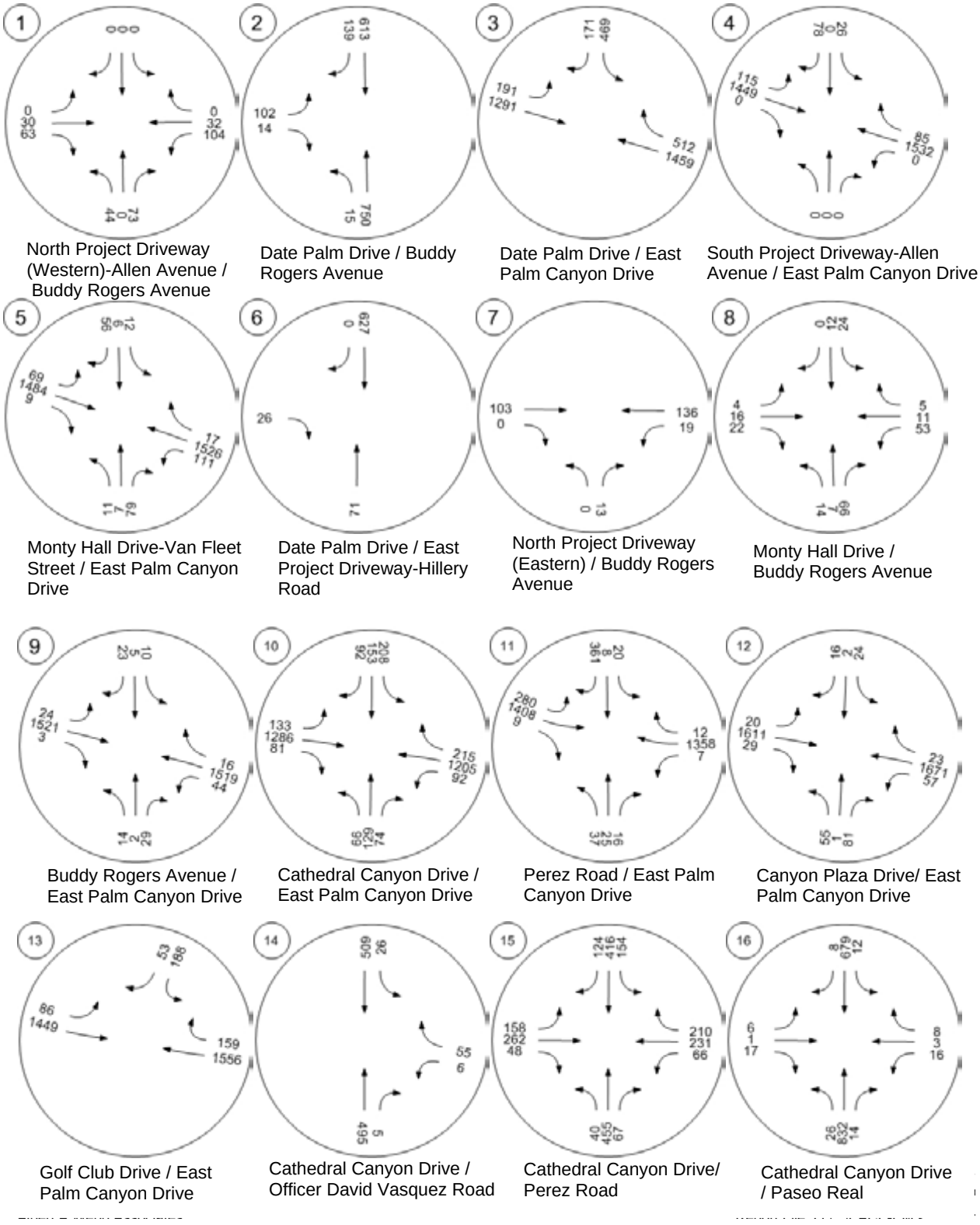


Figure 5-C (Continued) – Alternative C Opening Year (2020) PM Peak Hour Intersection Volumes

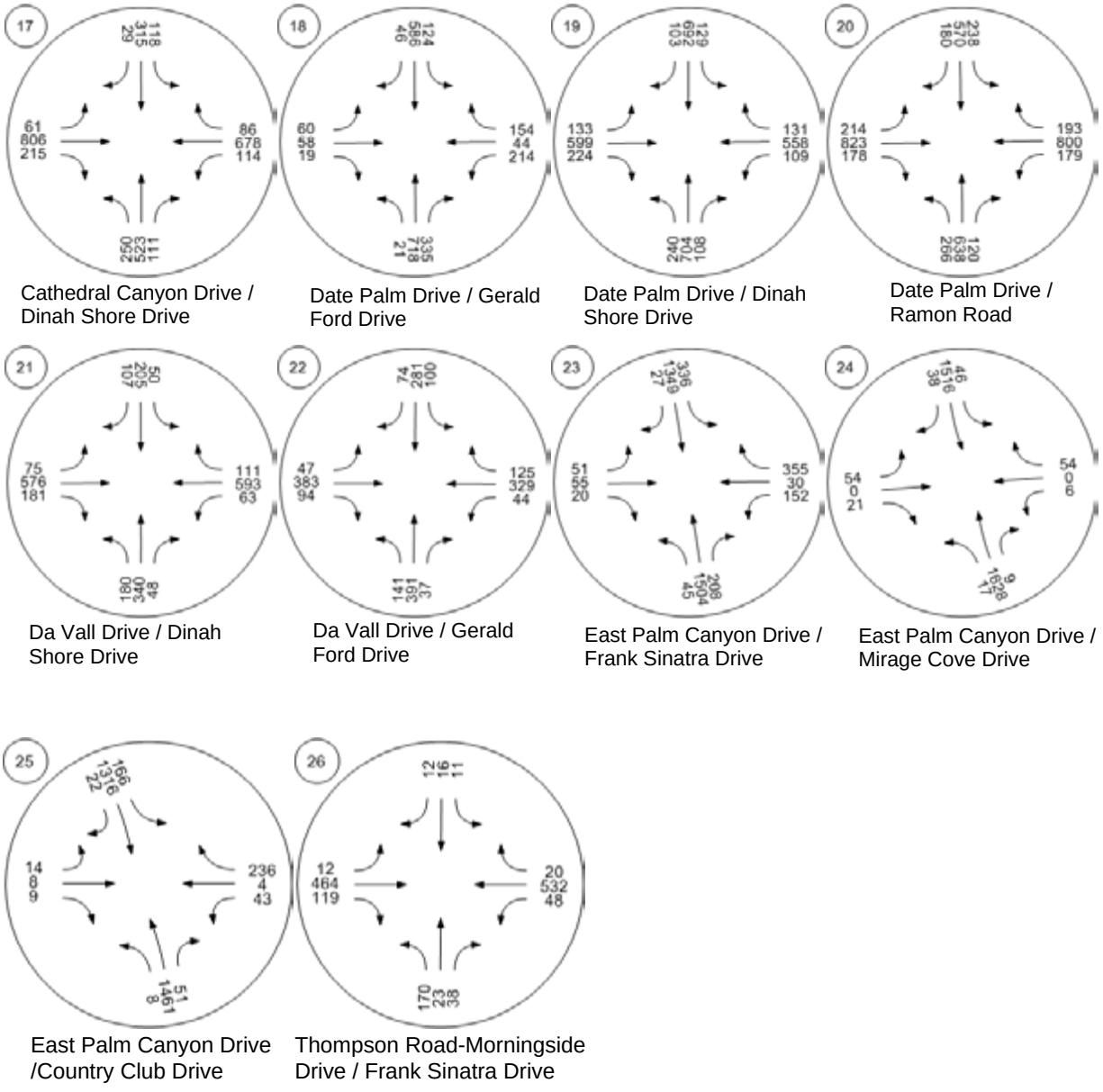


Figure 5-D – Alternative D Opening Year (2020) PM Peak Hour Intersection Volumes

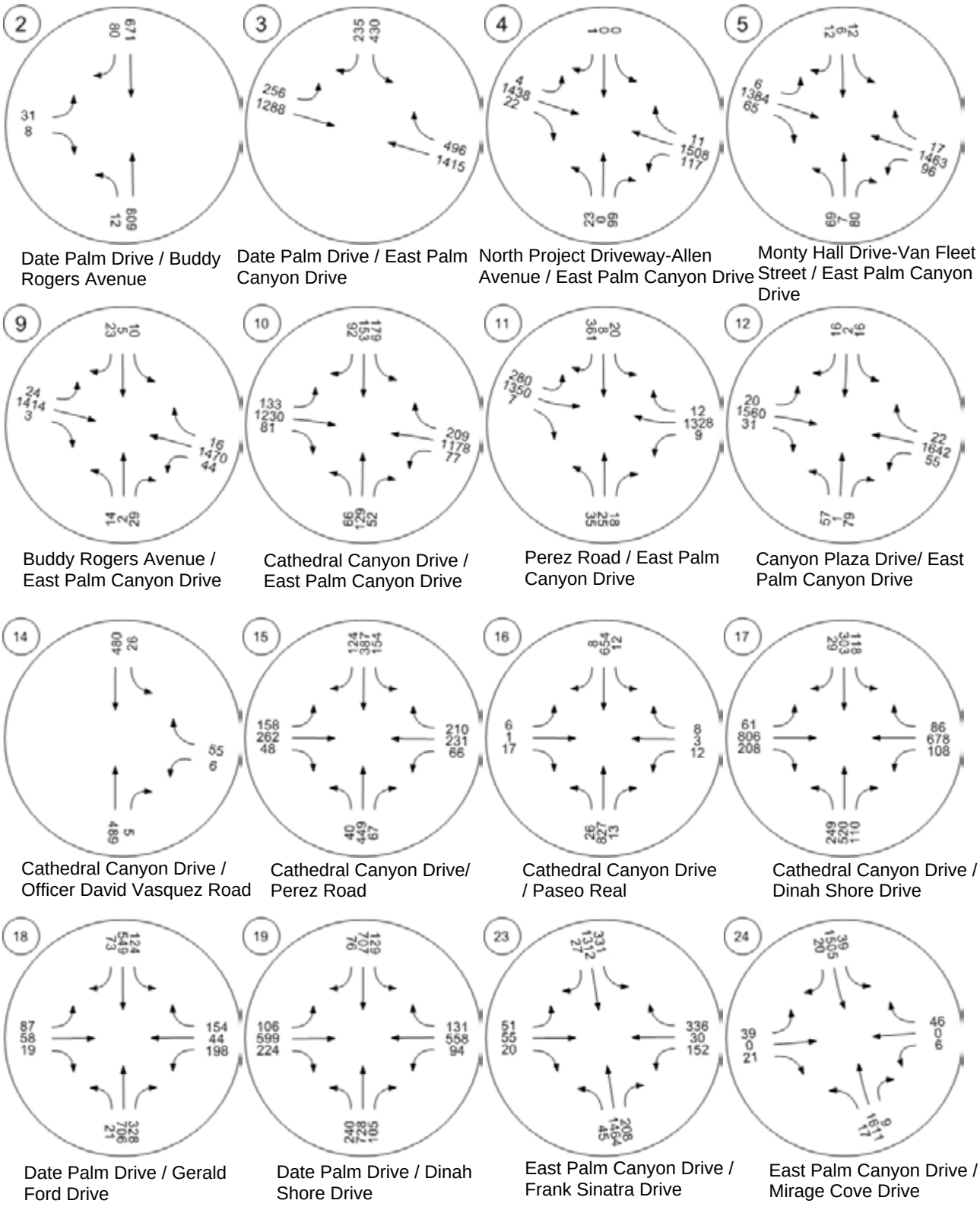
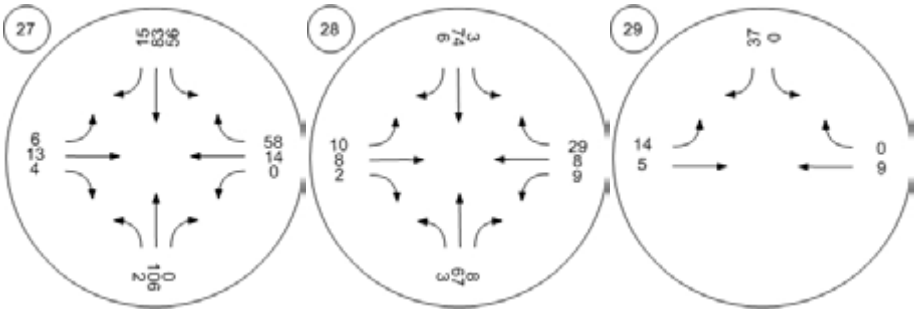


Figure 5-D (Continued) – Alternative D Opening Year (2020) PM Peak Hour Intersection Volumes



Van Fleet Street / B Street-West Project Driveway

Van Fleet Street / D Street

South Project Driveway / D Street

Figure 5-E – Alternative A Opening Year (2020) Saturday MD Peak Hour Intersection Volumes

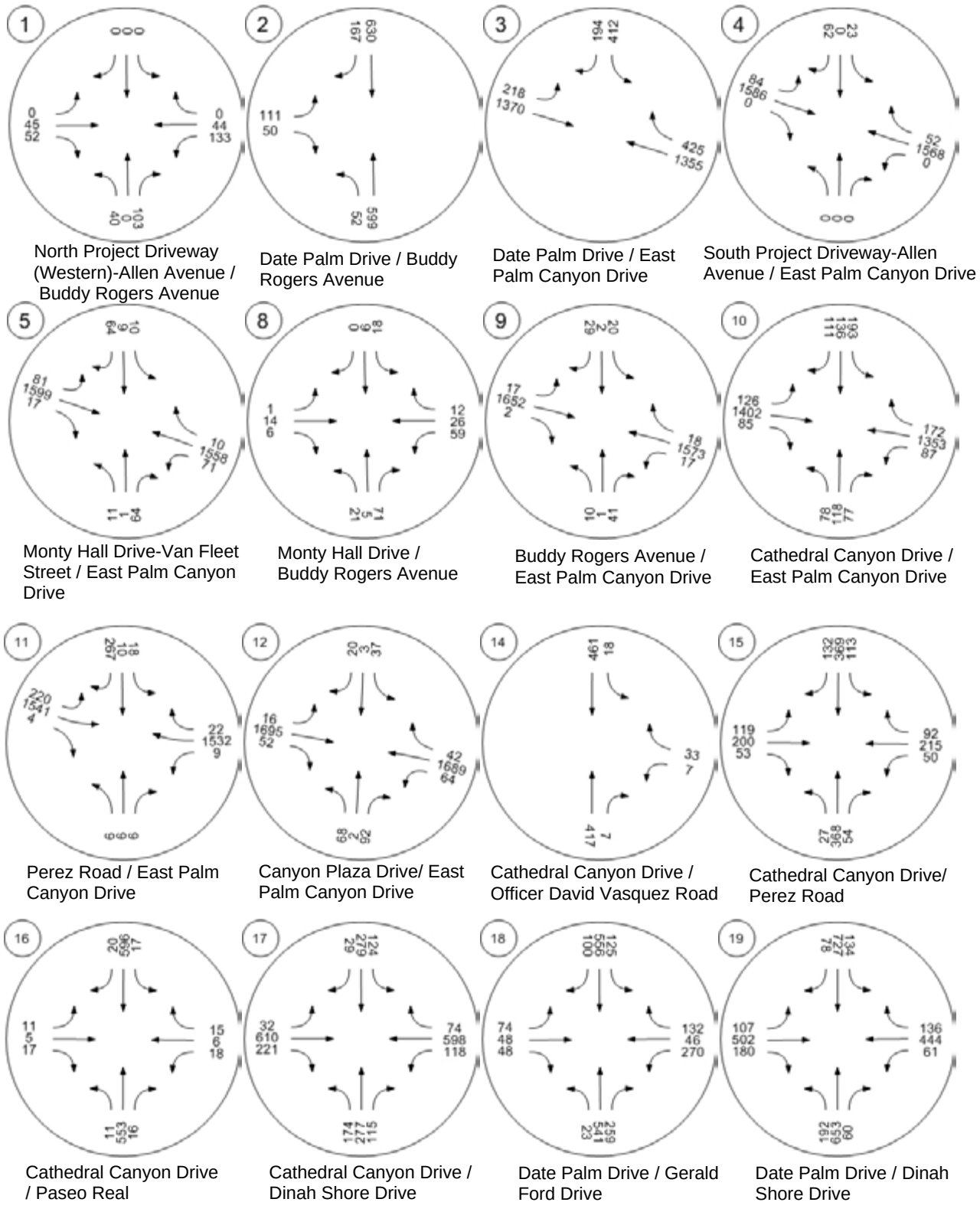
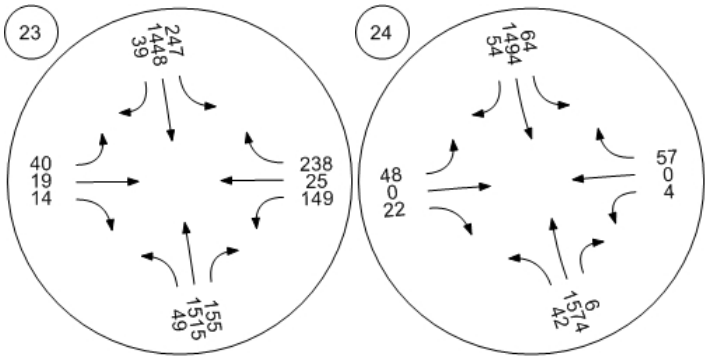


Figure 5-E (Continued) – Alternative A Opening Year (2020) Saturday MD Peak Hour Intersection Volumes



East Palm Canyon Drive / Frank Sinatra Drive

East Palm Canyon Drive / Mirage Cove Drive

Figure 5-F – Alternative B Opening Year (2020) Saturday MD Peak Hour Intersection Volumes

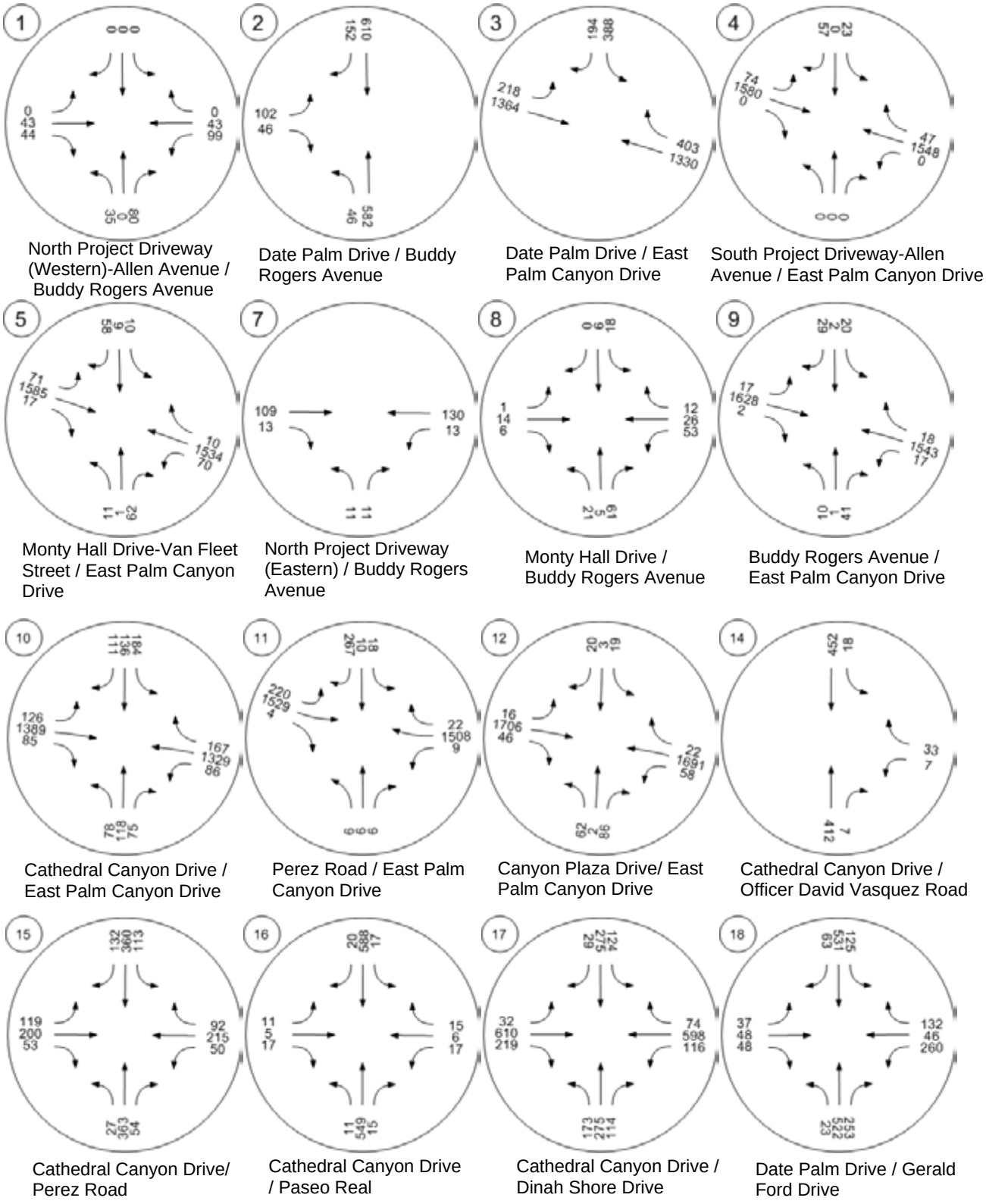
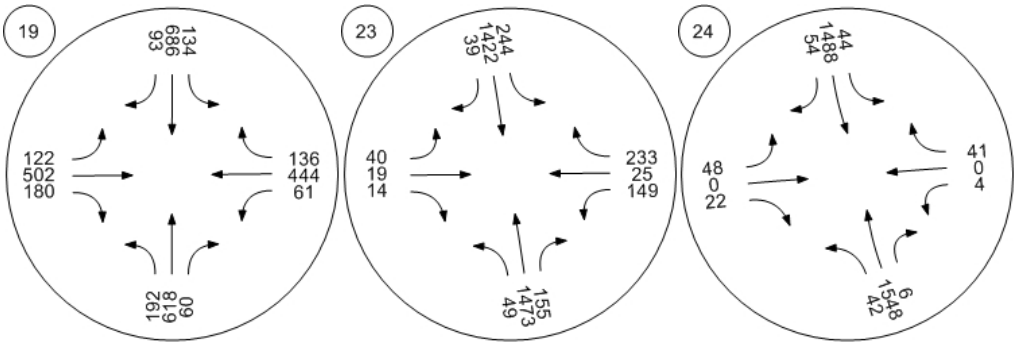


Figure 5-F (Continued) – Alternative B Opening Year (2020) Saturday MD Peak Hour Intersection Volumes



Date Palm Drive / Dinah Shore Drive

East Palm Canyon Drive / Frank Sinatra Drive

East Palm Canyon Drive / Mirage Cove Drive

Figure 5-G – Alternative C Opening Year (2020) Saturday MD Peak Hour Intersection Volumes

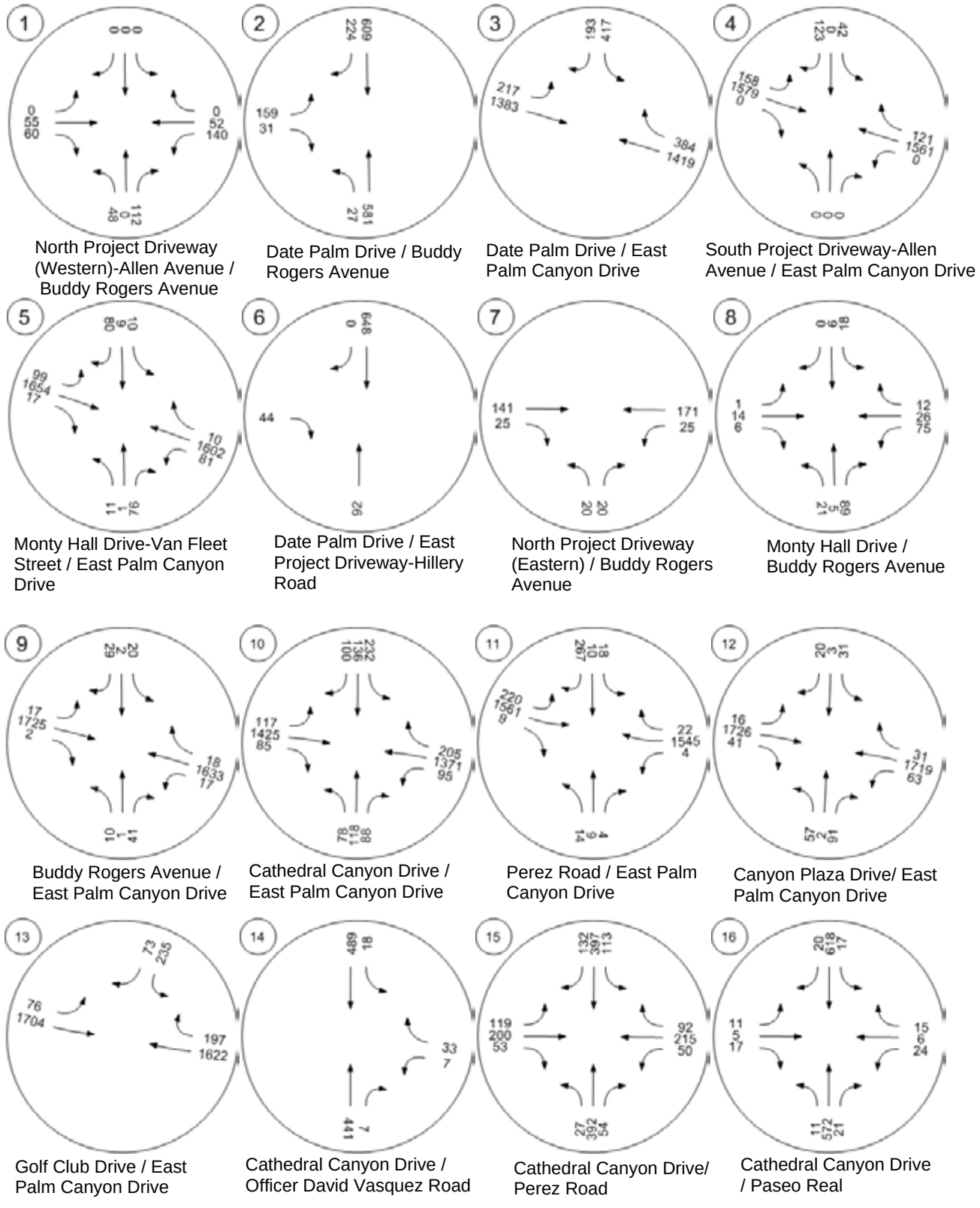


Figure 5-G (Continued) – Alternative C Opening Year (2020) Saturday MD Peak Hour Intersection Volumes

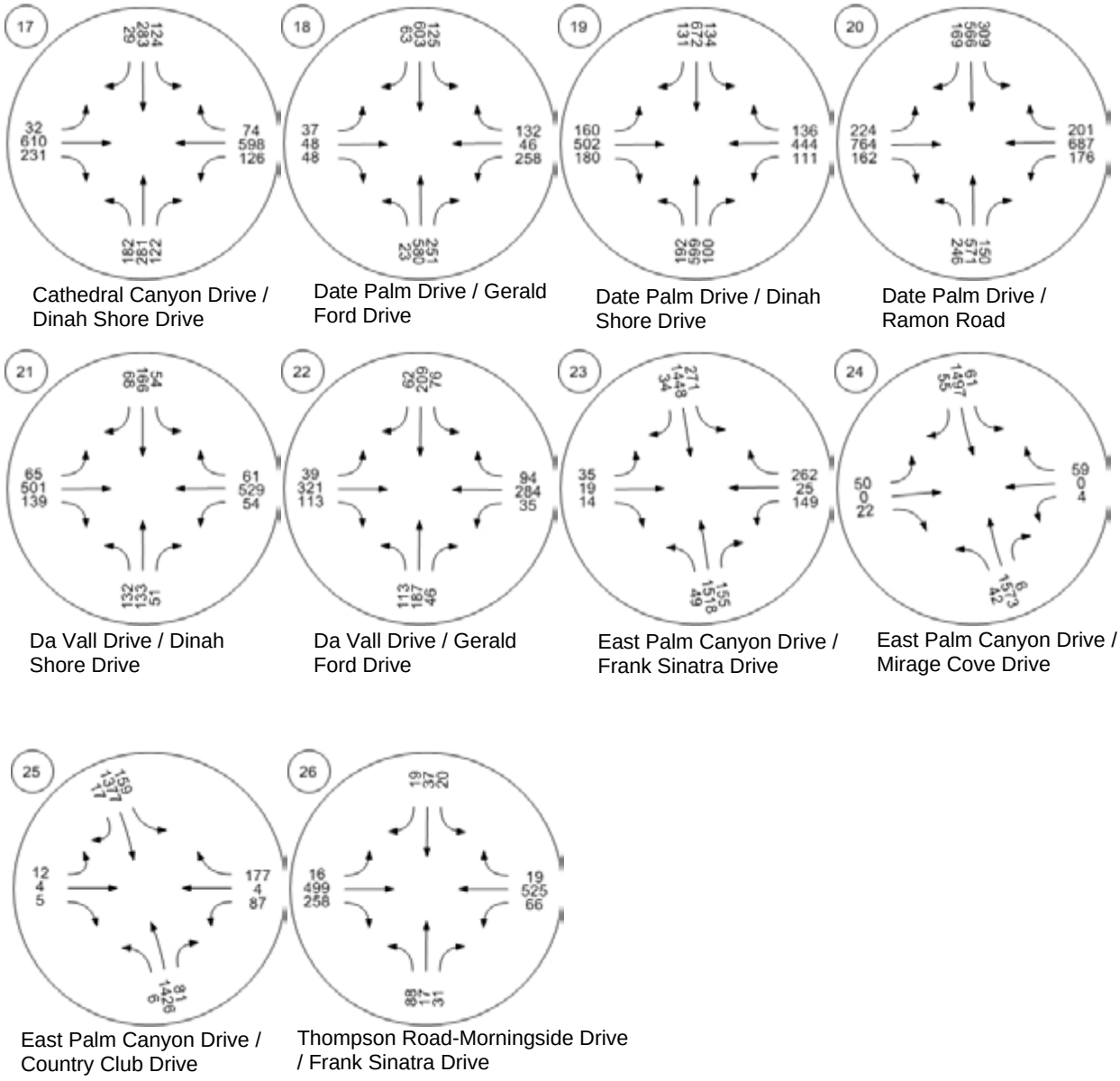


Figure 5-H – Alternative D Opening Year (2020) Saturday MD Peak Hour Intersection Volumes

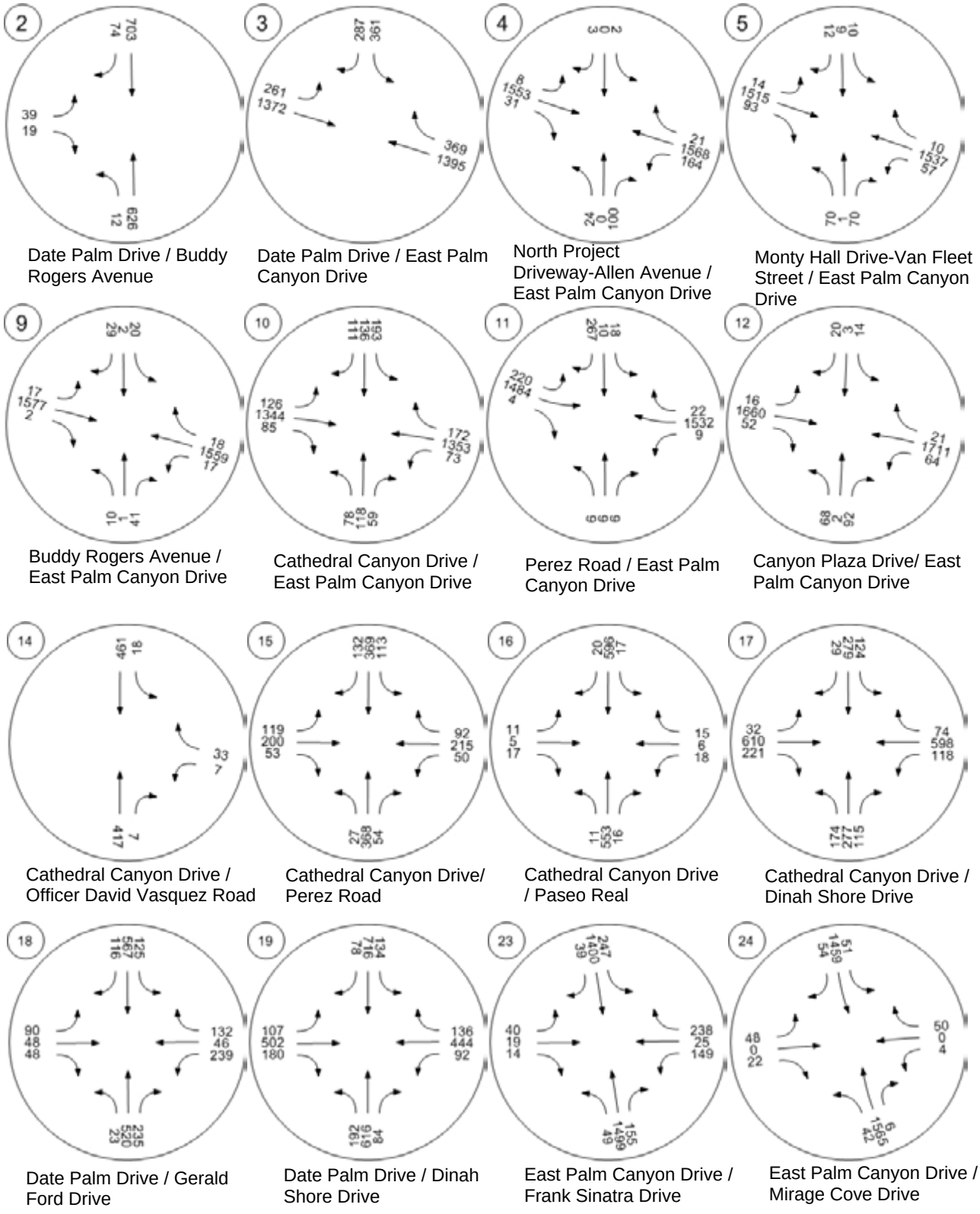
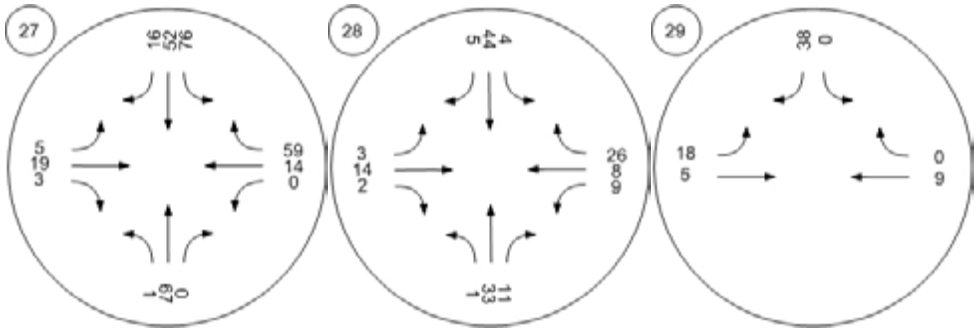


Figure 5-H (Continued) – Alternative D Opening Year (2020) Saturday MD Peak Hour Intersection Volumes



Van Fleet Street / B Street-West Project Driveway

Van Fleet Street / D Street

South Project Driveway / D Street

5.1.2 Levels of Service – Project Opening Year with Project (2020) with Improvements

Table 5-9, Table 5-10, Table 5-11and **Table 5-12** provide the projected delay and levels of service at the study intersections under Project Opening Year (2020) conditions alternatives A through D with off-site improvements for each alternative respectably. With the recommended off-site improvements, the study area intersections would operate at an acceptable LOS D or better. The level of service calculation worksheets are provided in Appendix E.

Table 5-9 – Intersection LOS – Alternative A Project Opening Year (2020) with Improvements

Intersection		LOS Standard	Peak Hour	Traffic Control	Opening Year Plus Project without Improvements		Opening Year Plus Project with Improvements	
					Delay (sec)	LOS	Delay (sec)	LOS
2	Date Palm Drive / Buddy Rogers Avenue	D	PM	Signalized	**55.6**	**F**	7.3	A
			Sat-MD		**58.2**	**F**	8.7	A
16	Cathedral Canyon Drive / Paseo Real	D	PM	Singalized	**50.4**	**F**	8.0	A
			Sat-MD		29.9	D	8.7	A

Table 5-10 – Intersection LOS – Alternative B Project Opening Year (2020) with Improvements

Intersection		LOS Standard	Peak Hour	Traffic Control	Opening Year Plus Project without Improvements		Opening Year Plus Project with Improvements	
					Delay (sec)	LOS	Delay (sec)	LOS
2	Date Palm Drive / Buddy Rogers Avenue	D	PM	Signalized	**47.5**	**E**	6.9	A
			Sat-MD		**51.0**	**F**	8.2	A
16	Cathedral Canyon Drive / Paseo Real	D	PM	Singalized	**49.3**	**E**	8.0	A
			Sat-MD		29.2	D	8.6	A

Table 5-11 – Intersection LOS – Alternative C Project Opening Year (2020) with Improvements

Intersection		LOS Standard	Peak Hour	Traffic Control	Opening Year Plus Project without Improvements		Opening Year Plus Project with Improvements	
					Delay (sec)	LOS	Delay (sec)	LOS
2	Date Palm Drive / Buddy Rogers Avenue	D	PM	Signalized	**44.4**	**E**	5.8	A
			Sat-MD		**51.1**	**F**	8.9	A
16	Cathedral Canyon Drive / Paseo Real	D	PM	Singalized	**54.6**	**F**	8.0	A
			Sat-MD		32.4	D	8.9	A

Table 5-12 – Intersection LOS – Alternative D Project Opening Year (2020) with Improvements

Intersection		LOS Standard	Peak Hour	Traffic Control	Opening Year Plus Project without Improvements		Opening Year Plus Project with Improvements	
					Delay (sec)	LOS	Delay (sec)	LOS
16	Cathedral Canyon Drive / Paseo Real	D	PM	Signalized	**50.4**	**F**	8.0	A
			Sat-MD		29.9	D	8.7	A

5.1.3 Levels of Service – Cumulative Year with Project (2040) Conditions

The Cumulative Year with Project (2040) scenario includes forecasted traffic from the Cathedral City General Plan traffic model and project traffic. **Table 5-13, Table 5-14, Table 5-15,** and provide the projected delay and levels of service at the study intersections under Cumulative Year with Project (2040) conditions without off-site improvements. These levels of service vary from LOS A to F. The Cumulative Year with Project PM peak hour intersection turning movement volumes are shown on **Figure 5-I, Figure 5-J, Figure 5-K,** and **Figure 5-L**. The Cumulative Year with Project Saturday MD peak hour intersection turning movement volumes are shown on **Figure 5-M, Figure 5-N, Figure 5-O,** and **Figure 5-P**. The Cumulative Year with Project (2040) daily roadway segment volumes and levels of service for each Project Alternative are shown on **Table 5-16, Table 5-17, Table 5-18, Table 5-19,** and **Table 5-20**. The levels of service are based upon the existing geometrics for the study intersections and roadway segments. The level of service calculation worksheets are provided in Appendix E. The following study intersections are expected to operate at an unacceptable level of service:

2. Date Palm Drive (NS) / Buddy Rogers Avenue (EW)
16. Cathedral Canyon Drive (NS) / Paseo Real (EW)

The following study roadway segments are expected to operate at an unacceptable level of service:

1. East Palm Canyon Drive between Golf Club Drive and Perez Road
2. East Palm Canyon Drive between Perez Road and Cathedral Canyon Drive
5. East Palm Canyon Drive between Date Palm Drive and Frank Sinatra Drive
6. East Palm Canyon Drive between Frank Sinatra Drive and Country Club Drive

Table 5-13 – Intersection LOS – Alternative A Cumulative Year (2040) Conditions

Intersection		LOS Standard	Peak Hour	Traffic Control	Year 2040 No Project		Year 2040 Plus Project	
					Delay (sec)	LOS	Delay (sec)	LOS
1	North Project Driveway (Western)-Allen Avenue / Buddy Rogers Avenue	D	PM	OWSC	9.5	A	12.2	B
			Sat-MD		9.5	A	14.1	B
2	Date Palm Drive / Buddy Rogers Avenue	D	PM	OWSC	**201.0**	**F**	**1418.5**	**F**
			Sat-MD		**149.8**	**F**	**1360.5**	**F**
3	Date Palm Drive / East Palm Canyon Drive	D	PM	Signalized	18.0	B	19.6	B
			Sat-MD		14.0	B	15.0	B
4	South Project Driveway-Allen Avenue / East Palm Canyon Drive	D	PM	Signalized	0.8	A	3.6	A
			Sat-MD		0.9	A	3.3	A

Table 5-13 (Continued) – Intersection LOS – Alternative A Cumulative Year (2040) Conditions

Intersection		LOS Standard	Peak Hour	Traffic Control	Year 2040 No Project		Year 2040 Plus Project	
					Delay (sec)	LOS	Delay (sec)	LOS
5	Monty Hall Drive-Van Fleet Street / East Palm Canyon Drive	D	PM	Signalized	7.4	A	9.1	A
			Sat-MD		6.5	A	10.8	B
8	Monty Hall Drive / Buddy Rogers Avenue	D	PM	AWSC	7.5	A	7.7	A
			Sat-MD		7.4	A	7.9	A
9	Buddy Rogers Avenue/ East Palm Canyon Drive	D	PM	Signalized	3.1	A	3.1	A
			Sat-MD		3.4	A	3.5	A
10	Cathedral Canyon Drive / East Palm Canyon Drive	D	PM	Signalized	16.2	B	20.7	C
			Sat-MD		18.3	B	25.1	C
11	Perez Road / East Palm Canyon Drive	D	PM	Signalized	28.8	C	28.9	C
			Sat-MD		21.3	C	21.3	C
12	Canyon Plaza Drive / East Palm Canyon Drive	D	PM	Signalized	10.4	B	10.8	B
			Sat-MD		11.3	B	11.6	B
14	Cathedral Canyon Drive / Officer David Vasquez Road	D	PM	Signalized	5.2	A	5.2	A
			Sat-MD		4.2	A	4.3	A
15	Cathedral Canyon Drive / Perez Road	D	PM	Signalized	27.3	C	27.6	C
			Sat-MD		23.1	C	23.4	C
16	Cathedral Canyon Drive / Paseo Real	D	PM	TWSC	**78.8**	**F**	**102.4**	**F**
			Sat-MD		**38.2**	**E**	**46.5**	**E**
17	Cathedral Canyon Drive / Dinah Shore Drive	D	PM	Signalized	48.5	D	51.3	D
			Sat-MD		27.7	C	29.2	C
18	Date Palm Drive / Gerald Ford Drive	D	PM	Signalized	38.5	D	50.3	D
			Sat-MD		25.9	C	36.8	D
19	Date Palm Drive / Dinah Shore Drive	D	PM	Signalized	41.1	D	41.1	D
			Sat-MD		30.3	C	30.3	C
23	East Palm Canyon Drive / Frank Sinatra Drive	D	PM	Signalized	47.2	D	52.9	D
			Sat-MD		30.1	C	49.0	D
24	East Palm Canyon Drive / Mirage Cove Drive	D	PM	Signalized	13.4	B	13.5	B
			Sat-MD		12.2	B	12.4	B

Table 5-14 – Intersection LOS – Alternative B Cumulative Year (2040) Conditions

	Intersection	LOS Standard	Peak Hour	Traffic Control	Year 2040 No Project		Year 2040 Plus Project	
					Delay (sec)	LOS	Delay (sec)	LOS
1	North Project Driveway (Western)-Allen Avenue / Buddy Rogers Avenue	D	PM	OWSC	9.5	A	11.4	B
			Sat-MD		9.5	A	12.5	B
2	Date Palm Drive / Buddy Rogers Avenue	D	PM	OWSC	**201.0**	**F**	**1237.8**	**F**
			Sat-MD		**149.8**	**F**	**1695.3**	**F**
3	Date Palm Drive / East Palm Canyon Drive	D	PM	Signalized	18.0	B	21.8	C
			Sat-MD		14.0	B	14.4	B
4	South Project Driveway-Allen Avenue / East Palm Canyon Drive	D	PM	Signalized	0.8	A	3.2	A
			Sat-MD		0.9	A	3.0	A
5	Monty Hall Drive-Van Fleet Street / East Palm Canyon Drive	D	PM	Signalized	7.4	A	8.9	B
			Sat-MD		6.5	A	9.0	B
7	North Project Driveway (Eastern)-Allen Avenue / Buddy Rogers Avenue	D	PM	TWSC	8.8	A	10.0	A
			Sat-MD		8.8	A	10.4	B
8	Monty Hall Drive / Buddy Rogers Avenue	D	PM	AWSC	7.5	A	7.7	A
			Sat-MD		7.4	A	7.8	A
9	Buddy Rogers Avenue/ East Palm Canyon Drive	D	PM	Signalized	3.1	A	2.9	A
			Sat-MD		3.4	A	3.4	A
10	Cathedral Canyon Drive / East Palm Canyon Drive	D	PM	Signalized	16.2	B	16.3	B
			Sat-MD		18.3	B	16.4	C
11	Perez Road / East Palm Canyon Drive	D	PM	Signalized	28.8	C	28.9	C
			Sat-MD		21.3	C	19.4	D
12	Canyon Plaza Drive / East Palm Canyon Drive	D	PM	Signalized	10.4	B	10.5	C
			Sat-MD		11.3	B	11.3	C
14	Cathedral Canyon Drive / Officer David Vasquez Road	D	PM	Signalized	5.2	A	6.6	A
			Sat-MD		4.2	A	4.3	A
15	Cathedral Canyon Drive / Perez Road	D	PM	Signalized	27.3	C	42.4	D
			Sat-MD		23.1	C	23.3	C
16	Cathedral Canyon Drive / Paseo Real	D	PM	TWSC	**78.8**	**F**	**98.9**	**F**
			Sat-MD		**38.2**	**E**	**45.3**	**E**
17	Cathedral Canyon Drive / Dinah Shore Drive	D	PM	Signalized	48.5	D	51.8	D
			Sat-MD		27.7	C	29.2	C
18	Date Palm Drive / Gerald Ford Drive	D	PM	Signalized	38.5	D	49.0	D
			Sat-MD		25.9	C	35.7	D

Table 5-14 (Continued) – Intersection LOS – Alternative B Cumulative Year (2040) Conditions

Intersection		LOS Standard	Peak Hour	Traffic Control	Year 2040 No Project		Year 2040 Plus Project	
					Delay (sec)	LOS	Delay (sec)	LOS
19	Date Palm Drive / Dinah Shore Drive	D	PM	Signalized	41.1	D	41.1	D
			Sat-MD		30.3	C	189.4	C
23	East Palm Canyon Drive / Frank Sinatra Drive	D	PM	Signalized	47.2	D	19.2	D
			Sat-MD		30.1	C	67.7	D
24	East Palm Canyon Drive / Mirage Cove Drive	D	PM	Signalized	11.7	B	13.4	B
			Sat-MD		12.2	B	12.3	B

Table 5-15 – Intersection LOS – Alternative C Cumulative Year (2040) Conditions

	Intersection	LOS Standard	Peak Hour	Traffic Control	Year 2040 No Project		Year 2040 Plus Project	
					Delay (sec)	LOS	Delay (sec)	LOS
1	North Project Driveway (Western)-Allen Avenue / Buddy Rogers Avenue	D	PM	OWSC	9.5	A	11.4	B
			Sat-MD		9.5	A	12.5	B
2	Date Palm Drive / Buddy Rogers Avenue	D	PM	OWSC	**201.0**	**F**	**1255.3**	**F**
			Sat-MD		**149.8**	**F**	**1496.0**	**F**
3	Date Palm Drive / East Palm Canyon Drive	D	PM	Signalized	18.0	B	25.0	C
			Sat-MD		14.0	B	15.3	B
4	South Project Driveway-Allen Avenue / East Palm Canyon Drive	D	PM	Signalized	0.8	A	4.4	A
			Sat-MD		0.9	A	3.9	A
5	Monty Hall Drive-Van Fleet Street / East Palm Canyon Drive	D	PM	Signalized	7.4	A	11.5	B
			Sat-MD		6.5	A	12.8	B
6	Date Palm Drive / East Project Driveway-Hillery Road	D	PM	OWSC	19.2	C	17.5	C
			Sat-MD		19.2	C	17.5	C
7	North Project Driveway (Eastern)-Allen Avenue / Buddy Rogers Avenue	D	PM	OWSC	8.8	A	10.0	A
			Sat-MD		8.8	A	10.4	B
8	Monty Hall Drive / Buddy Rogers Avenue	D	PM	AWSC	7.5	A	7.7	A
			Sat-MD		7.4	A	7.8	A
9	Buddy Rogers Avenue/ East Palm Canyon Drive	D	PM	Signalized	3.1	A	3.7	A
			Sat-MD		3.4	A	4.2	A
10	Cathedral Canyon Drive / East Palm Canyon Drive	D	PM	Signalized	16.2	B	19.9	B
			Sat-MD		18.3	B	23.5	C
11	Perez Road / East Palm Canyon Drive	D	PM	Signalized	28.8	C	33.7	C
			Sat-MD		21.3	C	44.7	D
12	Canyon Plaza Drive / East Palm Canyon Drive	D	PM	Signalized	10.4	B	20.7	C
			Sat-MD		11.3	B	25.0	C
13	Golf Club Drive / East Palm Canyon Drive	D	PM	Signalized	20.1	C	21.1	C
			Sat-MD		22.3	C	55.0	D
14	Cathedral Canyon Drive / Officer David Vasquez Road	D	PM	Signalized	5.2	A	6.6	A
			Sat-MD		4.2	A	4.3	A
15	Cathedral Canyon Drive / Perez Road	D	PM	Signalized	27.3	C	42.4	D
			Sat-MD		23.1	C	23.3	C

Table 5-15 (Continued) – Intersection LOS – Alternative C Cumulative Year (2040) Conditions

Intersection		LOS Standard	Peak Hour	Traffic Control	Year 2040 No Project		Year 2040 Plus Project	
					Delay (sec)	LOS	Delay (sec)	LOS
16	Cathedral Canyon Drive / Paseo Real	D	PM	TWSC	**78.8**	**F**	**98.9**	**F**
			Sat-MD		**38.2**	**E**	**45.3**	**E**
17	Cathedral Canyon Drive / Dinah Shore Drive	D	PM	Signalized	48.5	D	51.8	D
			Sat-MD		27.7	C	29.2	C
18	Date Palm Drive / Gerald Ford Drive	D	PM	Signalized	38.5	D	44.7	D
			Sat-MD		25.9	C	32.9	C
19	Date Palm Drive / Dinah Shore Drive	D	PM	Signalized	41.1	D	43.6	D
			Sat-MD		30.3	C	32.5	C
20	Date Palm Drive / Ramon Road	D	PM	Signalized	47.6	D	50.6	D
			Sat-MD		43.3	D	50.6	D
21	Da Vall Drive / Dinah Shore Drive	D	PM	Signalized	37.6	D	41.5	D
			Sat-MD		23.6	C	24.8	C
22	Da Vall Drive / Gerald Ford Drive	D	PM	Signalized	34.5	C	47.9	D
			Sat-MD		22.1	C	26.4	C
23	East Palm Canyon Drive / Frank Sinatra Drive	D	PM	Signalized	47.2	D	52.5	D
			Sat-MD		30.1	C	39.4	D
24	East Palm Canyon Drive / Mirage Cove Drive	D	PM	Signalized	13.6	B	13.5	B
			Sat-MD		18.8	B	25.8	C
25	East Palm Canyon Drive / Country Club Drive	D	PM	Signalized	23.2	C	28.0	C
			Sat-MD		23.9	C	30.7	C
26	Thompson Road-Morningside Drive / Frank Sinatra Drive	D	PM	Signalized	8.7	A	8.7	A
			Sat-MD		7.2	A	7.2	A

Table 5-16 – Intersection LOS – Alternative D Cumulative Year (2040) Conditions

Intersection		LOS Standard	Peak Hour	Traffic Control	Year 2040 No Project		Year 2040 Plus Project	
					Delay (sec)	LOS	Delay (sec)	LOS
2	Date Palm Drive / Buddy Rogers Avenue	D	PM	OWSC	**201.0**	**F**	**252.1**	**F**
			Sat-MD		**149.8**	**F**	**205.3**	**F**
3	Date Palm Drive / East Palm Canyon Drive	D	PM	Signalized	18.0	B	21.3	C
			Sat-MD		14.0	B	20.7	C
4	South Project Driveway-Allen Avenue / East Palm Canyon Drive	D	PM	Signalized	0.8	A	5.8	A
			Sat-MD		0.9	A	6.4	A
9	Buddy Rogers Avenue/ East Palm Canyon Drive	D	PM	Signalized	3.1	A	3.7	A
			Sat-MD		3.4	A	4.3	A
10	Cathedral Canyon Drive / East Palm Canyon Drive	D	PM	Signalized	16.2	B	22.4	C
			Sat-MD		18.3	B	25.7	C
11	Perez Road / East Palm Canyon Drive	D	PM	Signalized	28.8	C	33.8	C
			Sat-MD		21.3	C	24.6	C
12	Canyon Plaza Drive / East Palm Canyon Drive	D	PM	Signalized	10.4	B	19.0	B
			Sat-MD		11.3	B	21.9	C
14	Cathedral Canyon Drive / Officer David Vasquez Road	D	PM	Signalized	5.2	A	5.2	A
			Sat-MD		4.2	A	4.3	A
15	Cathedral Canyon Drive / Perez Road	D	PM	Signalized	27.3	C	27.6	C
			Sat-MD		23.1	C	23.4	C
16	Cathedral Canyon Drive / Paseo Real	D	PM	TWSC	**78.8**	**F**	**102.4**	**F**
			Sat-MD		**38.2**	**E**	**46.5**	**E**
17	Cathedral Canyon Drive / Dinah Shore Drive	D	PM	Signalized	48.5	D	51.3	D
			Sat-MD		27.7	C	29.2	C
18	Date Palm Drive / Gerald Ford Drive	D	PM	Signalized	38.5	D	37.5	D
			Sat-MD		25.9	C	29.6	C
19	Date Palm Drive / Dinah Shore Drive	D	PM	Signalized	41.1	D	44.1	D
			Sat-MD		30.3	C	34.3	C
23	East Palm Canyon Drive / Frank Sinatra Drive	D	PM	Signalized	47.2	D	52.9	D
			Sat-MD		30.1	C	34.8	C
24	East Palm Canyon Drive / Mirage Cove Drive	D	PM	Signalized	13.6	B	13.8	B
			Sat-MD		18.8	B	18.3	B

Table 5-16 (Continued) – Intersection LOS – Alternative D Cumulative Year (2040) Conditions

Intersection		LOS Standard	Peak Hour	Traffic Control	Year 2040 No Project		Year 2040 Plus Project	
					Delay (sec)	LOS	Delay (sec)	LOS
27	Van Fleet Street / B Street-West Project Driveway	D	PM	TWSC	10.7	B	12.9	B
			Sat-MD		10.1	B	13.4	B
28	Van Fleet Street / D Street	D	PM	AWSC	10.6	B	10.8	B
			Sat-MD		9.9	A	10.1	B
29	South Project Driveway / D Street	D	PM	OWSC	8.6	A	8.9	A
			Sat-MD		8.6	A	9.0	A

Table 5-17 – Roadway LOS – Alternative A Cumulative Year (2040) Conditions

Roadway Segment[1]	Roadway Classification	Year 2040					Year 2040 + Project (Alternative A)			
		Roadway Capacity[3]	Lanes[2]	ADT	Volume/ Capacity Ratio	LOS	Lanes[2]	ADT	Volume/ Capacity Ratio	LOS
East Palm Canyon Drive										
1. Golf Club Drive to Canyon Plaza Drive	Arterial Highway	59,000	6	55,578	***0.94***	***E***	6	55,834	***0.95***	***E***
2. Canyon Plaza Drive to Perez Road	Arterial Highway	59,000	6	55,578	***0.94***	***E***	6	55,578	***0.94***	***E***
3. Perez Road to Cathedral Canyon Drive	Arterial Highway	59,000	6	41,173	0.70	D	6	41,173	0.70	D
4. Cathedral Canyon Drive to Date Palm Drive	Arterial Highway	59,000	6	39,023	0.66	D	6	40,469	0.69	D
5. Date Palm Drive to Frank Sinatra Drive	Arterial Highway	59,000	6	68,908	***1.17***	***F***	6	70,865	***1.20***	***F***
6. Frank Sinatra Drive to Country Club Drive	Arterial Highway	59,000	6	68,908	***1.17***	***F***	6	68,908	***1.17***	***F***
Cathedral Canyon Drive										
7. East Palm Canyon Drive to Perez Road	Secondary Highway	30,000	4	14,590	0.49	B	4	17,143	0.57	C
8. Perez Road to Dinah Shore Drive	Secondary Highway	30,000	4	21,410	0.71	D	4	23,112	0.77	D
Date Palm Drive										
9. East Palm Canyon Drive to Gerald Ford Drive	Arterial Highway	59,000	6	42,785	0.73	D	6	43,891	0.74	D
10. Gerald Ford Drive to Dinah Shore Drive	Arterial Highway	59,000	6	39,990	0.68	D	6	41,097	0.70	D

[1] Roadway segment is in City of Cathedral City.

[2] Number of through lanes.

[3] Source: Cathedral City General Plan Capacities.

LOS = Unacceptable LOS, No significant impact

LOS = Unacceptable LOS, Significant impact

Table 5-18 – Roadway LOS – Alternative B Cumulative Year (2040) Conditions

Roadway Segment[1]	Roadway Classification	Roadway Capacity[3]	Year 2040				Year 2040 + Project (Alternative B)			
			Lanes[2]	ADT	Volume/ Capacity Ratio	LOS	Lanes[2]	ADT	Volume/ Capacity Ratio	LOS
East Palm Canyon Drive										
1. Golf Club Drive to Canyon Plaza Drive	Arterial Highway	59,000	6	55,578	***0.94***	***E***	6	55,578	***0.94***	***E***
2. Canyon Plaza Drive to Perez Road	Arterial Highway	59,000	6	55,578	***0.94***	***E***	6	56,336	***0.95***	***E***
3. Perez Road to Cathedral Canyon Drive	Arterial Highway	59,000	6	41,173	0.70	D	6	42,309	0.72	D
4. Cathedral Canyon Drive to Date Palm Drive	Arterial Highway	59,000	6	39,023	0.66	D	6	40,159	0.68	D
5. Date Palm Drive to Frank Sinatra Drive	Arterial Highway	59,000	6	68,908	***1.17***	***F***	6	70,652	***1.20***	***F***
6. Frank Sinatra Drive to Country Club Drive	Arterial Highway	59,000	6	68,908	***1.17***	***F***	6	68,908	***1.17***	***F***
Cathedral Canyon Drive										
7. East Palm Canyon Drive to Perez Road	Secondary Highway	30,000	4	14,590	0.49	C	4	15,878	0.53	C
8. Perez Road to Dinah Shore Drive	Secondary Highway	30,000	4	21,410	0.71	D	4	22,926	0.76	D
Date Palm Drive										
9. East Palm Canyon Drive to Gerald Ford Drive	Arterial Highway	59,000	6	42,785	0.73	D	6	43,771	0.74	D
10. Gerald Ford Drive to Dinah Shore Drive	Arterial Highway	59,000	6	39,990	0.68	D	6	41,734	0.71	D

[1] Roadway segment is in City of Cathedral City.

[2] Number of through lanes.

[3] Source: Cathedral City General Plan Capacities.

LOS = Unacceptable LOS, No significant impact

LOS = Unacceptable LOS, Significant impact

Table 5-19 – Roadway LOS – Alternative C Cumulative Year (2040) Conditions

Roadway Segment[1]	Roadway Classification	Roadway Capacity[3]	Year 2040				Year 2040 + Project (Alternative C)			
			Lanes[2]	ADT	Volume/ Capacity Ratio	LOS	Lanes[2]	ADT	Volume/ Capacity Ratio	LOS
East Palm Canyon Drive										
1. Golf Club Drive to Canyon Plaza Drive	Arterial Highway	59,000	6	55,578	***0.94***	***E***	6	56,742	***0.96***	***E***
2. Canyon Plaza Drive to Perez Road	Arterial Highway	59,000	6	55,578	***0.94***	***E***	6	57,322	***0.97***	***E***
3. Perez Road to Cathedral Canyon Drive	Arterial Highway	59,000	6	41,173	0.70	D	6	42,917	0.73	D
4. Cathedral Canyon Drive to Date Palm Drive	Arterial Highway	59,000	6	39,023	0.66	D	6	43,789	0.74	D
5. Date Palm Drive to Frank Sinatra Drive	Arterial Highway	59,000	6	68,908	***1.17***	***F***	6	71,581	***1.21***	***F***
6. Frank Sinatra Drive to Country Club Drive	Arterial Highway	59,000	6	68,908	***1.17***	***F***	6	70,418	***1.19***	***F***
Cathedral Canyon Drive										
7. East Palm Canyon Drive to Perez Road	Secondary Highway	30,000	4	14,590	0.49	B	4	16,914	0.56	C
8. Perez Road to Dinah Shore Drive	Secondary Highway	30,000	4	21,410	0.71	D	4	23,734	0.79	D
Date Palm Drive										
9. East Palm Canyon Drive to Gerald Ford Drive	Arterial Highway	59,000	6	42,785	0.73	D	6	46,271	0.78	D
10. Gerald Ford Drive to Dinah Shore Drive	Arterial Highway	59,000	6	39,990	0.68	D	6	42,314	0.72	D

[1] Roadway segment is in City of Cathedral City.
[2] Number of through lanes.
[3] Source: Cathedral City General Plan Capacities.
LOS = Unacceptable LOS, No significant impact
LOS = Unacceptable LOS, Significant impact

Table 5-20 – Roadway LOS – Alternative D Cumulative Year (2040) Conditions

Roadway Segment[1]	Roadway Classification	Year 2040					Year 2040 + Project (Alternative D)			
		Roadway Capacity[3]	Lanes[2]	ADT	Volume/ Capacity Ratio	LOS	Lanes[2]	ADT	Volume/ Capacity Ratio	LOS
East Palm Canyon Drive										
1. Golf Club Drive to Canyon Plaza Drive	Arterial Highway	59,000	6	55,578	***0.94***	***E***	6	55,834	***0.95***	***E***
2. Canyon Plaza Drive to Perez Road	Arterial Highway	59,000	6	55,578	***0.94***	***E***	6	55,578	***0.94***	***E***
3. Perez Road to Cathedral Canyon Drive	Arterial Highway	59,000	6	41,173	0.70	D	6	42,024	0.71	D
4. Cathedral Canyon Drive to Date Palm Drive	Arterial Highway	59,000	6	39,023	0.66	D	6	43,533	0.74	D
5. Date Palm Drive to Frank Sinatra Drive	Arterial Highway	59,000	6	68,908	***1.17***	***F***	6	70,865	***1.20***	***F***
6. Frank Sinatra Drive to Country Club Drive	Arterial Highway	59,000	6	68,908	***1.17***	***F***	6	68,908	***1.17***	***F***
Cathedral Canyon Drive										
7. East Palm Canyon Drive to Perez Road	Secondary Highway	30,000	4	14,590	0.49	B	4	17,143	0.57	C
8. Perez Road to Dinah Shore Drive	Secondary Highway	30,000	4	21,410	0.71	D	4	23,112	0.77	D
Date Palm Drive										
9. East Palm Canyon Drive to Gerald Ford Dr	Arterial Highway	59,000	6	42,785	0.73	D	6	45,338	0.77	D
10. Gerald Ford Drive to Dinah Shore Drive	Arterial Highway	59,000	6	39,990	0.68	D	6	42,543	0.72	D

[1] Roadway segment is in City of Cathedral City.
[2] Number of through lanes.
[3] Source: Cathedral City General Plan Capacities.
LOS = Unacceptable LOS, No significant impact
LOS = Unacceptable LOS, Significant impact

Figure 5-I – Alternative A Cumulative Year (2040) PM Peak Hour Intersection Volumes

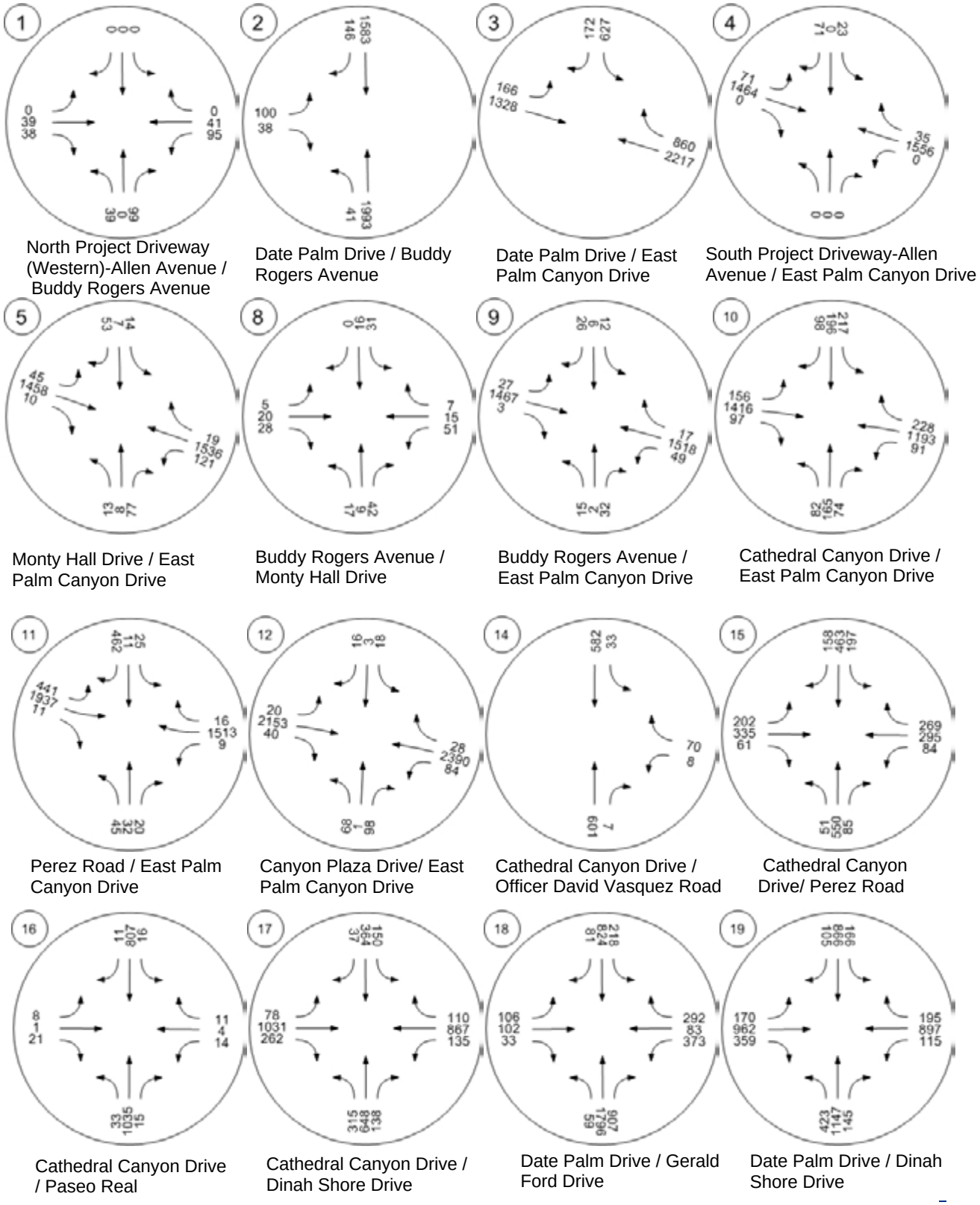
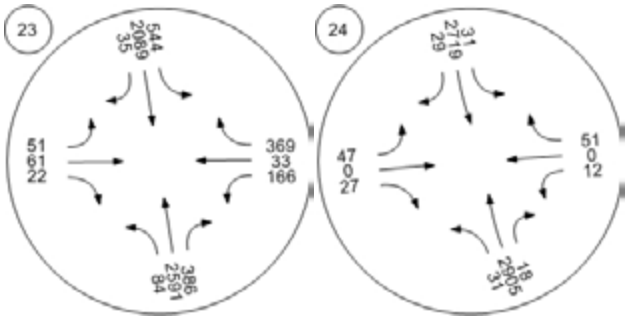


Figure 5-I (Continued) – Alternative A Cumulative Year (2040) PM Peak Hour Intersection Volumes



East Palm Canyon Drive / Frank Sinatra Drive

East Palm Canyon Drive / Mirage Cove Drive

Figure 5-J – Alternative B Cumulative Year (2040) PM Peak Hour Intersection Volumes

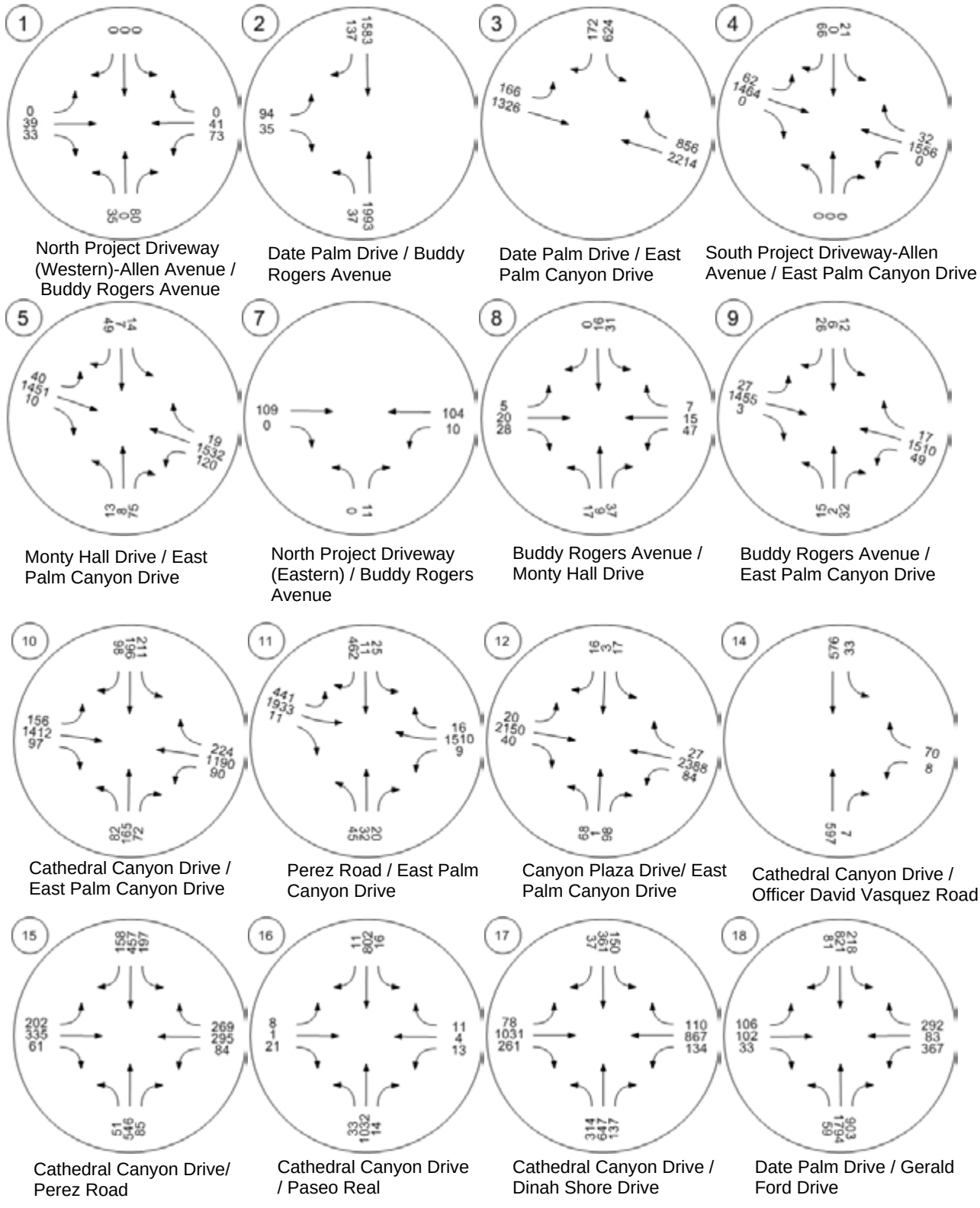
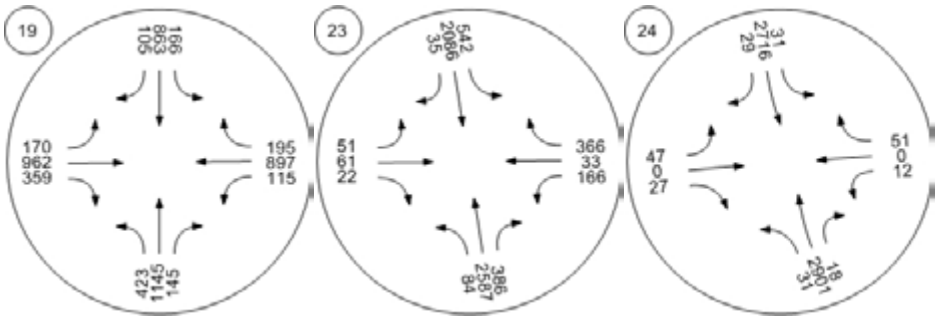


Figure 5-J (Continued) – Alternative B Cumulative Year (2040) PM Peak Hour Intersection Volumes



Date Palm Drive / Dinah Shore Drive

East Palm Canyon Drive / Frank Sinatra Drive

East Palm Canyon Drive / Mirage Cove Drive

Figure 5-K – Alternative C Cumulative Year (2040) PM Peak Hour Intersection Volumes

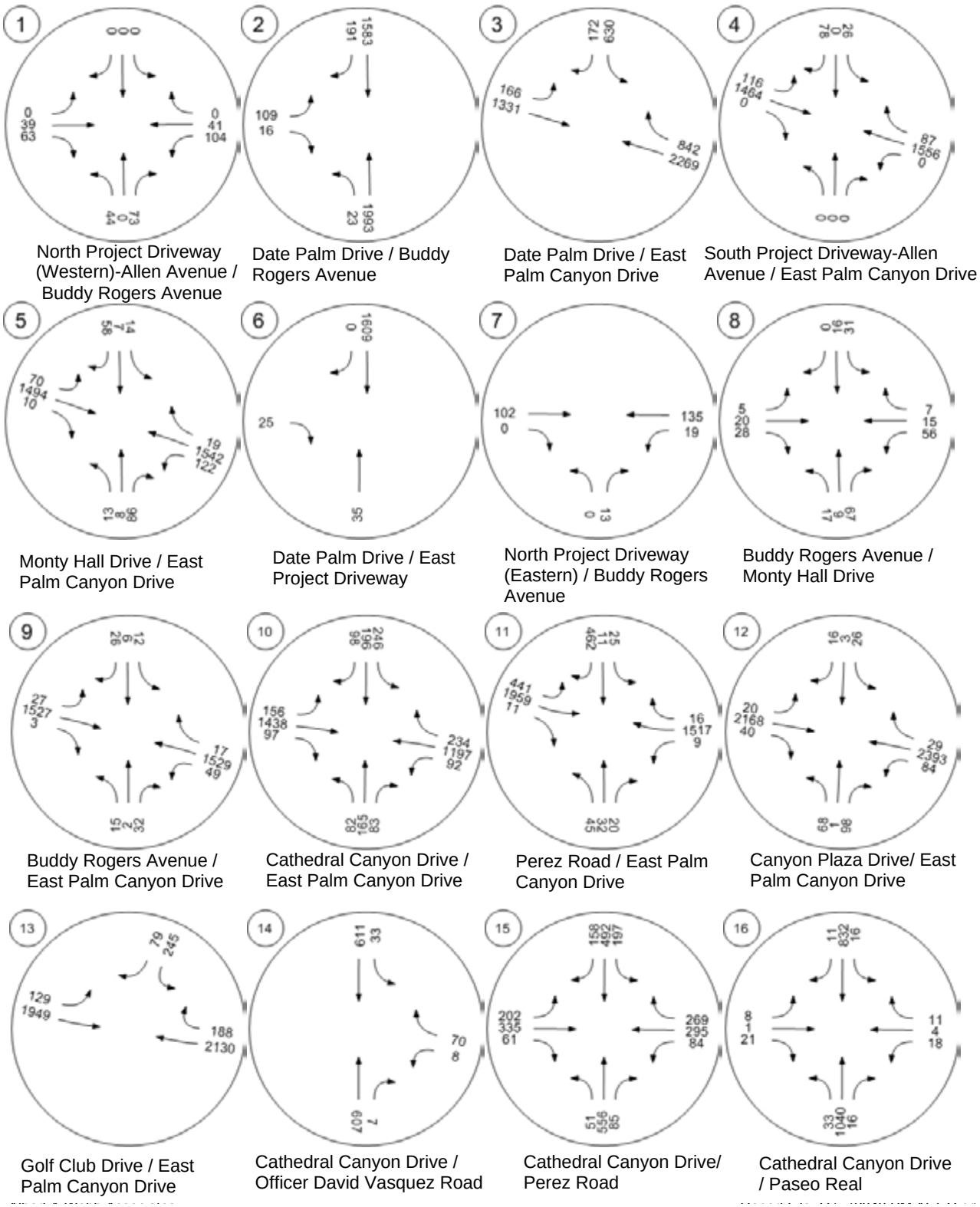


Figure 5-K (Continued) – Alternative C Cumulative Year (2040) PM Peak Hour Intersection Volumes

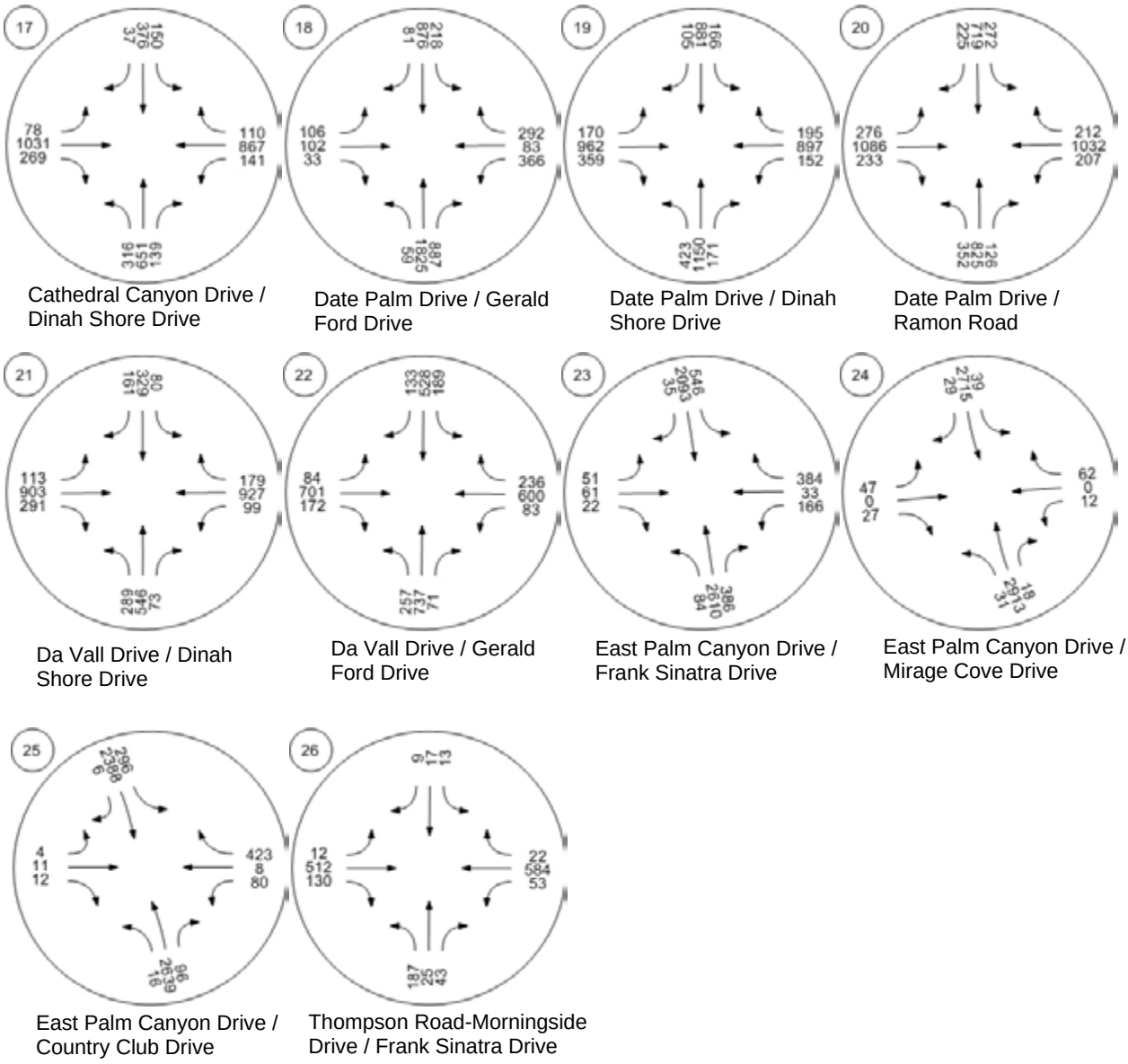


Figure 5-L – Alternative D Cumulative Year (2040) PM Peak Hour Intersection Volumes

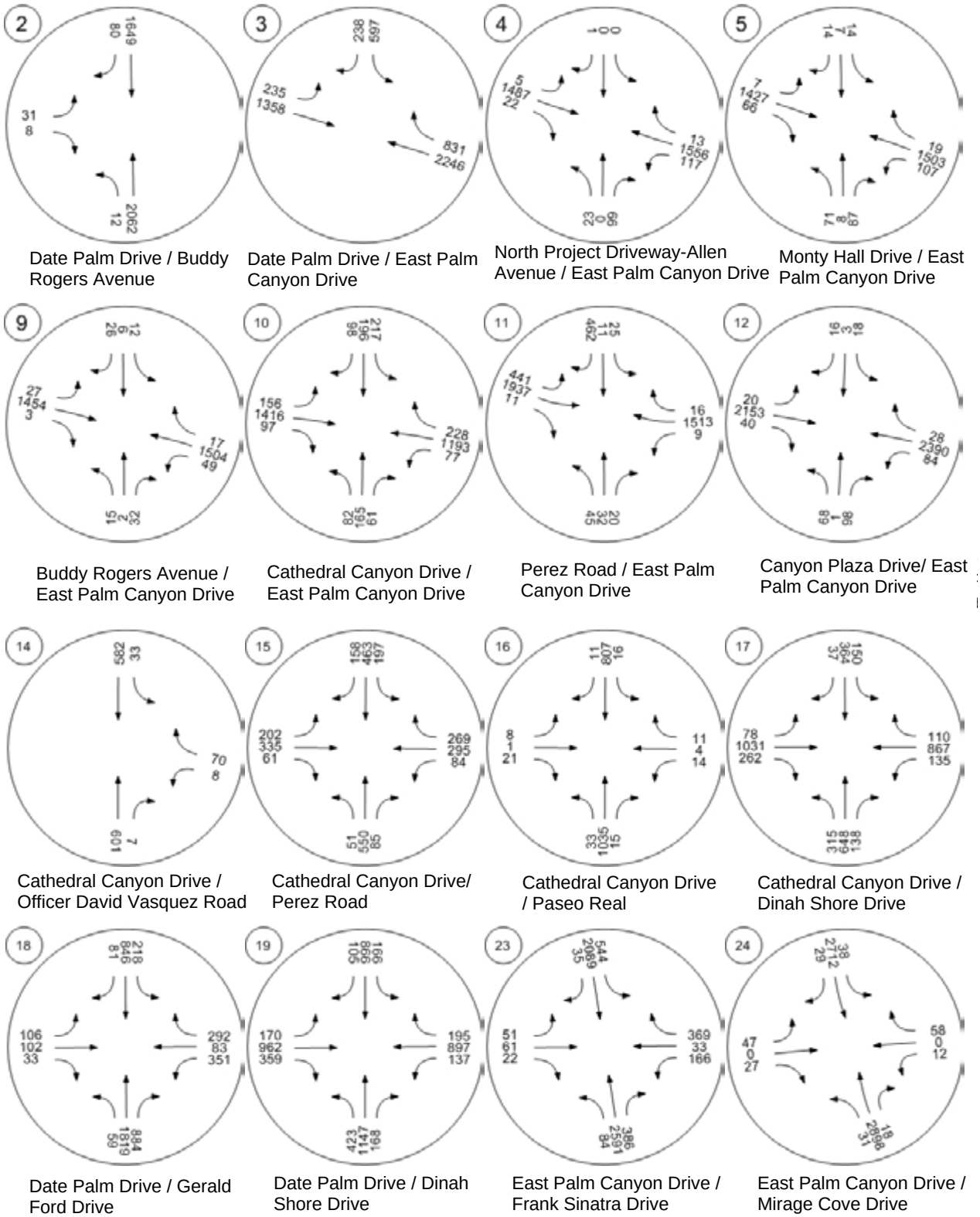
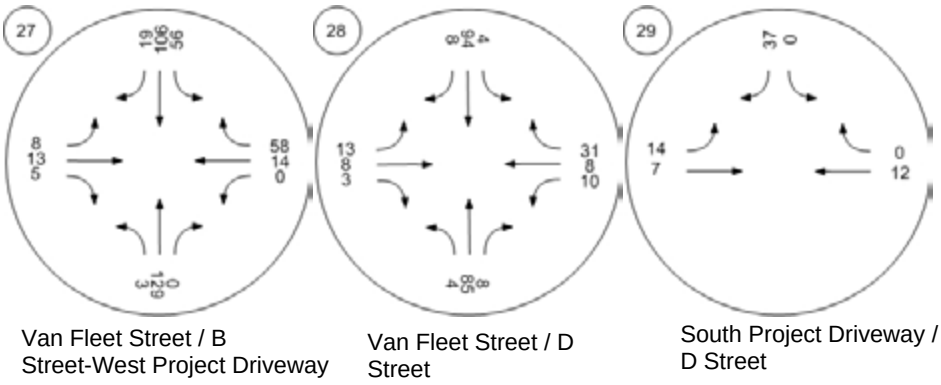


Figure 5-L (Continued) – Alternative D Cumulative Year (2040) PM Peak Hour Intersection Volumes



Van Fleet Street / B Street-West Project Driveway

Van Fleet Street / D Street

South Project Driveway / D Street

Figure 5-M – Alternative A Cumulative Year (2040) Saturday MD Peak Hour Intersection Volumes

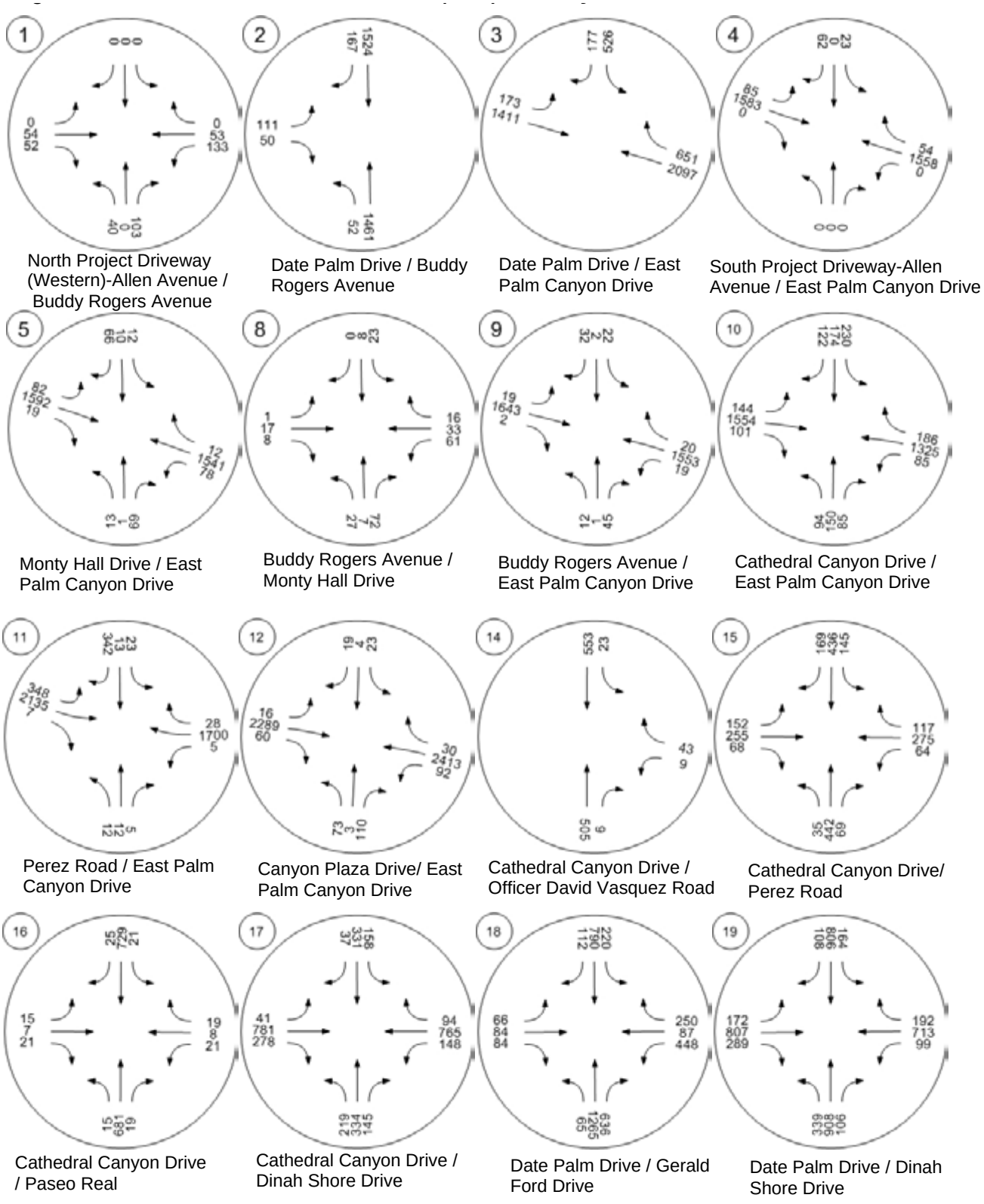
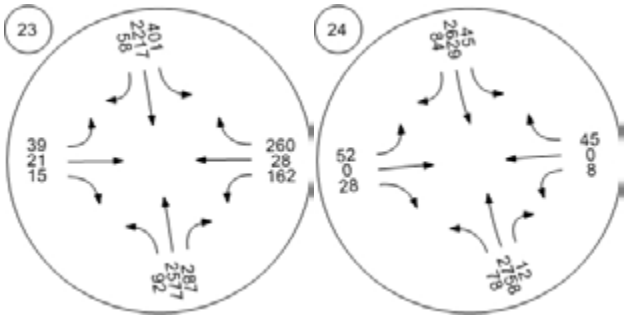


Figure 5-M (Continued) – Alternative A Cumulative Year (2040) Saturday MD Peak Hour Intersection Volumes



East Palm Canyon Drive / Frank Sinatra Drive

East Palm Canyon Drive / Mirage Cove Drive

Figure 5-N – Alternative B Cumulative Year (2040) Saturday MD Peak Hour Intersection Volumes

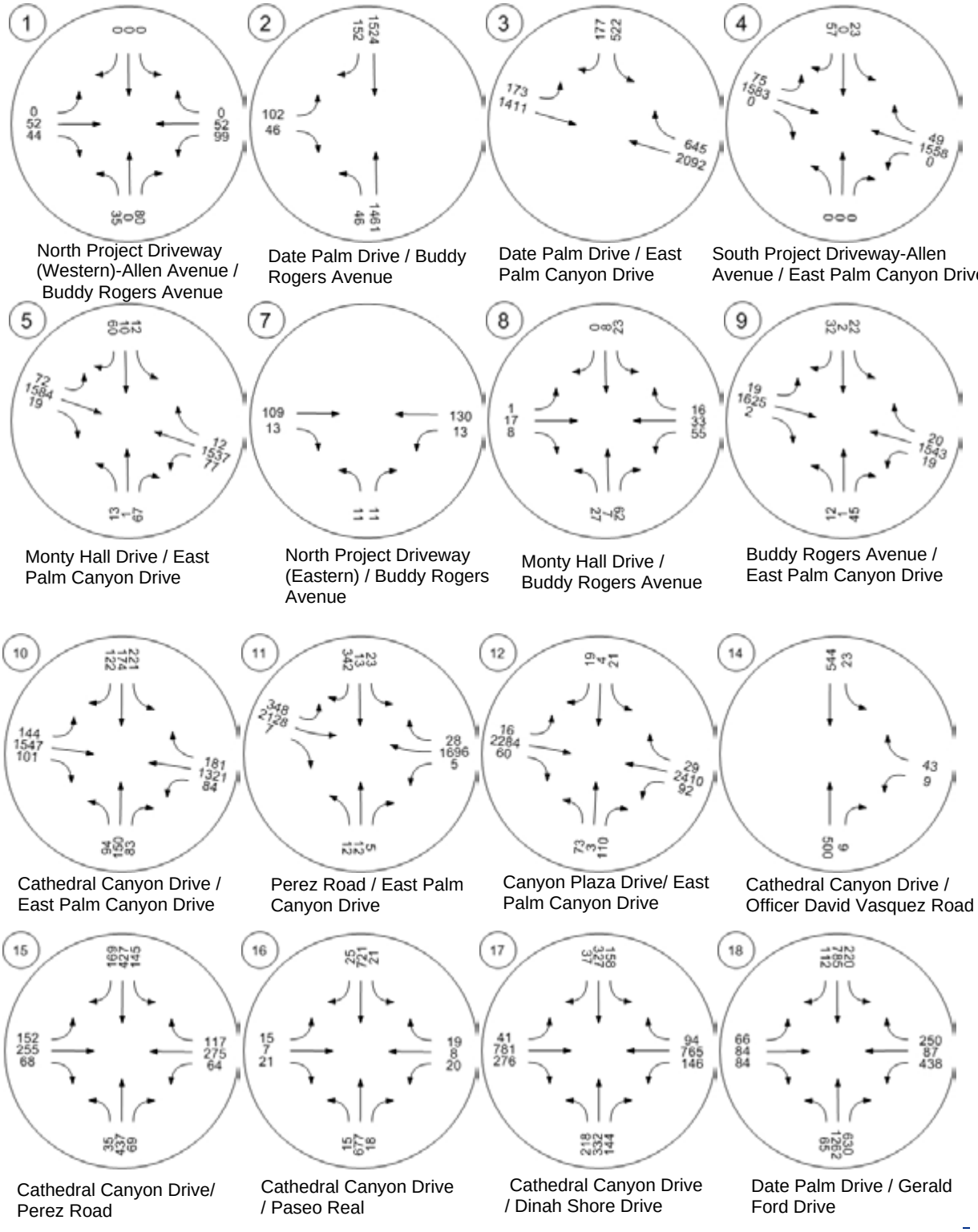
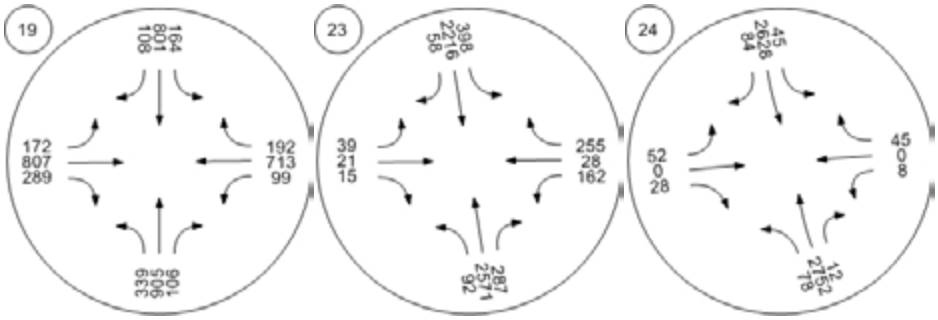


Figure 5-N (Continued) – Alternative B Cumulative Year (2040) Saturday MD Peak Hour Intersection Volumes



Date Palm Drive / Dinah Shore Drive

East Palm Canyon Drive / Frank Sinatra Drive

East Palm Canyon Drive / Mirage Cove Drive

Figure 5-O – Alternative C Cumulative Year (2040) Saturday MD Peak Hour Intersection Volumes

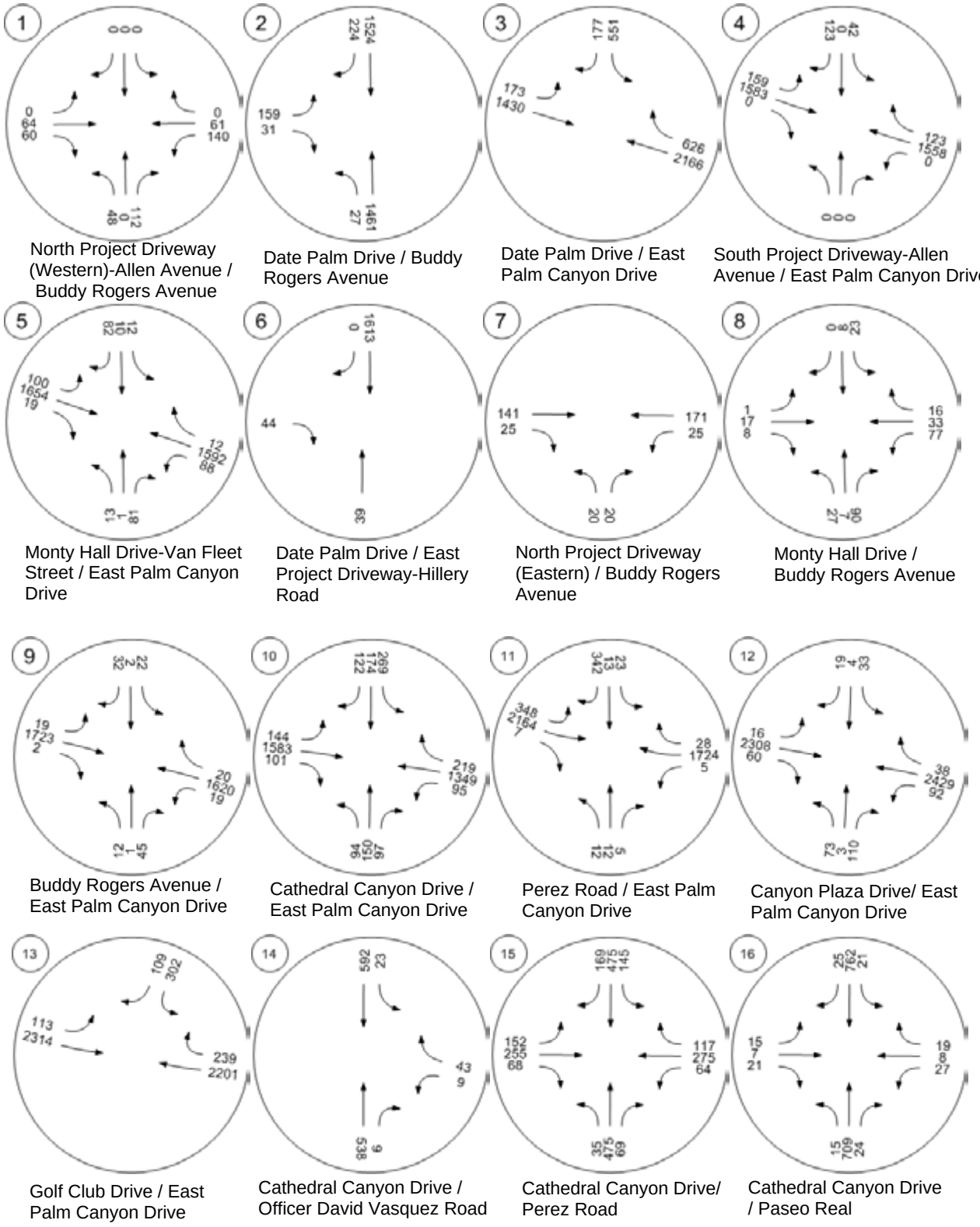
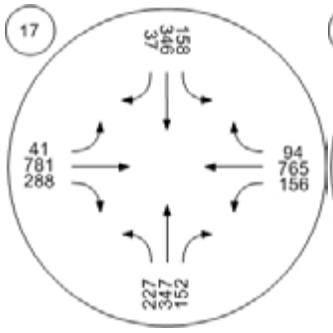
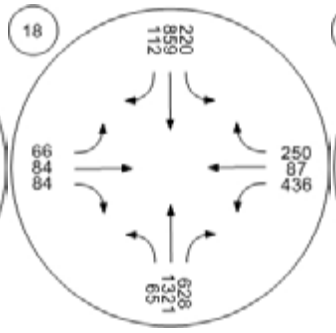


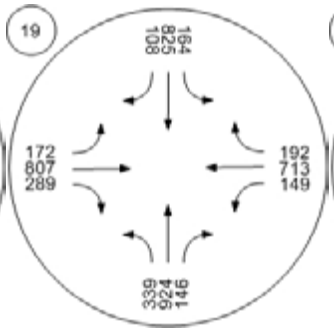
Figure 5-O (Continued) – Alternative C Cumulative Year (2040) Saturday MD Peak Hour Intersection Volumes



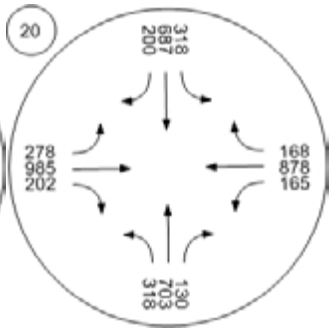
Cathedral Canyon Drive / Dinah Shore Drive



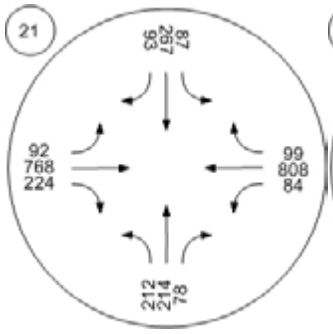
Date Palm Drive / Gerald Ford Drive



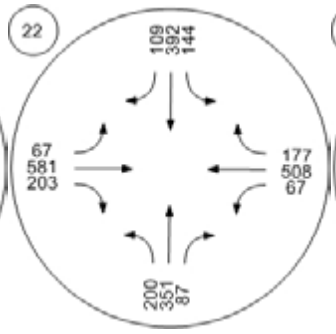
Date Palm Drive / Dinah Shore Drive



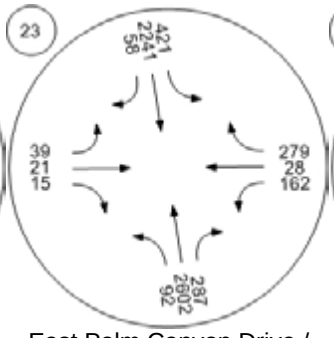
Date Palm Drive / Ramon Road



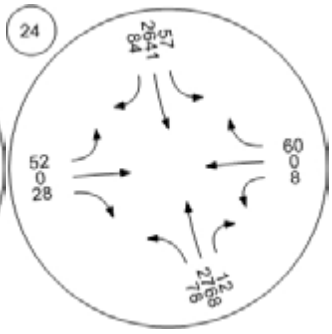
Da Vall Drive / Dinah Shore Drive



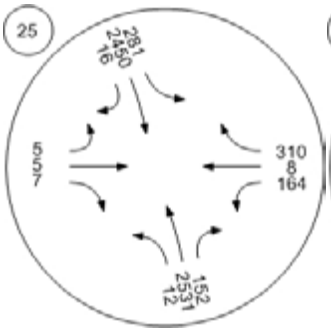
Da Vall Drive / Gerald Ford Drive



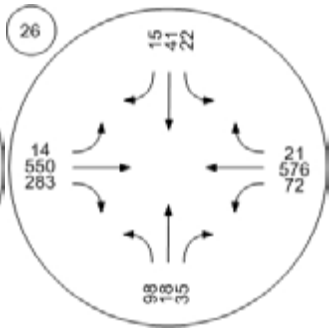
East Palm Canyon Drive / Frank Sinatra Drive



East Palm Canyon Drive / Mirage Cove Drive



East Palm Canyon Drive / Country Club Drive



Thompson Road-Morningside Drive / Frank Sinatra Drive

Figure 5-P – Alternative D Cumulative Year (2040) Saturday MD Peak Hour Intersection Volumes

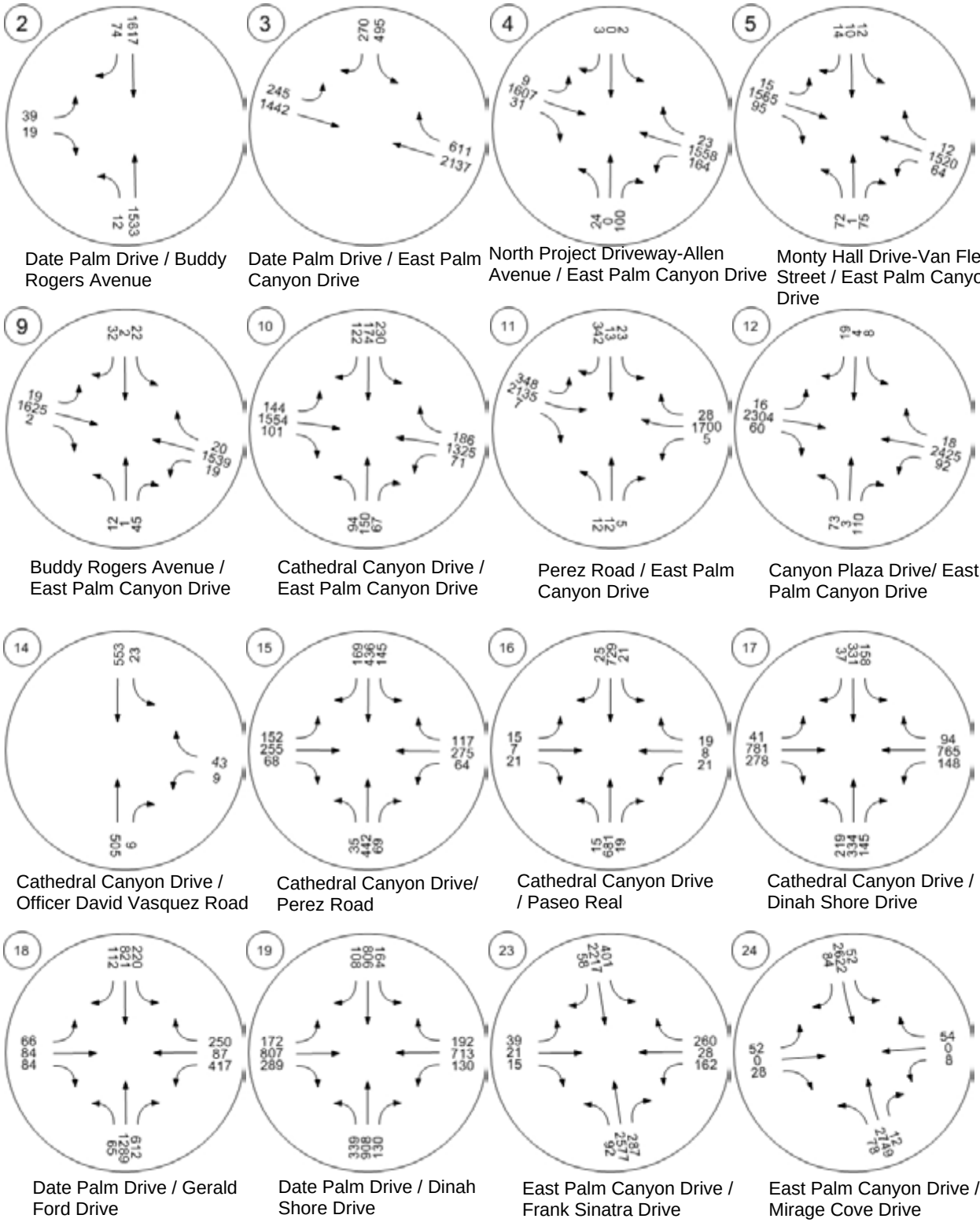
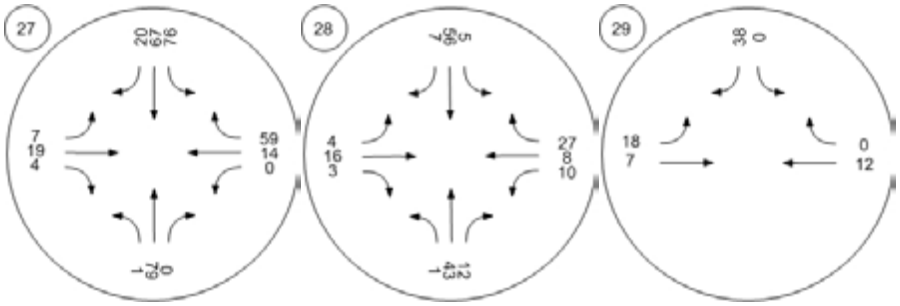


Figure 5-P (Continued) – Alternative D Cumulative Year (2040) Saturday MD Peak Hour Intersection Volumes



Van Fleet Street / B Street-West Project Driveway

Van Fleet Street / D Street

South Project Driveway / D Street

5.1.4 Levels of Service – Cumulative Year with Project (2040) with Improvements

Table 5-21, Table 5-22, Table 5-23, and **Table 5-24** provide the projected delay and levels of service at the study intersections under Cumulative Year with Project (2040) conditions for alternatives A through D with off-site improvements. With the recommended off-site improvements, the study area intersections would operate at an acceptable LOS D or better. The level of service calculation worksheets are provided in Appendix E.

Table 5-21 – Intersection LOS – Alternative A Cumulative Year with Project (2040) with Improvements

Intersection		LOS Standard	Peak Hour	Traffic Control	Year 2040 Plus Project without Improvements		Year 2040 Plus Project with Improvements	
					Delay (sec)	LOS	Delay (sec)	LOS
2	Date Palm Drive / Buddy Rogers Avenue	D	PM	Signalized	**1418.5**	**F**	10.2	B
			Sat-MD		**1360.5**	**F**	11.4	B
16	Cathedral Canyon Drive / Paseo Real	D	PM	Singalized	**102.4**	**F**	9.0	A
			Sat-MD		**46.5**	**E**	9.4	A

Table 5-22 – Intersection LOS – Alternative B Cumulative Year with Project (2040) with Improvements

Intersection		LOS Standard	Peak Hour	Traffic Control	Year 2040 Plus Project without Improvements		Year 2040 Plus Project with Improvements	
					Delay (sec)	LOS	Delay (sec)	LOS
2	Date Palm Drive / Buddy Rogers Avenue	D	PM	Signalized	**1237.8**	**F**	9.6	A
			Sat-MD		**1695.3**	**F**	10.4	B
16	Cathedral Canyon Drive / Paseo Real	D	PM	Singalized	**98.9**	**F**	8.9	A
			Sat-MD		**45.3**	**E**	9.6	A

Table 5-23 – Intersection LOS – Alternative C Cumulative Year with Project (2040) with Improvements

Intersection		LOS Standard	Peak Hour	Traffic Control	Year 2040 Plus Project without Improvements		Year 2040 Plus Project with Improvements	
					Delay (sec)	LOS	Delay (sec)	LOS
2	Date Palm Drive / Buddy Rogers Avenue	D	PM	Signalized	**1255.3**	**F**	9.1	A
			Sat-MD		**1496.0**	**F**	12.0	B
16	Cathedral Canyon Drive / Paseo Real	D	PM	Singalized	**98.9**	**F**	9.1	A
			Sat-MD		**45.3**	**E**	9.6	A

Table 5-24 – Intersection LOS – Alternative D Cumulative Year with Project (2040) with Improvements

Intersection		LOS Standard	Peak Hour	Traffic Control	Year 2040 Plus Project without Improvements		Year 2040 Plus Project with Improvements	
					Delay (sec)	LOS	Delay (sec)	LOS
2	Date Palm Drive / Buddy Rogers Avenue	D	PM	Signalized	**1259.5**	**F**	4.6	A
			Sat-MD		**896.7**	**F**	5.2	A
16	Cathedral Canyon Drive / Paseo Real	D	PM	Signalized	**102.4**	**F**	9.0	A
			Sat-MD		**46.5**	**E**	9.4	A

6.0 FINDINGS AND RECOMMENDATIONS

6.1 Traffic Impacts and Level of Service Analysis

6.1.1 Proposed Mitigation Measures – Opening Year with Project (2020) Conditions

Figure 6-A presents the proposed mitigation measures in order to achieve a satisfactory level of service at the study intersections in the Opening Year with Project (2020) conditions. The Project proposed mitigation measures are as follows:

2. Date Palm Drive (NS) / Buddy Rogers Avenue (EW): This intersection operates at unacceptable LOS with Alternative A, B, C, and D due to the high volumes entering and exiting Buddy Rogers Avenue. It is recommended to signalize the intersection to provide acceptable LOS.

16. Cathedral Canyon Drive (NS) / Paseo Real (EW): This intersection operates at unacceptable LOS under all scenarios including existing conditions without the Project. While it does not meet traffic signal warrants, it is recommended to pay fair share for signalization of the intersection to provide acceptable LOS.

6.1.2 Proposed Mitigation Measures – Cumulative Year with Project (2040) Conditions

Figure 6-B presents the proposed mitigation measures in order to achieve a satisfactory level of service at the study intersections in Cumulative Year with Project (2040) conditions. The Project proposed mitigation measures are as follows:

2. Date Palm Drive (NS) / Buddy Rogers Avenue (EW): This intersection operates at unacceptable LOS with Alternative A, B, C and D due to the high volumes entering and exiting Buddy Rogers Avenue. It is recommended to signalize the intersection to provide acceptable LOS.

16. Cathedral Canyon Drive (NS) / Paseo Real (EW): This intersection operates at unacceptable LOS under all scenarios including existing conditions without the Project. While it does not meet traffic signal warrants, it is recommended to pay fair share for signalization of the intersection to provide acceptable LOS.

6.2 Traffic Signal Warrants

"Traffic Signal Warrants" are a method of determining whether or not an unsignalized intersection needs to install a traffic signal. Traffic conditions that satisfy a traffic signal warrant are more likely to require the installation of a traffic signal. However, the Manual on Uniform Traffic Control Devices (MUTCD) states that the satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal. Peak hour traffic signal warrant analysis should only be considered as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal. Intersections that exceed the peak hour warrant are more likely to meet one or more of the other volume based signal warrants. The MUTCD also advises that a traffic control signal should not be installed unless:

- One or more of the traffic signal warrants is satisfied;
- An engineering study indicates that installing a traffic control signal will improve the overall safety and/or operation of the intersection; and
- It will not seriously disrupt progressive traffic flow.

For Existing (2018) traffic conditions, the peak hour traffic control signal warrant is not satisfied for any of the study area unsignalized intersections (see Appendix D for technical calculations).

For Opening Year without Project (2020) traffic conditions, the peak hour traffic control signal warrant is not satisfied for any of the study area unsignalized intersections (see Appendix D for technical calculations).

For Opening Year with Project (2020) traffic conditions, the peak hour traffic control signal warrant is expected to be satisfied for the following study area unsignalized intersection for Alternatives A, B, and C (see Appendix D for technical calculations):

2. Date Palm Drive (NS) / Buddy Rogers Avenue (EW)

For Cumulative Year without Project (2040) traffic conditions, the peak hour traffic control signal warrant is expected to be satisfied for the following study area unsignalized intersection for Alternatives A, B, and C (see Appendix D for technical calculations):

2. Date Palm Drive (NS) / Buddy Rogers Avenue (EW)

For Cumulative Year with Project (2040) traffic conditions, the peak hour traffic control signal warrant is expected to be satisfied for the following study area unsignalized intersection for Alternatives A, B, and C (see Appendix D for technical calculations):

2. Date Palm Drive (NS) / Buddy Rogers Avenue (EW)

6.3 Traffic and Transportation Project Design Features and Mitigation Measures

This traffic impact analysis demonstrates that the direct traffic impacts generated by Project Alternatives A, B, C, or D can be mitigated to meet the required level of service if the following recommended improvements are adopted. Project design features are those improvements that the Project had anticipated and is 100 percent responsible for since the improvements are not proposed as a result of an impact, but rather to improve project access and safety for the proposed Project. Mitigation measures shown in **Figure 6-A** and **Figure 6-B** are proposed as a result of intersection and/or roadway segment impact and either a fair share percentage is determined or the project responsibility is described.

6.3.1 Roadway and Safety Improvements for Alternatives A, B, and C

Project Design Features

- Construct full width improvements on all internal roadways.
- Construct roadway improvements to the northerly side of East Palm Canyon Drive to provide three lanes in the westbound direction of travel, which would be considered its ultimate cross-section as an arterial highway adjacent to North Site south line.
- Construct roadway improvements to the westerly side of Date Palm Drive to provide three lanes in the southbound direction, which would be considered at its ultimate cross-section as an arterial highway adjacent to North Site east boundary line.
- Construct roadway improvements to the southerly side of Buddy Rogers Avenue to provide one lane in the eastbound direction of travel, which would be considered its ultimate cross-section as a local roadway adjacent to North Site north boundary line.
- Construct modifications at existing traffic signals adjacent to the North Site as needed.
- Signing/striping modifications on adjacent roadways should be implemented in conjunction with detailed construction plans for the North Site.
- Sight distance at project driveways will be reviewed with respect to County of Riverside sight distance standards at the time of preparation of final grading, landscape, site development, and street improvement plans.
- Implement on-site traffic calming measures in parking lots and internal roadways as needed.

6.3.2 Roadway and Safety Improvements for Alternative D

Project Design Features

- Construct full width improvements on all internal roadways.
- Construct roadway improvements to the southerly side of East Palm Canyon Drive to provide three lanes in the eastbound direction of travel, which would be considered its ultimate cross-section, as an arterial highway adjacent to South Site north boundary line.
- Construct roadway improvements to the easterly side of Van Fleet Street to provide one lane in the westbound direction of travel, which would be considered its ultimate cross-section as a collector roadway adjacent to South Site west boundary line.
- Construct roadway improvements to the northerly side of D Street to provide one lane in the westbound direction of travel, which would be considered its ultimate cross-section as a collector roadway adjacent to South Site south boundary line.

- Construct modifications at existing traffic signals adjacent to the South Site as needed.
- Signing/striping modifications on adjacent roadways should be implemented in conjunction with detailed construction plans for the South Site.
- Sight distance at project driveways will be reviewed with respect to County of Riverside sight distance standards at the time of preparation of final grading, landscape, site development, and street improvement plans.
- Implement on-site traffic calming measures in parking lots and internal roadways as needed.

6.3.3 Roadways Segments Mitigations and General Plan Consistency for Alternatives A, B, C or D

Opening Year 2020 Conditions

Unacceptable level of service along East Palm Canyon Drive is anticipated in the Opening Year (2020) scenario with and without the Project for the following segment:

4. East Palm Canyon Drive: Cathedral Canyon Drive to Date Palm Drive

The failing roadway segment is part of the TUMF program which has funding allocated to improve East Palm Canyon Drive's widening from four lanes to 6 lanes total in accordance with the approved *Cathedral City Downtown Circulation and Alignment Study* prepared by W2 Design, Inc. and the Cathedral City General Plan. The study which was approved by Cathedral City in November 2009 analyzed the widening of East Palm Canyon to expand the roadway from four to six lanes to its City limits. The project would be responsible for its TUMF fees which would be used to contribute to the East Palm Canyon Drive expansion.

Build-Out Year 2040 Conditions

Impacts to roadway segments described below are considered significant and unavoidable in accordance to Cathedral City General Plan. The roadway would exceed capacity under ultimate build-out conditions. The general plan does not propose additional lanes to improve conditions.

Level of service for the following four segments along East Palm Canyon Drive are expected continue to operate at unacceptable levels of service under build-out conditions with and without the Project as shown below:

1. East Palm Canyon Drive: Golf Club Drive to Canyon Plaza Drive
2. East Palm Canyon Drive: Canyon Plaza Drive to Perez Road
5. East Palm Canyon Drive: Date Palm Drive to Frank Sinatra Drive
6. East Palm Canyon Drive: Frank Sinatra Drive to Country Club Drive

According to the Cathedral City General Plan all four roadway segments were forecasted to exceed build-out capacity and anticipated to operate at unacceptable level of service of E or F; however the proposed Mid-Valley Parkway has been proposed as *"an alternate route to Highway 111/East Palm Canyon Drive… The Transportation Uniform Mitigation Fee (TUMF) program has helped to pay for this facility and a wide range of other arterial roadways in the Coachella Valley."*

6.3.4 Alternative A Project Design Features and Mitigation Measures

Intersection Project Design Features

- Restripe the intersection of Buddy Rogers Avenue and Project Driveway (North) to include the following geometrics with two-way stop control:
  Northbound: One left turn lane. One shared through-right lane.
  Southbound: One shared left-through-right lane.
  Eastbound: One shared left-through-right lane.
  Westbound: One shared left-through-right lane.

- Restripe the intersection of East Palm Canyon Drive and Project Driveway (South) to include the following geometrics with signalized control:
  Northbound: Not Applicable.
  Southbound: One left turn lane. One right turn lane.
  Eastbound: One left turn lane. Two through lanes. One right turn lane.
  Westbound: One left turn lane. Three through lanes. One right turn lane.

Intersection Mitigation Measure

- Install a traffic signal at the intersection of Buddy Rogers Avenue and Date Palm Drive and provide the following geometrics:
  Northbound: One left turn lane. Three through lanes.
  Southbound: Two through lanes. One shared through-right turn lane.
  Eastbound: One left turn lane. One right turn lane.
  Westbound: Not Applicable.

- Contribute fair share towards installation of a traffic signal at the intersection of Cathedral Canyon Drive and Paseo Real and provide the following geometrics:
  Northbound: One left turn lane. One through lane. One shared through-right turn lane.
  Southbound: One left turn lane. One through lane. One shared through-right turn lane.
  Eastbound: One shared left-through-right lane.
  Westbound: One shared left-through-right lane.

6.3.5 Alternative B Project Design Features and Mitigation Measures

Intersection Project Design Features

- Restripe the intersection of Buddy Rogers Avenue and Project Driveway (Northwest) to include the following geometrics with two-way stop control:
  Northbound: One left turn lane. One shared through-right lane.
  Southbound: One shared left-through-right lane.
  Eastbound: One shared left-through-right lane.
  Westbound: One shared left-through-right lane.

- Restripe the intersection of Buddy Rogers Avenue and Project Driveway (Northeast) to include the following geometrics with one-way stop control:
  Northbound: One shared left-right turn lane.
  Southbound: Not Applicable.
  Eastbound: One shared through-right lane.
  Westbound: One shared left-through lane.

- Restripe the intersection of East Palm Canyon Drive and Project Driveway (South) to include the following geometrics with signalized control:
  Northbound: Not Applicable.
  Southbound: One left turn lane. One right turn lane.
  Eastbound: One left turn lane. Two through lanes. One right turn lane.
  Westbound: One left turn lane. Three through lanes. One right turn lane.

Intersection Mitigation Measure

- Install a traffic signal at the intersection of Buddy Rogers Avenue and Date Palm Drive and provide the following geometrics:
  Northbound: One left turn lane. Three through lanes.
  Southbound: Two through lanes. One shared through-right turn lane.
  Eastbound: One left turn lane. One right turn lane.
  Westbound: Not Applicable.

- Contribute fair share towards installation of a traffic signal at the intersection of Cathedral Canyon Drive and Paseo Real and provide the following geometrics:
  Northbound: One left turn lane. One through lane. One shared through-right turn lane.
  Southbound: One left turn lane. One through lane. One shared through-right turn lane.
  Eastbound: One shared left-through-right lane.
  Westbound: One shared left-through-right lane.

6.3.6 Alternative C Project Design Features and Mitigation Measures

Intersection Project Design Features

- Restripe the intersection of Buddy Rogers Avenue and Project Driveway (Northwest) to include the following geometrics with two-way stop control:
  Northbound: One left turn lane. One shared through-right lane.
  Southbound: One shared left-through-right lane.
  Eastbound: One shared left-through-right lane.
  Westbound: One shared left-through-right lane.

- Restripe the intersection of Buddy Rogers Avenue and Project Driveway (Northeast) to include the following geometrics with one-way stop control:
  Northbound: One shared left-right turn lane.
  Southbound: Not Applicable.

Eastbound: One shared through-right lane.
Westbound: One shared left-through lane.

- Restripe the intersection of Date Palm Drive and Project Driveway (East) to include the following geometrics with one-way stop control:
  Northbound: Three through lanes.
  Southbound: Two through lanes. One shared through-right lane.
  Eastbound: One right turn lane.
  Westbound: Not Applicable.

- Restripe the intersection of East Palm Canyon Drive and Project Driveway (South) to include the following geometrics with signalized control:
  Northbound: Not Applicable.
  Southbound: One left turn lane. One right turn lane.
  Eastbound: One left turn lane. Two through lanes. One right turn lane.
  Westbound: One left turn lane. Three through lanes. One right turn lane.

Intersection Mitigation Measure

- Install a traffic signal at the intersection of Buddy Rogers Avenue and Date Palm Drive and provide the following geometrics:
  Northbound: One left turn lane. Three through lanes.
  Southbound: Two through lanes. One shared through-right turn lane.
  Eastbound: One left turn lane. One right turn lane.
  Westbound: Not Applicable.

- Contribute fair share towards installation of a traffic signal at the intersection of Cathedral Canyon Drive and Paseo Real and provide the following geometrics:
  Northbound: One left turn lane. One through lane. One shared through-right turn lane.
  Southbound: One left turn lane. One through lane. One shared through-right turn lane.
  Eastbound: One shared left-through-right lane.
  Westbound: One shared left-through-right lane.

6.3.7 Alternative D Project Design Features and Mitigation Measures

Intersection Project Design Features

- Restripe the intersection of Van Fleet Street and B Street to include the following geometrics with two-way stop control:
  Northbound: One left turn lane. One shared through-right lane.
  Southbound: One left turn lane. One shared through-right lane.
  Eastbound: One shared left-through-right lane.
  Westbound: One shared left-through-right lane.

- Restripe the intersection of D Street and Project Driveway (South) to include the following geometrics with one-way stop control:
  Northbound: Not Applicable.
  Southbound: One shared left-through-right lane.
  Eastbound: One shared left-through lane.
  Westbound: One shared through-right lane.

- Restripe the intersection of East Palm Canyon Drive and Project Driveway (North) to include the following geometrics with signalized control:
  Northbound: One left turn lane. One shared through-right lane.
  Southbound: One shared left-through-right lane.
  Eastbound: One left turn lane. Three through lanes. One right turn lane.
  Westbound: One left turn lane. Two through lanes. One right turn lane.

Intersection Mitigation Measure

- Contribute fair share towards installation Install a traffic signal at the intersection of Cathedral Canyon Drive and Paseo Real and provide the following geometrics:
  Northbound: One left turn lane. One through lane. One shared through-right turn lane.
  Southbound: One left turn lane. One through lane. One shared through-right turn lane.
  Eastbound: One shared left-through-right lane.
  Westbound: One shared left-through-right lane.

Figure 6-A –Intersection Improvements for Opening Year with Project (2020) Conditions

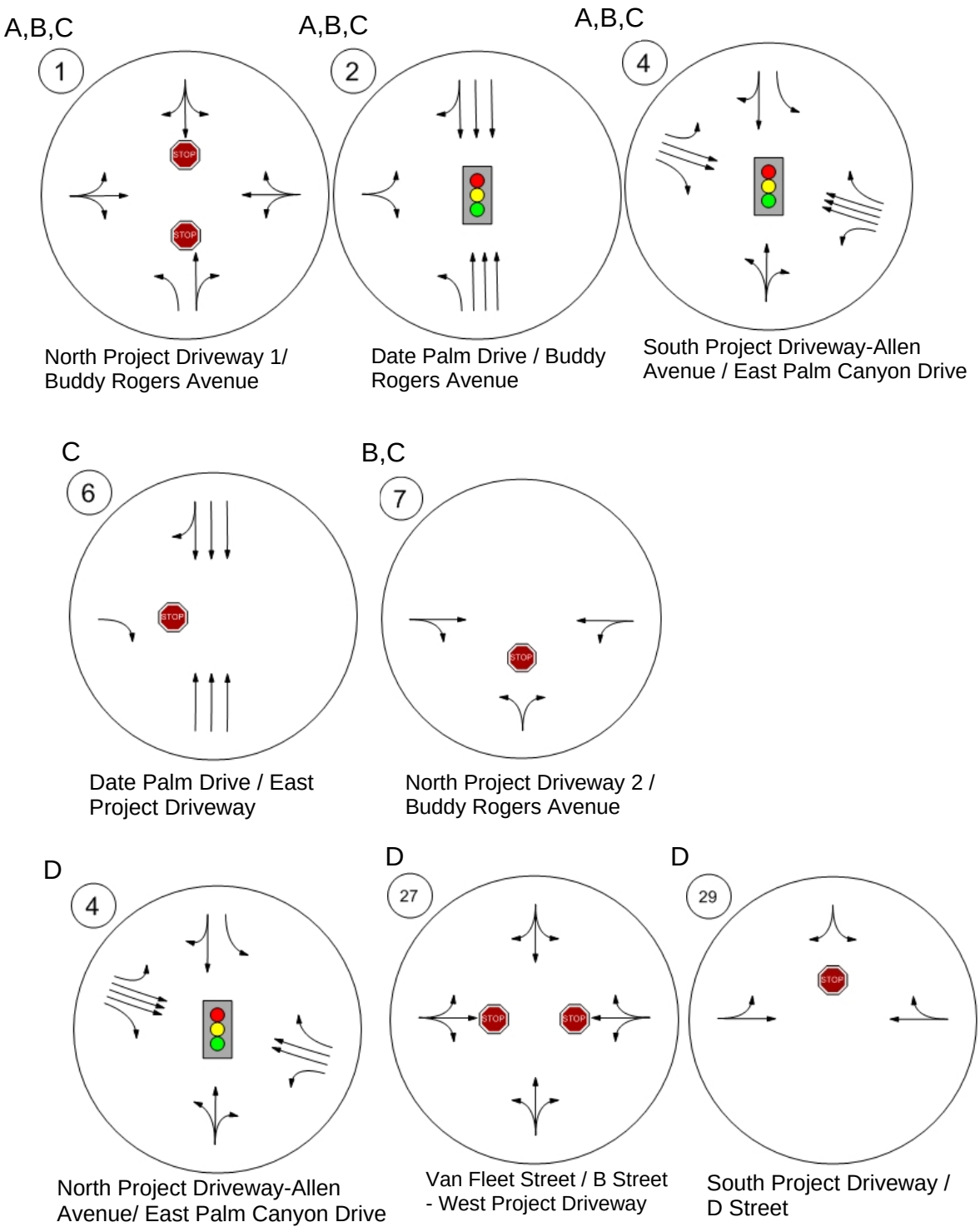
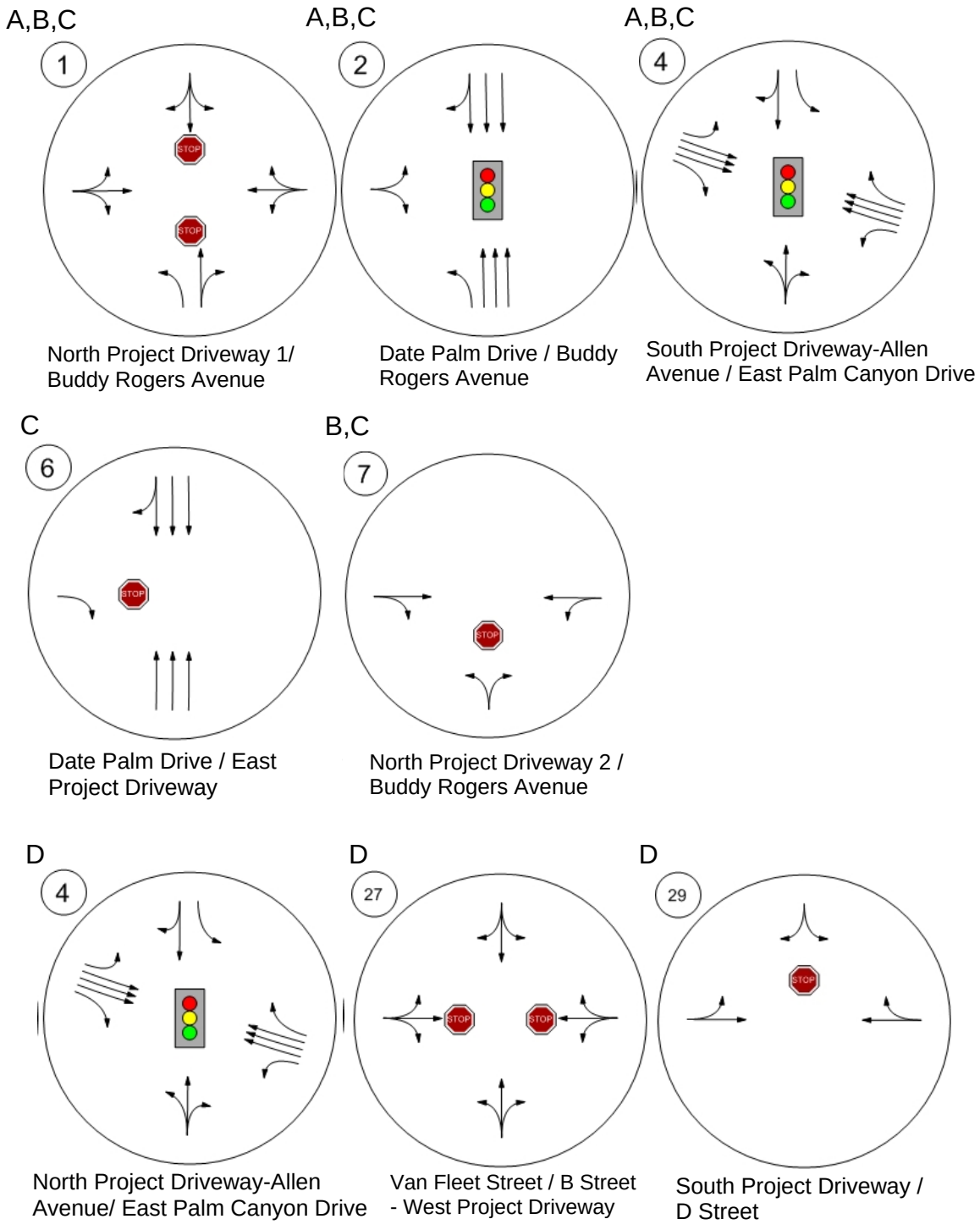


Figure 6-B – Intersection Improvements for Cumulative Year with Project (2040) Conditions



6.4 Intersections and Project Fair Share Mitigation Summary

The Project will participate in the cost of off-site improvements through the payment of "fair share" mitigation fees, including the following:

- Transportation Uniform Mitigation Fee (TUMF), current at time of construction.
- Transit Development Fee, current at time of construction.
- City Facilities Impact Fees

These fees will be collected and utilized as needed by the City of Cathedral City to construct the improvements necessary to assist in maintaining the required level of service in the transportation network.

Table 6-1, Table 6-2, Table 6-3 and **Table 6-4** summarize the proposed mitigation measure and associated funding mechanism for the study intersections for Alternative A, Alternative B, Alternative C, and Alternative D, respectively. The intersections of Date Palm Drive / Buddy Rogers Avenue and Cathedral Canyon Drive / Paseo Real require the installation of a traffic signal to improve the intersections to acceptable LOS of D or better.

Table 6-1 – Project Fair Share Mitigation Summary – Alternative A Intersections

Intersection	LOS Standard	Mitigation Measure	LOS with Mitigation		Existing Volume	Project Volume	2040 Alt A Volume	Net New Volume	Fair Share
			PM	SAT MD					
Date Palm Drive / Buddy Rogers Avenue	D	Install traffic signal	A	A	--				100%
Cathedral Canyon Drive / Paseo Real	D	Install traffic signal	A	A	1417	91	1976	559	16%

Table 6-2 – Project Fair Share Mitigation Summary – Alternative B Intersections

Intersection	LOS Standard	Mitigation Measure	LOS with Mitigation		Existing Volume	Project Volume	2040 Alt B Volume	Net New Volume	Fair Share
			PM	SAT MD					
Date Palm Drive / Buddy Rogers Avenue	D	Install traffic signal	A	A	--				100%
Cathedral Canyon Drive / Paseo Real	D	Install traffic signal	A	A	1417	81	1966	549	15%

Table 6-3 – Project Fair Share Mitigation Summary – Alternative C Intersections

Intersection	LOS Standard	Mitigation Measure	LOS with Mitigation		Existing Volume	Project Volume	2040 Alt C Volume	Net New Volume	Fair Share
			PM	SAT MD					
Date Palm Drive / Buddy Rogers Avenue	D	Install traffic signal	A	A	--				100%
Cathedral Canyon Drive / Paseo Real	D	Install traffic signal	A	A	1417	126	2011	594	21%

Table 6-4 – Project Fair Share Mitigation Summary – Alternative D Intersections

Intersection	LOS Standard	Mitigation Measure	LOS with Mitigation		Existing Volume	Project Volume	2040 Alt D Volume	Net New Volume	Fair Share
			PM	SAT MD					
Date Palm Drive / Buddy Rogers Avenue	D	Install traffic signal	A	A	1264	135	1611	347	39%
Cathedral Canyon Drive / Paseo Real	D	Install traffic signal	A	A	1417	91	1976	559	16%

Table 6-5 summarizes the proposed mitigation measure and associated funding mechanism for the Project as a result of the traffic study for the study area roadway segments. The anticipated LOS for general plan buildout conditions is also reported in the table below. All four roadway segments present unacceptable levels of service under all alternatives (Alternative A, Alternative B, Alternative C, and Alternative D) as shown below. Roadway segments on East Palm Canyon Drive between Date Palm Drive and County Club Drive experience level of service F with and without Project traffic, but the increase in vehicle-to-capacity ratio is less than 0.05 with the Project traffic which is less than significant.

Table 6-5 – Project Fair Share Mitigation Summary - Roadways

East Palm Canyon Drive Roadway Segment	Jurisdiction	LOS Standard	General Plan Buildout LOS	LOS w/o Project	LOS w/ Project	Funding Mechanism
Golf Club Drive to Canyon Plaza Drive	Cathedral City	D	**E**	**E**	**E**	TUMF
Canyon Plaza Drive to Perez Road	Cathedral City	D	**E**	**E**	**E**	TUMF
Date Palm Drive to Frank Sinatra Drive	Cathedral City	D	**F**	**F**	**F**	TUMF
Frank Sinatra Drive to Country Club Drive	Cathedral City	D	**F**	**F**	**F**	TUMF

LOS = Unacceptable LOS, No significant impact

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Scoping Agreement

APPENDIX A

ALBERT A. WEBB ASSOCIATES

Memorandum

To: Ryan Lee Sawyer, Analytical Environmental Services

From: Nicholas Lowe, P.E., Albert A. Webb Associates

Date: April 26, 2018

Re: Scoping Memo for the Agua Caliente Casino Development in Cathedral City

Dear Ryan:

Albert A. Webb Associates (Webb) has been contracted to conduct a traffic impact analysis (TIA) report for a project within Cathedral City. The project includes casino, retail, and restaurant land uses. There are four alternative site plans which differ in building sizes and site location which are shown in the Appendix. The project is planned to be constructed in a single phase by 2020. The goal of the this TIA scoping memo is to outline the methodologies, forecast scenarios, trip generation, trip distribution, and study area of the TIA.

Analysis Parameters

The TIA will analyze certain nearby intersections and roadways based on the number of trips that he project is forecasted to generate. This trip generation value is based on the Institute of Transportation Engineers (ITE) Trip Generation Manual, 10th Edition as well as traffic counts at similar existing projects that are not standard land uses in the ITE Trip Generation Manual. The TIA will analyze weekday PM (4-6PM), and Saturday mid-day (11AM-2PM) peak periods to determine peak hour of traffic and any operational impacts to existing transportation facilities. Intersections that are expected to serve a minimum of 50 project trips during a peak hour are included in the study area. Roadway segments between these intersections are also included in the study area.

Ambient traffic growth will be incorporated into the analysis. Ambient growth is a growth rate applied to the existing (2018) traffic volumes to forecast roadway traffic volumes in short timeframes into the future. Ambient growth generally accounts for population growth and the construction of projects that are outside of the study area. In general, the annual ambient growth rate used in TIAs throughout Riverside County and Cathedral City is 2% unless the project is located in a known fast or slow-growing area. A 2% annual ambient growth rate will be used for this analysis. The project's buildout year is expected to be 2020 which would translate to a 4% total ambient growth over the two years.

Planned developments are nearby projects, generally within one to five miles of the project site, which are in the approval or construction process at the time of the project's TIA. These planned developments would not generate trips at the time of the project's TIA completion, but are expected to contribute trips to the roadway network by the project's buildout year, 2020.

Cumulative year (2040) is to be analyzed using RivTAM model outputs. RivTAM currently forecasts traffic to year 2035. Additional annual growth rates of 1.5% are to be added onto 2035 volumes during post-processing.

Analysis Scenarios

The TIA will analyze the four project alternatives in several different forecast scenarios individually. These scenarios include traffic conditions during existing, project opening year (2020), and cumulative (2040) timeframes. The study scenarios are as follows:

1. Existing (2018) conditions.
2. Project Opening Year (2020).
3. Project Opening Year (2020) Plus Alternative A.
4. Project Opening Year (2020) Plus Alternative B.
5. Project Opening Year (2020) Plus Alternative C.
6. Project Opening Year (2020) Plus Alternative D.
7. Project Opening Year (2020) Plus Alternative A with Mitigation.
8. Project Opening Year (2020) Plus Alternative B with Mitigation.
9. Project Opening Year (2020) Plus Alternative C with Mitigation.
10. Project Opening Year (2020) Plus Alternative D with Mitigation.
11. Cumulative Year (2040).
12. Cumulative Year (2040) Plus Alternative A.
13. Cumulative Year (2040) Plus Alternative B.
14. Cumulative Year (2040) Plus Alternative C.
15. Cumulative Year (2040) Plus Alternative D.
16. Cumulative Year (2040) Plus Alternative A with Mitigation.
17. Cumulative Year (2040) Plus Alternative B with Mitigation.
18. Cumulative Year (2040) Plus Alternative C with Mitigation.
19. Cumulative Year (2040) Plus Alternative D with Mitigation.

The Opening Year (2020) scenarios include ambient traffic (4% growth) and planned development traffic. The Cumulative Year (2040) scenarios include projected traffic volume forecasts per the RivTAM model outputs.

Scenario number 11 above includes general plan land use at the project site. Any mitigation scenarios are to be analyzed as needed. Project driveway additions that do not impact other intersection approaches or roadways are not classified as mitigations. Planned or funded roadway improvements and projects will be included in the analysis for opening year and cumulative year as reasonable.

Trip Generation Methodology

Trip generation values were based on the site plans' land use tables provided to Webb by AES. The land uses on the site plans are casino and mixed use. After discussions with AES, it was decided that the mixed use areas are to be analyzed as 60% restaurant and 40% shopping center. The restaurant areas were then further divided into specific land uses that are included in the ITE Trip Generation Manual. The project land uses consist of casino, shopping center, high-turnover sit down restaurant, coffee/donut shop without drive-through window, quality restaurant, and fast casual restaurant.

The casino land use is not a standard ITE land use and is not included in the ITE Trip Generation Manual. A similar land use included in the ITE Trip Generation Manual is Casino/Video Lottery Establishment, but this land use specifically states that it does not include casinos with restaurants or retail areas. In order to develop trip generation rates for the project's casino land use, Webb found two existing similar casinos in southern California and conducted trip generation counts at each location on Thursday, March 1 and Saturday, March

3. Vehicles entering and exiting each driveway were counted in 15 minute periods for 12 hours on each day (7AM to 7PM). The results were then processed to determine peak hour volumes and rates for each casino.

1. Soboba Casino – San Jacinto, CA – 74,000 Sqft. Gaming Area
2. Augustine Casino – Coachella, CA – 42,000 Sqft. Gaming Area

Both existing casinos are full-service casinos with gaming floors and interior restaurants and retail. The two existing casinos are relatively isolated and do not share their parking lots or driveways with other businesses. These two casinos also do not have hotels and their gaming floor square footages are similar to the proposed project's gaming floor. Gaming floor square footage is the independent variable that was used to determine the proposed project's trip generation rate. This is similar to other ITE land uses that utilize gross floor area as the independent variable in the calculations. The calculated trip generation rates for the studied casinos are as follows:

Casino Trip Generation Rates								
Casino Name	Gaming Area	Unit	AM Peak Hour			PM Peak Hour		
			Total	In	Out	Total	In	Out
Soboba Casino	74	TSF	3.51	1.96	1.55	6.35	2.24	4.11
Augustine Casino	42	TSF	4.07	3.17	0.90	8.71	4.64	4.07
AVERAGE			3.72	2.40	1.32	7.21	3.11	4.10

Casino Trip Generation Rates					
Casino Name	Gaming Area	Unit	Saturday MD Peak Hour		
			Total	In	Out
Soboba Casino	74	TSF	7	4.37	2.63
Augustine Casino	42	TSF	8.81	4.07	4.74
AVERAGE			7.66	4.26	3.40

Internal trips were also included in the total project trip generation calculation. Internal trips are trips that occur between land uses on site and do not require users to drive a vehicle offsite. Internal trips between restaurants and retail land uses were calculated using the National Cooperative Highway Research Program (NCHRP) Report 684 which provides internal trip calculations between compatible land uses. These trips are then discounted from the total trip generation. Internal trip rates between the casino land use and other project land uses were taken from previous studies on similar casino projects. The rates from previous studies ranged from 20% to 97.5%. This analysis will use 60% as a reasonable and conservative internal capture rate from the casino to the adjacent project land uses. The casino is assumed to be the primary destination on the site with a majority of visitors using the restaurant and retail areas as part of their original trip to the casino.

Trip Distribution Methodology

Project trips were distributed throughout the nearby roadway network based on the proposed project's land use, the surrounding area's land uses, and the locations and directions of collector, arterial, and freeway-type roadways. Project trips are distributed by percentage up to 100%. Project trips are then applied to the distribution to obtain the project trip assignment which is the volume that will be analyzed.

Intersection Analysis Methodology

Intersections will be analyzed using PTV Vistro 5.0 intersection simulation software. This software package is based off of the Transportation Research Board's Highway Capacity Manual 2010 (HCM2010) methodologies, calculations, and assumptions. Intersection geometry, traffic volumes, and intersection operations are input into the software packages for analysis. The analysis results in intersection delay and level of service (LOS) values. Intersection level of service (LOS) is based on average vehicle delay at the intersection and is the primary factor in TIA analysis and project impact determination.

Roadway Analysis Methodology

Roadway segments will be analyzed by calculating volume-to-capacity (v/c) ratios. Each type of roadway has a calculated theoretical maximum daily capacity which is standard and will be sourced from the County of Riverside General Plan. Roadway capacity is primarily influenced by number of lanes, roadway classification, presence of a raised median, and terrain. Daily traffic volumes will be divided by the theoretical roadway capacity to obtain a ratio. Similar to intersections, a LOS is derived from this ratio to determine impacts.

Significance Criteria

Cathedral City, which follows Riverside County traffic impact analysis guidelines, states that an intersection should be analyzed if it assigns 50 or more peak hour trips to an intersection. Intersections should also be analyzed if they are currently experiencing failing levels of service and the project is expected to add traffic to it.

Riverside County, Cathedral City, Caltrans, and most agencies have a minimum LOS threshold of LOS D. If an intersection or roadway is currently operating acceptably and is found to operate at LOS E or F with the addition of project traffic, the project is considered to have a significant impact at that intersection or roadway.

If an intersection is currently operating unacceptably and the project adds 50 or more trips to the intersection, this would constitute a significant impact at that intersection. If a roadway segment is currently operating unacceptably and the project increases the vehicle-to-capacity ratio to greater than 1.0, this would constitute a significant impact on the roadway segment.

Proposed Project Alternative Trip Generation Tables

Alternative A and Alternative D

Alternative A and Alternative D										
Land Use	Description	Qty	Unit	AM Peak Hour			PM Peak Hour			Daily
				Total	In	Out	Total	In	Out	
-	Casino	40	TSF	149	96	53	289	125	164	3,720
	Casino Subtotal			**149**	**96**	**53**	**289**	**125**	**164**	**3,720**
820	Shopping Center	24	TSF	164	102	62	189	91	98	2,278
Retail -> Restaurant Internal Trips				-16	-8	-8	-82	-50	-32	-98
Retail -> Casino Internal Trips				-89	-56	-33	-64	-24	-40	-1,308
	Shopping Center Subtotal			**59**	**37**	**22**	**43**	**16**	**27**	**872**
932	High-Turnover Sit-Down Restaurant	14	TSF	139	76	63	137	85	52	1,571
931	Quality Restaurant	14	TSF	10	10	0	109	73	36	1,174
930	Fast Casual Restaurant	6	TSF	12	8	4	85	47	38	1,891
936	Coffee/Donut Shop Without Drive-Through Window	2	TSF	202	103	99	73	37	36	1,510
Restaurant -> Retail Internal Trips				-16	-8	-8	-97	-36	-61	-113
Restaurant -> Casino Internal Trips				-208	-114	-94	-184	-123	-61	-3,620
	Restaurant Subtotal			**139**	**76**	**63**	**123**	**82**	**41**	**2,413**
PROJECT TOTAL				**347**	**209**	**138**	**455**	**223**	**231**	**7,005**

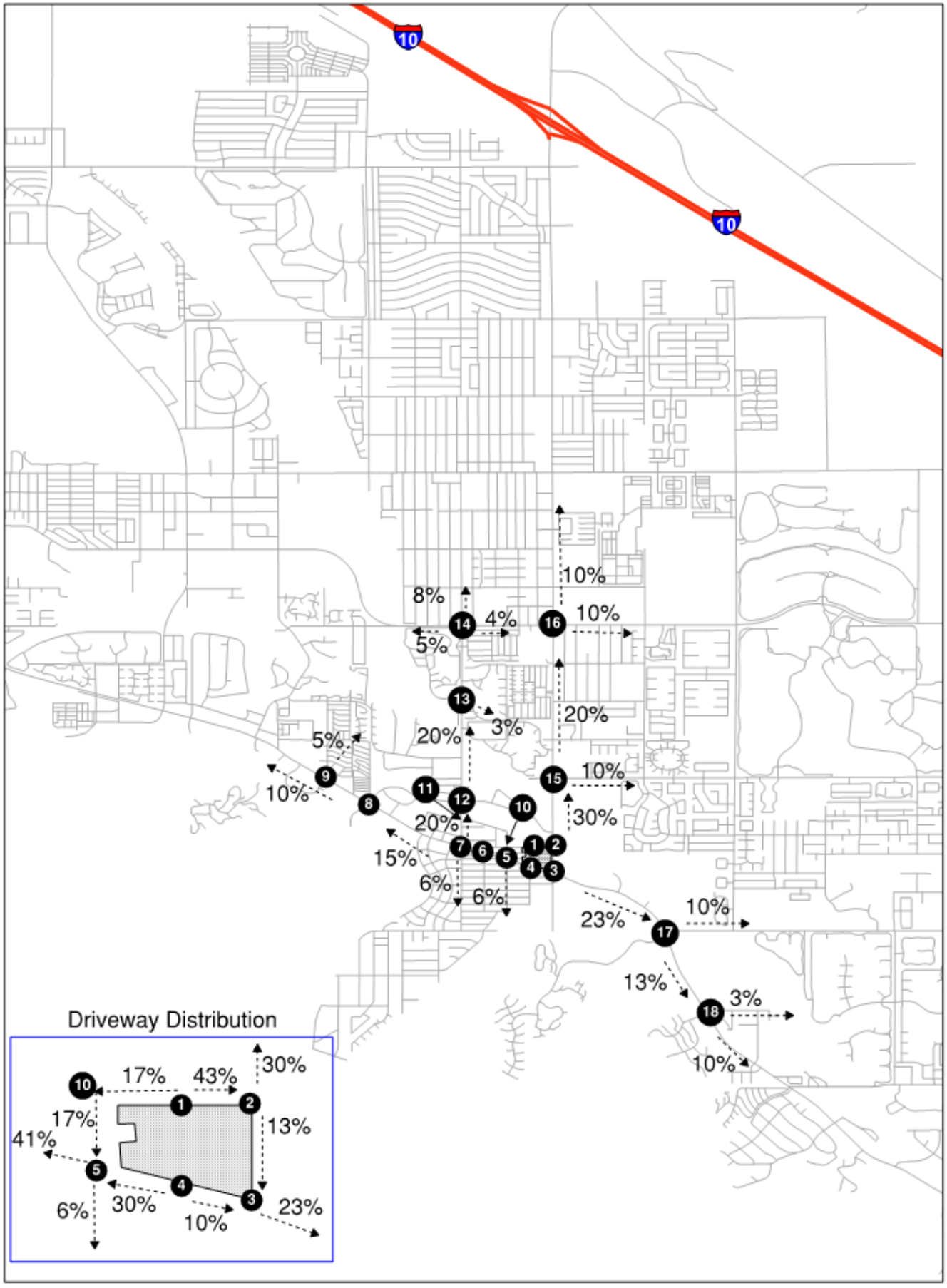
Alternative B

Alternative B										
ITE Land Use	Description	Qty	Unit	AM Peak Hour			PM Peak Hour			Daily
				Total	In	Out	Total	In	Out	
-	Casino	40	TSF	149	96	53	289	125	164	3,720
	Casino Subtotal			**149**	**96**	**53**	**289**	**125**	**164**	**3,720**
820	Shopping Center	15.2	TSF	159	99	60	135	65	70	1,670
Retail -> Restaurant Internal Trips				-16	-8	-8	-59	-36	-23	-75
Retail -> Casino Internal Trips				-86	-54	-31	-46	-17	-28	-957
	Shopping Center Subtotal			**57**	**36**	**21**	**30**	**12**	**19**	**638**
932	High-Turnover Sit-Down Restaurant	8.5	TSF	84	46	38	83	51	32	954
931	Quality Restaurant	8.5	TSF	6	6	0	66	44	22	713
930	Fast Casual Restaurant	3.8	TSF	8	5	3	54	30	24	1,198
936	Coffee/Donut Shop Without Drive-Through Window	2	TSF	202	103	99	73	37	36	1,510
Restaurant -> Retail Internal Trips				-16	-8	-8	-68	-25	-43	-84
Restaurant -> Casino Internal Trips				-170	-92	-79	-125	-82	-42	-2,575
	Restaurant Subtotal			**114**	**61**	**53**	**83**	**55**	**28**	**1,716**
PROJECT TOTAL				**320**	**193**	**127**	**403**	**191**	**211**	**6,074**

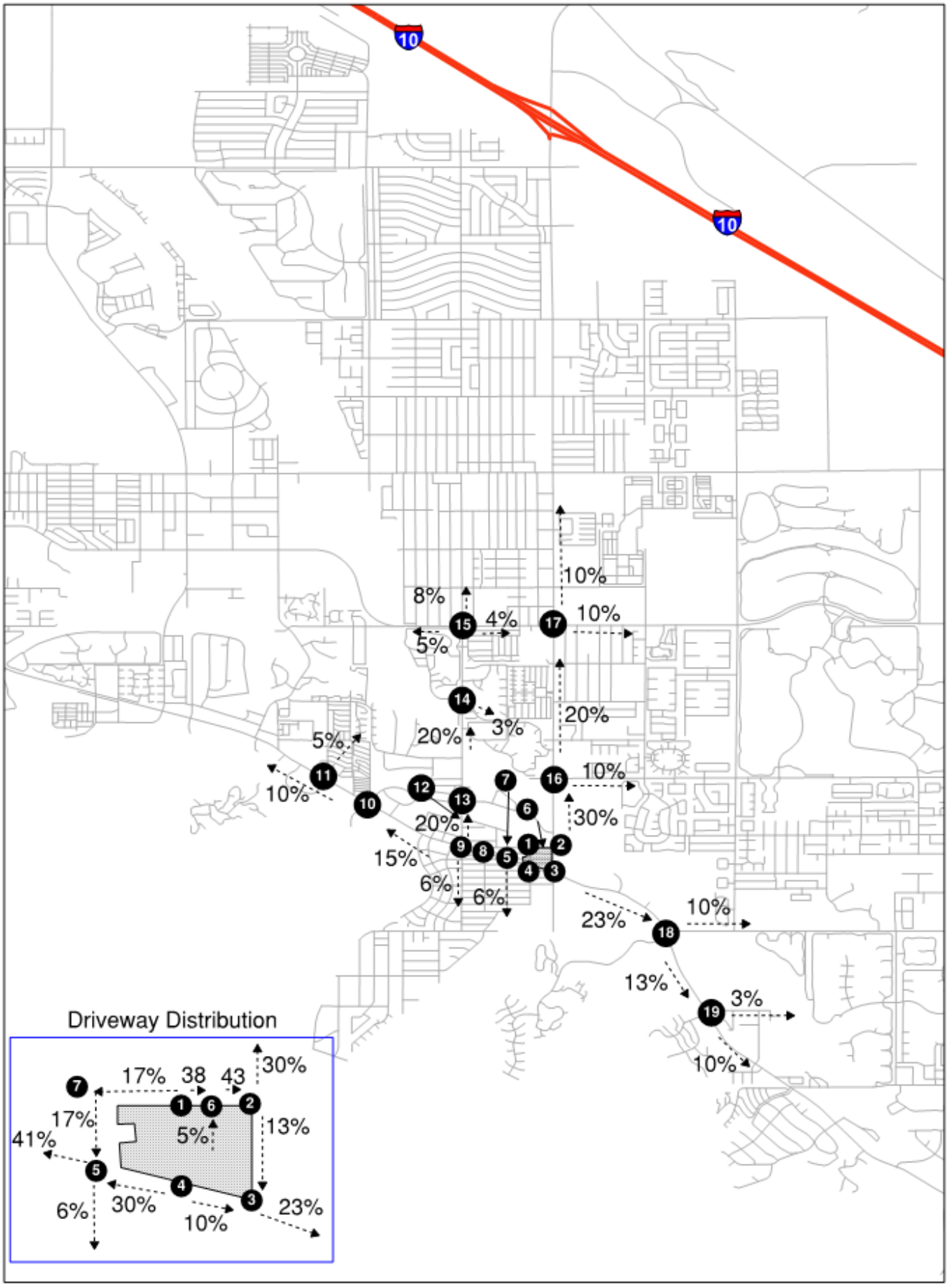
Alternative C

Alternative C										
ITE Land Use	Description	Qty	Unit	AM Peak Hour			PM Peak Hour			Daily
				Total	In	Out	Total	In	Out	
820	Shopping Center	36	TSF	170	105	65	255	122	133	3,001
	Retail Internal Trips			-16	-8	-8	-100	-61	-39	-116
	Shopping Center Subtotal			**154**	**97**	**57**	**155**	**61**	**94**	**2,885**
932	High-Turnover Sit-Down Restaurant	22	TSF	219	120	99	215	133	82	2,468
931	Quality Restaurant	22	TSF	16	16	0	172	115	57	1,844
930	Fast Casual Restaurant	8	TSF	17	11	6	113	62	51	2,521
936	Coffee/Donut Shop Without Drive-Through Window	2	TSF	202	103	99	73	37	36	2,020
	Restaurant Internal Trips			-16	-8	-8	-100	-39	-61	-116
	Restaurant Subtotal			**438**	**243**	**195**	**527**	**308**	**164**	**8,737**
PROJECT TOTAL				**592**	**340**	**252**	**682**	**369**	**258**	**11,622**

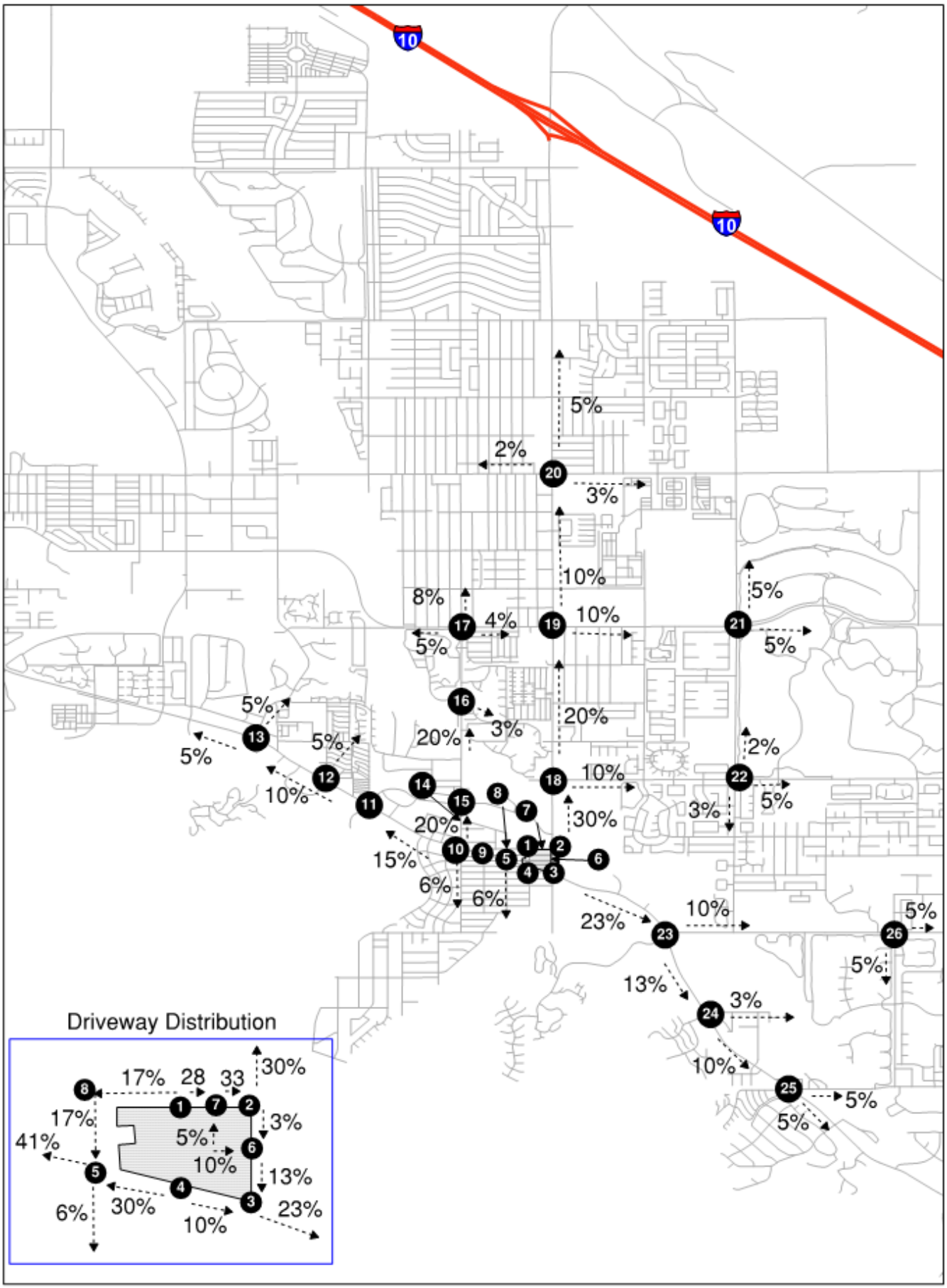
Alternative A Distribution



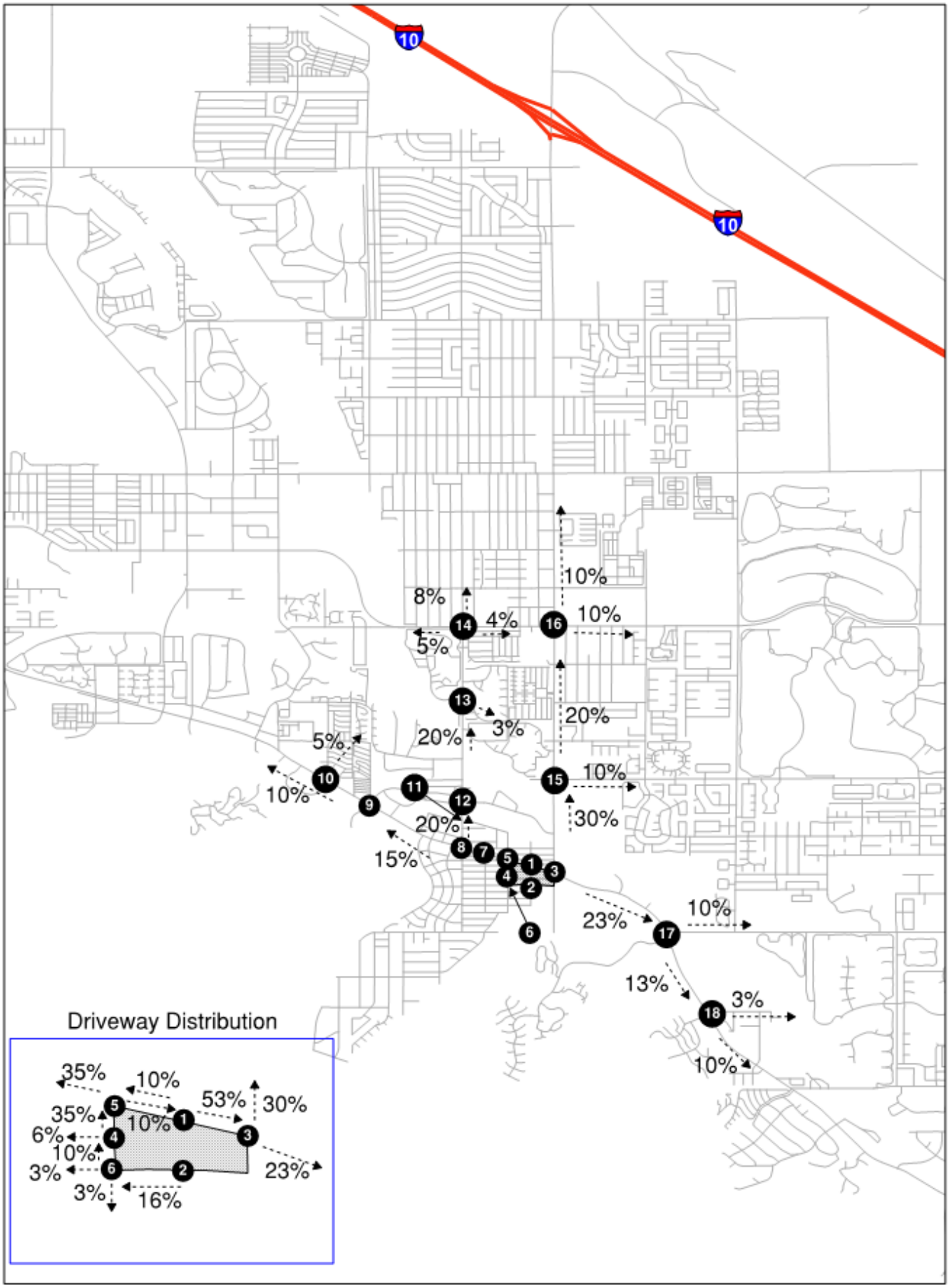
Alternative B Distribution



Alternative C Distribution



Alternative D Distribution



List of Intersections for Alternatives

Alternative A Intersections

1. North Project Driveway 1 / Buddy Rogers Avenue
2. Date Palm Drive / Buddy Rogers Avenue
3. Date Palm Drive / East Palm Canyon Drive
4. South Project Driveway / East Palm Canyon Drive
5. Monty Hall Drive / East Palm Canyon Drive
6. Buddy Rogers Avenue / East Palm Canyon Drive
7. Cathedral Canyon Drive / East Palm Canyon Drive
8. Perez Road / East Palm Canyon Drive
9. Canyon Plaza Drive / East Palm Canyon Drive
10. Monty Hall Drive / Buddy Rogers Avenue
11. Cathedral Canyon Drive / Officer David Vasquez Road
12. Cathedral Canyon Drive / Perez Road
13. Cathedral Canyon Drive / Paseo Real
14. Cathedral Canyon Drive / Dinah Shore Drive
15. Date Palm Drive / Gerald Ford Drive
16. Date Palm Drive / Dinah Shore Drive
17. East Palm Canyon Drive / Frank Sinatra Drive
18. East Palm Canyon Drive / Mirage Cove Drive

Alternative B Intersections

1. North Project Driveway 1 / Buddy Rogers Avenue
2. Date Palm Drive / Buddy Rogers Avenue
3. Date Palm Drive / East Palm Canyon Drive
4. South Project Driveway / East Palm Canyon Drive
5. Monty Hall Drive / East Palm Canyon Drive
6. North Project Driveway 2 / Buddy Rogers Avenue
7. Monty Hall Drive / Buddy Rogers Avenue
8. Buddy Rogers Avenue / East Palm Canyon Drive
9. Cathedral Canyon Drive / East Palm Canyon Drive
10. Perez Road / East Palm Canyon Drive
11. Canyon Plaza Drive / East Palm Canyon Drive
12. Cathedral Canyon Drive / Officer David Vasquez Road
13. Cathedral Canyon Drive / Perez Road
14. Cathedral Canyon Drive / Paseo Real
15. Cathedral Canyon Drive / Dinah Shore Drive
16. Date Palm Drive / Gerald Ford Drive
17. Date Palm Drive / Dinah Shore Drive
18. East Palm Canyon Drive / Frank Sinatra Drive
19. East Palm Canyon Drive / Mirage Cove Drive

Alternative C Intersections

1. North Project Driveway 1 / Buddy Rogers Avenue
2. Date Palm Drive / Buddy Rogers Avenue
3. Date Palm Drive / East Palm Canyon Drive
4. South Project Driveway / East Palm Canyon Drive
5. Monty Hall Drive / East Palm Canyon Drive
6. East Project Driveway / Date Palm Drive
7. North Project Driveway 2 / Buddy Rogers Avenue
8. Monty Hall Drive / Buddy Rogers Avenue
9. Buddy Rogers Avenue / East Palm Canyon Drive
10. Cathedral Canyon Drive / East Palm Canyon Drive
11. Perez Road / East Palm Canyon Drive
12. Canyon Plaza Drive / East Palm Canyon Drive
13. Golf Club Drive / East Palm Canyon Drive
14. Cathedral Canyon Drive / Officer David Vasquez Road
15. Cathedral Canyon Drive / Perez Road
16. Cathedral Canyon Drive / Paseo Real
17. Cathedral Canyon Drive / Dinah Shore Drive
18. Date Palm Drive / Gerald Ford Drive
19. Date Palm Drive / Dinah Shore Drive
20. Date Palm Drive / Ramon Road
21. Dinah Shore Drive / Da Vall Drive
22. Gerald Ford Drive / Da Vall Drive
23. East Palm Canyon Drive / Frank Sinatra Drive
24. East Palm Canyon Drive / Mirage Cove Drive
25. East Palm Canyon Drive / County Club Drive
26. Morningside Drive / Frank Sinatra Drive

Alternative D Intersections

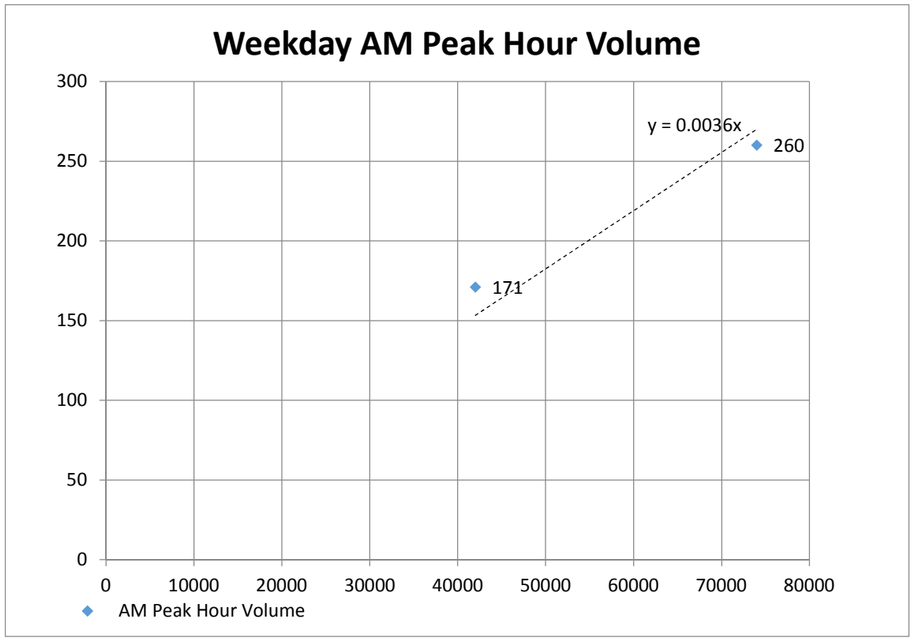
1. North Project Driveway / East Palm Canyon Drive
2. South Project Driveway / D Street
3. Date Palm Drive / East Palm Canyon Drive
4. Van Fleet Street / West Project Driveway
5. Van Fleet Street / East Palm Canyon Drive
6. Van Fleet Street / D Street
7. Buddy Rogers Avenue / East Palm Canyon Drive
8. Cathedral Canyon Drive / East Palm Canyon Drive
9. Perez Road / East Palm Canyon Drive
10. Canyon Plaza Drive / East Palm Canyon Drive
11. Cathedral Canyon Drive / Officer David Vasquez Road
12. Cathedral Canyon Drive / Perez Road
13. Cathedral Canyon Drive / Paseo Real
14. Cathedral Canyon Drive / Dinah Shore Drive
15. Date Palm Drive / Gerald Ford Drive
16. Date Palm Drive / Dinah Shore Drive
17. East Palm Canyon Drive / Frank Sinatra Drive
18. East Palm Canyon Drive / Mirage Cove Drive

List of Intersections for Counts

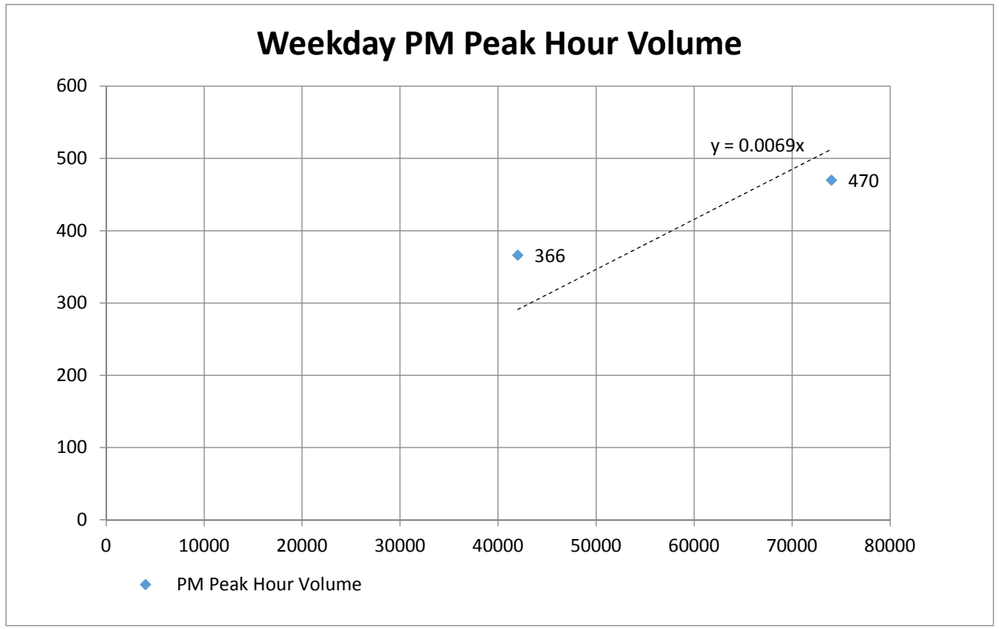
1. Date Palm Drive / Buddy Rogers Avenue
2. Date Palm Drive / East Palm Canyon Drive
3. Allen Avenue / East Palm Canyon Drive
4. Monty Hall Drive / East Palm Canyon Drive
5. Buddy Rogers Avenue / East Palm Canyon Drive
6. Cathedral Canyon Drive / East Palm Canyon Drive
7. Perez Road / East Palm Canyon Drive
8. Canyon Plaza Drive / East Palm Canyon Drive
9. Golf Club Drive / East Palm Canyon Drive
10. Cathedral Canyon Drive / Perez Road
11. Cathedral Canyon Drive / Paseo Real
12. Cathedral Canyon Drive / Dinah Shore Drive
13. Date Palm Drive / Gerald Ford Drive
14. Date Palm Drive / Dinah Shore Drive
15. Date Palm Drive / Ramon Road
16. Da Vall Drive / Dinah Shore Drive
17. Da Vall Drive / Gerald Ford Drive
18. East Palm Canyon Drive / Frank Sinatra Drive
19. Frank Sinatra Drive / Morningside Drive
20. East Palm Canyon Drive / Mirage Cove Drive
21. East Palm Canyon Drive / County Club Drive
22. Van Fleet Street / B Street
23. Van Fleet Street / D Street
24. Monty Hall Drive / Buddy Rogers Avenue
25. Cathedral Canyon Drive / Officer David Vasquez Road

List of Roadways for Counts

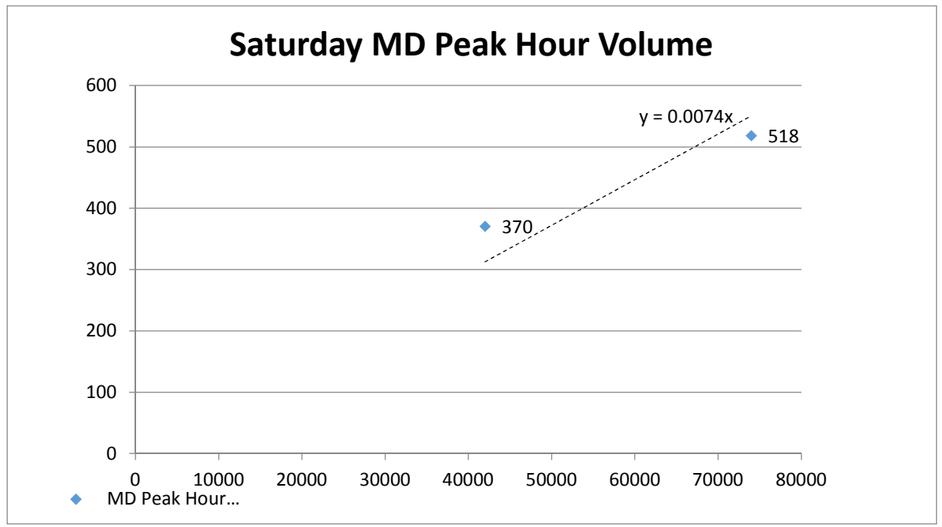
1. East Palm Canyon between Golf Club Drive and Canyon Plaza Drive
2. East Palm Canyon between Canyon Plaza Drive and Perez Road
3. East Palm Canyon between Perez Road and Cathedral Canyon Drive
4. East Palm Canyon between Cathedral Canyon Drive and Date Palm Drive
5. East Palm Canyon between Date Palm Drive and Frank Sinatra Drive
6. East Palm Canyon between Frank Sinatra Drive and Country Club Drive
7. Cathedral Canyon Drive between East Palm Canyon Drive and Perez Road
8. Cathedral Canyon Drive between Perez Road and Dinah Shore Drive
9. Date Palm Drive between East Palm Canyon Drive and Gerald Ford Drive
10. Date Palm Drive between Gerald Ford Drive and Dinah Shore Drive



Average Rate **3.72 Per 1000 sf**
Directional Distribution **65% In**
35% Out



Average Rate **7.21 Per 1000 sf**
Directional Distribution **43% In**
57% Out



Average Rate **7.66 Per 1000 sf**
Directional Distribution **56% In**
44% Out

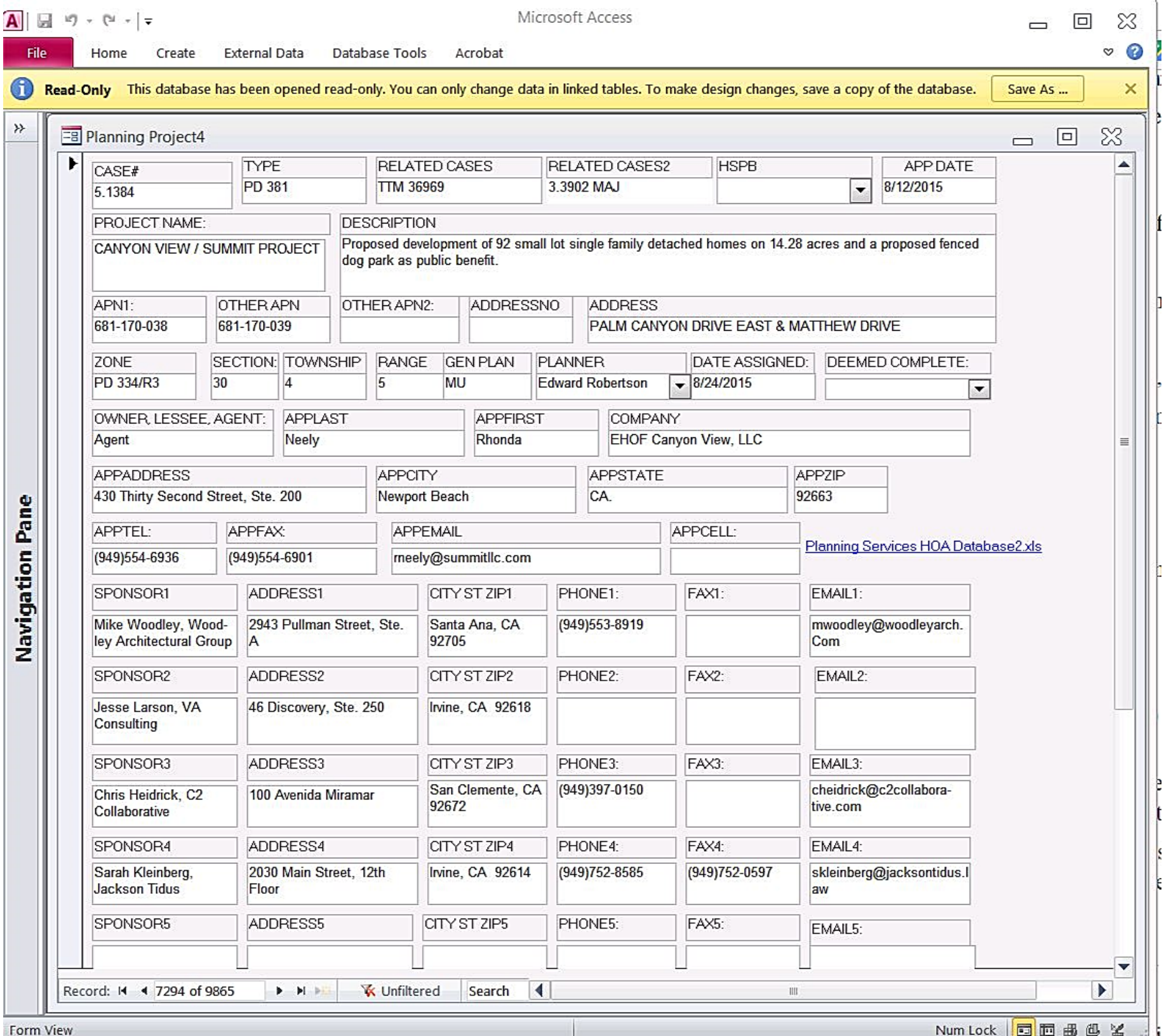
Casino Trip Generation Rates									
Casino Name	Gaming Area	Unit	AM Peak Hour			PM Peak Hour			Daily
			Total	In	Out	Total	In	Out	
Soboba Casino	74	TSF	3.51	1.96	1.55	6.35	2.24	4.11	
Augustine Casino	42	TSF	4.07	3.17	0.90	8.71	4.64	4.07	
AVERAGE			3.72	2.40	1.32	7.21	3.11	4.10	

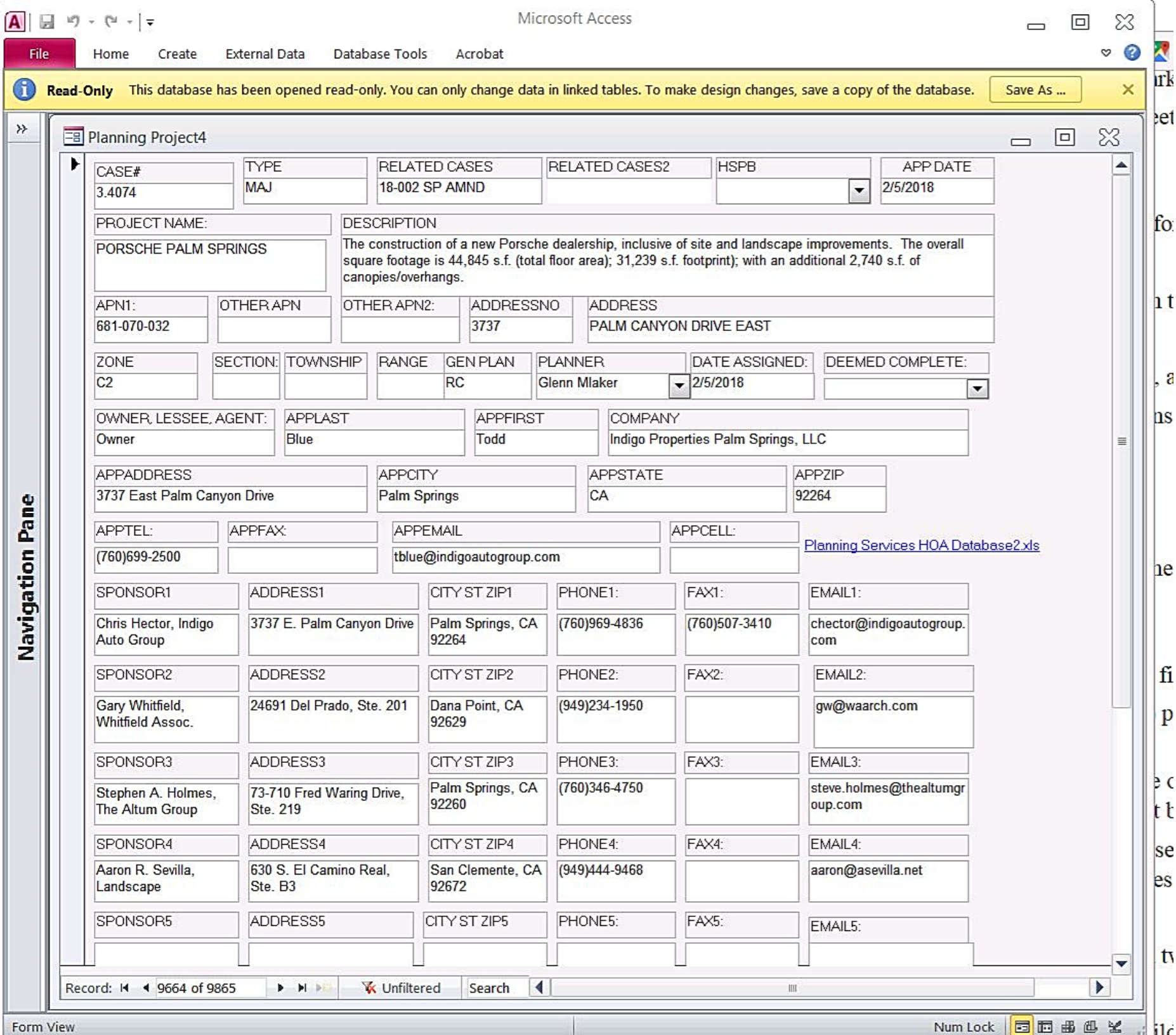
Casino Trip Generation Rates									
Casino Name	Gaming Area	Unit	Saturday MD Peak Hour						
			Total	In	Out				
Soboba Casino	74	TSF	7	4.37	2.63				
Augustine Casino	42	TSF	8.81	4.07	4.74				
AVERAGE			7.66	4.26	3.40				

Cumulative Projects Information

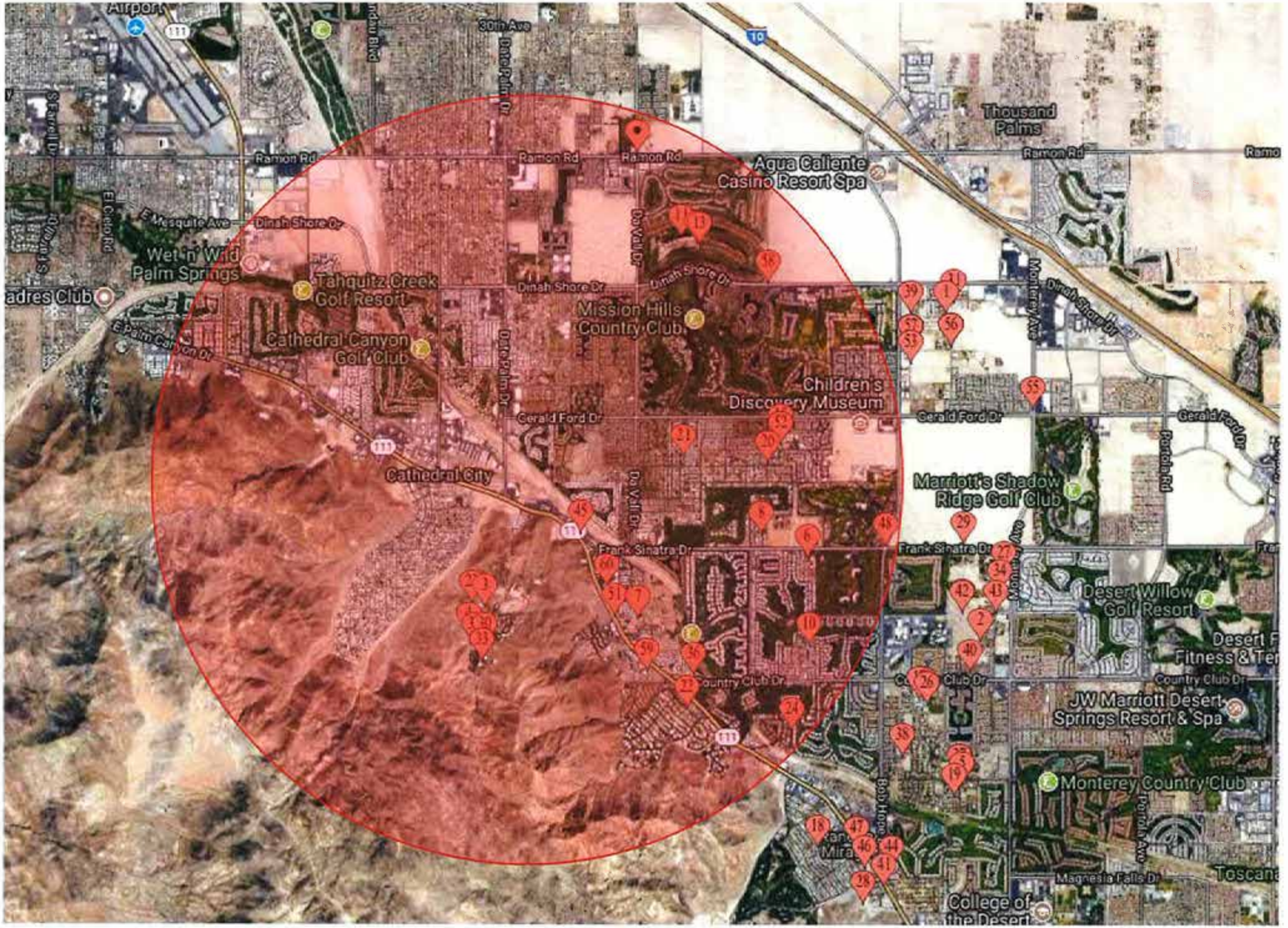
APPENDIX B

City of Palm Springs


Microsoft Access
File
Home
Create
External Data
Database Tools
Acrobat
Read-Only This database has been opened read-only. You can only change data in linked tables. To make design changes, save a copy of the database.
Save As ...
Navigation Pane
Planning Project4
CASE# 5.1384
TYPE PD 381
RELATED CASES TTM 36969
RELATED CASES2 3.3902 MAJ
HSPB
APP DATE 8/12/2015
PROJECT NAME: CANYON VIEW / SUMMIT PROJECT
DESCRIPTION Proposed development of 92 small lot single family detached homes on 14.28 acres and a proposed fenced dog park as public benefit.
APN1: 681-170-038
OTHER APN 681-170-039
OTHER APN2:
ADDRESSNO
ADDRESS PALM CANYON DRIVE EAST & MATTHEW DRIVE
ZONE PD 334/R3
SECTION: 30
TOWNSHIP 4
RANGE 5
GEN PLAN MU
PLANNER Edward Robertson
DATE ASSIGNED: 8/24/2015
DEEMED COMPLETE:
OWNER, LESSEE, AGENT: Agent
APPLAST Neely
APPFIRST Rhonda
COMPANY EHOF Canyon View, LLC
APPADDRESS 430 Thirty Second Street, Ste. 200
APPCITY Newport Beach
APPSTATE CA.
APPZIP 92663
APPTEL: (949)554-6936
APPFAX: (949)554-6901
APPEMAIL rneely@summitllc.com
APPCELL:
Planning Services HOA Database2.xls
SPONSOR1 Mike Woodley, Woodley Architectural Group
ADDRESS1 2943 Pullman Street, Ste. A
CITY ST ZIP1 Santa Ana, CA 92705
PHONE1: (949)553-8919
FAX1:
EMAIL1: mwoodley@woodleyarch.Com
SPONSOR2 Jesse Larson, VA Consulting
ADDRESS2 46 Discovery, Ste. 250
CITY ST ZIP2 Irvine, CA 92618
PHONE2:
FAX2:
EMAIL2:
SPONSOR3 Chris Heidrick, C2 Collaborative
ADDRESS3 100 Avenida Miramar
CITY ST ZIP3 San Clemente, CA 92672
PHONE3: (949)397-0150
FAX3:
EMAIL3: cheidrick@c2collaborative.com
SPONSOR4 Sarah Kleinberg, Jackson Tidus
ADDRESS4 2030 Main Street, 12th Floor
CITY ST ZIP4 Irvine, CA 92614
PHONE4: (949)752-8585
FAX4: (949)752-0597
EMAIL4: skleinberg@jacksontidus.law
SPONSOR5
ADDRESS5
CITY ST ZIP5
PHONE5:
FAX5:
EMAIL5:
Record: 7294 of 9865
Unfiltered
Search
Form View
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Microsoft Access
File
Home
Create
External Data
Database Tools
Acrobat
Read-Only This database has been opened read-only. You can only change data in linked tables. To make design changes, save a copy of the database.
Save As ...
Navigation Pane
Planning Project4
CASE# 3.4074
TYPE MAJ
RELATED CASES 18-002 SP AMND
RELATED CASES2
HSPB
APP DATE 2/5/2018
PROJECT NAME: PORSCHE PALM SPRINGS
DESCRIPTION The construction of a new Porsche dealership, inclusive of site and landscape improvements. The overall square footage is 44,845 s.f. (total floor area); 31,239 s.f. footprint); with an additional 2,740 s.f. of canopies/overhangs.
APN1: 681-070-032
OTHER APN
OTHER APN2:
ADDRESSNO 3737
ADDRESS PALM CANYON DRIVE EAST
ZONE C2
SECTION:
TOWNSHIP
RANGE
GEN PLAN RC
PLANNER Glenn Mlaker
DATE ASSIGNED: 2/5/2018
DEEMED COMPLETE:
OWNER, LESSEE, AGENT: Owner
APPLAST Blue
APPFIRST Todd
COMPANY Indigo Properties Palm Springs, LLC
APPADDRESS 3737 East Palm Canyon Drive
APPCITY Palm Springs
APPSTATE CA
APPZIP 92264
APPTEL: (760)699-2500
APPFAX:
APPEMAIL tblue@indigoautogroup.com
APPCELL:
Planning Services HOA Database2.xls
SPONSOR1 Chris Hector, Indigo Auto Group
ADDRESS1 3737 E. Palm Canyon Drive
CITY ST ZIP1 Palm Springs, CA 92264
PHONE1: (760)969-4836
FAX1: (760)507-3410
EMAIL1: chector@indigoautogroup.com
SPONSOR2 Gary Whitfield, Whitfield Assoc.
ADDRESS2 24691 Del Prado, Ste. 201
CITY ST ZIP2 Dana Point, CA 92629
PHONE2: (949)234-1950
FAX2:
EMAIL2: gw@waarch.com
SPONSOR3 Stephen A. Holmes, The Altum Group
ADDRESS3 73-710 Fred Waring Drive, Ste. 219
CITY ST ZIP3 Palm Springs, CA 92260
PHONE3: (760)346-4750
FAX3:
EMAIL3: steve.holmes@thealtumgroup.com
SPONSOR4 Aaron R. Sevilla, Landscape
ADDRESS4 630 S. El Camino Real, Ste. B3
CITY ST ZIP4 San Clemente, CA 92672
PHONE4: (949)444-9468
FAX4:
EMAIL4: aaron@asevilla.net
SPONSOR5
ADDRESS5
CITY ST ZIP5
PHONE5:
FAX5:
EMAIL5:
Record: 9664 of 9865
Unfiltered
Search
Form View
Num Lock

Rancho Mirage


Airport
30th Ave
Date Palm Dr
10
Thousand Palms
Ramon Rd
Agua Caliente Casino Resort Spa
E Mesquite Ave
Dinah Shore Dr
Wet 'n' Wild Palm Springs
Tahquitz Creek Golf Resort
adres Club
E Palm Canyon Dr
Cathedral Canyon Golf Club
Mission Hills Country Club
Monterey Ave
Children's Discovery Museum
Gerald Ford Dr
Portola Rd
Cathedral City
Marriott's Shadow Ridge Golf Club
Frank Sinatra Dr
Desert Willow Golf Resort
Country Club Dr
JW Marriott Desert Springs Resort & Spa
Monterey Country Club
Bob Hope
Magnesia Falls Dr
College of the Desert

ADDRESS	CASE #	MAP REFERENCE NUMBER
72150 Victory Lane, Rancho Mirage, CA 92270	SFP18006	1
3 Serrano Way, Rancho Mirage, CA 92270	SFP18005	2
2 Sierra Vista Drive, Rancho Mirage	SFP18004	3
32 Granite Ridge Rd., Rancho Mirage	SFP18003	4
41560 Rancho Manana Ln, Rancho mirage	SFP18002	5
8 Villaggio Place, Rancho Mirage	SFP18001	6
70153 Mirage Cove Dr., Rancho Mirage	SFP17019	7
26 Sun Ridge Cr., Rancho Mirage	SFP17018	8
2 Makena Ln, Rancho Mirage	SFP17017	9
39520 Desert Sun Rd., Rancho Mirage	SFP17016	10
82 Royal St. Georges Way, Rancho Mirage	SFP17015	11
1 Sterling Ridge Drive, Rancho Mirage	SFP17014	12
95 Royal St. Georges Way , Rancho Mirage	SFP17013	13
93 Royals St. Georges Way, Rancho Mirage	SFP17012	14
7 Sterling Ridge Dr. , Rancho Mirage	SFP17011	15
46 Sky Ridge Road, Rancho Mirage	SFP17010	16
8 Makena Lane, Rancho Mirage	SFP17008	17
71525 Tangier Road, Rancho Mirage	SFP17007	18
72591 Betty Lane, Rancho Mirage	SFP17006	19
71001 Sunny Lane, Rancho Mirage	SFP17005	20
10 Sterling Ridge, Rancho Mirage	SFP17004	21
70553 Boothill Road, Rancho Mirage	SFP17003	22
14 Valley Vista Drive, Rancho Mirage	SFP17002	23
East Thunderbird Terrace, Rancho Mirage	SFP17001	24
Vista Del Sol, Rancho Mirage	SFP16014 TPM37222	25
6 Makena, Rancho Mirage	SFP16012	26
38500 Vista Dunes Road, Rancho Mirage	SFP16009.SFP16608, SFP06007	27
71911 Desert Drive, Rancho Mirage	SFP17006	28
Frank Sinatra and Vista Del Sol, Rancho Mirage	SFP16005	29
51 Falcon Point, Rancho Mirage	SFP16004	30
72-405 Via Vail, Rancho Mirage	SFP16003 TPM37218	31
35 Eagle View Ct., Rancho Mirage	SFP15006	32
46 Sky Ridge Road, Rancho Mirage	SFP15003	33
72777 Avignon Court, Rancho Mirage	SFP14010	34
Ginger Rogers and Landy Lane, Rancho Mirage	PDP18003	35
70600 Country Club Drive, Rancho Mirage	MOD16019	36
72860 Clancy Lane, Rancho Mirage	PDP13003	37
72185-72169 Via L' Antico, Rancho Mirage	PDP03015 MOD05016	38
Se Corner Of Landy & Victory Drive, Rancho Mirage	TTM36530 PDP13001 FDP13003	39
East of Vista Del Sol & North, Rancho Mirage	TPM32649	40
72091 HIGHWAY 111, Rancho Mirage	TPM35479	41
39605 Vista Del SoL, Rancho Mirage	TPM36683	42
S Vista Dunes Road, Rancho Mirage	TPM36849	43
685110011	TTM37703 PDP17002	55
685080041	TTM36621	49
685110004	TTM36620	50
685100006	TTM36622	50
674370043	TTM32308	52
685100008	TTM35498	53
685080004	TTM35619	54
689151070	PDP18001 TTM35573	51
685080013	TTM05004	56
685100004	TTM35089	57
42452 Bob Hope Drive, Rancho Mirage	CUP14006	44
Highway 111 & One Mirage PlacE, Rancho Mirage	PDP16003	45
689202032	PDP16002	59
71-842 Sahara Road, Rancho Mirage	PDP16001	46
71861 Highway 111, Rancho Mirage	PDP15002	47
Frank Sinatra & Bob Hope Dr, Rancho Mirage	MOD15008	48
689030006	PDP14007 TPM36885	60
673320009	PDP07012 TPM21761	61
Pulte Del Webb	PDP17001 TTM36809	58

CITY OF RANCHO MIRAGE ©

DEVELOPMENT ACTIVITY SUMMARY

April 4, 2018

Development Service Department
69-825 Highway 111, Rancho Mirage, CA 92270-2898
Telephone (760) 328-2266/Fax (760) 324-9851
This document is available on our website: www.RanchoMirageCa.gov

CUP – Conditional Use Permit MOD - Modification PDP - Preliminary Development Plan SFP - Single Family Permit SPA - Specific Plan Amendment TPM - Tentative Parcel Map TTM - Tentative Tract Map ZTA – Zone Text Amendment	CITY OF RANCHO MIRAGE DEVELOPMENT ACTIVITY SUMMARY April 4, 2018	UR - Under Review A - Approved UC - Under Construction PC - Bldg. PC F - Finaled

	PROJECT	CASE NO	DESCRIPTION AND LOCATION Address & APN #	DEVELOPER	STATUS
INDIVIDUAL SINGLE FAMILY RESIDENCES					
1.	Single Family Permit	SFP18006	A Single Family Permit for 4,272 sq.ft. single family residence with a 1,794 garage. APN#685-060-018 72150 Victory Dr.	DENLAR LLC 72287 Desert Dr. Rancho Mirage, CA 92270 760-275-2797	UR
2.	Single Family Permit	SFP18005	A Single Family Permit for a single family residence of a 7289 sq. ft. with a 1945 sq. ft. garage and 1,147 guest house. APN# 685-290-003 3 Serrano Way	Prest Vuksic Architects 44530 San Pablo Ave, Suite 200 Palm Desert, CA 92260 760-779-5393	UR
3.	Single Family Permit	SFP18004	A Single Family Permit for a single family residence of a 5,633 sq. ft. with 582 sq. ft. garage and 1,024 guest house. APN#686-270-030 2 Sierra Vista Dr.	Manhattan West Special Opportunities Fund 1230 Rosecrans Ave. #540 Manhattan Beach, CA 90266 Phone: 310-341-4585	UR
4.	Single Family Permit	SFP18003	A Single Family Permit for a single family residence of a 4,582 sq. ft. with 1,315 garage and 1,141 sq. ft. guest house. APN#686-530-059 32 Granite Ridge Rd.	Manhattan West Special Opportunities Fund 1230 Rosecrans Ave. #540 Manhattan Beach, CA 90266 Phone: 310-341-4585	UR
5.	Single Family Permit	SFP18002	A Single Family Permit for a single family residence of 3,652 sq. ft. with a 590 sq. ft. garage. APN#682-270-004 41560 Rancho Manana Ln	Chris McFadden 75-145 St. Charles Place, Ste 4 Palm Desert, CA 92211 Phone: 760-346-8014	UR
6.	Single Family Permit	SFP18001	A Single Family Permit for a single family residence of 3,388 sq. ft. with a 933 sq. ft. garage. APN#688-340-021 8 Villaggio Place	James McEachern 970 E Sierra Way Palm Springs, CA 92264 Phone: 760-322-7412	UR

CUP – Conditional Use Permit MOD - Modification PDP - Preliminary Development Plan SFP - Single Family Permit SPA - Specific Plan Amendment TPM - Tentative Parcel Map TTM - Tentative Tract Map ZTA – Zone Text Amendment	CITY OF RANCHO MIRAGE DEVELOPMENT ACTIVITY SUMMARY April 4, 2018	UR - Under Review A - Approved UC - Under Construction PC - Bldg. PC F - Finaled

	PROJECT	CASE NO	DESCRIPTION AND LOCATION Address & APN #	DEVELOPER	STATUS
7.	Single Family Permit	SFP17019	A Single Family Permit for a single family residence of a 3,444 sq. ft. with a 966 sq. ft. and 300 sq. ft. pool house. APN#689-400-016 70153 Mirage Cove Dr.	Fred & Francesca Rice 13 Vista Mirage Way Rancho Mirage, CA 92270 Phone: 805-896-9608	PC
8.	Single Family Permit	SFP17018	A Single Family Permit for a single family residence of a 4,772 sq.f.t with 670 sq. ft. garage. APN#674-352-017 26 Sun Ridge Cr.	Jakway Thomas P.O. Box 1565 Palm Springs, CA(2260 Phone: 760-322-0340	A
9.	Single Family Permit	SFP17017	A Single Family Permit for a single family residence of a 4,886 sq. ft. with 711 sq. ft. garage and 507 sq. ft. guest house. APN#682-031-002 2 Makena Ln	James McEachern 970 E Sierra Way Palm Springs, CA 92264 Phone: 760-322-7412	PC
10.	Single Family Permit	SFP17016	A Single Family Permit for a single family residence of a 3,093 sq. ft. with a 436 sq. ft. garage. APN#688-242-034 39520 Desert Sun Rd.	Alicia Davis 13021 NE 32nd Place Bellevue, WA Phone 425-785-1116	PC
11.	Single Family Permit	SFP17015	A Single Family Permit for a single family residence of a 5,572 sq. ft. with a 896 sq. ft. garage. APN#673-790-009 82 Royal St. Georges Way	Norik Barakezyan 213 S. Kenwood St. Glendale, CA 91205	A
12.	Single Family Permit	SFP17014	A Single Family Permit for a 5,426 sq. ft. with 1,206 sq. ft. garage. APN#674-370-064 1 Sterling Ridge Drive	The Foxx Company 73820 Buckboard Trail, Unit B Palm Desert, CA 92260 Phone: 760-63604182	PC

CUP – Conditional Use Permit MOD - Modification PDP - Preliminary Development Plan SFP - Single Family Permit SPA - Specific Plan Amendment TPM - Tentative Parcel Map TTM - Tentative Tract Map ZTA – Zone Text Amendment	CITY OF RANCHO MIRAGE DEVELOPMENT ACTIVITY SUMMARY April 4, 2018	UR - Under Review A - Approved UC - Under Construction PC - Bldg. PC F - Finaled

	PROJECT	CASE NO	DESCRIPTION AND LOCATION Address & APN #	DEVELOPER	STATUS
13.	Single Family Permit	SFP17013	A Single Family Permit for a single family residence of 3,654 sq. ft., with 935 sq. ft. garage and 464 sq. ft. guest house. APN#673-790-027 95 Royal St. Georges Way	MLB Ventures, LLC 17171 Vista Chino #A7-253 Palm Springs, CA 92261 Phone: 425-241-1183	PC
14.	Single Family Permit	SFP17012	A Single Family Permit for a single family residence of 4,760 sq. ft., with 1,065 sq. ft. garage and 560 sq. ft. guest house. APN#673-790-015 93 Royals St. Georges Way	MLB Ventures, LLC 17171 Vista Chino #A7-253 Palm Springs, CA 92261 Phone: 425-241-1183	PC
15.	Single Family Permit	SFP17011	A Single Family Permit for a single family residence of 5,450 sq. ft. and 913 sq. ft. garage. APN#674-370-069 7 Sterling Ridge Dr.	Sterling Ridge LLC 72248 North Shore St. Ste. 103 Thousand Palms, CA 92234 Phone: 208-818-8620	UC
16.	Single Family Permit	SFP17010	A Single Family Permit for a single family residence of 4,011 sq. ft. with 820 sq. ft. garage and 1,278 square foot detached guest house. APN#686-530-028-6 46 Sky Ridge Road	Robert & Anne Drickey 6634 Burt St. Omaha, NE 68132 Phone: 402-598-7200	A
17.	Single Family Permit	SFP17008	A Single Family Permit for a single family residence of 4,702 sq. ft. with 618 sq. ft. garage and a 511 sq. ft. guesthouse within the Makena Development. APN#682-031-009 8 Makena Lane	James M. McEachern 970 E Sierra Way Palm Springs, CA 92264 760-322-7412	A
18.	Single Family Permit	SFP17007	A Single Family Permit for a single family residence of 3,234 sq. ft. 55 sq. ft. garage on 12,632 sq. ft. lot. APN@684-332-005 71-525 Tangier Road	Santucci Builders, Inc. 72529 Beavertrail St. Palm Desert, CA 92260 760-578-7757	A

CUP – Conditional Use Permit MOD - Modification PDP - Preliminary Development Plan SFP - Single Family Permit SPA - Specific Plan Amendment TPM - Tentative Parcel Map TTM - Tentative Tract Map ZTA – Zone Text Amendment	CITY OF RANCHO MIRAGE DEVELOPMENT ACTIVITY SUMMARY April 4, 2018	UR - Under Review A - Approved UC - Under Construction PC - Bldg. PC F - Finaled

	PROJECT	CASE NO	DESCRIPTION AND LOCATION Address & APN #	DEVELOPER	STATUS
19.	Single Family Permit	SFP17006	A Single Family Permit for a single family residence for new custom home of 2,122 livable sq. ft. and 420 sq. ft. garage APN#618-150-026 72591 Betty Lane	Anthony Marino 72591 Betty Lane Rancho Mirage, CA 92270 949-933-5757	A
20.	Single Family Permit	SFP17005	A Single Family Permit for a single family residence of 2,784 sq. ft. with 611 sq. ft. garage. APN#674-391-001 71-001 Sunny Lane	Lance O'Donnell 1089 N. Palm Canyon Rd. Palm Springs, CA 92262	A
21.	Single Family Permit	SFP17004	A Single Family Permit for a single family residence of 4,147 sq. ft. livable, 861 sq. ft. garage on 0.5 acre. APN#674-370-077 10 Sterling Ridge	Sterling Ridge LLC 72248 North Shore St. Ste. 103 Thousand Palms, CA 92234 208-818-8620	UC
22.	Single Family Permit	SFP17003	A Single Family Permit for a single family residence of 4,161 sq. ft. with a 682 garage. APN#690-152-001 70553 Boothill Road	The Linda Oshay Irrevocable Trust P.O. BOX 1874 Claremont, CA 91711 909-241-9593	A
23.	Single Family Permit	SFP17002	A Single Family Permit for a single family residence with a 2 story residence. Total home is 4,330 sq. ft. with a 714 sq. ft. garage. APN#686-270-020 14 Valley Vista Drive	Randal & Cynthia Moore 1262 Kettner Blvd.$1703 San Diego, CA 92101	A
24.	Single Family Permit	SFP17001	A Single Family Permit for a single family residence of 4,240 sq. ft. livable, 1,042 sq. ft. non-livable for a total of 5,282 sq. ft. on a 17,400 sq. ft. lot. Lot #48 E Thunderbird Terrace APN# 684-083-015	Richard Moreno La Quinta Design Box 385 La Quinta CA 92247 760-702-2855	A

CUP – Conditional Use Permit MOD - Modification PDP - Preliminary Development Plan SFP - Single Family Permit SPA - Specific Plan Amendment TPM - Tentative Parcel Map TTM - Tentative Tract Map ZTA – Zone Text Amendment	CITY OF RANCHO MIRAGE DEVELOPMENT ACTIVITY SUMMARY April 4, 2018	UR - Under Review A - Approved UC - Under Construction PC - Bldg. PC F - Finaled

	PROJECT	CASE NO	DESCRIPTION AND LOCATION Address & APN #	DEVELOPER	STATUS
25.	Single Family Permit	SFP16014 TPM37222	A Tentative Parcel Map to subdivide 5.05 acres into four 1 acre lots for custom homes. A Single Family Permit for a 5,267 sq. ft. residence with an attached three-car garage (838 sq. ft.) APN# 685-260-004 Vista Del Sol	RM Five -1 LLC c/o Edie Kilani 71947 Desert Dr. Rancho Mirage, CA 92270 312.860-8334	A
26.	Single Family Permit	SFP16012	A Single Family Permit for a 5,267 sq. ft. residence with an attached three-car garage (838 sq. ft.) APN# 682-031-006 6 Makena	James Mc Eachern 970 E. Sierra Way Palm Springs, CA 92264 760-322-7412	UC
27.	Single Family Permit	SFP16009	A Single Family Permit for a single family residence of 6,754 sq. ft. livable, 926 sq. ft. non-livable, 796 guest house and a 468 sq. ft. accessory structure for a total of 8,944 sq. ft. on a 186,872 sq. ft. lot. APN# 685-240-026 38-500 Vista Dunes Road	Narendra Patel 71711 San Jacinto Drive Rancho Mirage, CA 92270 760-776-5031 X1 760-423-0310 FAX	PC
28.	Single Family Permit	SFP16008	A Single Family Permit for a single family residence of 14,028 sq. ft. livable, 1,857 sq. ft. non-livable and a 886 sq. ft. accessory structure for a total of 16,771 sq. ft. on a 186,872 sq. ft. lot. APN# 685-240-026 38-500 Vista Dunes Road	Narendra Patel 71711 San Jacinto Drive Rancho Mirage, CA 92270 760-776-5031 X1 760-423-0310 FAX	PC
29.	Single Family Permit	SFP16007 TPM37182	A Single Family Permit for a single family residence of 10,256 sq. ft. livable, 1,188 sq. ft. non-livable, guest house of 734 sq. ft. and a 1333 sq. ft. accessory structure for a total of 13,511 sq. ft. on a 186,872 sq. ft. lot. APN# 685-240-026 38-500 Vista Dunes Road	Narendra Patel 71711 San Jacinto Drive Rancho Mirage, CA 92270 760-776-5031 X1 760-423-0310 FAX	PC

CUP – Conditional Use Permit MOD - Modification PDP - Preliminary Development Plan SFP - Single Family Permit SPA - Specific Plan Amendment TPM - Tentative Parcel Map TTM - Tentative Tract Map ZTA – Zone Text Amendment	CITY OF RANCHO MIRAGE DEVELOPMENT ACTIVITY SUMMARY April 4, 2018	UR - Under Review A - Approved UC - Under Construction PC - Bldg. PC F - Finaled

	PROJECT	CASE NO	DESCRIPTION AND LOCATION Address & APN #	DEVELOPER	STATUS
30.	Single Family Permit	SFP16006	A Single Family Permit for a single family residence of 4,326 sq. ft. livable, 1,176 sq. ft. non-livable and 1,440 sq. ft. shop for a total of 6,962 sq. ft. on a 92,809 sq. ft. lot. APN# 684-470-008/009 71-911 Desert Drive	Scott Kincaid 72-435 Morningstar Road Rancho Mirage, CA 92270 760-668-7007	UC
31.	Single Family Permit	SFP16005	A Single Family Permit for a single family residence of 5,746 sq. ft. livable, 1,433 sq. ft. non-livable, with a 400 sq. ft. accessory structure for a total of 7,579 sq. ft. on a 43,342 sq. ft. lot. APN# 685-240-014 Frank Sinatra and Vista Del Sol	Bartosz Makas 75713 Duval Court Palm Desert, CA 92211 760-673-9911 760-641-2265 fax	A
32.	Single Family Permit	SFP16004	A Single Family Permit for a single family residence with a loft, of 7,340 sq. ft. livable, 730 sq. ft. non-livable, with a 1,485 guest house and a 2,585 sq. ft. accessory structure for a total of 12,148 sq. ft. on a 77,972 sq. ft. lot. APN# 686-530-033, 034 51 Falcon Point	JMA Architecture Inc / James McIntosh Box 778 Palm Desert, CA 92261	UC
33.	Single Family Permit	SFP16003 TPM37218	A Single Family Permit for a single family residence of 4,031 sq. ft. livable, 1,006 sq. ft. non-livable for a total of 5,037 sq. ft. on an approximately 32,298 sq. ft. lot. APN# 685-030-004 72-405 Via Vail	George Mouro 4 Calle Del Norte Rancho Mirage, CA 92270 951-529-5454	PC
34.	Single Family Permit	SFP15006	A Single Family Permit for a single family residence 5,577 sf livable and 1916 sf non-livable on a 31,519 sf lot. 35 Eagle View Ct. APN# 686-500-017	Brett Carlton Barnes Coy architects 1936 Montauk Hwy Bridgehamption NY 119321 631-537-3555	UC

CUP – Conditional Use Permit MOD - Modification PDP - Preliminary Development Plan SFP - Single Family Permit SPA - Specific Plan Amendment TPM - Tentative Parcel Map TTM - Tentative Tract Map ZTA – Zone Text Amendment	CITY OF RANCHO MIRAGE DEVELOPMENT ACTIVITY SUMMARY April 4, 2018	UR - Under Review A - Approved UC - Under Construction PC - Bldg. PC F - Finaled

	PROJECT	CASE NO	DESCRIPTION AND LOCATION Address & APN #	DEVELOPER	STATUS
35.	Single Family Permit	SFP15003	A Single Family Permit to construct a new Single Family Residence 5,321 sq. ft. livable and 1,044 sq. ft. non-livable for a total of 6,365 sq. ft. on a 28,438 sq. ft. lot. 46 Sky Ridge Road 686 530 028	David Prest Prest Vuksic Architects 44-530 San Pablo Ave Ste 200 Palm Desert, CA 90060 760.779-5393 760-779-5395 fax	UC
36.	Single Family Permit	SFP14013	A Single Family Permit to construct a new Single Family Residence 5,222 sq. ft. livable and 855 sq. ft. non-livable for a total of 6,077 sq. ft. Via Vail 685-050-054	Wendell Veith Box 1950 Palm Springs, CA 92263 760-953-4556 760-200-2600 fax	UC
37.	Single Family Permit	SFP14010	A Single Family Permit to construct a new Single Family Residence 10,541 sq. ft. livable, 500 sq. ft. non-livable with a 1015 sq. ft. guest house for a total of 12,056 sq. ft. on a 1.16 acre lot. 72-777 Avignon Court 685-260-048 - 050	Leonid Minkovski 1901 Pontius Ave Los Angeles, CA 90025 310.478-1470 310.237-5968 fax	PC
38.	Single Family Permit	SFP13015	A Single Family Permit to construct a new Single Family Residence 5,767 sq. ft. livable, 1615 sq. ft. car garage, 1,634 sq. ft. guest house and 1,362 sq. ft. accessory structure on a 46,695 sq. ft. lot. 63 Hillcrest Drive APN# 686-530-045	Dave Mitchell with Kristin Hanson Architects 72-185 Painters Path Palm Desert, CA 92260 760-776-4068 760-776-4098 fax	UC

RESIDENTIAL SUBDIVISION

CUP – Conditional Use Permit MOD - Modification PDP - Preliminary Development Plan SFP - Single Family Permit SPA - Specific Plan Amendment TPM - Tentative Parcel Map TTM - Tentative Tract Map ZTA – Zone Text Amendment	CITY OF RANCHO MIRAGE DEVELOPMENT ACTIVITY SUMMARY April 4, 2018	UR - Under Review A - Approved UC - Under Construction PC - Bldg. PC F - Finaled

	PROJECT	CASE NO	DESCRIPTION AND LOCATION Address & APN #	DEVELOPER	STATUS
39.	ECHO at Rancho Mirage	PDP18003	A Preliminary Development Plan for development of nine single family homes. North side of Ginger Roger., east of Landy Ln. APN# 685-080-004-7	Studio AR&D Architects, Inc./Sean Lockyer 457 N Palm Canyon Dr., Ste B Palm Springs, CA 92262 760-322-3339	UR
40.	Pulte Homes/ Del Webb	PDP17001 TTM36809	A Preliminary Development Plan for development of an age-restricted (55+) residential community of up to 1,200 dwelling units consisting of ten (10) floor plans, three elevations each and a total of twenty (20) color/material combinations. Common area amenities include approximately 85 acres of greenbelt open space with numerous amenities, walking and hiking trails, a clubhouse, swimming pools, tennis, bocce and pickle ball courts, and common area landscaping	Pulte Homes Corp. SCC Rancho Mirage Holding, LLC, 27101 Puerta Real, Suite 300, Mission Viejo, CA 92691	UC
41.	Veneto	MOD16019	A (Major) Modification to build out an existing project into 34 units by adding a 1 one- story 6 unit condominiums and 15 villas 2 of which will be custom built to bring the total to 34 units. APN# 689-231-016 70-600 Country Club Drive	Sacramento Veneto Venture, LLC James Fortson 70-600 Country Club Drive Rancho Mirage CA 92260 760-537-1502 760-537-1504 FAX	A
42.	Revelle	PDP13003 FDP13004	A Preliminary Development Plan to build 32 semi-custom residences on 18 acres in a gated community at Revelle at Clancy Lane 72-860 Clancy Lane APN# 682-250-003. 682 -250-054 / 055	Rudy Herrera 73-081 Fred Waring Drive Palm Desert, CA 92260 760-900-8989 760-776-4422 FAX	UC

CUP – Conditional Use Permit
MOD - Modification
PDP - Preliminary Development Plan
SFP - Single Family Permit
SPA - Specific Plan Amendment
TPM - Tentative Parcel Map
TTM - Tentative Tract Map
ZTA – Zone Text Amendment

CITY OF RANCHO MIRAGE

DEVELOPMENT ACTIVITY SUMMARY
April 4, 2018

UR - Under Review
A - Approved
UC - Under Construction
PC - Bldg. PC
F - Finaled

	PROJECT	CASE NO	DESCRIPTION AND LOCATION Address & APN #	DEVELOPER	STATUS
43.	Bella Clancy	ZTA05003 EA050025 MOD05016 FDP04002 PDP03015	Modification to Bella Clancy to allow 15 ft. setbacks for side entry garages. Construction of 20 single family homes, located at Rancho Palmeras east of Follansbee Rd.	Bella Clancy Group 68-936 Adelina Road. Cathedral City, CA 92234 (760) 322-3422	UC
44.	Mirada Villas	FDP05004 PDP04011 MOD06024 MOD11040	Development of 27 acres into 46 single family homes on the north side of Frank Sinatra Dr across from The Ritz at Rancho Mirage in the Santa Rosa Mtns.	RMCAL, INC. 74959 Verbena Court. Indian Wells, CA 92210 (949) 874-3963	UC
45.	Estilo	PDP12003 FDP12005	A Preliminary Development Plan for Tract 34227. 72-277 Victory Drive APN# 685-330-001 - 039	Toll Brothers 11 Cassis Circle Rancho Mirage, CA 92270 760.770-0707 x101	UC
	Siena Vista	TTM36530 PDP13001 FDP13003	A Tentative Tract Map to subdivide approximately 5.03 acres into 10 single family residential lots with a minimum lot size of 15,000 s.f. Se Corner Of Landy & Victory Drive APN# 685-080-001	Kenneth Cokeley P.O. Box 2487 Rancho Mirage, CA 760-457-5169	UC
			PARCEL MAPS		
47.	Susan Rubini	TPM 32649	Subdivision of PM 32649 into two residential parcel maps, APN# 674-131-025.	Susan Rubini 70444 Sunny Lane Rancho Mirage, CA 92270	A
48.	Heinrich/Steinberg	TPM34232 TPPMX34232	Develop PM34232 (5 acres) into four single-family residential lots, east side of Vista Del Sol Rd, North of Country Club Drive. APN# 685-350-002 thru 006	Katrina Heinrich-Steinberg P.O. Box 1845 Rancho Mirage, CA 92270	A
49.	Heinrich/Steinberg	TPM34233 TPMX34233	Subdivide PM34233 (5 acres) into 4 residential lots located east of vista Del Sol & north of Country Club Dr. APN# 684-280-002	Katrina Heinrich-Steinberg P.O. Box 1845 Rancho Mirage, CA 92270 760-568-3323	A

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	PROJECT	CASE NO	DESCRIPTION AND LOCATION Address & APN #	DEVELOPER	STATUS
50.	Mr. Mark Jonah Rancho Mirage LLC	TPM34741 EA060009 TPMX-34741 PDPX34741	Subdivision of PM 34741 (4.76 acres) into four residential estates, south of Frank Sinatra off of Vista Del Sol. APN# 685-280-007 & 685-580-008	Mark E. Jonah Rancho Mirage LLC 7524 Edna Ave. Las Vegas, NV 89117 702-227-6551	A
51.	AMS Development Group	TPM35479	Consolidate 5 lots into one lot for commercial development purposes located on the west side of Highway 111, south of Desert Drive. APN# 682-350-002 thru 006	Unknown	A
52.	Monte Vista Rancho Mirage, LLC	TPM35684	Subdivision of 2 existing parcels into 4 commercial parcels and 1 open space parcel. APN# 684-130-025 thru -027m 684-190-001 & 002	Unknown	A
53.	Fotomotor Engineering/Dr. Bruno LeMay	TPM36683	A Tentative Parcel Map to subdivide 5 acres into 4 1 acre minimum parcels with private access road for a single family estate. APN# 685-320-001 39-605 Vista Del Sol	Fomotor Engineering Phillip Fomotor 225 S. Civic Drive Palm Springs, CA 92262 760-323-1842 760-323-1742 fax	A
54. ??	Essi Engineering, Essi Shahandeh	TPM36849	A Tentative Parcel Map to subdivide approximately 4.22 acres into three parcels. APN# 685-260-058 Vista Dunes Road	Essi Engineering, Essi Shahandeh 77-570 Springfield Ln,Ste C Palm Desert, Ca 92211 760-772-8400 760-772-8421 fax	A
			TRACT MAPS		
55.	Monterey Medical Center	TTM37703 PDP17002	A Tentative Tract Map to subdivide 9.2 acres into an office development of 75,164 sq.ft. Twelve single-story medical office complex. APN# 685-110-011 and 012	White Brothers Investments Company represented by Urrutia Marks Architects. 165 N Luring Drive Palm Springs, CA 92262	A

CUP – Conditional Use Permit MOD - Modification PDP - Preliminary Development Plan SFP - Single Family Permit SPA - Specific Plan Amendment TPM - Tentative Parcel Map TTM - Tentative Tract Map ZTA – Zone Text Amendment	CITY OF RANCHO MIRAGE DEVELOPMENT ACTIVITY SUMMARY April 4, 2018	UR - Under Review A - Approved UC - Under Construction PC - Bldg. PC F - Finaled

	PROJECT	CASE NO	DESCRIPTION AND LOCATION Address & APN #	DEVELOPER	STATUS
56.	Rancho Mirage, CA 92270 38 JV, LLC c/o Meriwether Companies	TTM36621 EA130007 TTM1X36621	A Tentative Tract Map to subdivide 4.81 acres into 10 single family lots. N# Corner of Via Josefina and Ginger Rogers APN# 685-080-041	RCE Consultants 23332 Mill Creek Drive Ste 205 Laguna Hills, CA 92653 949-451-0111 949-453-0411 fax	A
57.	Rancho Mirage, CA 92270 38 JV, LLC c/o Meriwether Companies	TTM36620 EA130006 SPA13001 TTM1X36620	A Tentative Tract Map to subdivide 33.74 acres into 97 single family lots. NW Corner of Via Josefina and Via Florencia APN# 685-100-013 685-110-004 - 009	RCE Consultants 23332 Mill Creek Drive Ste 205 Laguna Hills, CA 92653 949-451-0111 949-453-0411 fax	A
58.	Rancho Mirage, CA 92270 38 JV, LLC c/o Meriwether Companies	TTM36622 EA130008 TTM1X36622	A Tentative Tract Map to subdivide 4.81 acres into 10 single family lots. N# Corner of Via Florencia and Via Josefina APN# 685-100-006	RCE Consultants 23332 Mill Creek Drive Ste 205 Laguna Hills, CA 92653 949-451-0111 949-453-0411 fax	A
59.	Los Ranchos Development	TTM32308 TTM00004	Subdivision of 9.02 acres into seven residential parcels located on the east side of Vista Dunes Road approximately 1,000 feet south of Frank Sinatra Drive. APN# 674-370-043	Feiro Engineering Box 129800 Palm Desert, Ca 92260 760-346-8015	A
60.	GHA Paloma Group III, LLC	TTM35498 EA070013	Subdivision of 10.08 acres into 19 single family residential lots located on the southeast corner of Landy Lane and Via Florencia approximately ¼ mile south of Gingers Rogers Road. APN# 685-100-008/009	GHA Paloma Group III, LLC 30875 Date Palm Drive suite-C1 Cathedral City, CA 92234 760-770-7202	A
61.	GRV Mirage, LLC	TTM35619 EA070011	Subdivision of 4.67 acre property into 9 residential lots located on the north side of Ginger Rogers Road 330' east of Landy Lane in Section 30. APN# 685-080-004	GRV Mirage, LLC P. O. Box 3725 Rancho Santa Fe, CA 92067 (858) 756-5008 (858) 756-5006fax	A

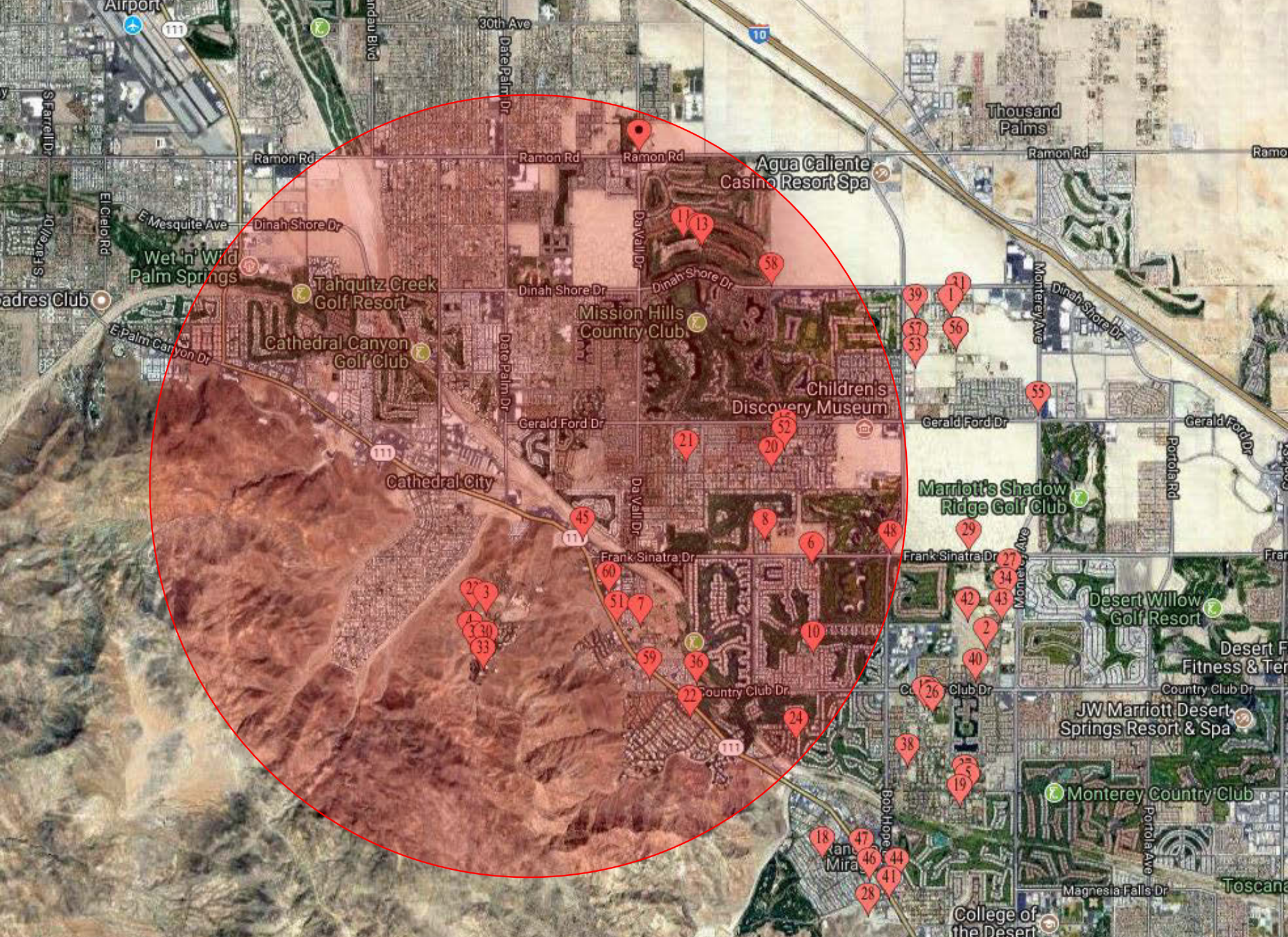
CUP – Conditional Use Permit MOD - Modification PDP - Preliminary Development Plan SFP - Single Family Permit SPA - Specific Plan Amendment TPM - Tentative Parcel Map TTM - Tentative Tract Map ZTA – Zone Text Amendment	CITY OF RANCHO MIRAGE DEVELOPMENT ACTIVITY SUMMARY April 4, 2018	UR - Under Review A - Approved UC - Under Construction PC - Bldg. PC F - Finaled

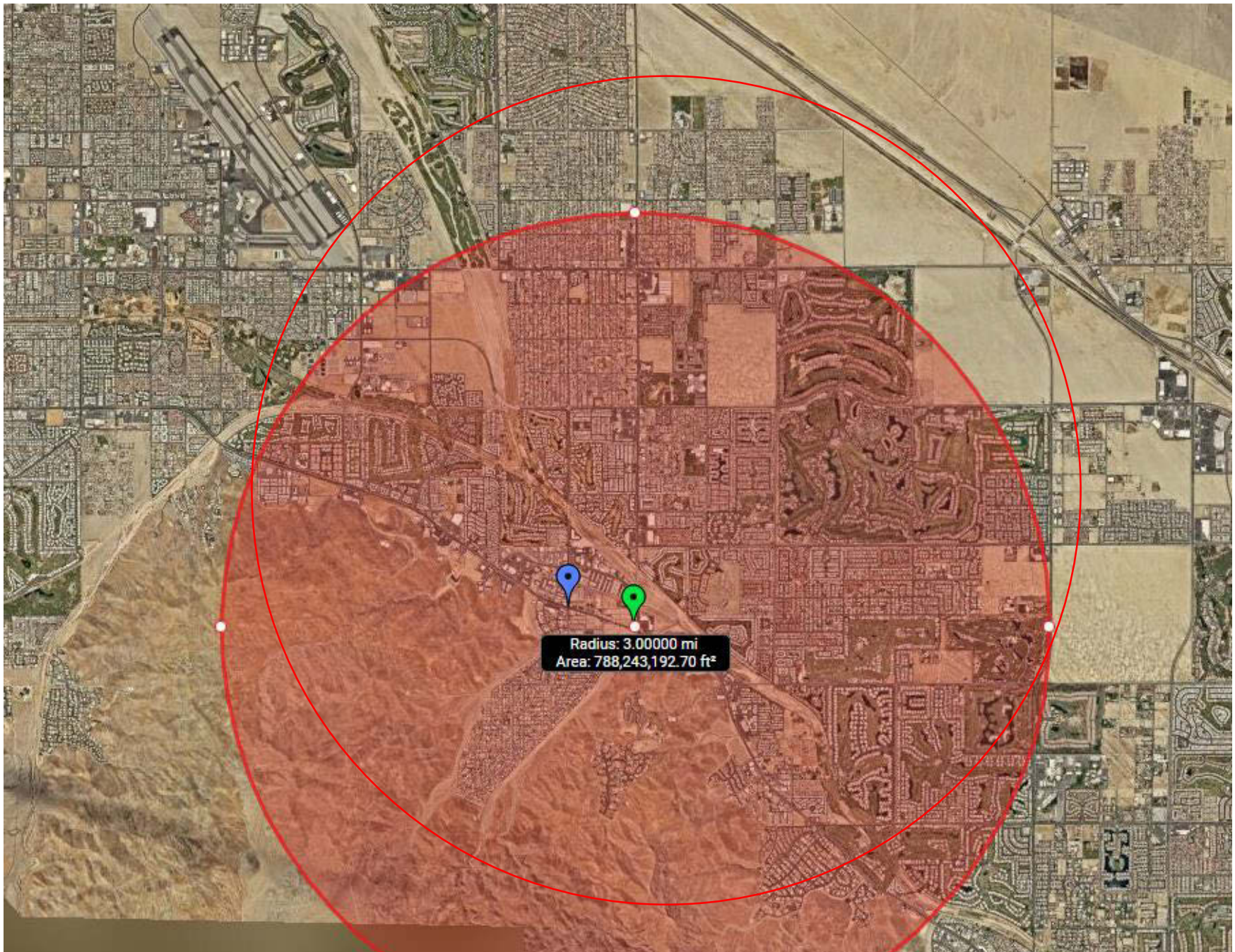
	PROJECT	CASE NO	DESCRIPTION AND LOCATION Address & APN #	DEVELOPER	STATUS
62.	Ken Catanzarite	TTM35573	Recombine 51 existing, small non-conforming lots and portions of three others along with a portion of common Lot 42 of Tract Map No. 2515 into 20 new larger single family lots and common lots for landscaping. APN# 689-151-070	Ken Catanzarite 2331 W. Lincoln Avenue Anaheim, CA 92801 (714) 520-5544	A
63.	Via Equestrian, LLC	TTM05004 TTM33329 TTM2X33329	Subdivision of 5.05 into 9 residential lots, 330 ft North of Ginger Rogers Road. APN# 685-080-013	Miragedune Properties LLC Box 2399 Rancho Mirage CA92270 760-799-0361	A
64.	AMS Development Group	TTM35089	Subdivision of 10 acres into 18 residential lots located on the north and south side of Ginger Rogers. APN# 685-100-004/005	Unknown	A
	COMMERCIAL AND OTHER				
65.	Monterey Medical Center	PDP17002 GPZMAN 16001 TPM 37003 SIPR17001	A Preliminary Development Plan for 12 single story medical office buildings totaling 75,164 sq. ft.	Urrutia Marks Architects 165 N Luring Drive Palm Springs, CA 92262	A
66.	CCF PCG Las Palmas LLC/Robinson Hill Architecture Inc.	CUP14006	A Conditional Use Permit to remove and reconstruct approximately 79,606 s.f. of building area. Additional parking and enhanced landscaping are included. APN# 682-320-006 – 024 42452 Bob Hope Drive	CCF PCG Las Palmas LLC/Robinson Hill Architecture Inc. 133 Penn St. El Segundo, CA 90245 714-825-8888	UC

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	PROJECT	CASE NO	DESCRIPTION AND LOCATION Address & APN #	DEVELOPER	STATUS
67.	Horizon Pacific Rancho Cove, MSA Consulting	PDP16003	A Preliminary Development Plan to develop a commercial retail/restaurant, 4 story 100 room hotel and 35 single family units on approximately 13.05 acres. Highway 111 & One Mirage Place APN# 674-490-026, 027, 031, 033, 036, 037, 038 and 039.	Horizon Pacific Rancho Cove, LLC - Bob Nolan 150 Papularino Ave Ste D-282 Costa Mesa, Ca 714-668-1150 714-668-1184 fax	UR
68.	Robert Ricciardi Architect / Kurt Fox	PDP16002 TPM37197	A Preliminary Development Plan for two single story duplexes, approximately 4,643 sf for each. A Tentative Parcel Map for a 4 unit residential condominium project on .61 acres. Thunderbird View Estates Lot 3 & 4 APN# 689-202-032/033	Kurt Fox 15162 Newcastle Lane Huntington Beach CA 92211 530-320-1461 714-622-5626 fax	A
69.	Nguyen Reckard Holdings LLC	PDP16001	A Preliminary Development Plan for a new 4,614 s.f. medical office building. The applicant will be the owner/user. 71-842 Sahara Road APN# 684-421-012	Michael Kiner 70177 Highway 111, Ste 200 Rancho Mirage CA 92270 760-340-3360 760-340-3367 fax	UC
70.	MPA Architects	PDP15002	A Preliminary Development Plan for a proposed development commercial building. 71-861 Highway 111 APN# 684-351-001, 002, 014 and 018	MPA Architects John Rumsey 3578 30th St. San Diego, CA 92104 619-236-0595 x 322 619-236-0557 fax	UC
71.	The Annenberg Foundation Trust at Sunnylands	MOD15008 FDP15003	A (Major) modification to add 3 buildings and campus to the Annenberg Retreat at Sunnylands: 115,000 s.f. administrative building, 7,374 s.f. archive building, 13,746 operations building and 8,000 s.f. storage. on 15 acres. Frank Sinatra & Bob Hope Dr. APN# 674-610-005	Lance O'Donnell, AIA O2 Architecture 1089 N. Palm Canyon Drive Ste B Palm springs CA 92262 760-778-8165 760-406-7946 fax	UC

CUP – Conditional Use Permit MOD - Modification PDP - Preliminary Development Plan SFP - Single Family Permit SPA - Specific Plan Amendment TPM - Tentative Parcel Map TTM - Tentative Tract Map ZTA – Zone Text Amendment		CITY OF RANCHO MIRAGE DEVELOPMENT ACTIVITY SUMMARY April 4, 2018		UR - Under Review A - Approved UC - Under Construction PC - Bldg. PC F - Finaled	
	PROJECT	**CASE NO**	**DESCRIPTION AND LOCATION** **Address & APN #**	**DEVELOPER**	**STATUS**
72.	RMSW, LLC	PDP14007 SPA14002 EA140009 TPM36885 MOD16025	A Preliminary Development Plan to develop 23.71 acres of land into a 1 and 2 story resort, spa, fitness, restaurant, convention and residential buildings. W. Side H111/Frank Sinatra & Mirage Cove 689-030-006	Bruce McBride RMSW, LLC 22837 Pacific Coast Highway #774 Malibu, Ca 90265 805.298-6570 310.456-2644 fax	A
73.	Rancho Mirage Rehabilitation Hospital, Inc.	PDP07012 EA070015 TPM31761 FDP08002 MOD16020	Construction of a single story physical rehabilitation hospital in two phases, totaling 70 beds and 64,768 square feet. The Parcel Map is proposed to divide the existing 9.69 acre parcel into two parcels, one of 6.79 acres for the hospital, and one of 2.9 acres located on the southeast corner of Ramon Road and DaVall Drive. APN# 673-320-009	Rancho Mirage Rehabilitation Hospital, Inc. 1722 9th street Wichita Falls, TX 76301 (940) 716-1673 (940) 716-1673Fax	UC


Airport
30th Ave
Date Palm Dr
Thousand Palms
Ramon Rd
Agua Caliente Casino Resort Spa
S Farrell Dr
El Cielo Rd
E Mesquite Ave
Dinah Shore Dr
Da Vall Dr
Wet 'n' Wild Palm Springs
Tahquitz Creek Golf Resort
Mission Hills Country Club
Monterey Ave
Cathedral Canyon Golf Club
E Palm Canyon Dr
Children's Discovery Museum
Gerald Ford Dr
Cathedral City
Marriott's Shadow Ridge Golf Club
Portola Rd
Frank Sinatra Dr
Desert Willow Golf Resort
Country Club Dr
JW Marriott Desert Springs Resort & Spa
Monterey Country Club
Bob Hope Dr
Magnesia Falls Dr
College of the Desert


Radius: 3.00000 mi
Area: 788,243,192.70 ft²



(https://maps.google.com/maps?ll=33.774487,-116.425556&z=13&t=h&hl=en-US&gl=US&mapclient=apiv3)

Map data ©2018 Google Imagery ©2018 DigitalGlobe, USDA Farm Service Agency

1. 72150 Victory Ln, Rancho Mirage, CA 92270, USA
2. 3 Serrano Way, Rancho Mirage, CA 92270, USA
3. 2 Sierra Vista Dr, Rancho Mirage, CA 92270, USA
4. 32 Granite Ridge Rd, Rancho Mirage, CA 92270, USA
5. 41560 Rancho Manana Ln, Rancho Mirage, CA 92270, USA
6. 8 Villaggio Pl, Rancho Mirage, CA 92270, USA
7. 70153 Mirage Cove Dr, Rancho Mirage, CA 92270, USA
8. 26 Sun Ridge Cir, Rancho Mirage, CA 92270, USA
9. 2 Makena Ln, Rancho Mirage, CA 92270, USA
10. 39520 Desert Sun Dr, Rancho Mirage, CA 92270, USA
11. 82 Royal St Georges Way, Rancho Mirage, CA 92270, USA
12. 1 Sterling Ridge Dr, Rancho Mirage, CA 92270, USA
13. 95 Royal St Georges Way, Rancho Mirage, CA 92270, USA
14. 93 Royal St Georges Way, Rancho Mirage, CA 92270, USA
15. 7 Sterling Ridge Dr, Rancho Mirage, CA 92270, USA
16. 46 Sky Ridge Rd, Rancho Mirage, CA 92270, USA
17. 8 Makena Ln, Rancho Mirage, CA 92270, USA
18. 71525 Tangier Rd, Rancho Mirage, CA 92270, USA
19. 72591 Betty Ln, Rancho Mirage, CA 92270, USA
20. 71001 Sunny Ln, Rancho Mirage, CA 92270, USA

21 10 Sterling Pl, Rancho Mirage, CA 92270, USA

22 70553 Boothill Rd, Rancho Mirage, CA 92270, USA

23 14 Valley Vista Dr, Rancho Mirage, CA 92270, USA

24 E Thunderbird Terrace, Rancho Mirage, CA 92270, USA

25 Vista Del Sol, Rancho Mirage, CA 92270, USA

26 6 Makena Ln, Rancho Mirage, CA 92270, USA

27 38500 Vista Dunes, Palm Desert, CA 92260, USA

28 71911 Desert Dr, Rancho Mirage, CA 92270, USA

29 Vista Del Sol & Frank Sinatra Dr, Rancho Mirage, CA 92270, USA

30 51 Falcon Point, Rancho Mirage, CA 92270, USA

31 72405 Vía Vail, Rancho Mirage, CA 92270, USA

32 35 Eagle View Ct, Rancho Mirage, CA 92270, USA

33 46 Sky Ridge Rd, Rancho Mirage, CA 92270, USA

34 72777 Avignon Ct, Rancho Mirage, CA 92270, USA

35 Landy Ln & Ginger Rogers Rd, Rancho Mirage, CA 92270, USA

36 70600 Country Club Dr, Rancho Mirage, CA 92270, USA

37 72860 Clancy Ln, Rancho Mirage, CA 92270, USA

38 72185 Via L' Antico, Rancho Mirage, CA 92270, USA

39 Victory Ln & Landy Ln, Rancho Mirage, CA 92270, USA

40 39950 Vista Del Sol, Rancho Mirage, CA 92270, USA

41 72091 CA-111, Rancho Mirage, CA 92270, USA

42 39605 Vista Del Sol, Rancho Mirage, CA 92270, USA

43 Vista Dunes, Rancho Mirage, CA 92270, USA

44 42452 Bob Hope Dr, Rancho Mirage, CA 92270, USA

45 Rancho Mirage, CA 92270, USA

46 71943 CA-111, Rancho Mirage, CA 92270, USA

47 71861 CA-111, Rancho Mirage, CA 92270, USA

48 Bob Hope Dr & Frank Sinatra Dr, Rancho Mirage, CA 92270, USA

49 Via Josefina & Ginger Rogers Rd, Rancho Mirage, CA 92270, USA

50 Via Josefina & Ginger Rogers Rd, Rancho Mirage, CA 92270, USA

51 Mirage Cove Dr & CA-111, Rancho Mirage, CA 92270, USA

52 1 Sterling Ridge Dr, Rancho Mirage, CA 92270, USA

53 Via Florencia & Landy Ln, Rancho Mirage, CA 92270, USA

54 Landy Ln & Ginger Rogers Rd, Rancho Mirage, CA 92270, USA

55 Monterey Ave & Gerald Ford Dr, Rancho Mirage, CA 92270, USA

56 Via Josefina & Ginger Rogers Rd, Rancho Mirage, CA 92270, USA

57 Landy Ln & Ginger Rogers Rd, Rancho Mirage, CA 92270, USA

58 Los Alamos Rd & Dinah Shore Dr, Rancho Mirage, CA 92270, USA

59 Bird Ln, Rancho Mirage, CA 92270, USA

60 69930 CA-111, Rancho Mirage, CA 92270, USA

• Da Vall Dr & Ramon Rd, Rancho Mirage, CA 92270, USA

Cathedral City

Project Name	Location	Description	Units/Square Footage	Status
Ecoplex Park I	Terminus of Margot Murphy Way (cross street is East Palm Canyon Dr)	New Cannabis Cultivation Facility consisting of two buildings totaling 43,444 sq. ft. on a 2.8 acre site	43,444 sq ft	Approved
Ecoplex Park II	Terminus of Margot Murphy Way (cross street is East Palm Canyon Dr)	New Cannabis Cultivation Facility consisting of two buildings totaling 50,213 sq. ft. on a 3.07 acre site	50,213 sq ft	Under Review - Scheduled for Planning Commission on June 6, 2018
Horizon Gardens	67670 Carey Rd (former Villas Resort)	New senior living facility on 4.9 acres	140 units	Approved - construction plans under review
CCBC Restarant	68300 Gay Resort Dr (CCBC Resort)	New restaurant within an existing resort	2,560 sq ft	Approved - under construction
Quick Quack Carwash	NE corner Ramon Rd & Ave Ximino	New carwash facility	3,586 sq ft	Approved - construction plans under review
7-Eleven	69123 Ramon Rd	Demolish existing Valero and reconstruct new 7-Eleven	1,700 sq ft, 8 pumps	Approved - construction plans under review
Ramon 19	69375 Ramon Rd	New cannabis facility (cultivation and dispensary)	489,099 sq ft	Approved - under construction
District East	East of Cree Rd, between Carey and Jones	New 48-unit single family development on 7.46 acres	48 units	Approved
Alchemy Works	Canyon Plaza, south of East Palm Canyon Dr	New cannabis cultivation facility	39,600 sq ft	Under Review

Traffic Count Sheets

APPENDIX C

Intersections

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Cathedral City
N/S: Date Palm Drive
E/W: Buddy Rogers Avenue
Weather: Clear

File Name : 01_CTC_Date Palm_Buddy Rogers AM
Site Code : 06718258
Start Date : 4/10/2018
Page No : 1

Groups Printed- Total Volume

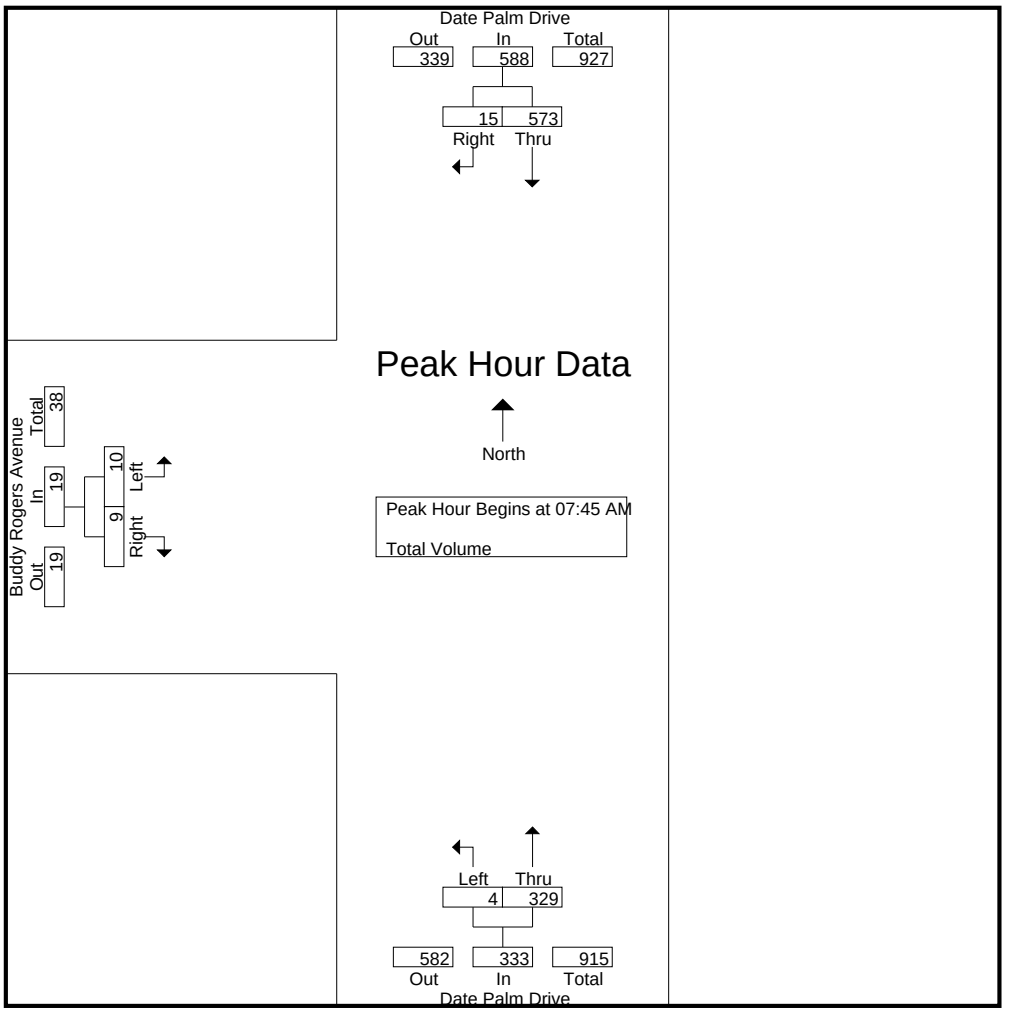
	Date Palm Drive Southbound			Date Palm Drive Northbound			Buddy Rogers Avenue Eastbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
07:00 AM	85	12	97	3	57	60	1	0	1	158
07:15 AM	104	7	111	1	86	87	3	0	3	201
07:30 AM	108	5	113	0	81	81	1	1	2	196
07:45 AM	140	3	143	0	65	65	4	4	8	216
Total	437	27	464	4	289	293	9	5	14	771
08:00 AM	159	4	163	0	84	84	0	1	1	248
08:15 AM	162	5	167	2	85	87	4	3	7	261
08:30 AM	112	3	115	2	95	97	2	1	3	215
08:45 AM	104	4	108	0	73	73	3	0	3	184
Total	537	16	553	4	337	341	9	5	14	908
Grand Total	974	43	1017	8	626	634	18	10	28	1679
Apprch %	95.8	4.2		1.3	98.7		64.3	35.7		
Total %	58	2.6	60.6	0.5	37.3	37.8	1.1	0.6	1.7	

	Date Palm Drive Southbound			Date Palm Drive Northbound			Buddy Rogers Avenue Eastbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:45 AM										
07:45 AM	140	3	143	0	65	65	**4**	**4**	**8**	216
08:00 AM	159	4	163	0	84	84	0	1	1	248
08:15 AM	**162**	**5**	**167**	**2**	85	87	4	3	7	**261**
08:30 AM	112	3	115	2	**95**	**97**	2	1	3	215
Total Volume	573	15	588	4	329	333	10	9	19	940
% App. Total	97.4	2.6		1.2	98.8		52.6	47.4		
PHF	.884	.750	.880	.500	.866	.858	.625	.563	.594	.900

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Cathedral City
N/S: Date Palm Drive
E/W: Buddy Rogers Avenue
Weather: Clear

File Name : 01_CTC_Date Palm_Buddy Rogers AM
Site Code : 06718258
Start Date : 4/10/2018
Page No : 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:45 AM			08:00 AM			07:45 AM		
+0 mins.	140	3	143	0	84	84	**4**	**4**	**8**
+15 mins.	159	4	163	**2**	85	87	0	1	1
+30 mins.	**162**	**5**	**167**	2	**95**	**97**	4	3	7
+45 mins.	112	3	115	0	73	73	2	1	3
Total Volume	573	15	588	4	337	341	10	9	19
% App. Total	97.4	2.6		1.2	98.8		52.6	47.4	
PHF	.884	.750	.880	.500	.887	.879	.625	.563	.594

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City of Cathedral City
N/S: Date Palm Drive
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File Name : 01_CTC_Date Palm_Buddy Rogers PM
Site Code : 06718258
Start Date : 4/10/2018
Page No : 1

Groups Printed- Total Volume

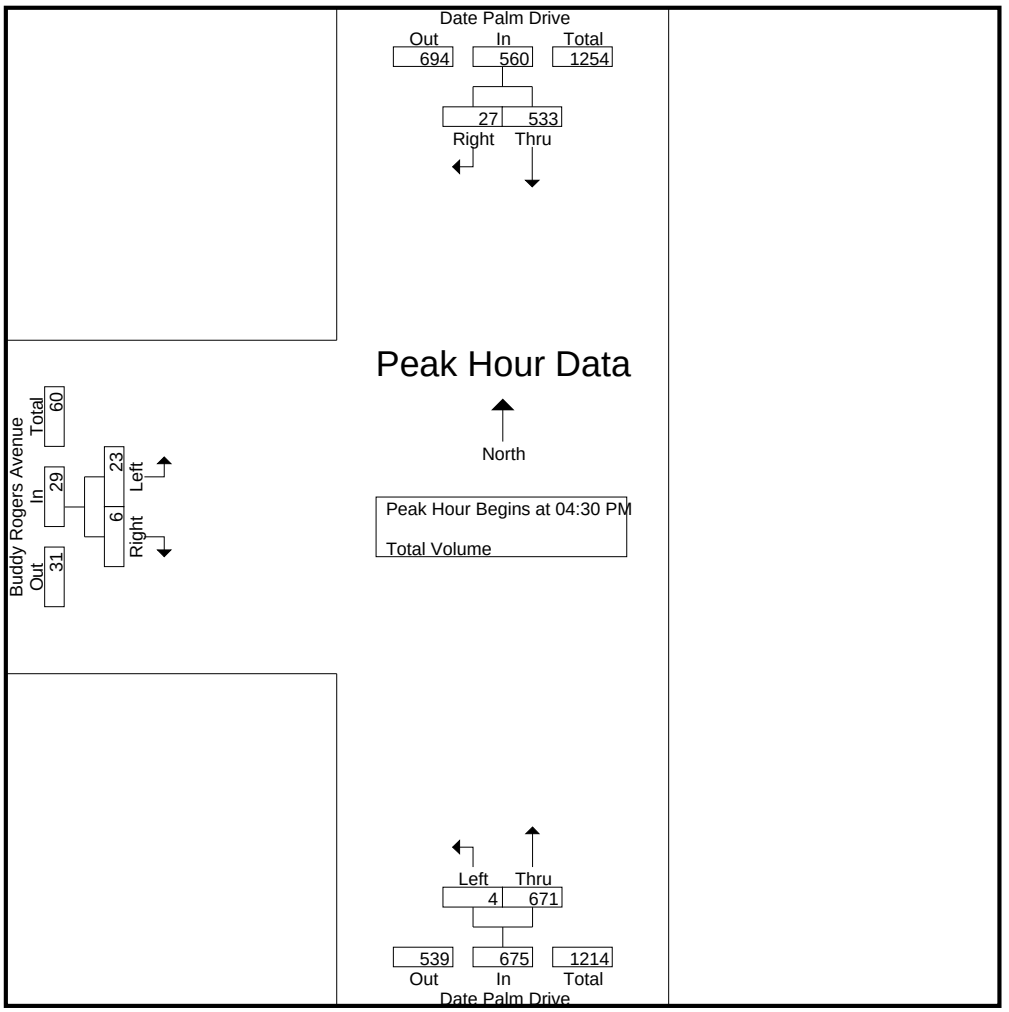
	Date Palm Drive Southbound			Date Palm Drive Northbound			Buddy Rogers Avenue Eastbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
04:00 PM	124	3	127	1	159	160	6	2	8	295
04:15 PM	131	7	138	1	137	138	8	4	12	288
04:30 PM	122	6	128	0	174	174	8	2	10	312
04:45 PM	162	5	167	0	156	156	4	3	7	330
Total	539	21	560	2	626	628	26	11	37	1225
05:00 PM	128	6	134	2	158	160	6	0	6	300
05:15 PM	121	10	131	2	183	185	5	1	6	322
05:30 PM	124	8	132	0	146	146	8	3	11	289
05:45 PM	110	8	118	0	113	113	4	0	4	235
Total	483	32	515	4	600	604	23	4	27	1146
Grand Total	1022	53	1075	6	1226	1232	49	15	64	2371
Apprch %	95.1	4.9		0.5	99.5		76.6	23.4		
Total %	43.1	2.2	45.3	0.3	51.7	52	2.1	0.6	2.7	

	Date Palm Drive Southbound			Date Palm Drive Northbound			Buddy Rogers Avenue Eastbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:30 PM										
04:30 PM	122	6	128	0	174	174	**8**	2	**10**	312
04:45 PM	**162**	5	**167**	0	156	156	4	**3**	7	**330**
05:00 PM	128	6	134	**2**	158	160	6	0	6	300
05:15 PM	121	**10**	131	2	**183**	**185**	5	1	6	322
Total Volume	533	27	560	4	671	675	23	6	29	1264
% App. Total	95.2	4.8		0.6	99.4		79.3	20.7		
PHF	.823	.675	.838	.500	.917	.912	.719	.500	.725	.958

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City of Cathedral City
N/S: Date Palm Drive
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Weather: Clear

File Name : 01_CTC_Date Palm_Buddy Rogers PM
Site Code : 06718258
Start Date : 4/10/2018



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:15 PM			04:30 PM			04:00 PM		
+0 mins.	131	**7**	138	0	174	174	6	2	8
+15 mins.	122	6	128	0	156	156	**8**	**4**	**12**
+30 mins.	**162**	5	**167**	**2**	158	160	8	2	10
+45 mins.	128	6	134	2	**183**	**185**	4	3	7
Total Volume	543	24	567	4	671	675	26	11	37
% App. Total	95.8	4.2		0.6	99.4		70.3	29.7	
PHF	.838	.857	.849	.500	.917	.912	.813	.688	.771

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City of Cathedral City
N/S: Date Palm Drive
E/W: Buddy Rogers Avenue
Weather: Clear

File Name : 01_CTC_Date Palm_Buddy Rogers SAT
Site Code : 06718258
Start Date : 4/14/2018

Groups Printed- Total Volume

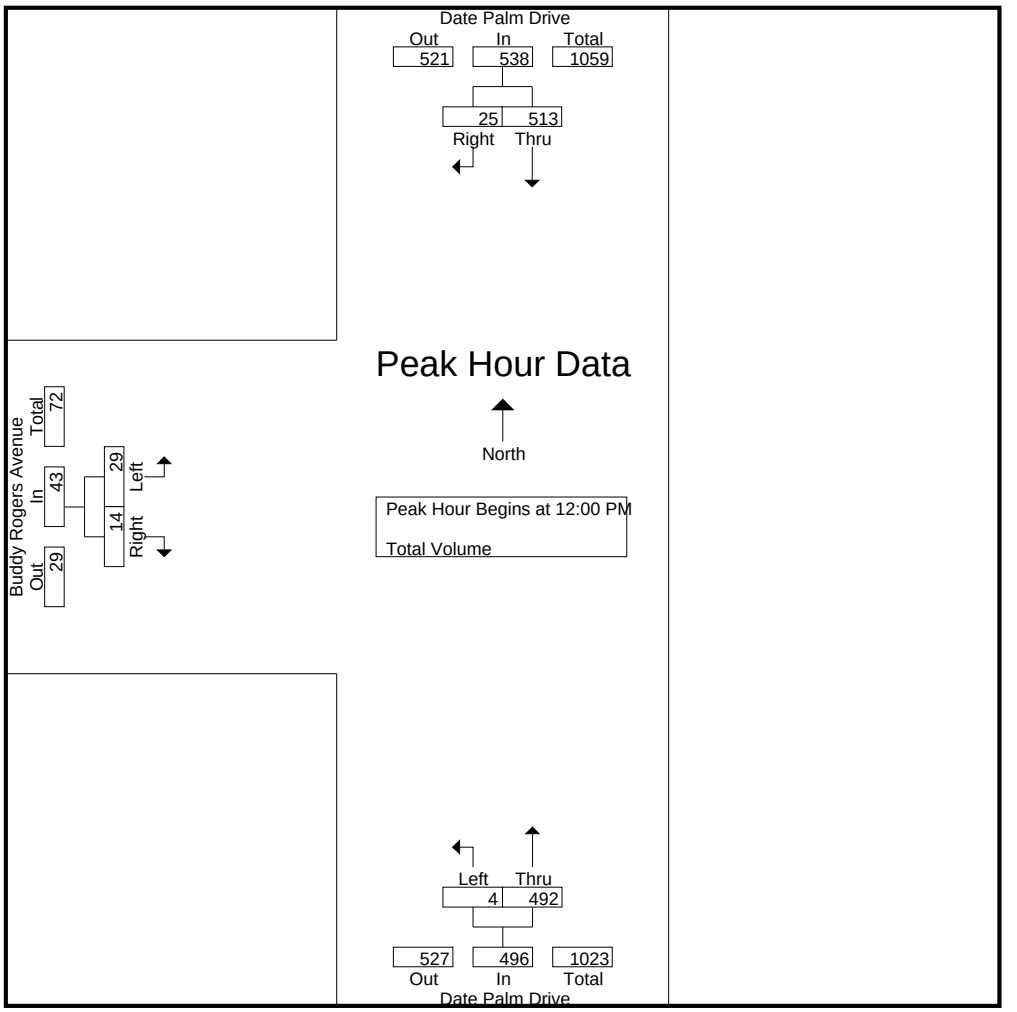
	Date Palm Drive Southbound			Date Palm Drive Northbound			Buddy Rogers Avenue Eastbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
12:00 PM	129	6	135	3	135	138	8	5	13	286
12:15 PM	148	4	152	0	111	111	8	6	14	277
12:30 PM	108	8	116	0	125	125	5	1	6	247
12:45 PM	128	7	135	1	121	122	8	2	10	267
Total	513	25	538	4	492	496	29	14	43	1077
01:00 PM	116	5	121	1	114	115	4	0	4	240
01:15 PM	122	4	126	3	124	127	3	1	4	257
01:30 PM	117	2	119	2	146	148	10	3	13	280
01:45 PM	123	7	130	2	135	137	8	2	10	277
Total	478	18	496	8	519	527	25	6	31	1054
Grand Total	991	43	1034	12	1011	1023	54	20	74	2131
Apprch %	95.8	4.2		1.2	98.8		73	27		
Total %	46.5	2	48.5	0.6	47.4	48	2.5	0.9	3.5	

	Date Palm Drive Southbound			Date Palm Drive Northbound			Buddy Rogers Avenue Eastbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 12:00 PM										
12:00 PM	129	6	135	**3**	**135**	**138**	**8**	5	13	**286**
12:15 PM	**148**	4	**152**	0	111	111	8	**6**	**14**	277
12:30 PM	108	**8**	116	0	125	125	5	1	6	247
12:45 PM	128	7	135	1	121	122	8	2	10	267
Total Volume	513	25	538	4	492	496	29	14	43	1077
% App. Total	95.4	4.6		0.8	99.2		67.4	32.6		
PHF	.867	.781	.885	.333	.911	.899	.906	.583	.768	.941

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City of Cathedral City
N/S: Date Palm Drive
E/W: Buddy Rogers Avenue
Weather: Clear

File Name : 01_CTC_Date Palm_Buddy Rogers SAT
Site Code : 06718258
Start Date : 4/14/2018



Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	12:00 PM			01:00 PM			12:00 PM		
+0 mins.	129	6	135	1	114	115	**8**	5	13
+15 mins.	**148**	4	**152**	**3**	124	127	8	**6**	**14**
+30 mins.	108	**8**	116	2	**146**	**148**	5	1	6
+45 mins.	128	7	135	2	135	137	8	2	10
Total Volume	513	25	538	8	519	527	29	14	43
% App. Total	95.4	4.6		1.5	98.5		67.4	32.6	
PHF	.867	.781	.885	.667	.889	.890	.906	.583	.768

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City of Cathedral City
N/S: Date Palm Drive
E/W: East Palm Canyon Drive (SR-111)
Weather: Clear

File Name : 02_CTC_Date Palm_E Palm Cyn AM
Site Code : 06718258
Start Date : 4/10/2018
Page No : 1

Groups Printed- Total Volume

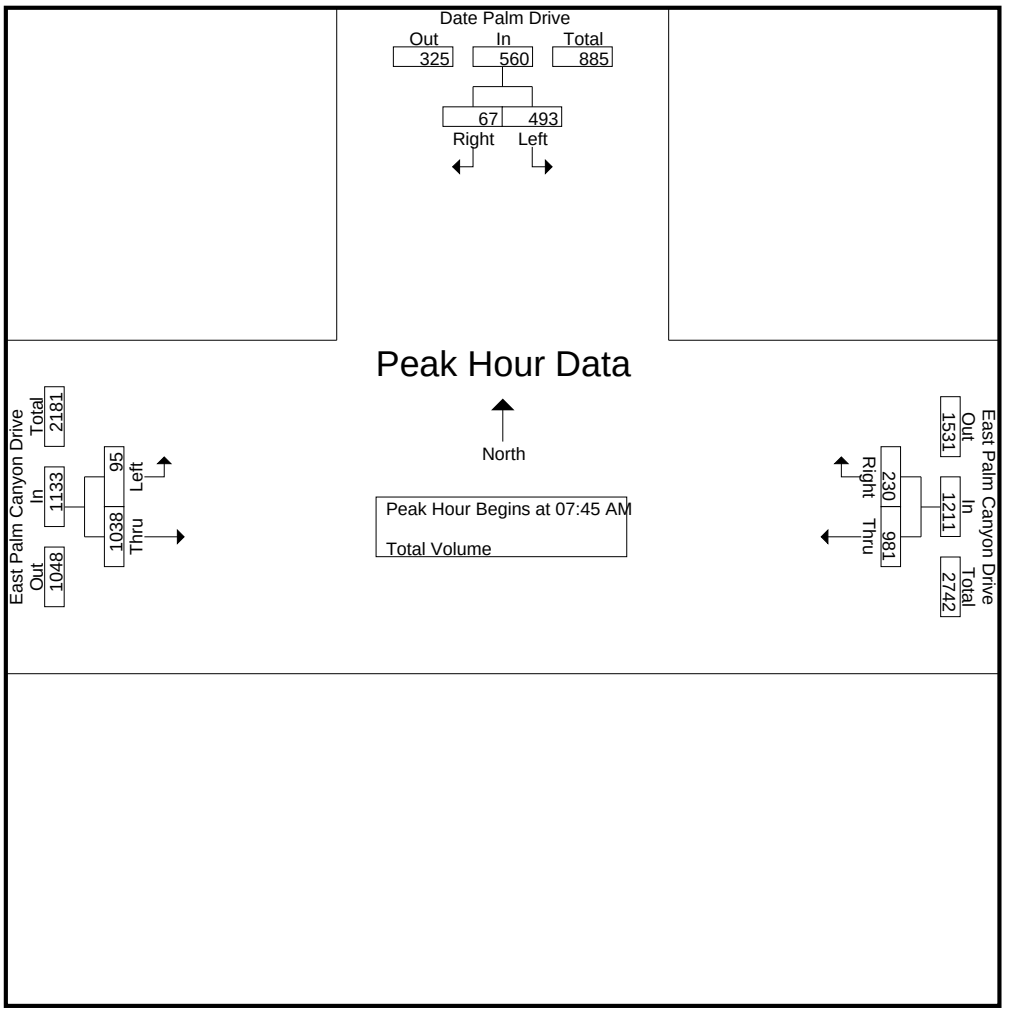
	Date Palm Drive Southbound			East Palm Canyon Drive Westbound			East Palm Canyon Drive Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
07:00 AM	72	14	86	166	40	206	31	113	144	436
07:15 AM	76	27	103	185	56	241	26	188	214	558
07:30 AM	101	22	123	221	41	262	21	237	258	643
07:45 AM	139	11	150	271	56	327	18	254	272	749
Total	388	74	462	843	193	1036	96	792	888	2386
08:00 AM	132	22	154	235	50	285	22	258	280	719
08:15 AM	117	16	133	226	62	288	31	268	299	720
08:30 AM	105	18	123	249	62	311	24	258	282	716
08:45 AM	82	14	96	255	74	329	28	258	286	711
Total	436	70	506	965	248	1213	105	1042	1147	2866
Grand Total	824	144	968	1808	441	2249	201	1834	2035	5252
Apprch %	85.1	14.9		80.4	19.6		9.9	90.1		
Total %	15.7	2.7	18.4	34.4	8.4	42.8	3.8	34.9	38.7	

	Date Palm Drive Southbound			East Palm Canyon Drive Westbound			East Palm Canyon Drive Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:45 AM										
07:45 AM	**139**	11	150	**271**	56	**327**	18	254	272	**749**
08:00 AM	132	**22**	**154**	235	50	285	22	258	280	719
08:15 AM	117	16	133	226	**62**	288	**31**	**268**	**299**	720
08:30 AM	105	18	123	249	62	311	24	258	282	716
Total Volume	493	67	560	981	230	1211	95	1038	1133	2904
% App. Total	88	12		81	19		8.4	91.6		
PHF	.887	.761	.909	.905	.927	.926	.766	.968	.947	.969

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City of Cathedral City
N/S: Date Palm Drive
E/W: East Palm Canyon Drive (SR-111)
Weather: Clear

File Name : 02_CTC_Date Palm_E Palm Cyn AM
Site Code : 06718258
Start Date : 4/10/2018



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:30 AM			08:00 AM			08:00 AM		
+0 mins.	101	**22**	123	235	50	285	22	258	280
+15 mins.	**139**	11	150	226	62	288	**31**	**268**	**299**
+30 mins.	132	22	**154**	249	62	311	24	258	282
+45 mins.	117	16	133	**255**	**74**	**329**	28	258	286
Total Volume	489	71	560	965	248	1213	105	1042	1147
% App. Total	87.3	12.7		79.6	20.4		9.2	90.8	
PHF	.879	.807	.909	.946	.838	.922	.847	.972	.959

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City of Cathedral City
N/S: Date Palm Drive
E/W: East Palm Canyon Drive (SR-111)
Weather: Clear

File Name : 02_CTC_Date Palm_E Palm Cyn PM
Site Code : 06718258
Start Date : 4/10/2018

Groups Printed- Total Volume

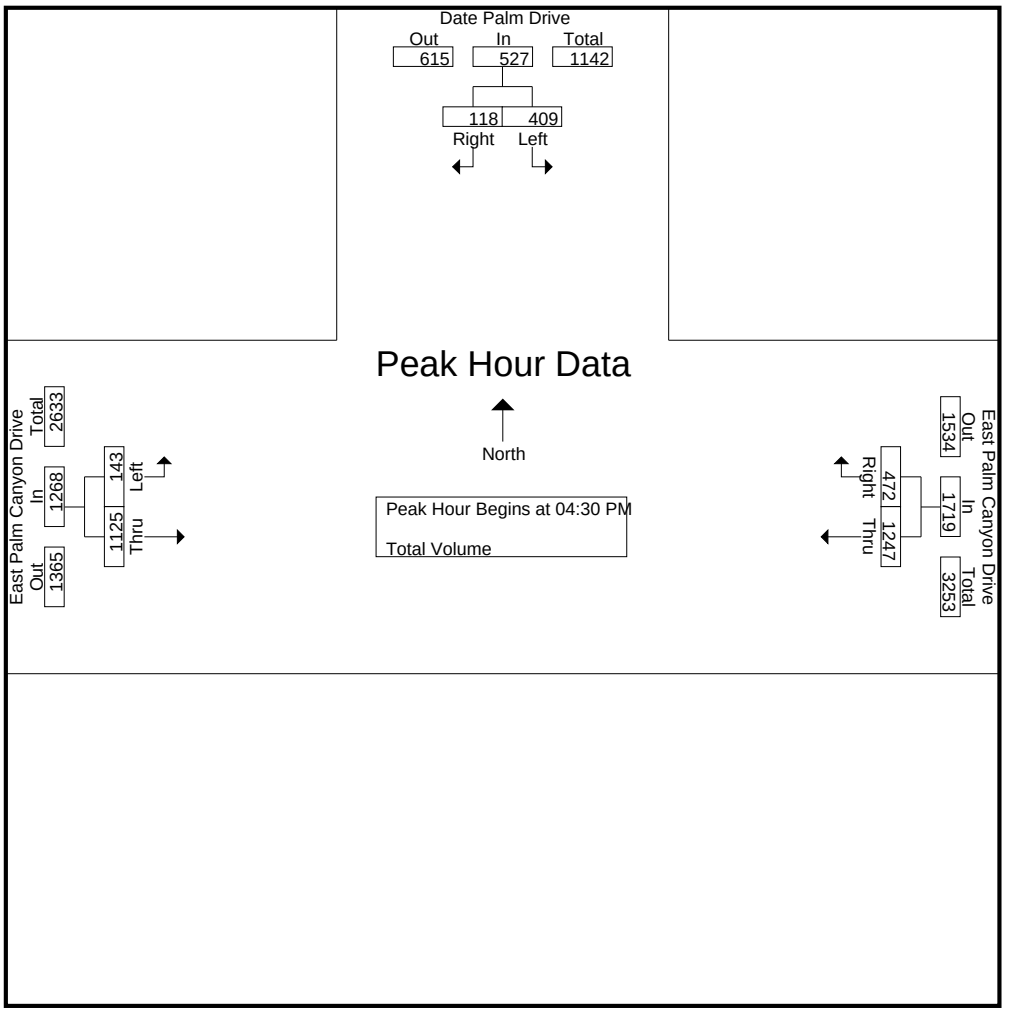
	Date Palm Drive Southbound			East Palm Canyon Drive Westbound			East Palm Canyon Drive Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
04:00 PM	85	41	126	301	114	415	23	281	304	845
04:15 PM	92	35	127	282	109	391	45	274	319	837
04:30 PM	104	36	140	311	110	421	37	256	293	854
04:45 PM	107	24	131	288	109	397	36	281	317	845
Total	388	136	524	1182	442	1624	141	1092	1233	3381
05:00 PM	105	29	134	323	134	457	32	273	305	896
05:15 PM	93	29	122	325	119	444	38	315	353	919
05:30 PM	91	26	117	269	98	367	26	266	292	776
05:45 PM	65	26	91	296	88	384	20	234	254	729
Total	354	110	464	1213	439	1652	116	1088	1204	3320
Grand Total	742	246	988	2395	881	3276	257	2180	2437	6701
Apprch %	75.1	24.9		73.1	26.9		10.5	89.5		
Total %	11.1	3.7	14.7	35.7	13.1	48.9	3.8	32.5	36.4	

	Date Palm Drive Southbound			East Palm Canyon Drive Westbound			East Palm Canyon Drive Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:30 PM										
04:30 PM	104	**36**	**140**	311	110	421	37	256	293	854
04:45 PM	**107**	24	131	288	109	397	36	281	317	845
05:00 PM	105	29	134	323	**134**	**457**	32	273	305	896
05:15 PM	93	29	122	**325**	119	444	**38**	**315**	**353**	**919**
Total Volume	409	118	527	1247	472	1719	143	1125	1268	3514
% App. Total	77.6	22.4		72.5	27.5		11.3	88.7		
PHF	.956	.819	.941	.959	.881	.940	.941	.893	.898	.956

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City of Cathedral City
N/S: Date Palm Drive
E/W: East Palm Canyon Drive (SR-111)
Weather: Clear

File Name : 02_CTC_Date Palm_E Palm Cyn PM
Site Code : 06718258
Start Date : 4/10/2018
Page No : 2



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:15 PM			04:30 PM			04:30 PM		
+0 mins.	92	35	127	311	110	421	37	256	293
+15 mins.	104	**36**	**140**	288	109	397	36	281	317
+30 mins.	**107**	24	131	323	**134**	**457**	32	273	305
+45 mins.	105	29	134	**325**	119	444	**38**	**315**	**353**
Total Volume	408	124	532	1247	472	1719	143	1125	1268
% App. Total	76.7	23.3		72.5	27.5		11.3	88.7	
PHF	.953	.861	.950	.959	.881	.940	.941	.893	.898

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City of Cathedral City
N/S: Date Palm Drive
E/W: East Palm Canyon Drive (SR-111)
Weather: Clear

File Name : 02_CTC_Date Palm_E Palm Cyn SAT
Site Code : 06718258
Start Date : 4/14/2018
Page No : 1

Groups Printed- Total Volume

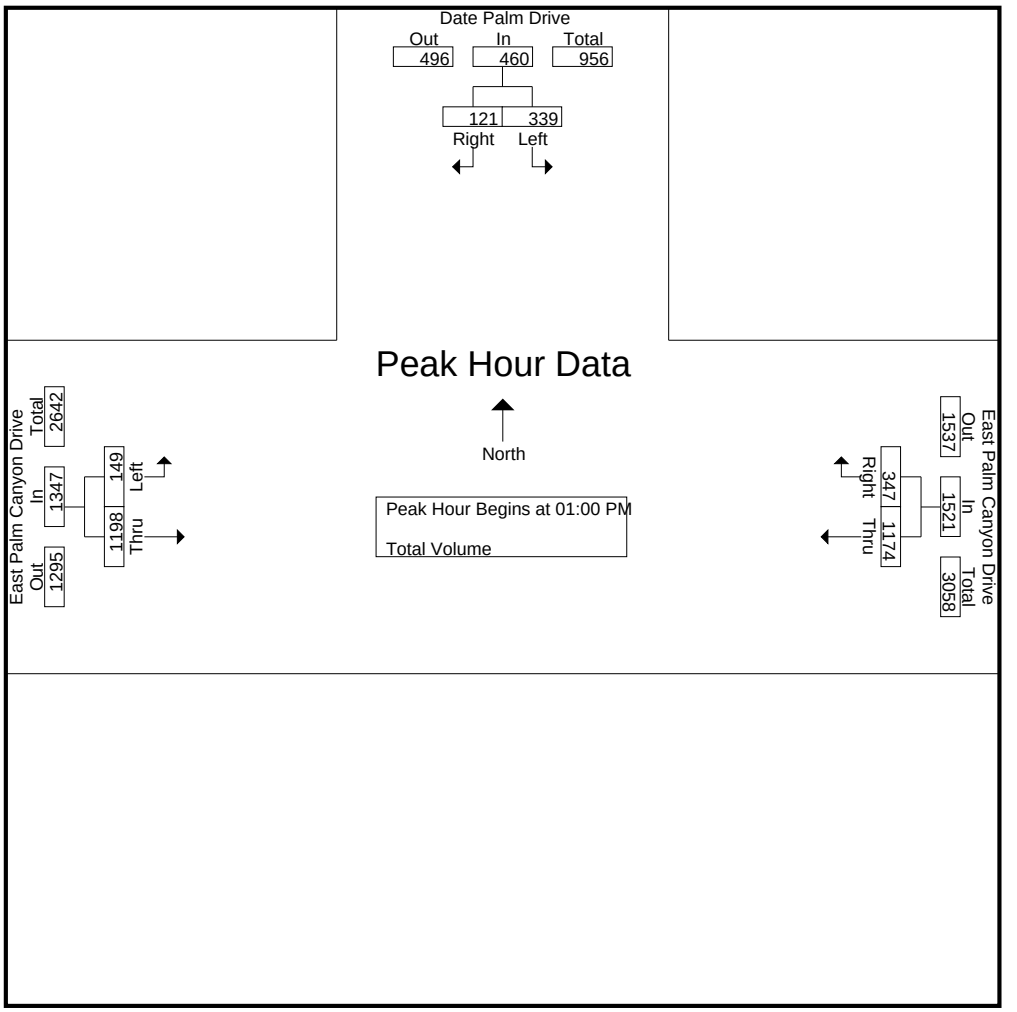
	Date Palm Drive Southbound			East Palm Canyon Drive Westbound			East Palm Canyon Drive Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
12:00 PM	89	40	129	328	73	401	34	266	300	830
12:15 PM	102	31	133	285	75	360	44	280	324	817
12:30 PM	90	31	121	271	78	349	26	275	301	771
12:45 PM	98	24	122	252	61	313	35	254	289	724
Total	379	126	505	1136	287	1423	139	1075	1214	3142
01:00 PM	77	23	100	285	80	365	35	324	359	824
01:15 PM	89	30	119	315	90	405	38	258	296	820
01:30 PM	95	37	132	309	104	413	43	307	350	895
01:45 PM	78	31	109	265	73	338	33	309	342	789
Total	339	121	460	1174	347	1521	149	1198	1347	3328
Grand Total	718	247	965	2310	634	2944	288	2273	2561	6470
Apprch %	74.4	25.6		78.5	21.5		11.2	88.8		
Total %	11.1	3.8	14.9	35.7	9.8	45.5	4.5	35.1	39.6	

	Date Palm Drive Southbound			East Palm Canyon Drive Westbound			East Palm Canyon Drive Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 01:00 PM										
01:00 PM	77	23	100	285	80	365	35	**324**	**359**	824
01:15 PM	89	30	119	**315**	90	405	38	258	296	820
01:30 PM	**95**	**37**	**132**	309	**104**	**413**	**43**	307	350	**895**
01:45 PM	78	31	109	265	73	338	33	309	342	789
Total Volume	339	121	460	1174	347	1521	149	1198	1347	3328
% App. Total	73.7	26.3		77.2	22.8		11.1	88.9		
PHF	.892	.818	.871	.932	.834	.921	.866	.924	.938	.930

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City of Cathedral City
N/S: Date Palm Drive
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Weather: Clear

File Name : 02_CTC_Date Palm_E Palm Cyn SAT
Site Code : 06718258
Start Date : 4/14/2018



Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	12:00 PM			01:00 PM			01:00 PM		
+0 mins.	89	**40**	129	285	80	365	35	**324**	**359**
+15 mins.	**102**	31	**133**	**315**	90	405	38	258	296
+30 mins.	90	31	121	309	**104**	**413**	**43**	307	350
+45 mins.	98	24	122	265	73	338	33	309	342
Total Volume	379	126	505	1174	347	1521	149	1198	1347
% App. Total	75	25		77.2	22.8		11.1	88.9	
PHF	.929	.788	.949	.932	.834	.921	.866	.924	.938

Counts Unlimited
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City of Cathedral City
N/S: Allen Avenue
E/W: East Palm Canyon Drive (SR-111)
Weather: Clear

File Name : 03_CTC_Allen_E Palm Cyn AM
Site Code : 06718258
Start Date : 4/10/2018
Page No : 1

Groups Printed- Total Volume

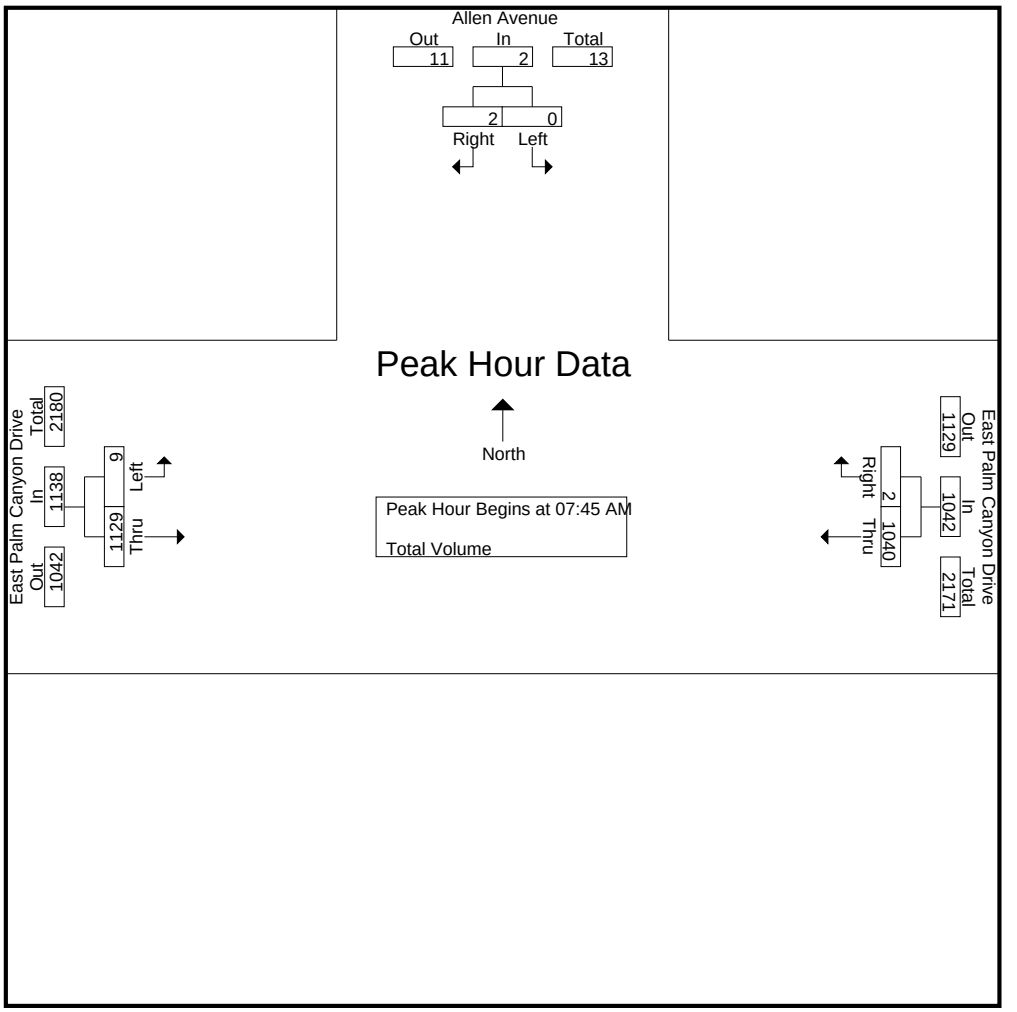
	Allen Avenue Southbound			East Palm Canyon Drive Westbound			East Palm Canyon Drive Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
07:00 AM	0	0	0	180	0	180	1	144	145	325
07:15 AM	0	0	0	218	1	219	0	218	218	437
07:30 AM	0	0	0	236	0	236	4	268	272	508
07:45 AM	0	1	1	288	1	289	4	279	283	573
Total	0	1	1	922	2	924	9	909	918	1843
08:00 AM	0	1	1	252	1	253	3	270	273	527
08:15 AM	0	0	0	248	0	248	1	297	298	546
08:30 AM	0	0	0	252	0	252	1	283	284	536
08:45 AM	0	0	0	275	1	276	1	282	283	559
Total	0	1	1	1027	2	1029	6	1132	1138	2168
Grand Total	0	2	2	1949	4	1953	15	2041	2056	4011
Apprch %	0	100		99.8	0.2		0.7	99.3		
Total %	0	0	0	48.6	0.1	48.7	0.4	50.9	51.3	

	Allen Avenue Southbound			East Palm Canyon Drive Westbound			East Palm Canyon Drive Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:45 AM										
07:45 AM	0	**1**	**1**	**288**	**1**	**289**	**4**	279	283	**573**
08:00 AM	0	1	1	252	1	253	3	270	273	527
08:15 AM	0	0	0	248	0	248	1	**297**	**298**	546
08:30 AM	0	0	0	252	0	252	1	283	284	536
Total Volume	0	2	2	1040	2	1042	9	1129	1138	2182
% App. Total	0	100		99.8	0.2		0.8	99.2		
PHF	.000	.500	.500	.903	.500	.901	.563	.950	.955	.952

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City of Cathedral City
N/S: Allen Avenue
E/W: East Palm Canyon Drive (SR-111)
Weather: Clear

File Name : 03_CTC_Allen_E Palm Cyn AM
Site Code : 06718258
Start Date : 4/10/2018
Page No : 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:15 AM			07:45 AM			07:45 AM		
+0 mins.	0	0	0	**288**	**1**	**289**	**4**	279	283
+15 mins.	0	0	0	252	1	253	3	270	273
+30 mins.	0	**1**	**1**	248	0	248	1	**297**	**298**
+45 mins.	0	1	1	252	0	252	1	283	284
Total Volume	0	2	2	1040	2	1042	9	1129	1138
% App. Total	0	100		99.8	0.2		0.8	99.2	
PHF	.000	.500	.500	.903	.500	.901	.563	.950	.955

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City of Cathedral City
N/S: Allen Avenue
E/W: East Palm Canyon Drive (SR-111)
Weather: Clear

File Name : 03_CTC_Allen_E Palm Cyn PM
Site Code : 06718258
Start Date : 4/10/2018
Page No : 1

Groups Printed- Total Volume

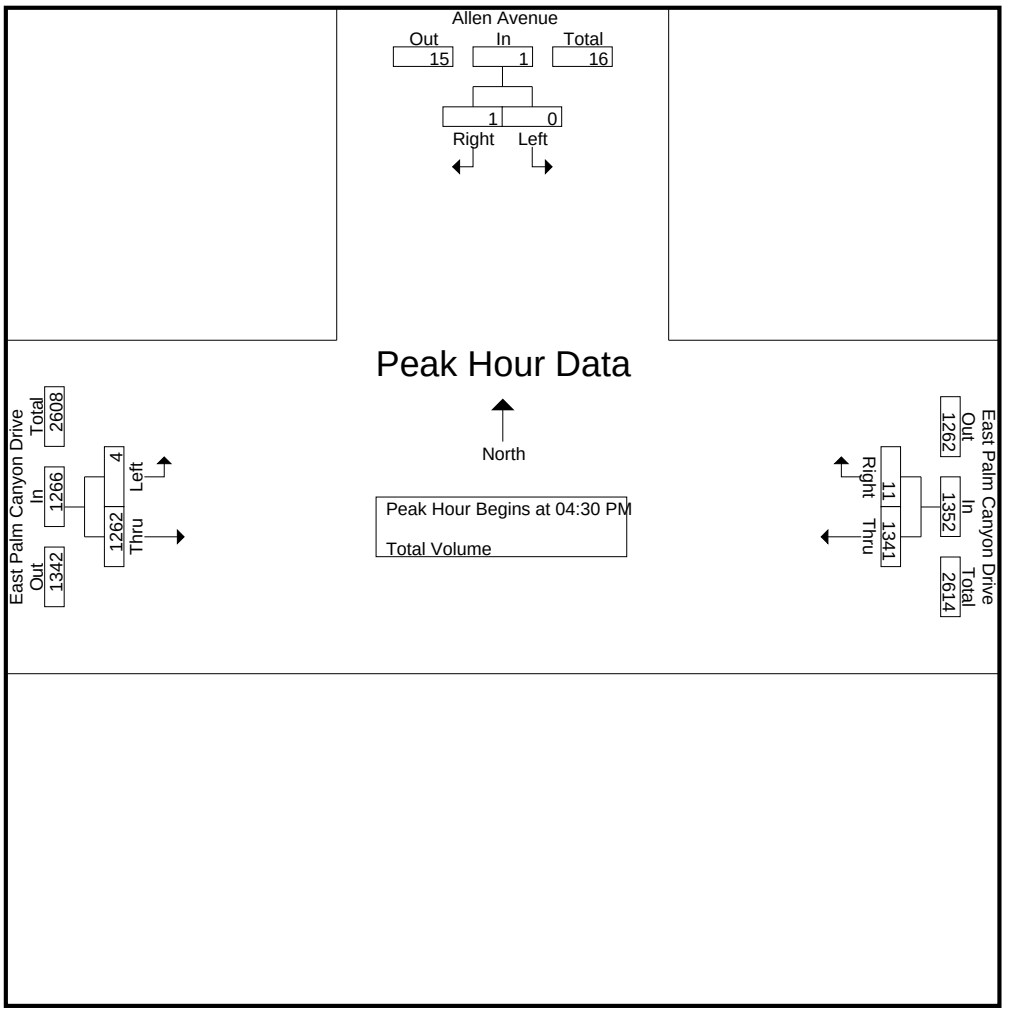
	Allen Avenue Southbound			East Palm Canyon Drive Westbound			East Palm Canyon Drive Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
04:00 PM	0	1	1	344	6	350	3	295	298	649
04:15 PM	0	1	1	322	2	324	3	320	323	648
04:30 PM	0	1	1	348	4	352	0	290	290	643
04:45 PM	0	0	0	300	2	302	0	306	306	608
Total	0	3	3	1314	14	1328	6	1211	1217	2548
05:00 PM	0	0	0	336	4	340	3	307	310	650
05:15 PM	0	0	0	357	1	358	1	359	360	718
05:30 PM	0	0	0	301	1	302	0	293	293	595
05:45 PM	1	0	1	315	1	316	0	261	261	578
Total	1	0	1	1309	7	1316	4	1220	1224	2541
Grand Total	1	3	4	2623	21	2644	10	2431	2441	5089
Apprch %	25	75		99.2	0.8		0.4	99.6		
Total %	0	0.1	0.1	51.5	0.4	52	0.2	47.8	48	

	Allen Avenue Southbound			East Palm Canyon Drive Westbound			East Palm Canyon Drive Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:30 PM										
04:30 PM	0	**1**	**1**	348	**4**	352	0	290	290	643
04:45 PM	0	0	0	300	2	302	0	306	306	608
05:00 PM	0	0	0	336	4	340	**3**	307	310	650
05:15 PM	0	0	0	**357**	1	**358**	1	**359**	**360**	**718**
Total Volume	0	1	1	1341	11	1352	4	1262	1266	2619
% App. Total	0	100		99.2	0.8		0.3	99.7		
PHF	.000	.250	.250	.939	.688	.944	.333	.879	.879	.912

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City of Cathedral City
N/S: Allen Avenue
E/W: East Palm Canyon Drive (SR-111)
Weather: Clear

File Name : 03_CTC_Allen_E Palm Cyn PM
Site Code : 06718258
Start Date : 4/10/2018
Page No : 2



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM			04:30 PM			04:45 PM		
+0 mins.	0	**1**	**1**	348	**4**	352	0	306	306
+15 mins.	0	1	1	300	2	302	**3**	307	310
+30 mins.	0	1	1	336	4	340	1	**359**	**360**
+45 mins.	0	0	0	**357**	1	**358**	0	293	293
Total Volume	0	3	3	1341	11	1352	4	1265	1269
% App. Total	0	100		99.2	0.8		0.3	99.7	
PHF	.000	.750	.750	.939	.688	.944	.333	.881	.881

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City of Cathedral City
N/S: Allen Avenue
E/W: East Palm Canyon Drive (SR-111)
Weather: Clear

File Name : 03_CTC_Allen_E Palm Cyn SAT
Site Code : 06718258
Start Date : 4/14/2018
Page No : 1

Groups Printed- Total Volume

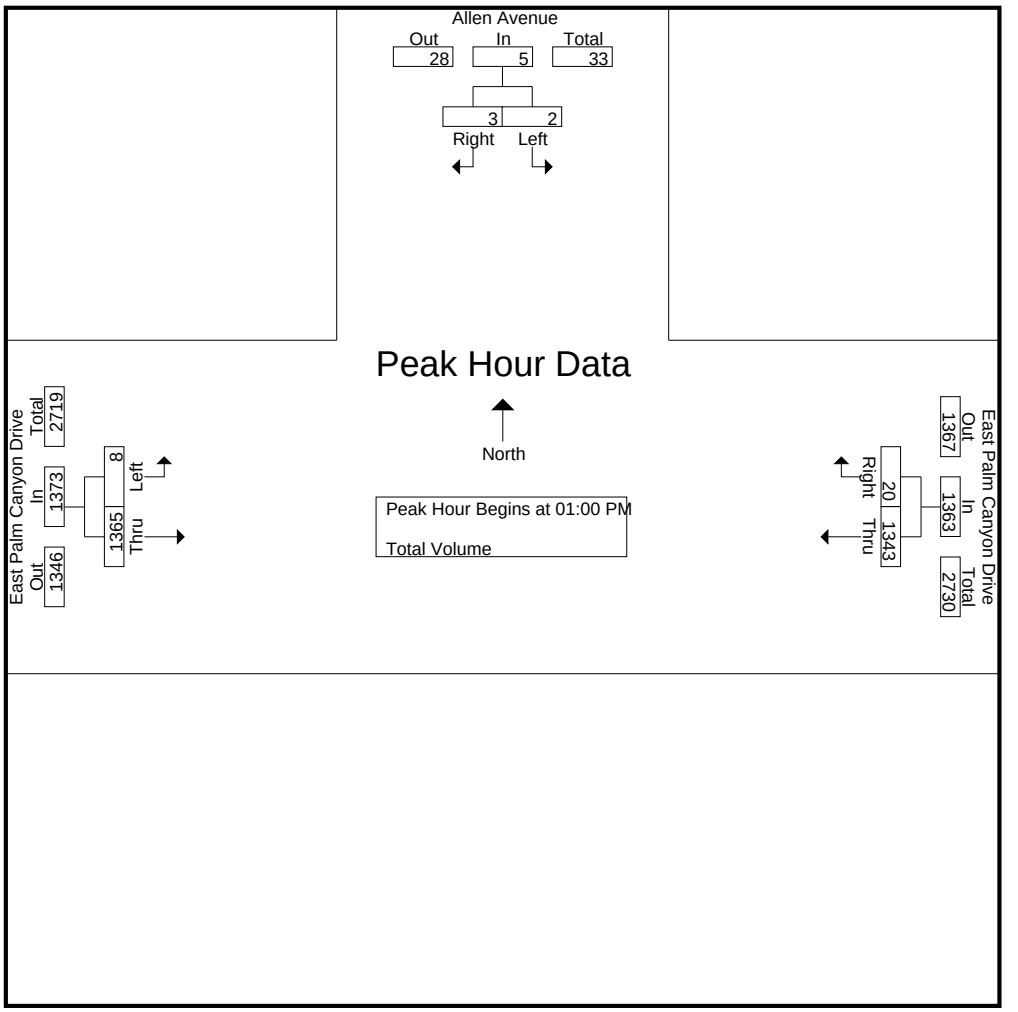
	Allen Avenue Southbound			East Palm Canyon Drive Westbound			East Palm Canyon Drive Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
12:00 PM	1	1	2	368	4	372	0	314	314	688
12:15 PM	2	1	3	320	4	324	4	311	315	642
12:30 PM	0	0	0	317	4	321	0	311	311	632
12:45 PM	0	0	0	289	4	293	2	302	304	597
Total	3	2	5	1294	16	1310	6	1238	1244	2559
01:00 PM	0	1	1	312	2	314	3	345	348	663
01:15 PM	2	0	2	367	6	373	1	315	316	691
01:30 PM	0	0	0	351	2	353	3	366	369	722
01:45 PM	0	2	2	313	10	323	1	339	340	665
Total	2	3	5	1343	20	1363	8	1365	1373	2741
Grand Total	5	5	10	2637	36	2673	14	2603	2617	5300
Apprch %	50	50		98.7	1.3		0.5	99.5		
Total %	0.1	0.1	0.2	49.8	0.7	50.4	0.3	49.1	49.4	

	Allen Avenue Southbound			East Palm Canyon Drive Westbound			East Palm Canyon Drive Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 01:00 PM										
01:00 PM	0	1	1	312	2	314	**3**	345	348	663
01:15 PM	**2**	0	**2**	**367**	6	**373**	1	315	316	691
01:30 PM	0	0	0	351	2	353	3	**366**	**369**	**722**
01:45 PM	0	**2**	2	313	**10**	323	1	339	340	665
Total Volume	2	3	5	1343	20	1363	8	1365	1373	2741
% App. Total	40	60		98.5	1.5		0.6	99.4		
PHF	.250	.375	.625	.915	.500	.914	.667	.932	.930	.949

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City of Cathedral City
N/S: Allen Avenue
E/W: East Palm Canyon Drive (SR-111)
Weather: Clear

File Name : 03_CTC_Allen_E Palm Cyn SAT
Site Code : 06718258
Start Date : 4/14/2018
Page No : 2



Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	12:00 PM			01:00 PM			01:00 PM		
+0 mins.	1	**1**	2	312	2	314	**3**	345	348
+15 mins.	**2**	1	**3**	**367**	6	**373**	1	315	316
+30 mins.	0	0	0	351	2	353	3	**366**	**369**
+45 mins.	0	0	0	313	**10**	323	1	339	340
Total Volume	3	2	5	1343	20	1363	8	1365	1373
% App. Total	60	40		98.5	1.5		0.6	99.4	
PHF	.375	.500	.417	.915	.500	.914	.667	.932	.930

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City of Cathedral City
N/S: Monty Hall Drive/Van Fleet Street
E/W: East Palm Canyon Drive (SR-111)
Weather: Clear

File Name : 04_CTC_Monty Hall_Van Fleet_E Palm Cyn AM
Site Code : 06718258
Start Date : 4/10/2018
Page No : 1

Groups Printed- Total Volume

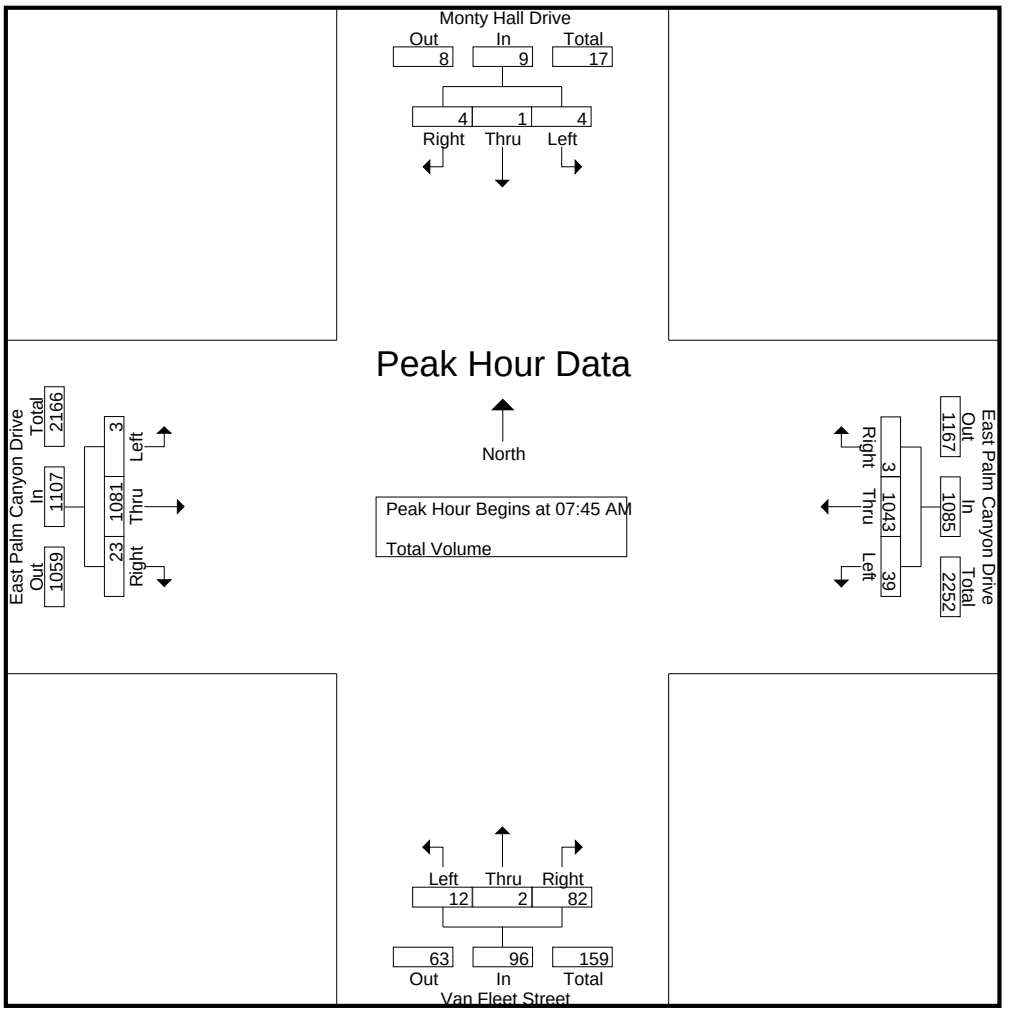
	Monty Hall Drive Southbound				East Palm Canyon Drive Westbound				Van Fleet Street Northbound				East Palm Canyon Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	1	0	0	1	4	177	0	181	1	0	23	24	0	128	2	130	336
07:15 AM	1	0	2	3	14	187	1	202	1	3	26	30	0	188	2	190	425
07:30 AM	2	4	0	6	9	229	0	238	5	2	31	38	1	224	1	226	508
07:45 AM	0	1	1	2	11	308	0	319	1	0	16	17	0	285	4	289	627
Total	4	5	3	12	38	901	1	940	8	5	96	109	1	825	9	835	1896
08:00 AM	1	0	1	2	7	238	1	246	1	1	26	28	1	257	5	263	539
08:15 AM	3	0	1	4	7	253	1	261	7	1	23	31	1	276	8	285	581
08:30 AM	0	0	1	1	14	244	1	259	3	0	17	20	1	263	6	270	550
08:45 AM	1	0	2	3	7	264	1	272	0	1	14	15	1	266	1	268	558
Total	5	0	5	10	35	999	4	1038	11	3	80	94	4	1062	20	1086	2228
Grand Total	9	5	8	22	73	1900	5	1978	19	8	176	203	5	1887	29	1921	4124
Apprch %	40.9	22.7	36.4		3.7	96.1	0.3		9.4	3.9	86.7		0.3	98.2	1.5		
Total %	0.2	0.1	0.2	0.5	1.8	46.1	0.1	48	0.5	0.2	4.3	4.9	0.1	45.8	0.7	46.6	

	Monty Hall Drive Southbound				East Palm Canyon Drive Westbound				Van Fleet Street Northbound				East Palm Canyon Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	0	**1**	**1**	2	11	**308**	0	**319**	1	0	16	17	0	**285**	4	**289**	**627**
08:00 AM	1	0	1	2	7	238	**1**	246	1	**1**	**26**	28	**1**	257	5	263	539
08:15 AM	**3**	0	1	**4**	7	253	1	261	**7**	1	23	**31**	1	276	**8**	285	581
08:30 AM	0	0	1	1	**14**	244	1	259	3	0	17	20	1	263	6	270	550
Total Volume	4	1	4	9	39	1043	3	1085	12	2	82	96	3	1081	23	1107	2297
% App. Total	44.4	11.1	44.4		3.6	96.1	0.3		12.5	2.1	85.4		0.3	97.7	2.1		
PHF	.333	.250	1.00	.563	.696	.847	.750	.850	.429	.500	.788	.774	.750	.948	.719	.958	.916

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City of Cathedral City
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Weather: Clear

File Name : 04_CTC_Monty Hall_Van Fleet_E Palm Cyn AM
Site Code : 06718258
Start Date : 4/10/2018
Page No : 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:30 AM				07:45 AM				07:30 AM				07:45 AM			
+0 mins.	2	**4**	0	**6**	11	**308**	0	**319**	5	**2**	**31**	**38**	0	**285**	4	**289**
+15 mins.	0	1	**1**	2	7	238	**1**	246	1	0	16	17	**1**	257	5	263
+30 mins.	1	0	1	2	7	253	1	261	1	1	26	28	1	276	**8**	285
+45 mins.	**3**	0	1	4	**14**	244	1	259	**7**	1	23	31	1	263	6	270
Total Volume	6	5	3	14	39	1043	3	1085	14	4	96	114	3	1081	23	1107
% App. Total	42.9	35.7	21.4		3.6	96.1	0.3		12.3	3.5	84.2		0.3	97.7	2.1	
PHF	.500	.313	.750	.583	.696	.847	.750	.850	.500	.500	.774	.750	.750	.948	.719	.958

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City of Cathedral City
N/S: Monty Hall Drive/Van Fleet Street
E/W: East Palm Canyon Drive (SR-111)
Weather: Clear

File Name : 04_CTC_Monty Hall_Van Fleet_E Palm Cyn PM
Site Code : 06718258
Start Date : 4/10/2018
Page No : 1

Groups Printed- Total Volume

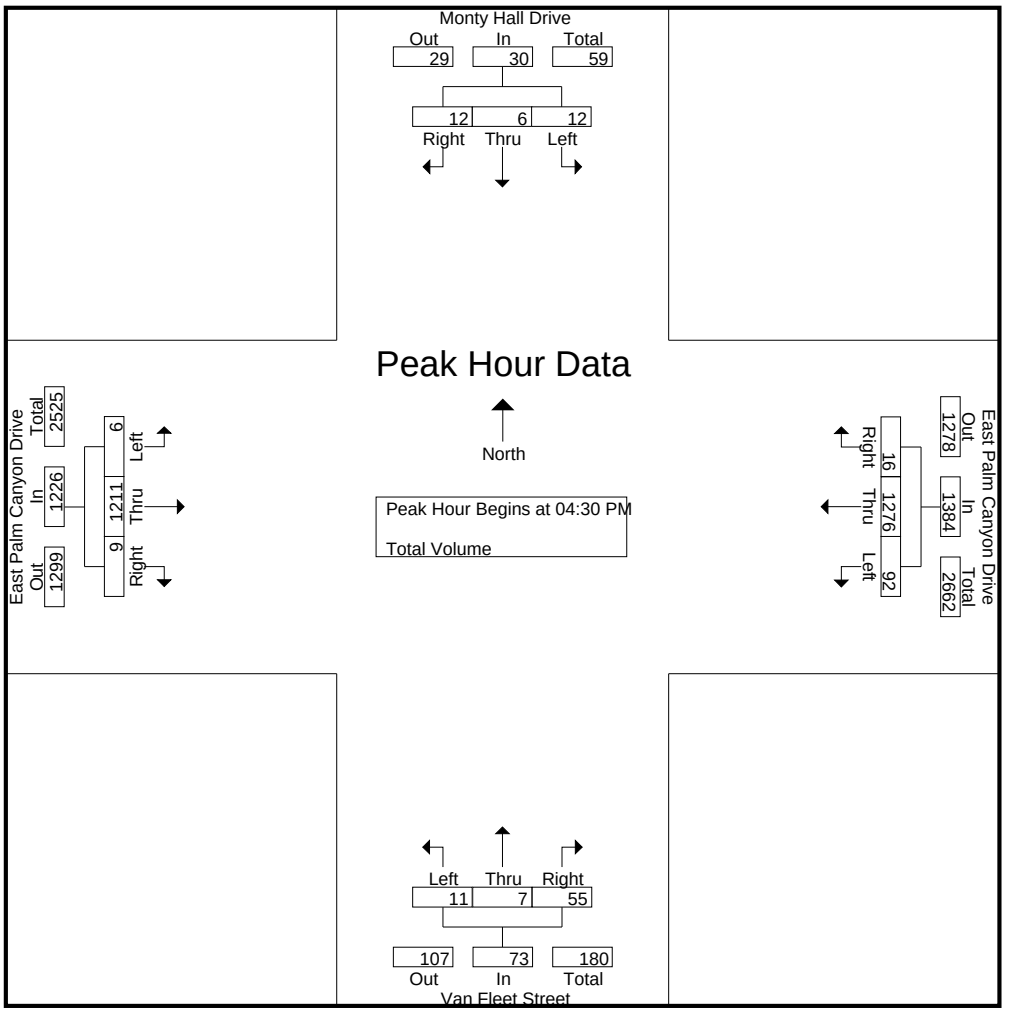
	Monty Hall Drive Southbound				East Palm Canyon Drive Westbound				Van Fleet Street Northbound				East Palm Canyon Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	5	1	2	8	35	287	3	325	1	0	5	6	2	283	4	289	628
04:15 PM	2	0	3	5	26	308	3	337	5	0	20	25	1	303	2	306	673
04:30 PM	1	0	2	3	23	334	4	361	2	1	14	17	2	279	2	283	664
04:45 PM	4	2	4	10	20	288	4	312	3	2	16	21	2	297	2	301	644
Total	12	3	11	26	104	1217	14	1335	11	3	55	69	7	1162	10	1179	2609
05:00 PM	3	2	3	8	29	325	0	354	5	3	13	21	0	308	3	311	694
05:15 PM	4	2	3	9	20	329	8	357	1	1	12	14	2	327	2	331	711
05:30 PM	3	1	2	6	14	282	0	296	5	2	27	34	1	281	1	283	619
05:45 PM	3	2	2	7	14	317	0	331	2	0	14	16	0	226	3	229	583
Total	13	7	10	30	77	1253	8	1338	13	6	66	85	3	1142	9	1154	2607
Grand Total	25	10	21	56	181	2470	22	2673	24	9	121	154	10	2304	19	2333	5216
Apprch %	44.6	17.9	37.5		6.8	92.4	0.8		15.6	5.8	78.6		0.4	98.8	0.8		
Total %	0.5	0.2	0.4	1.1	3.5	47.4	0.4	51.2	0.5	0.2	2.3	3	0.2	44.2	0.4	44.7	

	Monty Hall Drive Southbound				East Palm Canyon Drive Westbound				Van Fleet Street Northbound				East Palm Canyon Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	1	0	2	3	23	**334**	4	**361**	2	1	14	17	**2**	279	2	283	664
04:45 PM	**4**	**2**	**4**	**10**	20	288	4	312	3	2	**16**	**21**	2	297	2	301	644
05:00 PM	3	2	3	8	**29**	325	0	354	**5**	**3**	13	21	0	308	**3**	311	694
05:15 PM	4	2	3	9	20	329	**8**	357	1	1	12	14	2	**327**	2	**331**	**711**
Total Volume	12	6	12	30	92	1276	16	1384	11	7	55	73	6	1211	9	1226	2713
% App. Total	40	20	40		6.6	92.2	1.2		15.1	9.6	75.3		0.5	98.8	0.7		
PHF	.750	.750	.750	.750	.793	.955	.500	.958	.550	.583	.859	.869	.750	.926	.750	.926	.954

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City of Cathedral City
N/S: Monty Hall Drive/Van Fleet Street
E/W: East Palm Canyon Drive (SR-111)
Weather: Clear

File Name : 04_CTC_Monty Hall_Van Fleet_E Palm Cyn PM
Site Code : 06718258
Start Date : 4/10/2018
Page No : 2



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:45 PM				04:30 PM				04:45 PM				04:30 PM			
+0 mins.	**4**	**2**	**4**	**10**	23	**334**	4	**361**	3	2	16	21	**2**	279	2	283
+15 mins.	3	2	3	8	20	288	4	312	**5**	**3**	13	21	2	297	2	301
+30 mins.	4	2	3	9	**29**	325	0	354	1	1	12	14	0	308	**3**	311
+45 mins.	3	1	2	6	20	329	**8**	357	5	2	**27**	**34**	2	**327**	2	**331**
Total Volume	14	7	12	33	92	1276	16	1384	14	8	68	90	6	1211	9	1226
% App. Total	42.4	21.2	36.4		6.6	92.2	1.2		15.6	8.9	75.6		0.5	98.8	0.7	
PHF	.875	.875	.750	.825	.793	.955	.500	.958	.700	.667	.630	.662	.750	.926	.750	.926

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City of Cathedral City
N/S: Monty Hall Drive/Van Fleet Street
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Weather: Clear

File Name : 04_CTC_Monty Hall_Van Fleet_E Palm Cyn SAT
Site Code : 06718258
Start Date : 4/14/2018
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Groups Printed- Total Volume

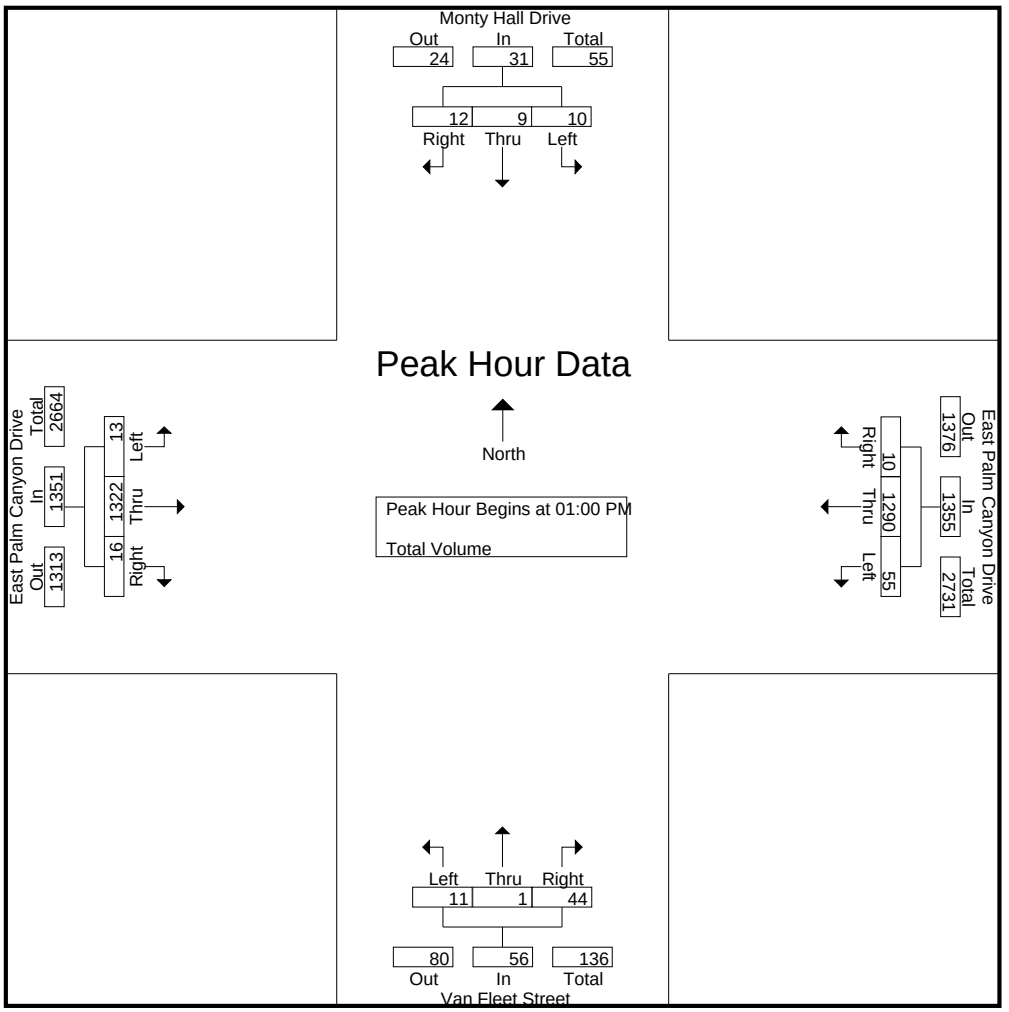
	Monty Hall Drive Southbound				East Palm Canyon Drive Westbound				Van Fleet Street Northbound				East Palm Canyon Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
12:00 PM	2	1	6	9	13	343	2	358	2	1	8	11	1	308	3	312	690
12:15 PM	2	0	3	5	15	293	0	308	4	2	9	15	3	293	2	298	626
12:30 PM	1	0	4	5	13	323	1	337	0	1	10	11	1	310	2	313	666
12:45 PM	4	2	5	11	14	275	1	290	4	1	10	15	4	287	3	294	610
Total	9	3	18	30	55	1234	4	1293	10	5	37	52	9	1198	10	1217	2592
01:00 PM	1	1	5	7	17	297	3	317	3	0	11	14	4	336	5	345	683
01:15 PM	4	0	1	5	10	346	2	358	3	0	8	11	3	315	3	321	695
01:30 PM	2	4	2	8	16	331	2	349	2	1	7	10	4	353	4	361	728
01:45 PM	3	4	4	11	12	316	3	331	3	0	18	21	2	318	4	324	687
Total	10	9	12	31	55	1290	10	1355	11	1	44	56	13	1322	16	1351	2793
Grand Total	19	12	30	61	110	2524	14	2648	21	6	81	108	22	2520	26	2568	5385
Apprch %	31.1	19.7	49.2		4.2	95.3	0.5		19.4	5.6	75		0.9	98.1	1		
Total %	0.4	0.2	0.6	1.1	2	46.9	0.3	49.2	0.4	0.1	1.5	2	0.4	46.8	0.5	47.7	

	Monty Hall Drive Southbound				East Palm Canyon Drive Westbound				Van Fleet Street Northbound				East Palm Canyon Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 01:00 PM																	
01:00 PM	1	1	**5**	7	**17**	297	**3**	317	**3**	0	11	14	**4**	336	**5**	345	683
01:15 PM	**4**	0	1	5	10	**346**	2	**358**	3	0	8	11	3	315	3	321	695
01:30 PM	2	**4**	2	8	16	331	2	349	2	**1**	7	10	4	**353**	4	**361**	**728**
01:45 PM	3	4	4	**11**	12	316	3	331	3	0	**18**	**21**	2	318	4	324	687
Total Volume	10	9	12	31	55	1290	10	1355	11	1	44	56	13	1322	16	1351	2793
% App. Total	32.3	29	38.7		4.1	95.2	0.7		19.6	1.8	78.6		1	97.9	1.2		
PHF	.625	.563	.600	.705	.809	.932	.833	.946	.917	.250	.611	.667	.813	.936	.800	.936	.959

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City of Cathedral City
N/S: Monty Hall Drive/Van Fleet Street
E/W: East Palm Canyon Drive (SR-111)
Weather: Clear

File Name : 04_CTC_Monty Hall_Van Fleet_E Palm Cyn SAT
Site Code : 06718258
Start Date : 4/14/2018
Page No : 2



Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	12:45 PM				01:00 PM				01:00 PM				01:00 PM			
+0 mins.	**4**	2	**5**	**11**	**17**	297	**3**	317	**3**	0	11	14	**4**	336	**5**	345
+15 mins.	1	1	5	7	10	**346**	2	**358**	3	0	8	11	3	315	3	321
+30 mins.	4	0	1	5	16	331	2	349	2	**1**	7	10	4	**353**	4	**361**
+45 mins.	2	**4**	2	8	12	316	3	331	3	0	**18**	**21**	2	318	4	324
Total Volume	11	7	13	31	55	1290	10	1355	11	1	44	56	13	1322	16	1351
% App. Total	35.5	22.6	41.9		4.1	95.2	0.7		19.6	1.8	78.6		1	97.9	1.2	
PHF	.688	.438	.650	.705	.809	.932	.833	.946	.917	.250	.611	.667	.813	.936	.800	.936

Counts Unlimited
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City of Cathedral City
N/S: Monte Hall Drive
E/W: Buddy Rogers Avenue
Weather: Clear

File Name : 24_CTC_Monte Hall_Buddy Rogers AM
Site Code : 06718258
Start Date : 4/10/2018
Page No : 1

Groups Printed- Total Volume

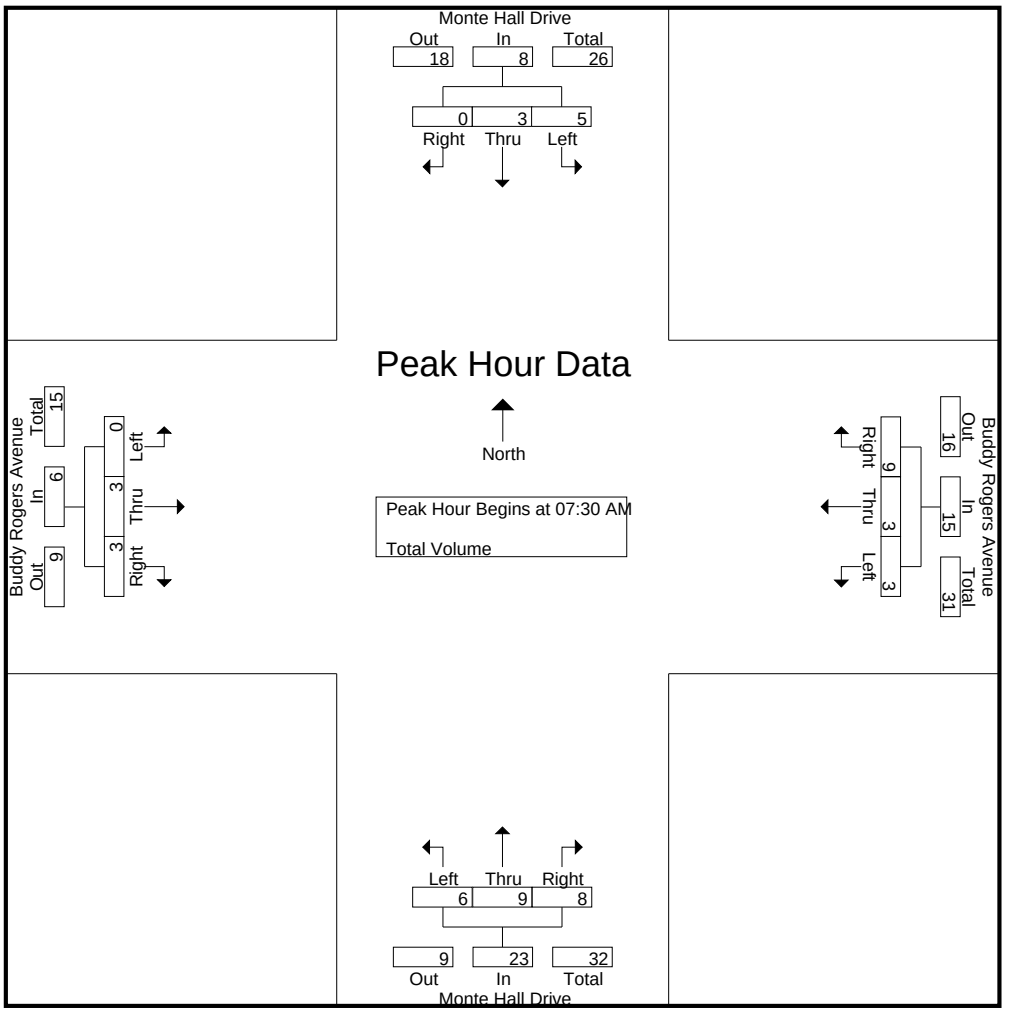
	Monte Hall Drive Southbound				Buddy Rogers Avenue Westbound				Monte Hall Drive Northbound				Buddy Rogers Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	2	0	2	0	3	2	5	0	1	0	1	0	1	1	2	10
07:15 AM	3	2	1	6	0	2	2	4	0	2	1	3	0	0	0	0	13
07:30 AM	2	1	0	3	0	0	2	2	3	2	0	5	0	1	1	2	12
07:45 AM	1	1	0	2	0	0	3	3	0	2	1	3	0	0	1	1	9
Total	6	6	1	13	0	5	9	14	3	7	2	12	0	2	3	5	44
08:00 AM	1	0	0	1	3	2	2	7	1	1	4	6	0	1	1	2	16
08:15 AM	1	1	0	2	0	1	2	3	2	4	3	9	0	1	0	1	15
08:30 AM	2	1	0	3	0	0	2	2	3	2	0	5	0	1	1	2	12
08:45 AM	1	0	1	2	2	0	1	3	1	1	0	2	0	0	0	0	7
Total	5	2	1	8	5	3	7	15	7	8	7	22	0	3	2	5	50
Grand Total	11	8	2	21	5	8	16	29	10	15	9	34	0	5	5	10	94
Apprch %	52.4	38.1	9.5		17.2	27.6	55.2		29.4	44.1	26.5		0	50	50		
Total %	11.7	8.5	2.1	22.3	5.3	8.5	17	30.9	10.6	16	9.6	36.2	0	5.3	5.3	10.6	

	Monte Hall Drive Southbound				Buddy Rogers Avenue Westbound				Monte Hall Drive Northbound				Buddy Rogers Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	**2**	**1**	0	**3**	0	0	2	2	**3**	2	0	5	0	**1**	**1**	**2**	12
07:45 AM	1	1	0	2	0	0	**3**	3	0	2	1	3	0	0	1	1	9
08:00 AM	1	0	0	1	**3**	**2**	2	**7**	1	1	**4**	6	0	1	1	2	**16**
08:15 AM	1	1	0	2	0	1	2	3	2	**4**	3	**9**	0	1	0	1	15
Total Volume	5	3	0	8	3	3	9	15	6	9	8	23	0	3	3	6	52
% App. Total	62.5	37.5	0		20	20	60		26.1	39.1	34.8		0	50	50		
PHF	.625	.750	.000	.667	.250	.375	.750	.536	.500	.563	.500	.639	.000	.750	.750	.750	.813

Counts Unlimited
PO Box 1178
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City of Cathedral City
N/S: Monte Hall Drive
E/W: Buddy Rogers Avenue
Weather: Clear

File Name : 24_CTC_Monte Hall_Buddy Rogers AM
Site Code : 06718258
Start Date : 4/10/2018
Page No : 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM				07:15 AM				07:30 AM				07:30 AM			
+0 mins.	0	**2**	0	2	0	**2**	2	4	**3**	2	0	5	0	**1**	**1**	**2**
+15 mins.	**3**	2	**1**	**6**	0	0	2	2	0	2	1	3	0	0	1	1
+30 mins.	2	1	0	3	0	0	**3**	3	1	1	**4**	6	0	1	1	2
+45 mins.	1	1	0	2	**3**	2	2	**7**	2	**4**	3	**9**	0	1	0	1
Total Volume	6	6	1	13	3	4	9	16	6	9	8	23	0	3	3	6
% App. Total	46.2	46.2	7.7		18.8	25	56.2		26.1	39.1	34.8		0	50	50	
PHF	.500	.750	.250	.542	.250	.500	.750	.571	.500	.563	.500	.639	.000	.750	.750	.750

Counts Unlimited
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City of Cathedral City
N/S: Monte Hall Drive
E/W: Buddy Rogers Avenue
Weather: Clear

File Name : 24_CTC_Monte Hall_Buddy Rogers PM
Site Code : 06718258
Start Date : 4/10/2018
Page No : 1

Groups Printed- Total Volume

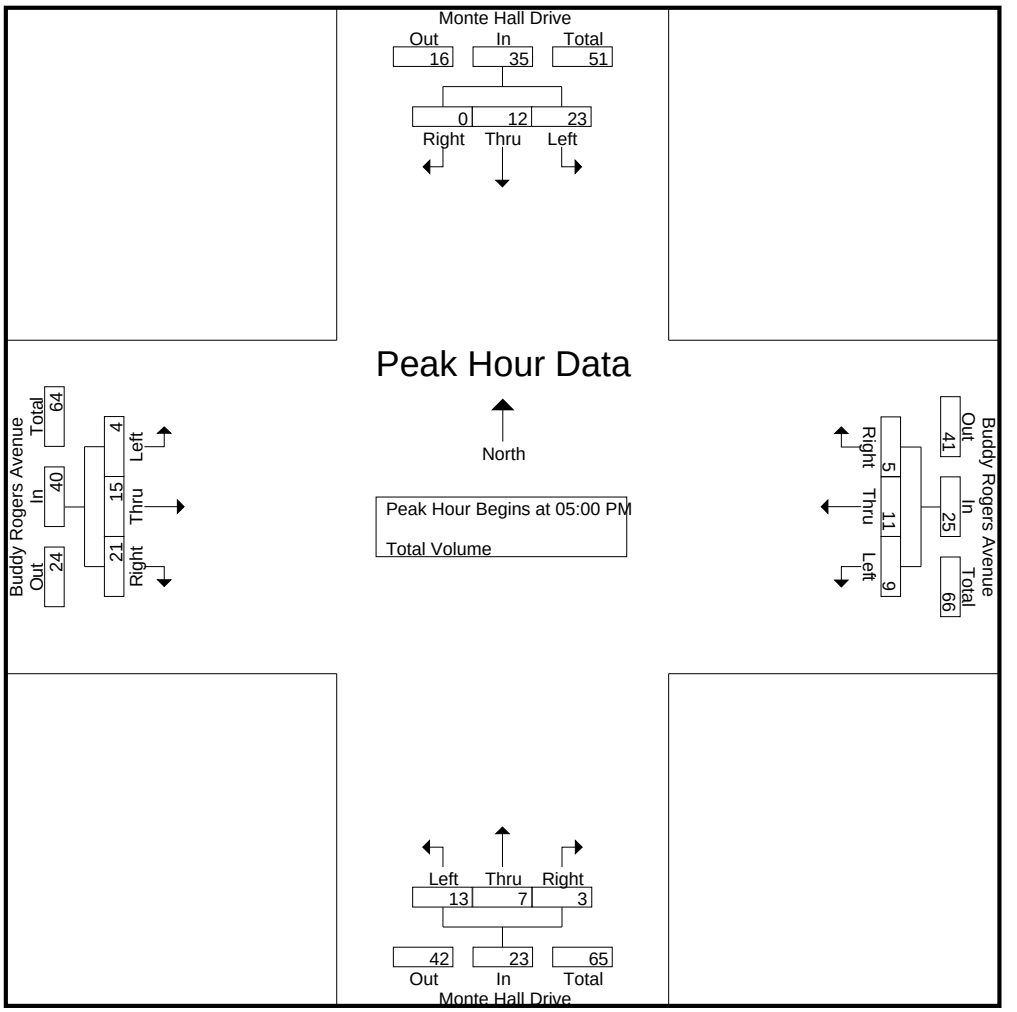
	Monte Hall Drive Southbound				Buddy Rogers Avenue Westbound				Monte Hall Drive Northbound				Buddy Rogers Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	4	3	0	7	1	3	5	9	0	2	1	3	1	1	1	3	22
04:15 PM	3	4	0	7	2	5	5	12	5	3	1	9	2	3	3	8	36
04:30 PM	7	2	0	9	1	1	3	5	5	1	1	7	0	1	0	1	22
04:45 PM	1	1	1	3	0	5	2	7	1	1	1	3	1	0	2	3	16
Total	15	10	1	26	4	14	15	33	11	7	4	22	4	5	6	15	96
05:00 PM	7	1	0	8	3	2	0	5	2	1	0	3	1	2	4	7	23
05:15 PM	9	4	0	13	1	3	3	7	4	2	2	8	2	3	1	6	34
05:30 PM	6	4	0	10	5	3	1	9	3	4	1	8	1	4	9	14	41
05:45 PM	1	3	0	4	0	3	1	4	4	0	0	4	0	6	7	13	25
Total	23	12	0	35	9	11	5	25	13	7	3	23	4	15	21	40	123
Grand Total	38	22	1	61	13	25	20	58	24	14	7	45	8	20	27	55	219
Apprch %	62.3	36.1	1.6		22.4	43.1	34.5		53.3	31.1	15.6		14.5	36.4	49.1		
Total %	17.4	10	0.5	27.9	5.9	11.4	9.1	26.5	11	6.4	3.2	20.5	3.7	9.1	12.3	25.1	

	Monte Hall Drive Southbound				Buddy Rogers Avenue Westbound				Monte Hall Drive Northbound				Buddy Rogers Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	7	1	0	8	3	2	0	5	2	1	0	3	1	2	4	7	23
05:15 PM	**9**	**4**	0	**13**	1	**3**	**3**	7	**4**	2	**2**	**8**	**2**	3	1	6	34
05:30 PM	6	4	0	10	**5**	3	1	**9**	3	**4**	1	8	1	4	**9**	**14**	**41**
05:45 PM	1	3	0	4	0	3	1	4	4	0	0	4	0	**6**	7	13	25
Total Volume	23	12	0	35	9	11	5	25	13	7	3	23	4	15	21	40	123
% App. Total	65.7	34.3	0		36	44	20		56.5	30.4	13		10	37.5	52.5		
PHF	.639	.750	.000	.673	.450	.917	.417	.694	.813	.438	.375	.719	.500	.625	.583	.714	.750

Counts Unlimited
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City of Cathedral City
N/S: Monte Hall Drive
E/W: Buddy Rogers Avenue
Weather: Clear

File Name : 24_CTC_Monte Hall_Buddy Rogers PM
Site Code : 06718258
Start Date : 4/10/2018
Page No : 2



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	05:00 PM				04:00 PM				05:00 PM				05:00 PM			
+0 mins.	7	1	0	8	1	3	**5**	9	2	1	0	3	1	2	4	7
+15 mins.	**9**	**4**	0	**13**	**2**	**5**	5	**12**	**4**	2	**2**	**8**	**2**	3	1	6
+30 mins.	6	4	0	10	1	1	3	5	3	**4**	1	8	1	4	**9**	**14**
+45 mins.	1	3	0	4	0	5	2	7	4	0	0	4	0	**6**	7	13
Total Volume	23	12	0	35	4	14	15	33	13	7	3	23	4	15	21	40
% App. Total	65.7	34.3	0		12.1	42.4	45.5		56.5	30.4	13		10	37.5	52.5	
PHF	.639	.750	.000	.673	.500	.700	.750	.688	.813	.438	.375	.719	.500	.625	.583	.714

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Cathedral City
N/S: Monte Hall Drive
E/W: Buddy Rogers Avenue
Weather: Clear

File Name : 24_CTC_Monte Hall_Buddy Rogers SAT
Site Code : 06718258
Start Date : 4/14/2018

Groups Printed- Total Volume

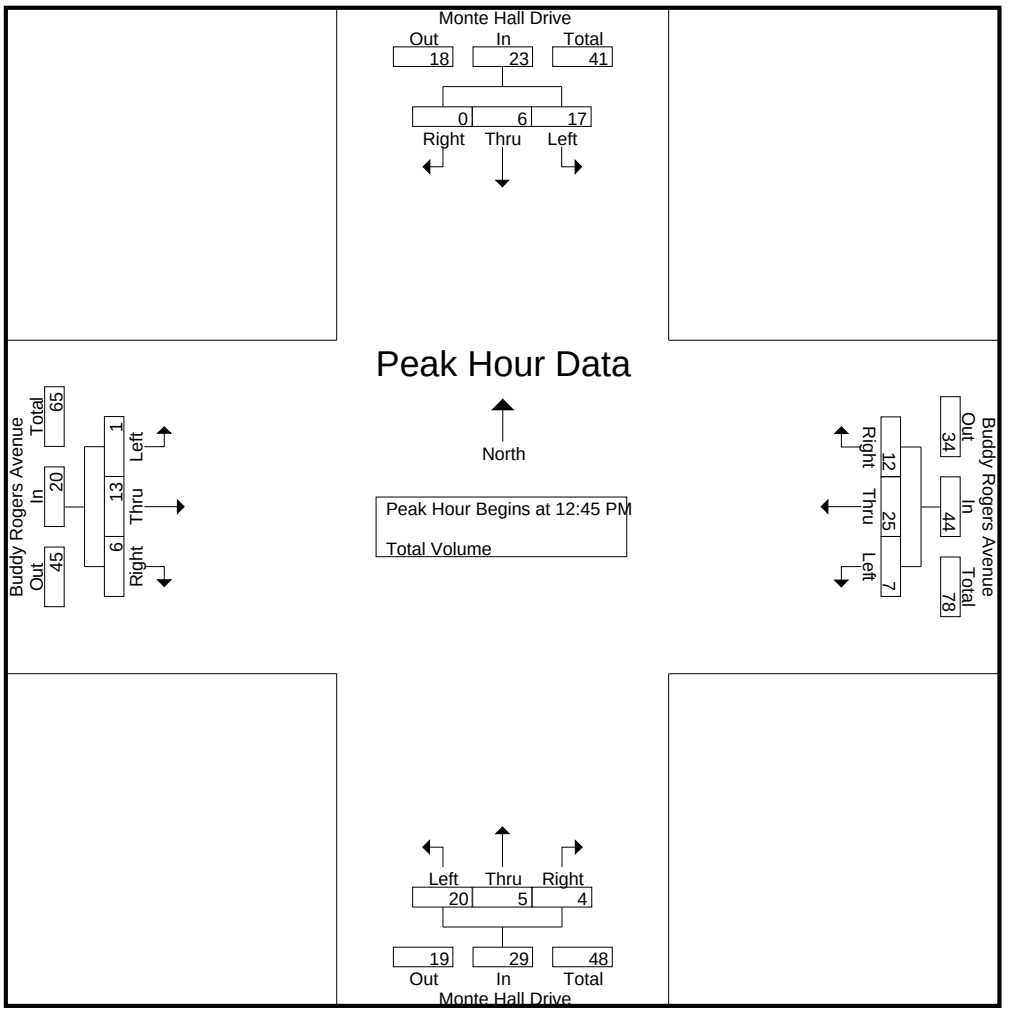
	Monte Hall Drive Southbound				Buddy Rogers Avenue Westbound				Monte Hall Drive Northbound				Buddy Rogers Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
12:00 PM	2	4	0	6	0	6	0	6	6	1	2	9	0	2	2	4	25
12:15 PM	0	1	0	1	1	4	1	6	3	2	0	5	0	1	4	5	17
12:30 PM	3	4	1	8	0	2	2	4	3	2	1	6	0	6	3	9	27
12:45 PM	5	0	0	5	2	7	2	11	10	1	1	12	0	0	1	1	29
Total	10	9	1	20	3	19	5	27	22	6	4	32	0	9	10	19	98
01:00 PM	4	4	0	8	0	11	5	16	4	1	1	6	0	3	2	5	35
01:15 PM	1	0	0	1	3	3	1	7	5	2	2	9	1	4	1	6	23
01:30 PM	7	2	0	9	2	4	4	10	1	1	0	2	0	6	2	8	29
01:45 PM	2	4	0	6	1	2	2	5	5	1	3	9	0	1	1	2	22
Total	14	10	0	24	6	20	12	38	15	5	6	26	1	14	6	21	109
Grand Total	24	19	1	44	9	39	17	65	37	11	10	58	1	23	16	40	207
Apprch %	54.5	43.2	2.3		13.8	60	26.2		63.8	19	17.2		2.5	57.5	40		
Total %	11.6	9.2	0.5	21.3	4.3	18.8	8.2	31.4	17.9	5.3	4.8	28	0.5	11.1	7.7	19.3	

	Monte Hall Drive Southbound				Buddy Rogers Avenue Westbound				Monte Hall Drive Northbound				Buddy Rogers Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 12:45 PM																	
12:45 PM	5	0	0	5	2	7	2	11	**10**	1	1	**12**	0	0	1	1	29
01:00 PM	4	**4**	0	8	0	**11**	**5**	**16**	4	1	1	6	0	3	**2**	5	**35**
01:15 PM	1	0	0	1	**3**	3	1	7	5	**2**	**2**	9	**1**	4	1	6	23
01:30 PM	**7**	2	0	**9**	2	4	4	10	1	1	0	2	0	**6**	2	**8**	29
Total Volume	17	6	0	23	7	25	12	44	20	5	4	29	1	13	6	20	116
% App. Total	73.9	26.1	0		15.9	56.8	27.3		69	17.2	13.8		5	65	30		
PHF	.607	.375	.000	.639	.583	.568	.600	.688	.500	.625	.500	.604	.250	.542	.750	.625	.829

Counts Unlimited
PO Box 1178
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City of Cathedral City
N/S: Monte Hall Drive
E/W: Buddy Rogers Avenue
Weather: Clear

File Name : 24_CTC_Monte Hall_Buddy Rogers SAT
Site Code : 06718258
Start Date : 4/14/2018
Page No : 2



Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	01:00 PM				12:45 PM				12:30 PM				12:30 PM			
+0 mins.	4	**4**	0	8	2	7	2	11	3	**2**	1	6	0	**6**	**3**	**9**
+15 mins.	1	0	0	1	0	**11**	**5**	**16**	**10**	1	1	**12**	0	0	1	1
+30 mins.	**7**	2	0	**9**	**3**	3	1	7	4	1	1	6	0	3	2	5
+45 mins.	2	4	0	6	2	4	4	10	5	2	**2**	9	**1**	4	1	6
Total Volume	14	10	0	24	7	25	12	44	22	6	5	33	1	13	7	21
% App. Total	58.3	41.7	0		15.9	56.8	27.3		66.7	18.2	15.2		4.8	61.9	33.3	
PHF	.500	.625	.000	.667	.583	.568	.600	.688	.550	.750	.625	.688	.250	.542	.583	.583

Counts Unlimited
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City of Cathedral City
N/S: West Buddy Rogers Avenue
E/W: East Palm Canyon Drive (SR-111)
Weather: Clear

File Name : 05_CTC_W Buddy Rogers_E Palm Cyn AM
Site Code : 06718258
Start Date : 4/10/2018
Page No : 1

Groups Printed- Total Volume

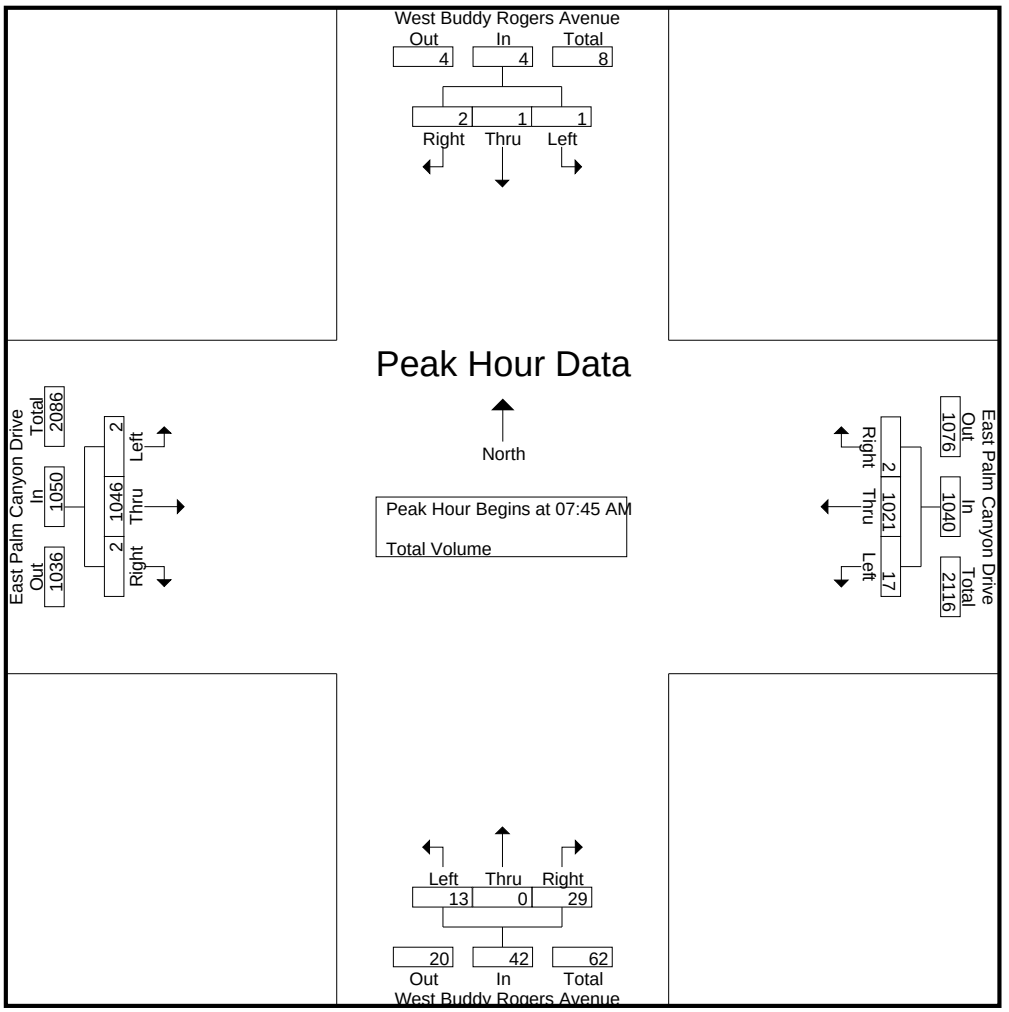
	West Buddy Rogers Avenue Southbound				East Palm Canyon Drive Westbound				West Buddy Rogers Avenue Northbound				East Palm Canyon Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	0	0	0	3	173	0	176	2	0	4	6	1	115	1	117	299
07:15 AM	0	0	0	0	5	184	0	189	2	0	5	7	0	187	2	189	385
07:30 AM	1	0	1	2	5	225	1	231	2	2	3	7	1	247	2	250	490
07:45 AM	0	0	0	0	8	296	0	304	1	0	5	6	0	266	0	266	576
Total	1	0	1	2	21	878	1	900	7	2	17	26	2	815	5	822	1750
08:00 AM	0	0	2	2	2	235	0	237	3	0	9	12	0	248	0	248	499
08:15 AM	0	0	0	0	2	258	2	262	3	0	9	12	1	269	1	271	545
08:30 AM	1	1	0	2	5	232	0	237	6	0	6	12	1	263	1	265	516
08:45 AM	0	2	1	3	2	260	1	263	1	0	1	2	2	273	1	276	544
Total	1	3	3	7	11	985	3	999	13	0	25	38	4	1053	3	1060	2104
Grand Total	2	3	4	9	32	1863	4	1899	20	2	42	64	6	1868	8	1882	3854
Apprch %	22.2	33.3	44.4		1.7	98.1	0.2		31.2	3.1	65.6		0.3	99.3	0.4		
Total %	0.1	0.1	0.1	0.2	0.8	48.3	0.1	49.3	0.5	0.1	1.1	1.7	0.2	48.5	0.2	48.8	

	West Buddy Rogers Avenue Southbound				East Palm Canyon Drive Westbound				West Buddy Rogers Avenue Northbound				East Palm Canyon Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	0	0	0	0	**8**	**296**	0	**304**	1	0	5	6	0	266	0	266	**576**
08:00 AM	0	0	**2**	**2**	2	235	0	237	3	0	**9**	**12**	0	248	0	248	499
08:15 AM	0	0	0	0	2	258	**2**	262	3	0	9	12	**1**	**269**	**1**	**271**	545
08:30 AM	**1**	**1**	0	2	5	232	0	237	**6**	0	6	12	1	263	1	265	516
Total Volume	1	1	2	4	17	1021	2	1040	13	0	29	42	2	1046	2	1050	2136
% App. Total	25	25	50		1.6	98.2	0.2		31	0	69		0.2	99.6	0.2		
PHF	.250	.250	.250	.500	.531	.862	.250	.855	.542	.000	.806	.875	.500	.972	.500	.969	.927

Counts Unlimited
PO Box 1178
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City of Cathedral City
N/S: West Buddy Rogers Avenue
E/W: East Palm Canyon Drive (SR-111)
Weather: Clear

File Name : 05_CTC_W Buddy Rogers_E Palm Cyn AM
Site Code : 06718258
Start Date : 4/10/2018



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	08:00 AM				07:45 AM				07:45 AM				08:00 AM			
+0 mins.	0	0	**2**	2	**8**	**296**	0	**304**	1	0	5	6	0	248	0	248
+15 mins.	0	0	0	0	2	235	0	237	3	0	**9**	**12**	1	269	**1**	271
+30 mins.	**1**	1	0	2	2	258	**2**	262	3	0	9	12	1	263	1	265
+45 mins.	0	**2**	1	**3**	5	232	0	237	**6**	0	6	12	**2**	**273**	1	**276**
Total Volume	1	3	3	7	17	1021	2	1040	13	0	29	42	4	1053	3	1060
% App. Total	14.3	42.9	42.9		1.6	98.2	0.2		31	0	69		0.4	99.3	0.3	
PHF	.250	.375	.375	.583	.531	.862	.250	.855	.542	.000	.806	.875	.500	.964	.750	.960

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City of Cathedral City
N/S: West Buddy Rogers Avenue
E/W: East Palm Canyon Drive (SR-111)
Weather: Clear

File Name : 05_CTC_W Buddy Rogers_E Palm Cyn PM
Site Code : 06718258
Start Date : 4/10/2018
Page No : 1

Groups Printed- Total Volume

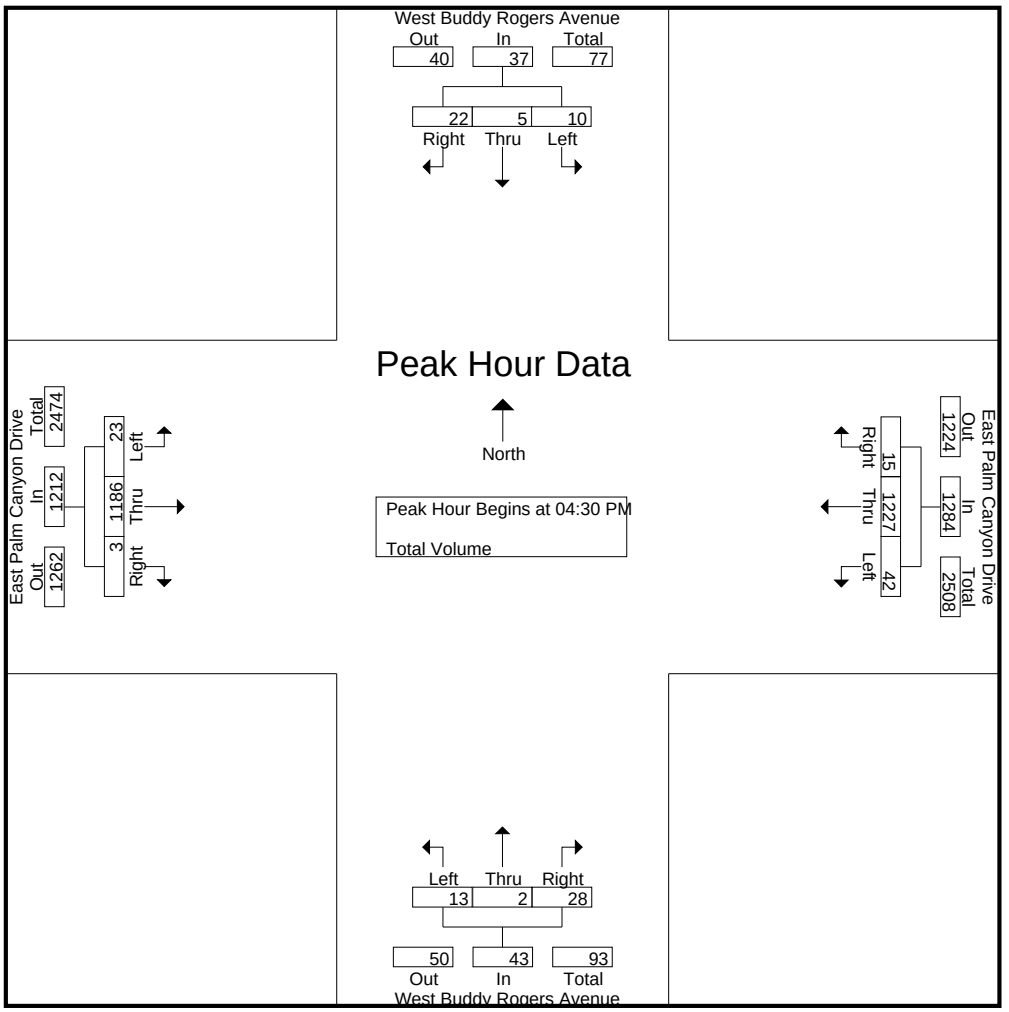
	West Buddy Rogers Avenue Southbound				East Palm Canyon Drive Westbound				West Buddy Rogers Avenue Northbound				East Palm Canyon Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	5	0	11	16	12	286	6	304	3	0	7	10	1	288	0	289	619
04:15 PM	5	0	2	7	5	301	5	311	3	1	7	11	4	298	1	303	632
04:30 PM	3	2	5	10	2	329	5	336	1	1	6	8	6	260	0	266	620
04:45 PM	5	1	8	14	14	269	4	287	6	0	6	12	6	286	1	293	606
Total	18	3	26	47	33	1185	20	1238	13	2	26	41	17	1132	2	1151	2477
05:00 PM	1	1	5	7	13	312	3	328	3	1	10	14	8	300	1	309	658
05:15 PM	1	1	4	6	13	317	3	333	3	0	6	9	3	340	1	344	692
05:30 PM	1	0	2	3	4	279	9	292	2	0	2	4	6	266	1	273	572
05:45 PM	0	1	1	2	8	305	4	317	0	0	5	5	4	221	0	225	549
Total	3	3	12	18	38	1213	19	1270	8	1	23	32	21	1127	3	1151	2471
Grand Total	21	6	38	65	71	2398	39	2508	21	3	49	73	38	2259	5	2302	4948
Apprch %	32.3	9.2	58.5		2.8	95.6	1.6		28.8	4.1	67.1		1.7	98.1	0.2		
Total %	0.4	0.1	0.8	1.3	1.4	48.5	0.8	50.7	0.4	0.1	1	1.5	0.8	45.7	0.1	46.5	

	West Buddy Rogers Avenue Southbound				East Palm Canyon Drive Westbound				West Buddy Rogers Avenue Northbound				East Palm Canyon Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	3	**2**	5	10	2	**329**	**5**	**336**	1	**1**	6	8	6	260	0	266	620
04:45 PM	**5**	1	**8**	**14**	**14**	269	4	287	**6**	0	6	12	6	286	**1**	293	606
05:00 PM	1	1	5	7	13	312	3	328	3	1	**10**	**14**	**8**	300	1	309	658
05:15 PM	1	1	4	6	13	317	3	333	3	0	6	9	3	**340**	1	**344**	**692**
Total Volume	10	5	22	37	42	1227	15	1284	13	2	28	43	23	1186	3	1212	2576
% App. Total	27	13.5	59.5		3.3	95.6	1.2		30.2	4.7	65.1		1.9	97.9	0.2		
PHF	.500	.625	.688	.661	.750	.932	.750	.955	.542	.500	.700	.768	.719	.872	.750	.881	.931

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City of Cathedral City
N/S: West Buddy Rogers Avenue
E/W: East Palm Canyon Drive (SR-111)
Weather: Clear

File Name : 05_CTC_W Buddy Rogers_E Palm Cyn PM
Site Code : 06718258
Start Date : 4/10/2018



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM				04:30 PM				04:15 PM				04:45 PM			
+0 mins.	**5**	0	**11**	**16**	2	**329**	**5**	**336**	3	**1**	7	11	6	286	**1**	293
+15 mins.	5	0	2	7	**14**	269	4	287	1	1	6	8	**8**	300	1	309
+30 mins.	3	**2**	5	10	13	312	3	328	**6**	0	6	12	3	**340**	1	**344**
+45 mins.	5	1	8	14	13	317	3	333	3	1	**10**	**14**	6	266	1	273
Total Volume	18	3	26	47	42	1227	15	1284	13	3	29	45	23	1192	4	1219
% App. Total	38.3	6.4	55.3		3.3	95.6	1.2		28.9	6.7	64.4		1.9	97.8	0.3	
PHF	.900	.375	.591	.734	.750	.932	.750	.955	.542	.750	.725	.804	.719	.876	1.000	.886

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City of Cathedral City
N/S: West Buddy Rogers Avenue
E/W: East Palm Canyon Drive (SR-111)
Weather: Clear

File Name : 05_CTC_W Buddy Rogers_E Palm Cyn SAT
Site Code : 06718258
Start Date : 4/14/2018
Page No : 1

Groups Printed- Total Volume

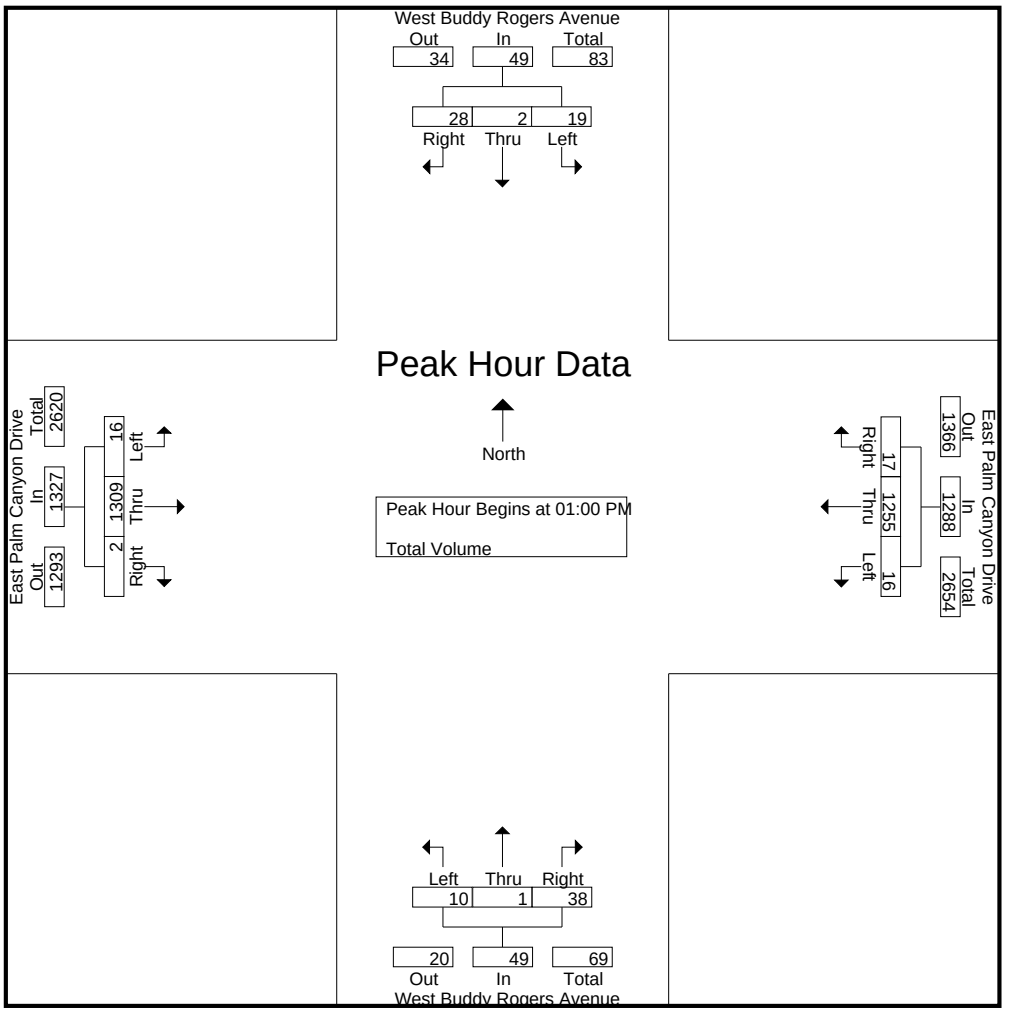
	West Buddy Rogers Avenue Southbound				East Palm Canyon Drive Westbound				West Buddy Rogers Avenue Northbound				East Palm Canyon Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
12:00 PM	3	1	5	9	12	317	6	335	1	0	4	5	3	289	2	294	643
12:15 PM	0	0	2	2	9	297	2	308	3	0	5	8	3	305	0	308	626
12:30 PM	2	0	2	4	8	311	4	323	1	0	3	4	3	306	0	309	640
12:45 PM	0	0	2	2	8	270	1	279	2	1	3	6	3	280	1	284	571
Total	5	1	11	17	37	1195	13	1245	7	1	15	23	12	1180	3	1195	2480
01:00 PM	2	0	5	7	3	291	4	298	2	0	8	10	3	346	0	349	664
01:15 PM	2	0	5	7	4	336	5	345	4	0	12	16	5	287	0	292	660
01:30 PM	10	2	11	23	4	321	3	328	3	1	10	14	5	355	0	360	725
01:45 PM	5	0	7	12	5	307	5	317	1	0	8	9	3	321	2	326	664
Total	19	2	28	49	16	1255	17	1288	10	1	38	49	16	1309	2	1327	2713
Grand Total	24	3	39	66	53	2450	30	2533	17	2	53	72	28	2489	5	2522	5193
Apprch %	36.4	4.5	59.1		2.1	96.7	1.2		23.6	2.8	73.6		1.1	98.7	0.2		
Total %	0.5	0.1	0.8	1.3	1	47.2	0.6	48.8	0.3	0	1	1.4	0.5	47.9	0.1	48.6	

	West Buddy Rogers Avenue Southbound				East Palm Canyon Drive Westbound				West Buddy Rogers Avenue Northbound				East Palm Canyon Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 01:00 PM																	
01:00 PM	2	0	5	7	3	291	4	298	2	0	8	10	3	346	0	349	664
01:15 PM	2	0	5	7	4	**336**	**5**	**345**	**4**	0	**12**	**16**	**5**	287	0	292	660
01:30 PM	**10**	**2**	**11**	**23**	4	321	3	328	3	**1**	10	14	5	**355**	0	**360**	**725**
01:45 PM	5	0	7	12	**5**	307	5	317	1	0	8	9	3	321	**2**	326	664
Total Volume	19	2	28	49	16	1255	17	1288	10	1	38	49	16	1309	2	1327	2713
% App. Total	38.8	4.1	57.1		1.2	97.4	1.3		20.4	2	77.6		1.2	98.6	0.2		
PHF	.475	.250	.636	.533	.800	.934	.850	.933	.625	.250	.792	.766	.800	.922	.250	.922	.936

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City of Cathedral City
N/S: West Buddy Rogers Avenue
E/W: East Palm Canyon Drive (SR-111)
Weather: Clear

File Name : 05_CTC_W Buddy Rogers_E Palm Cyn SAT
Site Code : 06718258
Start Date : 4/14/2018
Page No : 2



Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	01:00 PM				01:00 PM				01:00 PM				01:00 PM			
+0 mins.	2	0	5	7	3	291	4	298	2	0	8	10	3	346	0	349
+15 mins.	2	0	5	7	4	**336**	**5**	**345**	**4**	0	**12**	**16**	**5**	287	0	292
+30 mins.	**10**	**2**	**11**	**23**	4	321	3	328	3	**1**	10	14	5	**355**	0	**360**
+45 mins.	5	0	7	12	**5**	307	5	317	1	0	8	9	3	321	**2**	326
Total Volume	19	2	28	49	16	1255	17	1288	10	1	38	49	16	1309	2	1327
% App. Total	38.8	4.1	57.1		1.2	97.4	1.3		20.4	2	77.6		1.2	98.6	0.2	
PHF	.475	.250	.636	.533	.800	.934	.850	.933	.625	.250	.792	.766	.800	.922	.250	.922

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City of Cathedral City
N/S: Cathedral Canyon Drive
E/W: East Palm Canyon Drive (SR-111)
Weather: Clear

File Name : 06_CTC_Cathedral Cyn_E Palm Cyn AM
Site Code : 06718258
Start Date : 4/10/2018
Page No : 1

Groups Printed- Total Volume

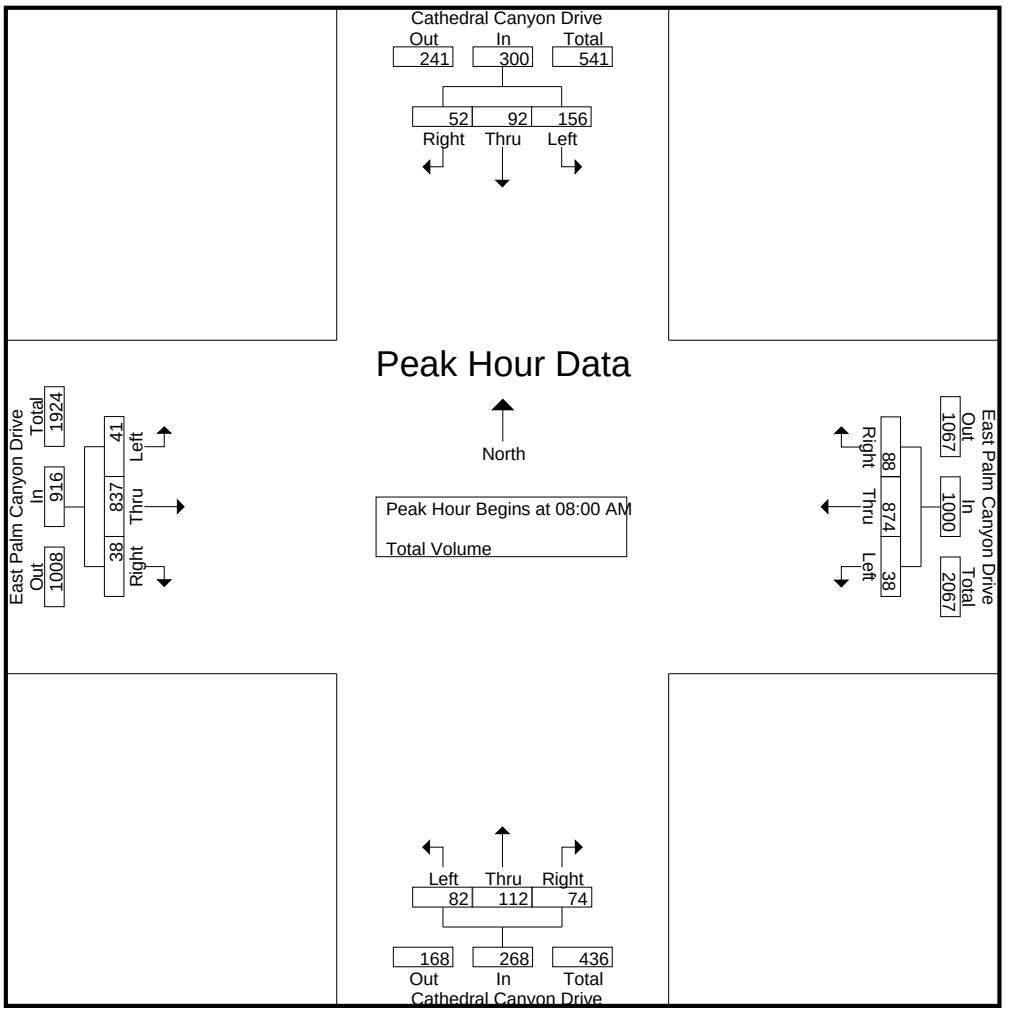
	Cathedral Canyon Drive Southbound				East Palm Canyon Drive Westbound				Cathedral Canyon Drive Northbound				East Palm Canyon Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	27	26	4	57	2	155	21	178	22	16	10	48	5	87	10	102	385
07:15 AM	39	25	3	67	6	161	16	183	17	29	17	63	11	132	8	151	464
07:30 AM	39	25	10	74	5	221	14	240	28	22	22	72	6	185	6	197	583
07:45 AM	60	29	17	106	9	244	19	272	14	27	20	61	7	185	12	204	643
Total	165	105	34	304	22	781	70	873	81	94	69	244	29	589	36	654	2075
08:00 AM	37	25	8	70	13	219	13	245	18	28	17	63	9	191	11	211	589
08:15 AM	39	15	11	65	13	214	28	255	19	25	18	62	8	221	10	239	621
08:30 AM	40	34	17	91	6	201	34	241	16	23	28	67	12	206	10	228	627
08:45 AM	40	18	16	74	6	240	13	259	29	36	11	76	12	219	7	238	647
Total	156	92	52	300	38	874	88	1000	82	112	74	268	41	837	38	916	2484
Grand Total	321	197	86	604	60	1655	158	1873	163	206	143	512	70	1426	74	1570	4559
Apprch %	53.1	32.6	14.2		3.2	88.4	8.4		31.8	40.2	27.9		4.5	90.8	4.7		
Total %	7	4.3	1.9	13.2	1.3	36.3	3.5	41.1	3.6	4.5	3.1	11.2	1.5	31.3	1.6	34.4	

	Cathedral Canyon Drive Southbound				East Palm Canyon Drive Westbound				Cathedral Canyon Drive Northbound				East Palm Canyon Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:00 AM																	
08:00 AM	37	25	8	70	**13**	219	13	245	18	28	17	63	9	191	**11**	211	589
08:15 AM	39	15	11	65	13	214	28	255	19	25	18	62	8	**221**	10	**239**	621
08:30 AM	**40**	**34**	**17**	**91**	6	201	**34**	241	16	23	**28**	67	**12**	206	10	228	627
08:45 AM	40	18	16	74	6	**240**	13	**259**	**29**	**36**	11	**76**	12	219	7	238	**647**
Total Volume	156	92	52	300	38	874	88	1000	82	112	74	268	41	837	38	916	2484
% App. Total	52	30.7	17.3		3.8	87.4	8.8		30.6	41.8	27.6		4.5	91.4	4.1		
PHF	.975	.676	.765	.824	.731	.910	.647	.965	.707	.778	.661	.882	.854	.947	.864	.958	.960

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City of Cathedral City
N/S: Cathedral Canyon Drive
E/W: East Palm Canyon Drive (SR-111)
Weather: Clear

File Name : 06_CTC_Cathedral Cyn_E Palm Cyn AM
Site Code : 06718258
Start Date : 4/10/2018



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:45 AM				07:45 AM				08:00 AM				08:00 AM			
+0 mins.	**60**	29	**17**	**106**	9	**244**	19	**272**	18	28	17	63	9	191	**11**	211
+15 mins.	37	25	8	70	**13**	219	13	245	19	25	18	62	8	**221**	10	**239**
+30 mins.	39	15	11	65	13	214	28	255	16	23	**28**	67	**12**	206	10	228
+45 mins.	40	**34**	17	91	6	201	**34**	241	**29**	**36**	11	**76**	12	219	7	238
Total Volume	176	103	53	332	41	878	94	1013	82	112	74	268	41	837	38	916
% App. Total	53	31	16		4	86.7	9.3		30.6	41.8	27.6		4.5	91.4	4.1	
PHF	.733	.757	.779	.783	.788	.900	.691	.931	.707	.778	.661	.882	.854	.947	.864	.958

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City of Cathedral City
N/S: Cathedral Canyon Drive
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Weather: Clear

File Name : 06_CTC_Cathedral Cyn_E Palm Cyn PM
Site Code : 06718258
Start Date : 4/10/2018
Page No : 1

Groups Printed- Total Volume

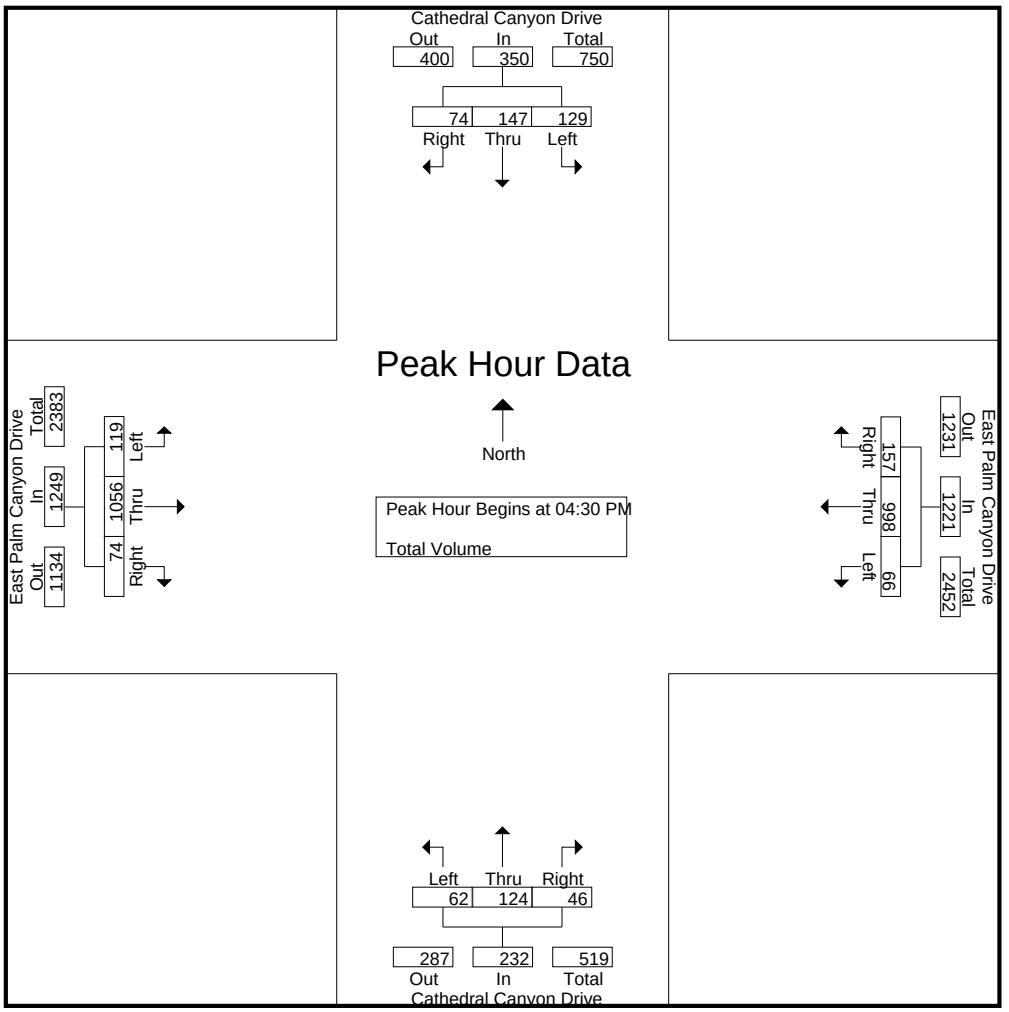
	Cathedral Canyon Drive Southbound				East Palm Canyon Drive Westbound				Cathedral Canyon Drive Northbound				East Palm Canyon Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	28	33	30	91	15	264	32	311	21	27	9	57	33	251	16	300	759
04:15 PM	33	38	30	101	10	248	34	292	18	29	9	56	36	248	23	307	756
04:30 PM	30	43	17	90	12	268	42	322	16	31	13	60	27	227	20	274	746
04:45 PM	31	43	27	101	10	227	38	275	18	27	9	54	35	261	19	315	745
Total	122	157	104	383	47	1007	146	1200	73	114	40	227	131	987	78	1196	3006
05:00 PM	40	27	14	81	26	260	37	323	16	29	13	58	23	262	18	303	765
05:15 PM	28	34	16	78	18	243	40	301	12	37	11	60	34	306	17	357	796
05:30 PM	14	27	22	63	11	261	33	305	17	31	11	59	23	235	19	277	704
05:45 PM	14	33	13	60	18	237	43	298	17	27	9	53	23	229	15	267	678
Total	96	121	65	282	73	1001	153	1227	62	124	44	230	103	1032	69	1204	2943
Grand Total	218	278	169	665	120	2008	299	2427	135	238	84	457	234	2019	147	2400	5949
Apprch %	32.8	41.8	25.4		4.9	82.7	12.3		29.5	52.1	18.4		9.8	84.1	6.1		
Total %	3.7	4.7	2.8	11.2	2	33.8	5	40.8	2.3	4	1.4	7.7	3.9	33.9	2.5	40.3	

	Cathedral Canyon Drive Southbound				East Palm Canyon Drive Westbound				Cathedral Canyon Drive Northbound				East Palm Canyon Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	30	**43**	17	90	12	**268**	**42**	322	16	31	**13**	**60**	27	227	**20**	274	746
04:45 PM	31	43	**27**	**101**	10	227	38	275	**18**	27	9	54	**35**	261	19	315	745
05:00 PM	**40**	27	14	81	**26**	260	37	**323**	16	29	13	58	23	262	18	303	765
05:15 PM	28	34	16	78	18	243	40	301	12	**37**	11	60	34	**306**	17	**357**	**796**
Total Volume	129	147	74	350	66	998	157	1221	62	124	46	232	119	1056	74	1249	3052
% App. Total	36.9	42	21.1		5.4	81.7	12.9		26.7	53.4	19.8		9.5	84.5	5.9		
PHF	.806	.855	.685	.866	.635	.931	.935	.945	.861	.838	.885	.967	.850	.863	.925	.875	.959

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City of Cathedral City
N/S: Cathedral Canyon Drive
E/W: East Palm Canyon Drive (SR-111)
Weather: Clear

File Name : 06_CTC_Cathedral Cyn_E Palm Cyn PM
Site Code : 06718258
Start Date : 4/10/2018



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM				05:00 PM				04:30 PM				04:45 PM			
+0 mins.	28	33	**30**	91	**26**	260	37	**323**	16	31	**13**	**60**	**35**	261	**19**	315
+15 mins.	**33**	38	30	**101**	18	243	40	301	**18**	27	9	54	23	262	18	303
+30 mins.	30	**43**	17	90	11	**261**	33	305	16	29	13	58	34	**306**	17	**357**
+45 mins.	31	43	27	101	18	237	**43**	298	12	**37**	11	60	23	235	19	277
Total Volume	122	157	104	383	73	1001	153	1227	62	124	46	232	115	1064	73	1252
% App. Total	31.9	41	27.2		5.9	81.6	12.5		26.7	53.4	19.8		9.2	85	5.8	
PHF	.924	.913	.867	.948	.702	.959	.890	.950	.861	.838	.885	.967	.821	.869	.961	.877

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City of Cathedral City
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Weather: Clear

File Name : 06_CTC_Cathedral Cyn_E Palm Cyn SAT
Site Code : 06718258
Start Date : 4/14/2018
Page No : 1

Groups Printed- Total Volume

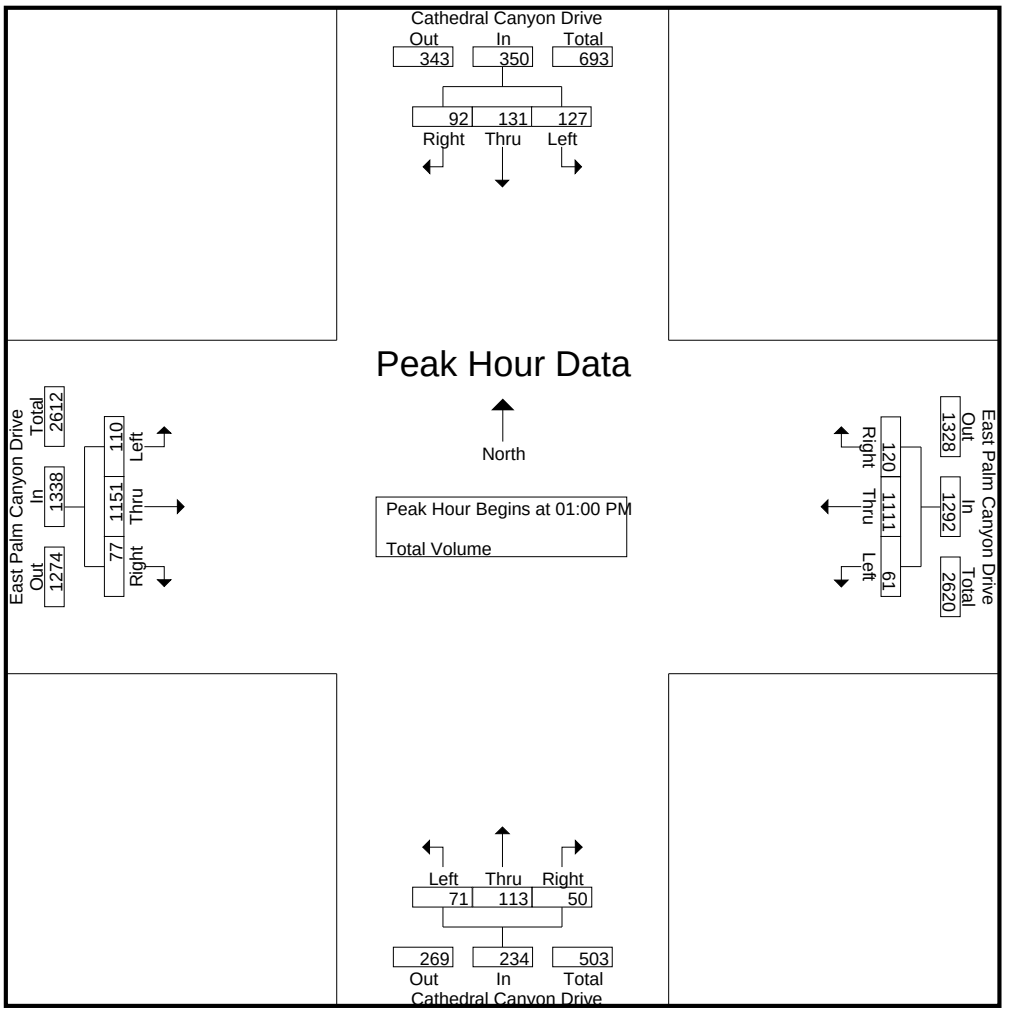
	Cathedral Canyon Drive Southbound				East Palm Canyon Drive Westbound				Cathedral Canyon Drive Northbound				East Palm Canyon Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
12:00 PM	26	28	22	76	15	283	12	310	10	22	11	43	34	258	17	309	738
12:15 PM	27	30	21	78	9	280	28	317	19	27	13	59	35	259	17	311	765
12:30 PM	31	40	31	102	12	253	23	288	14	24	12	50	24	276	24	324	764
12:45 PM	19	24	9	52	11	230	26	267	19	19	9	47	26	264	17	307	673
Total	103	122	83	308	47	1046	89	1182	62	92	45	199	119	1057	75	1251	2940
01:00 PM	43	32	14	89	12	257	29	298	27	27	10	64	26	283	18	327	778
01:15 PM	22	29	16	67	16	299	32	347	12	26	8	46	19	283	21	323	783
01:30 PM	27	37	26	90	15	280	30	325	16	24	17	57	29	304	17	350	822
01:45 PM	35	33	36	104	18	275	29	322	16	36	15	67	36	281	21	338	831
Total	127	131	92	350	61	1111	120	1292	71	113	50	234	110	1151	77	1338	3214
Grand Total	230	253	175	658	108	2157	209	2474	133	205	95	433	229	2208	152	2589	6154
Apprch %	35	38.4	26.6		4.4	87.2	8.4		30.7	47.3	21.9		8.8	85.3	5.9		
Total %	3.7	4.1	2.8	10.7	1.8	35.1	3.4	40.2	2.2	3.3	1.5	7	3.7	35.9	2.5	42.1	

	Cathedral Canyon Drive Southbound				East Palm Canyon Drive Westbound				Cathedral Canyon Drive Northbound				East Palm Canyon Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 01:00 PM																	
01:00 PM	**43**	32	14	89	12	257	29	298	**27**	27	10	64	26	283	18	327	778
01:15 PM	22	29	16	67	16	**299**	**32**	**347**	12	26	8	46	19	283	**21**	323	783
01:30 PM	27	**37**	26	90	15	280	30	325	16	24	**17**	57	29	**304**	17	**350**	822
01:45 PM	35	33	**36**	**104**	**18**	275	29	322	16	**36**	15	**67**	**36**	281	21	338	**831**
Total Volume	127	131	92	350	61	1111	120	1292	71	113	50	234	110	1151	77	1338	3214
% App. Total	36.3	37.4	26.3		4.7	86	9.3		30.3	48.3	21.4		8.2	86	5.8		
PHF	.738	.885	.639	.841	.847	.929	.938	.931	.657	.785	.735	.873	.764	.947	.917	.956	.967

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City of Cathedral City
N/S: Cathedral Canyon Drive
E/W: East Palm Canyon Drive (SR-111)
Weather: Clear

File Name : 06_CTC_Cathedral Cyn_E Palm Cyn SAT
Site Code : 06718258
Start Date : 4/14/2018
Page No : 2



Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	01:00 PM				01:00 PM				01:00 PM				01:00 PM			
+0 mins.	**43**	32	14	89	12	257	29	298	**27**	27	10	64	26	283	18	327
+15 mins.	22	29	16	67	16	**299**	**32**	**347**	12	26	8	46	19	283	**21**	323
+30 mins.	27	**37**	26	90	15	280	30	325	16	24	**17**	57	29	**304**	17	**350**
+45 mins.	35	33	**36**	**104**	**18**	275	29	322	16	**36**	15	**67**	**36**	281	21	338
Total Volume	127	131	92	350	61	1111	120	1292	71	113	50	234	110	1151	77	1338
% App. Total	36.3	37.4	26.3		4.7	86	9.3		30.3	48.3	21.4		8.2	86	5.8	
PHF	.738	.885	.639	.841	.847	.929	.938	.931	.657	.785	.735	.873	.764	.947	.917	.956

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City of Cathedral City
N/S: Perez Road
E/W: East Palm Canyon Drive (SR-111)
Weather: Clear

File Name : 07_CTC_Perez_E Palm Cyn AM
Site Code : 06718258
Start Date : 4/10/2018
Page No : 1

Groups Printed- Total Volume

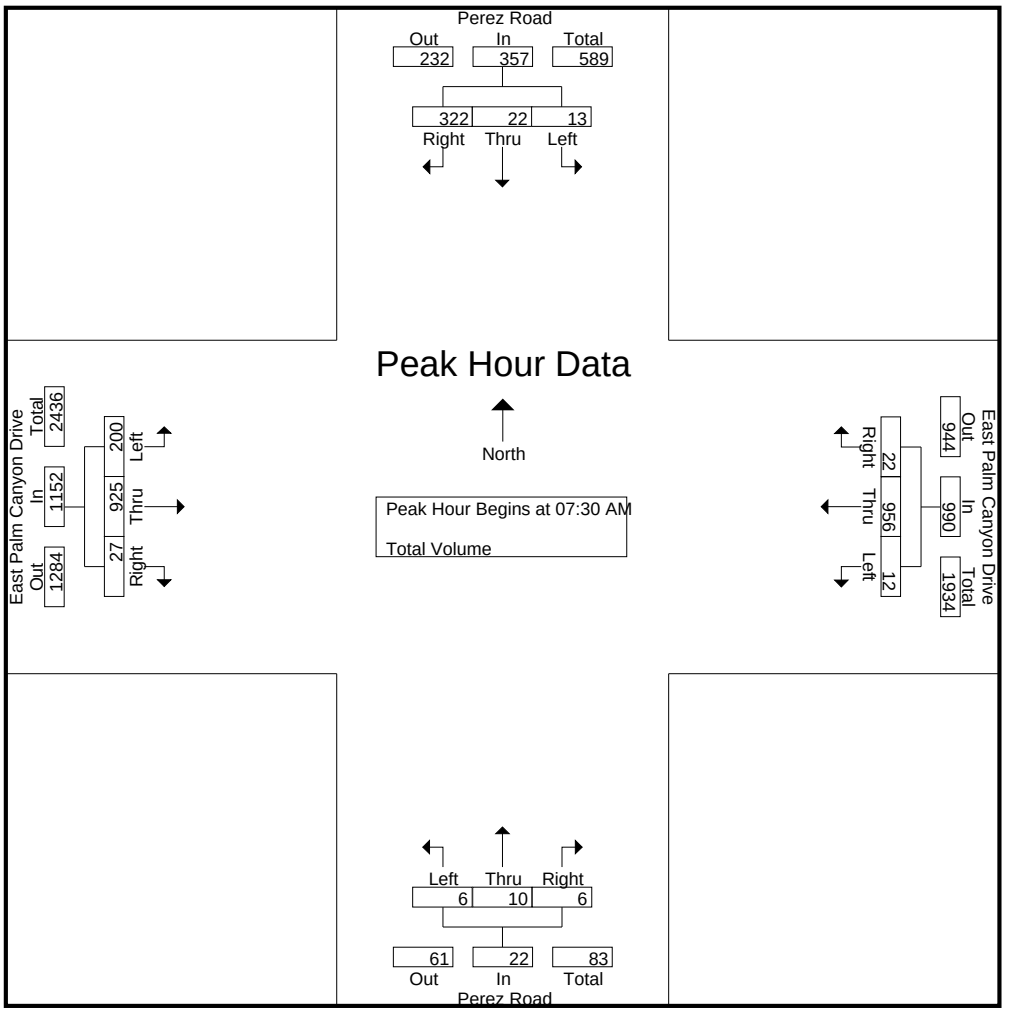
	Perez Road Southbound				East Palm Canyon Drive Westbound				Perez Road Northbound				East Palm Canyon Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	1	2	52	55	7	163	4	174	1	0	0	1	37	116	5	158	388
07:15 AM	3	5	55	63	4	177	3	184	0	1	1	2	39	145	3	187	436
07:30 AM	2	3	72	77	4	230	4	238	1	2	0	3	36	232	8	276	594
07:45 AM	4	6	95	105	1	263	7	271	4	1	1	6	45	226	5	276	658
Total	10	16	274	300	16	833	18	867	6	4	2	12	157	719	21	897	2076
08:00 AM	5	7	79	91	3	242	4	249	0	2	3	5	64	206	7	277	622
08:15 AM	2	6	76	84	4	221	7	232	1	5	2	8	55	261	7	323	647
08:30 AM	4	2	64	70	4	232	6	242	3	6	4	13	40	207	4	251	576
08:45 AM	4	6	70	80	5	239	3	247	7	1	4	12	57	221	2	280	619
Total	15	21	289	325	16	934	20	970	11	14	13	38	216	895	20	1131	2464
Grand Total	25	37	563	625	32	1767	38	1837	17	18	15	50	373	1614	41	2028	4540
Apprch %	4	5.9	90.1		1.7	96.2	2.1		34	36	30		18.4	79.6	2		
Total %	0.6	0.8	12.4	13.8	0.7	38.9	0.8	40.5	0.4	0.4	0.3	1.1	8.2	35.6	0.9	44.7	

	Perez Road Southbound				East Palm Canyon Drive Westbound				Perez Road Northbound				East Palm Canyon Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	2	3	72	77	**4**	230	4	238	1	2	0	3	36	232	**8**	276	594
07:45 AM	4	6	**95**	**105**	1	**263**	**7**	**271**	**4**	1	1	6	45	226	5	276	**658**
08:00 AM	**5**	**7**	79	91	3	242	4	249	0	2	**3**	5	**64**	206	7	277	622
08:15 AM	2	6	76	84	4	221	7	232	1	**5**	2	**8**	55	**261**	7	**323**	647
Total Volume	13	22	322	357	12	956	22	990	6	10	6	22	200	925	27	1152	2521
% App. Total	3.6	6.2	90.2		1.2	96.6	2.2		27.3	45.5	27.3		17.4	80.3	2.3		
PHF	.650	.786	.847	.850	.750	.909	.786	.913	.375	.500	.500	.688	.781	.886	.844	.892	.958

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City of Cathedral City
N/S: Perez Road
E/W: East Palm Canyon Drive (SR-111)
Weather: Clear

File Name : 07_CTC_Perez_E Palm Cyn AM
Site Code : 06718258
Start Date : 4/10/2018
Page No : 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:30 AM				07:45 AM				08:00 AM				07:30 AM			
+0 mins.	2	3	72	77	1	**263**	**7**	**271**	0	2	3	5	36	232	**8**	276
+15 mins.	4	6	**95**	**105**	3	242	4	249	1	5	2	8	45	226	5	276
+30 mins.	**5**	**7**	79	91	**4**	221	7	232	3	**6**	**4**	**13**	**64**	206	7	277
+45 mins.	2	6	76	84	4	232	6	242	**7**	1	4	12	55	**261**	7	**323**
Total Volume	13	22	322	357	12	958	24	994	11	14	13	38	200	925	27	1152
% App. Total	3.6	6.2	90.2		1.2	96.4	2.4		28.9	36.8	34.2		17.4	80.3	2.3	
PHF	.650	.786	.847	.850	.750	.911	.857	.917	.393	.583	.813	.731	.781	.886	.844	.892

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City of Cathedral City
N/S: Perez Road
E/W: East Palm Canyon Drive (SR-111)
Weather: Clear

File Name : 07_CTC_Perez_E Palm Cyn PM
Site Code : 06718258
Start Date : 4/10/2018
Page No : 1

Groups Printed- Total Volume

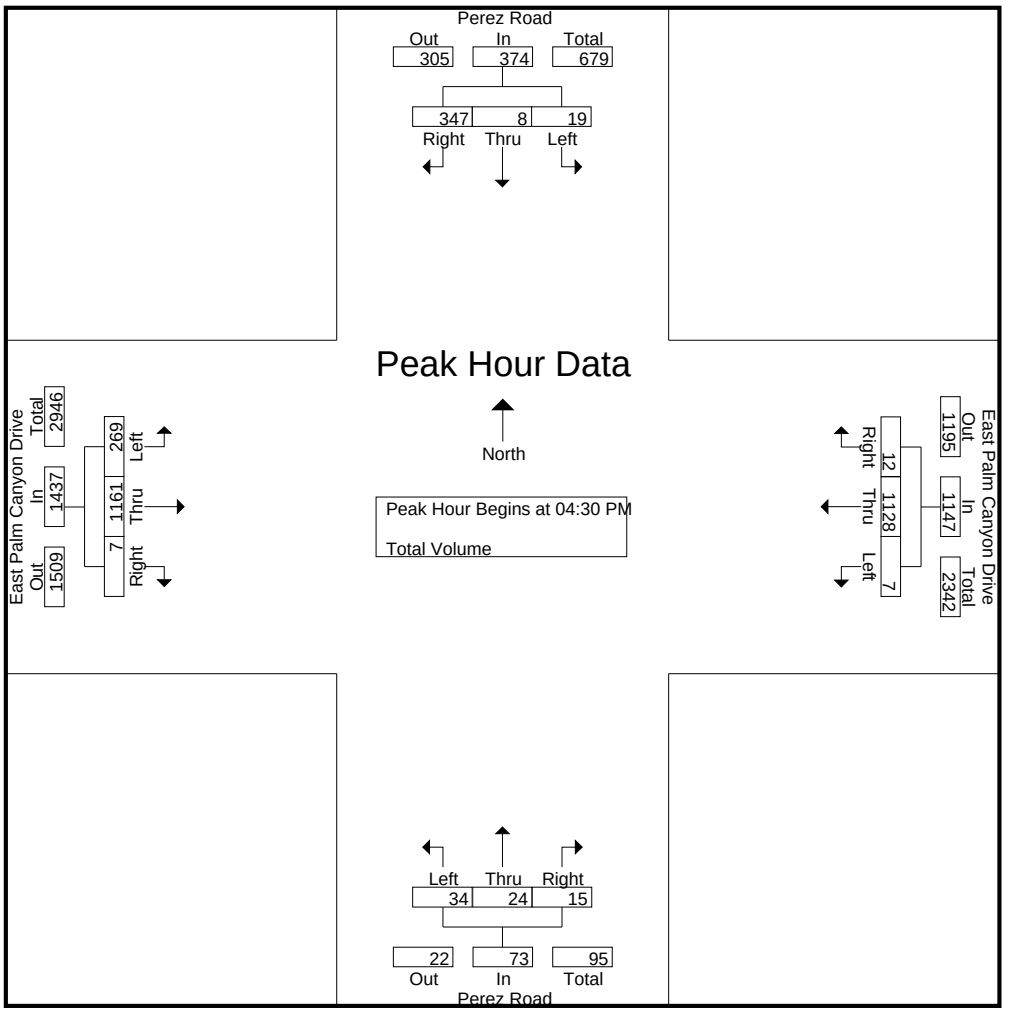
	Perez Road Southbound				East Palm Canyon Drive Westbound				Perez Road Northbound				East Palm Canyon Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	7	7	68	82	3	307	8	318	7	0	4	11	54	263	2	319	730
04:15 PM	5	4	74	83	0	306	4	310	5	1	5	11	61	290	3	354	758
04:30 PM	5	3	80	88	4	266	2	272	10	11	4	25	63	253	1	317	702
04:45 PM	6	2	88	96	1	259	5	265	7	4	3	14	80	306	2	388	763
Total	23	16	310	349	8	1138	19	1165	29	16	16	61	258	1112	8	1378	2953
05:00 PM	3	1	90	94	2	303	5	310	13	7	2	22	60	276	3	339	765
05:15 PM	5	2	89	96	0	300	0	300	4	2	6	12	66	326	1	393	801
05:30 PM	5	2	74	81	1	283	2	286	4	4	3	11	49	270	1	320	698
05:45 PM	3	0	53	56	1	268	2	271	6	2	2	10	68	256	1	325	662
Total	16	5	306	327	4	1154	9	1167	27	15	13	55	243	1128	6	1377	2926
Grand Total	39	21	616	676	12	2292	28	2332	56	31	29	116	501	2240	14	2755	5879
Apprch %	5.8	3.1	91.1		0.5	98.3	1.2		48.3	26.7	25		18.2	81.3	0.5		
Total %	0.7	0.4	10.5	11.5	0.2	39	0.5	39.7	1	0.5	0.5	2	8.5	38.1	0.2	46.9	

	Perez Road Southbound				East Palm Canyon Drive Westbound				Perez Road Northbound				East Palm Canyon Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	5	**3**	80	88	**4**	266	2	272	10	**11**	4	**25**	63	253	1	317	702
04:45 PM	**6**	2	88	**96**	1	259	**5**	265	7	4	3	14	**80**	306	2	388	763
05:00 PM	3	1	**90**	94	2	**303**	5	**310**	**13**	7	2	22	60	276	**3**	339	765
05:15 PM	5	2	89	96	0	300	0	300	4	2	**6**	12	66	**326**	1	**393**	**801**
Total Volume	19	8	347	374	7	1128	12	1147	34	24	15	73	269	1161	7	1437	3031
% App. Total	5.1	2.1	92.8		0.6	98.3	1		46.6	32.9	20.5		18.7	80.8	0.5		
PHF	.792	.667	.964	.974	.438	.931	.600	.925	.654	.545	.625	.730	.841	.890	.583	.914	.946

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City of Cathedral City
N/S: Perez Road
E/W: East Palm Canyon Drive (SR-111)
Weather: Clear

File Name : 07_CTC_Perez_E Palm Cyn PM
Site Code : 06718258
Start Date : 4/10/2018
Page No : 2



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:30 PM				05:00 PM				04:30 PM				04:45 PM			
+0 mins.	5	**3**	80	88	**2**	**303**	**5**	**310**	10	**11**	4	**25**	**80**	306	2	388
+15 mins.	**6**	2	88	**96**	0	300	0	300	7	4	3	14	60	276	**3**	339
+30 mins.	3	1	**90**	94	1	283	2	286	**13**	7	2	22	66	**326**	1	**393**
+45 mins.	5	2	89	96	1	268	2	271	4	2	**6**	12	49	270	1	320
Total Volume	19	8	347	374	4	1154	9	1167	34	24	15	73	255	1178	7	1440
% App. Total	5.1	2.1	92.8		0.3	98.9	0.8		46.6	32.9	20.5		17.7	81.8	0.5	
PHF	.792	.667	.964	.974	.500	.952	.450	.941	.654	.545	.625	.730	.797	.903	.583	.916

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City of Cathedral City
N/S: Perez Road
E/W: East Palm Canyon Drive (SR-111)
Weather: Clear

File Name : 07_CTC_Perez_E Palm Cyn SAT
Site Code : 06718258
Start Date : 4/14/2018

Groups Printed- Total Volume

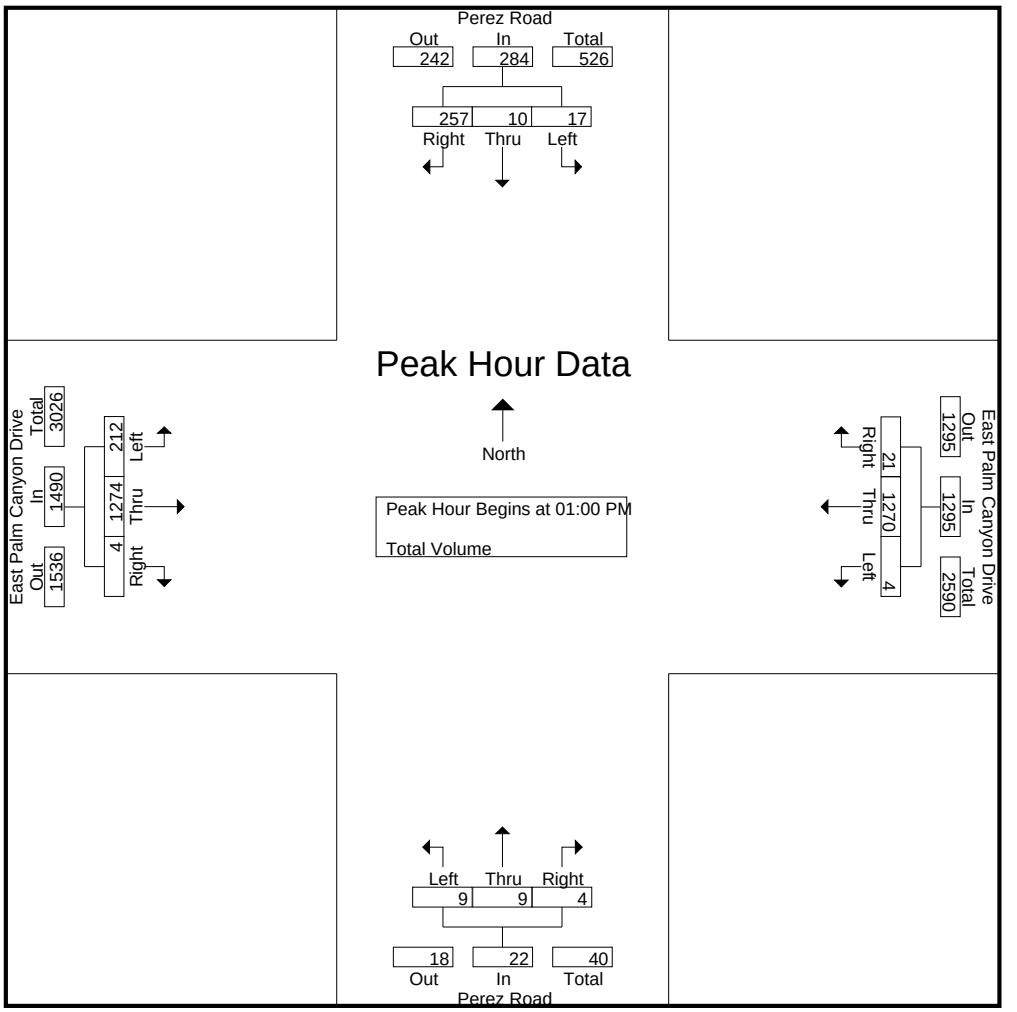
	Perez Road Southbound				East Palm Canyon Drive Westbound				Perez Road Northbound				East Palm Canyon Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
12:00 PM	7	3	75	85	3	305	2	310	2	9	2	13	63	279	0	342	750
12:15 PM	8	1	76	85	3	328	3	334	3	0	1	4	59	280	1	340	763
12:30 PM	8	3	79	90	1	280	4	285	1	2	1	4	62	326	0	388	767
12:45 PM	6	2	61	69	0	301	9	310	3	2	4	9	48	313	4	365	753
Total	29	9	291	329	7	1214	18	1239	9	13	8	30	232	1198	5	1435	3033
01:00 PM	6	0	67	73	0	314	6	320	1	2	0	3	63	301	1	365	761
01:15 PM	4	6	77	87	1	305	2	308	2	3	2	7	52	338	1	391	793
01:30 PM	1	0	62	63	0	322	7	329	4	1	1	6	42	322	1	365	763
01:45 PM	6	4	51	61	3	329	6	338	2	3	1	6	55	313	1	369	774
Total	17	10	257	284	4	1270	21	1295	9	9	4	22	212	1274	4	1490	3091
Grand Total	46	19	548	613	11	2484	39	2534	18	22	12	52	444	2472	9	2925	6124
Apprch %	7.5	3.1	89.4		0.4	98	1.5		34.6	42.3	23.1		15.2	84.5	0.3		
Total %	0.8	0.3	8.9	10	0.2	40.6	0.6	41.4	0.3	0.4	0.2	0.8	7.3	40.4	0.1	47.8	

	Perez Road Southbound				East Palm Canyon Drive Westbound				Perez Road Northbound				East Palm Canyon Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 01:00 PM																	
01:00 PM	**6**	0	67	73	0	314	6	320	1	2	0	3	**63**	301	**1**	365	761
01:15 PM	4	**6**	**77**	**87**	1	305	2	308	2	**3**	**2**	**7**	52	**338**	1	**391**	**793**
01:30 PM	1	0	62	63	0	322	**7**	329	**4**	1	1	6	42	322	1	365	763
01:45 PM	6	4	51	61	**3**	**329**	6	**338**	2	3	1	6	55	313	1	369	774
Total Volume	17	10	257	284	4	1270	21	1295	9	9	4	22	212	1274	4	1490	3091
% App. Total	6	3.5	90.5		0.3	98.1	1.6		40.9	40.9	18.2		14.2	85.5	0.3		
PHF	.708	.417	.834	.816	.333	.965	.750	.958	.563	.750	.500	.786	.841	.942	1.00	.953	.974

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City of Cathedral City
N/S: Perez Road
E/W: East Palm Canyon Drive (SR-111)
Weather: Clear

File Name : 07_CTC_Perez_E Palm Cyn SAT
Site Code : 06718258
Start Date : 4/14/2018
Page No : 2



Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	12:00 PM				01:00 PM				12:00 PM				12:30 PM			
+0 mins.	7	**3**	75	85	0	314	6	320	2	**9**	2	**13**	62	326	0	388
+15 mins.	**8**	1	76	85	1	305	2	308	**3**	0	1	4	48	313	**4**	365
+30 mins.	8	3	**79**	**90**	0	322	**7**	329	1	2	1	4	**63**	301	1	365
+45 mins.	6	2	61	69	**3**	**329**	6	**338**	3	2	**4**	9	52	**338**	1	**391**
Total Volume	29	9	291	329	4	1270	21	1295	9	13	8	30	225	1278	6	1509
% App. Total	8.8	2.7	88.4		0.3	98.1	1.6		30	43.3	26.7		14.9	84.7	0.4	
PHF	.906	.750	.921	.914	.333	.965	.750	.958	.750	.361	.500	.577	.893	.945	.375	.965

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City of Cathedral City
N/S: Canyon Plaza Drive
E/W: East Palm Canyon Drive (SR-111)
Weather: Clear

File Name : 08_CTC_Canyon Plaza_E Palm Cyn AM
Site Code : 06718258
Start Date : 4/10/2018
Page No : 1

Groups Printed- Total Volume

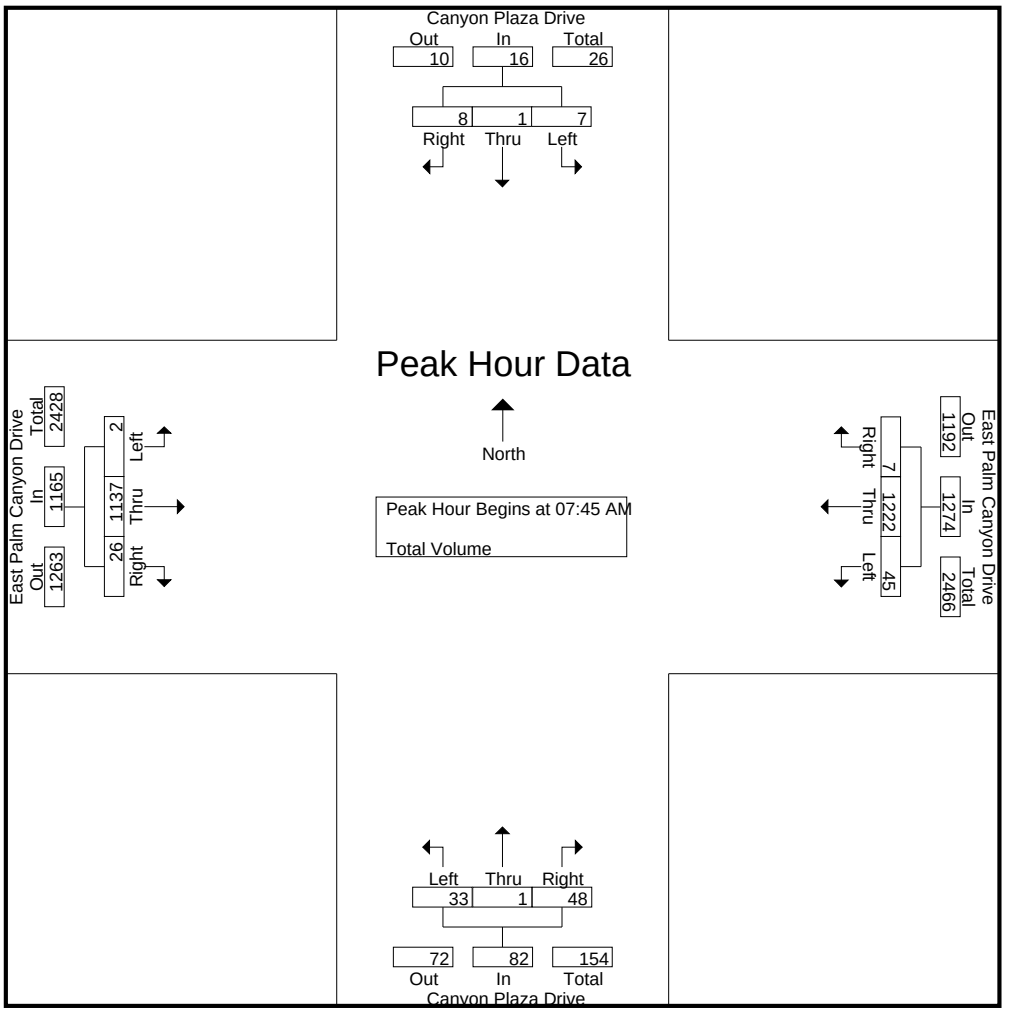
	Canyon Plaza Drive Southbound				East Palm Canyon Drive Westbound				Canyon Plaza Drive Northbound				East Palm Canyon Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	1	0	1	2	9	203	0	212	8	0	8	16	0	160	0	160	390
07:15 AM	2	0	1	3	10	207	1	218	9	0	5	14	4	199	2	205	440
07:30 AM	5	1	1	7	11	286	0	297	6	0	15	21	0	247	0	247	572
07:45 AM	0	0	4	4	14	337	2	353	8	0	16	24	0	267	8	275	656
Total	8	1	7	16	44	1033	3	1080	31	0	44	75	4	873	10	887	2058
08:00 AM	1	0	4	5	11	305	2	318	4	0	10	14	0	266	6	272	609
08:15 AM	2	1	0	3	13	297	1	311	3	1	13	17	1	331	8	340	671
08:30 AM	4	0	0	4	7	283	2	292	18	0	9	27	1	273	4	278	601
08:45 AM	3	1	3	7	19	285	3	307	4	0	17	21	1	243	4	248	583
Total	10	2	7	19	50	1170	8	1228	29	1	49	79	3	1113	22	1138	2464
Grand Total	18	3	14	35	94	2203	11	2308	60	1	93	154	7	1986	32	2025	4522
Apprch %	51.4	8.6	40		4.1	95.5	0.5		39	0.6	60.4		0.3	98.1	1.6		
Total %	0.4	0.1	0.3	0.8	2.1	48.7	0.2	51	1.3	0	2.1	3.4	0.2	43.9	0.7	44.8	

	Canyon Plaza Drive Southbound				East Palm Canyon Drive Westbound				Canyon Plaza Drive Northbound				East Palm Canyon Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	0	0	**4**	4	**14**	**337**	**2**	**353**	8	0	**16**	24	0	267	**8**	275	656
08:00 AM	1	0	4	**5**	11	305	2	318	4	0	10	14	0	266	6	272	609
08:15 AM	2	**1**	0	3	13	297	1	311	3	**1**	13	17	**1**	**331**	8	**340**	**671**
08:30 AM	**4**	0	0	4	7	283	2	292	**18**	0	9	**27**	1	273	4	278	601
Total Volume	7	1	8	16	45	1222	7	1274	33	1	48	82	2	1137	26	1165	2537
% App. Total	43.8	6.2	50		3.5	95.9	0.5		40.2	1.2	58.5		0.2	97.6	2.2		
PHF	.438	.250	.500	.800	.804	.907	.875	.902	.458	.250	.750	.759	.500	.859	.813	.857	.945

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City of Cathedral City
N/S: Canyon Plaza Drive
E/W: East Palm Canyon Drive (SR-111)
Weather: Clear

File Name : 08_CTC_Canyon Plaza_E Palm Cyn AM
Site Code : 06718258
Start Date : 4/10/2018
Page No : 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:15 AM				07:30 AM				07:45 AM				07:45 AM			
+0 mins.	2	0	1	3	11	286	0	297	8	0	**16**	24	0	267	**8**	275
+15 mins.	**5**	**1**	1	**7**	**14**	**337**	**2**	**353**	4	0	10	14	0	266	6	272
+30 mins.	0	0	**4**	4	11	305	2	318	3	**1**	13	17	**1**	**331**	8	**340**
+45 mins.	1	0	4	5	13	297	1	311	**18**	0	9	**27**	1	273	4	278
Total Volume	8	1	10	19	49	1225	5	1279	33	1	48	82	2	1137	26	1165
% App. Total	42.1	5.3	52.6		3.8	95.8	0.4		40.2	1.2	58.5		0.2	97.6	2.2	
PHF	.400	.250	.625	.679	.875	.909	.625	.906	.458	.250	.750	.759	.500	.859	.813	.857

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City of Cathedral City
N/S: Canyon Plaza Drive
E/W: East Palm Canyon Drive (SR-111)
Weather: Clear

File Name : 08_CTC_Canyon Plaza_E Palm Cyn PM
Site Code : 06718258
Start Date : 4/10/2018
Page No : 1

Groups Printed- Total Volume

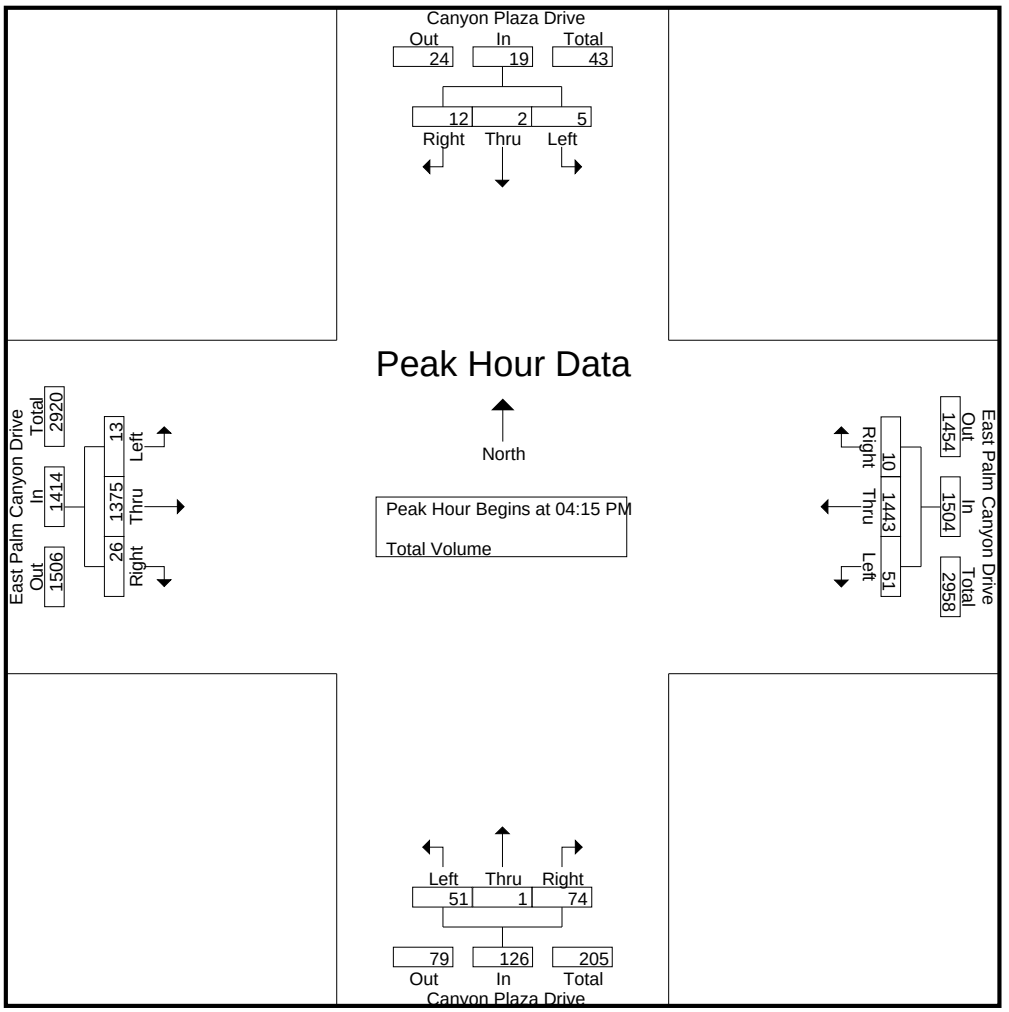
	Canyon Plaza Drive Southbound				East Palm Canyon Drive Westbound				Canyon Plaza Drive Northbound				East Palm Canyon Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	1	0	8	9	9	352	3	364	18	1	13	32	3	283	4	290	695
04:15 PM	2	0	2	4	17	378	2	397	8	1	16	25	4	356	6	366	792
04:30 PM	2	1	1	4	10	345	3	358	15	0	16	31	4	322	6	332	725
04:45 PM	1	1	4	6	14	324	3	341	13	0	24	37	3	347	10	360	744
Total	6	2	15	23	50	1399	11	1460	54	2	69	125	14	1308	26	1348	2956
05:00 PM	0	0	5	5	10	396	2	408	15	0	18	33	2	350	4	356	802
05:15 PM	2	1	1	4	11	379	1	391	14	0	19	33	1	334	8	343	771
05:30 PM	2	0	0	2	8	336	3	347	14	0	15	29	4	333	9	346	724
05:45 PM	2	2	0	4	9	330	2	341	6	2	24	32	1	276	7	284	661
Total	6	3	6	15	38	1441	8	1487	49	2	76	127	8	1293	28	1329	2958
Grand Total	12	5	21	38	88	2840	19	2947	103	4	145	252	22	2601	54	2677	5914
Apprch %	31.6	13.2	55.3		3	96.4	0.6		40.9	1.6	57.5		0.8	97.2	2		
Total %	0.2	0.1	0.4	0.6	1.5	48	0.3	49.8	1.7	0.1	2.5	4.3	0.4	44	0.9	45.3	

	Canyon Plaza Drive Southbound				East Palm Canyon Drive Westbound				Canyon Plaza Drive Northbound				East Palm Canyon Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	**2**	0	2	4	**17**	378	2	397	8	**1**	16	25	**4**	**356**	6	**366**	792
04:30 PM	2	**1**	1	4	10	345	**3**	358	**15**	0	16	31	4	322	6	332	725
04:45 PM	1	1	4	**6**	14	324	3	341	13	0	**24**	**37**	3	347	**10**	360	744
05:00 PM	0	0	**5**	5	10	**396**	2	**408**	15	0	18	33	2	350	4	356	**802**
Total Volume	5	2	12	19	51	1443	10	1504	51	1	74	126	13	1375	26	1414	3063
% App. Total	26.3	10.5	63.2		3.4	95.9	0.7		40.5	0.8	58.7		0.9	97.2	1.8		
PHF	.625	.500	.600	.792	.750	.911	.833	.922	.850	.250	.771	.851	.813	.966	.650	.966	.955

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City of Cathedral City
N/S: Canyon Plaza Drive
E/W: East Palm Canyon Drive (SR-111)
Weather: Clear

File Name : 08_CTC_Canyon Plaza_E Palm Cyn PM
Site Code : 06718258
Start Date : 4/10/2018



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM				04:15 PM				04:30 PM				04:15 PM			
+0 mins.	1	0	**8**	**9**	**17**	378	2	397	**15**	0	16	31	**4**	**356**	6	**366**
+15 mins.	**2**	0	2	4	10	345	**3**	358	13	0	**24**	**37**	4	322	6	332
+30 mins.	2	**1**	1	4	14	324	3	341	15	0	18	33	3	347	**10**	360
+45 mins.	1	1	4	6	10	**396**	2	**408**	14	0	19	33	2	350	4	356
Total Volume	6	2	15	23	51	1443	10	1504	57	0	77	134	13	1375	26	1414
% App. Total	26.1	8.7	65.2		3.4	95.9	0.7		42.5	0	57.5		0.9	97.2	1.8	
PHF	.750	.500	.469	.639	.750	.911	.833	.922	.950	.000	.802	.905	.813	.966	.650	.966

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City of Cathedral City
N/S: Canyon Plaza Drive
E/W: East Palm Canyon Drive (SR-111)
Weather: Clear

File Name : 08_CTC_Canyon Plaza_E Palm Cyn SAT
Site Code : 06718258
Start Date : 4/14/2018
Page No : 1

Groups Printed- Total Volume

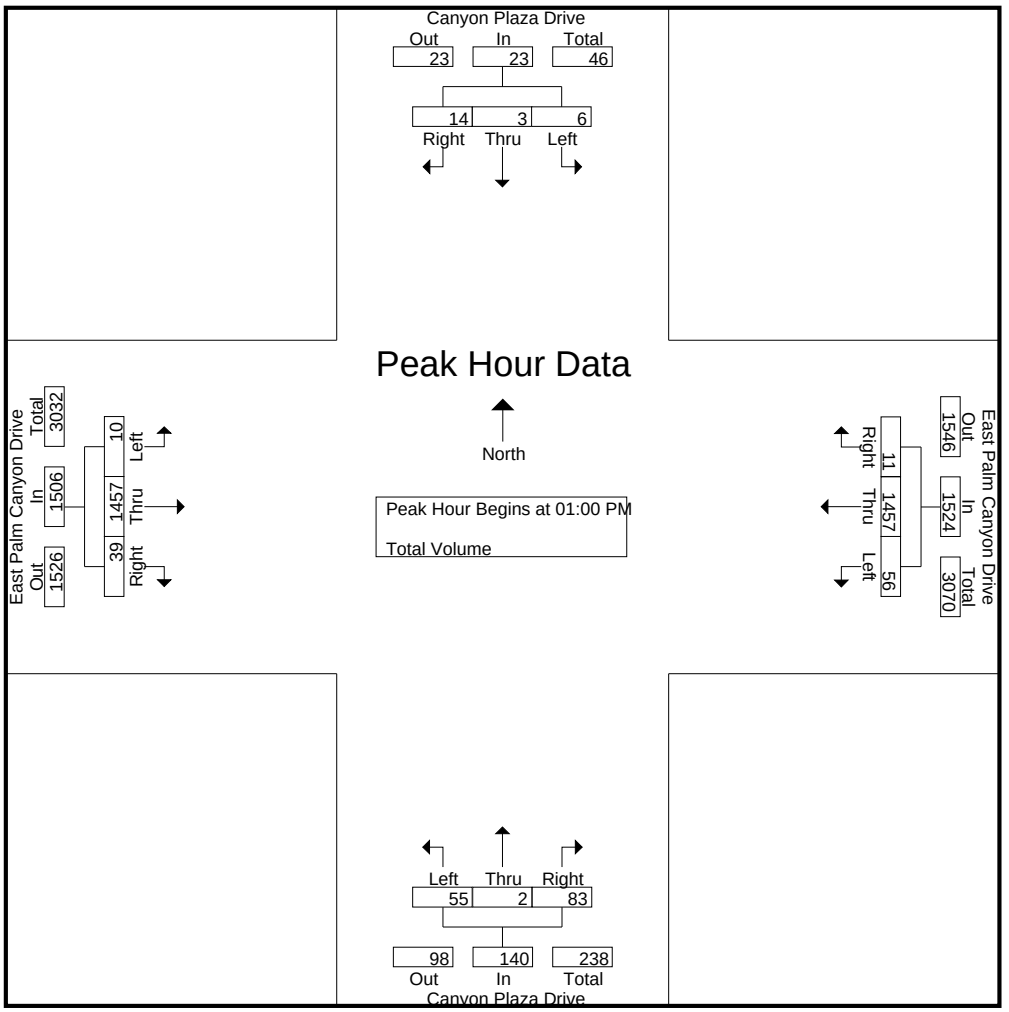
	Canyon Plaza Drive Southbound				East Palm Canyon Drive Westbound				Canyon Plaza Drive Northbound				East Palm Canyon Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
12:00 PM	3	0	2	5	16	360	2	378	16	0	16	32	1	336	17	354	769
12:15 PM	3	1	3	7	13	395	6	414	20	0	27	47	3	337	13	353	821
12:30 PM	9	0	4	13	16	356	1	373	13	0	22	35	4	351	6	361	782
12:45 PM	2	1	3	6	12	339	0	351	18	0	21	39	1	347	6	354	750
Total	17	2	12	31	57	1450	9	1516	67	0	86	153	9	1371	42	1422	3122
01:00 PM	2	0	3	5	11	357	2	370	10	0	24	34	3	362	4	369	778
01:15 PM	2	1	4	7	15	361	6	382	12	0	21	33	4	389	9	402	824
01:30 PM	1	0	3	4	11	394	1	406	15	2	20	37	1	367	17	385	832
01:45 PM	1	2	4	7	19	345	2	366	18	0	18	36	2	339	9	350	759
Total	6	3	14	23	56	1457	11	1524	55	2	83	140	10	1457	39	1506	3193
Grand Total	23	5	26	54	113	2907	20	3040	122	2	169	293	19	2828	81	2928	6315
Apprch %	42.6	9.3	48.1		3.7	95.6	0.7		41.6	0.7	57.7		0.6	96.6	2.8		
Total %	0.4	0.1	0.4	0.9	1.8	46	0.3	48.1	1.9	0	2.7	4.6	0.3	44.8	1.3	46.4	

	Canyon Plaza Drive Southbound				East Palm Canyon Drive Westbound				Canyon Plaza Drive Northbound				East Palm Canyon Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 01:00 PM																	
01:00 PM	**2**	0	3	5	11	357	2	370	10	0	**24**	34	3	362	4	369	778
01:15 PM	2	1	**4**	**7**	15	361	**6**	382	12	0	21	33	**4**	**389**	9	**402**	824
01:30 PM	1	0	3	4	11	**394**	1	**406**	15	**2**	20	**37**	1	367	**17**	385	**832**
01:45 PM	1	**2**	4	7	**19**	345	2	366	**18**	0	18	36	2	339	9	350	759
Total Volume	6	3	14	23	56	1457	11	1524	55	2	83	140	10	1457	39	1506	3193
% App. Total	26.1	13	60.9		3.7	95.6	0.7		39.3	1.4	59.3		0.7	96.7	2.6		
PHF	.750	.375	.875	.821	.737	.924	.458	.938	.764	.250	.865	.946	.625	.936	.574	.937	.959

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City of Cathedral City
N/S: Canyon Plaza Drive
E/W: East Palm Canyon Drive (SR-111)
Weather: Clear

File Name : 08_CTC_Canyon Plaza_E Palm Cyn SAT
Site Code : 06718258
Start Date : 4/14/2018
Page No : 2



Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	12:00 PM				01:00 PM				12:15 PM				12:45 PM			
+0 mins.	3	0	2	5	11	357	2	370	**20**	0	**27**	**47**	1	347	6	354
+15 mins.	3	**1**	3	7	15	361	**6**	382	13	0	22	35	3	362	4	369
+30 mins.	**9**	0	**4**	**13**	11	**394**	1	**406**	18	0	21	39	**4**	**389**	9	**402**
+45 mins.	2	1	3	6	**19**	345	2	366	10	0	24	34	1	367	**17**	385
Total Volume	17	2	12	31	56	1457	11	1524	61	0	94	155	9	1465	36	1510
% App. Total	54.8	6.5	38.7		3.7	95.6	0.7		39.4	0	60.6		0.6	97	2.4	
PHF	.472	.500	.750	.596	.737	.924	.458	.938	.763	.000	.870	.824	.563	.942	.529	.939

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City of Cathedral City
N/S: Golf Club Drive
E/W: East Palm Canyon Drive (SR-111)
Weather: Clear

File Name : 09_CTC_Golf Club_E Palm Cyn AM
Site Code : 06718258
Start Date : 4/10/2018
Page No : 1

Groups Printed- Total Volume

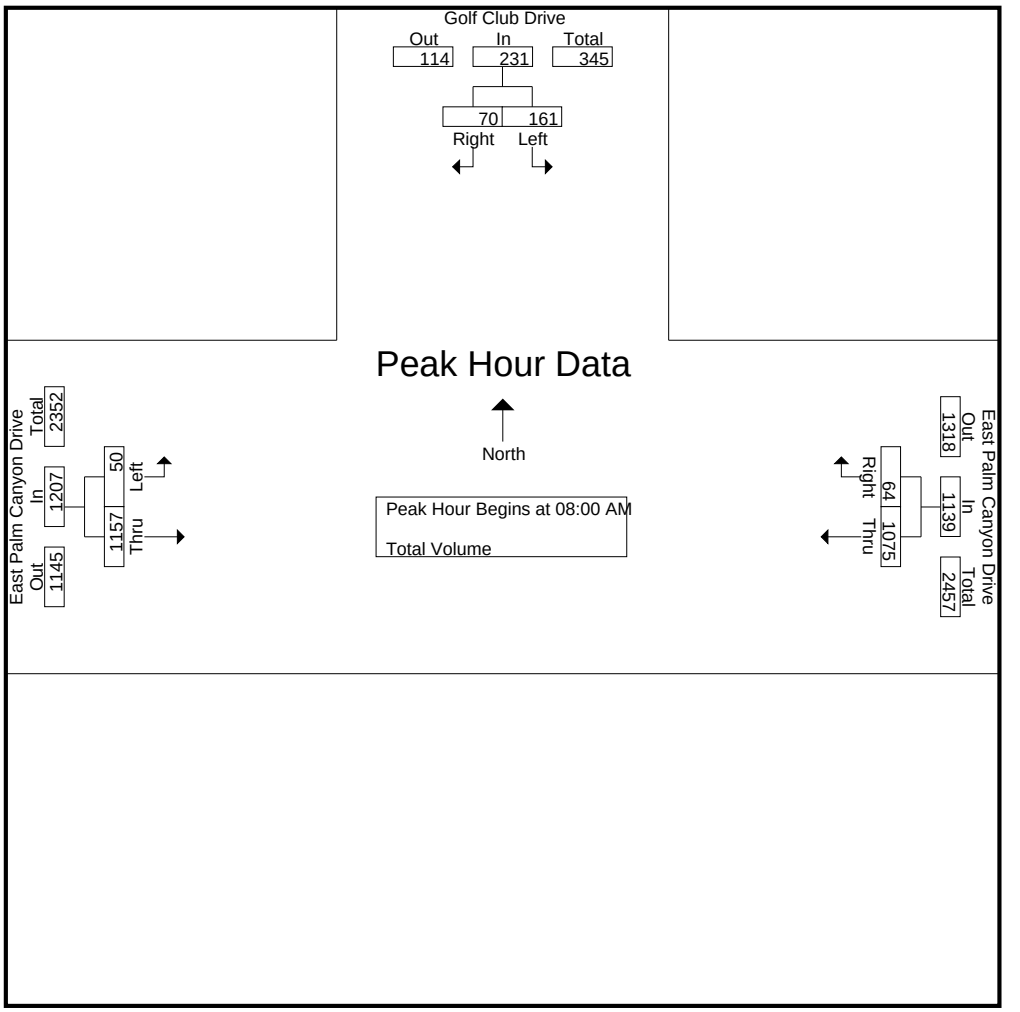
	Golf Club Drive Southbound			East Palm Canyon Drive Westbound			East Palm Canyon Drive Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
07:00 AM	55	12	67	246	16	262	14	248	262	591
07:15 AM	52	19	71	265	16	281	12	289	301	653
07:30 AM	38	23	61	281	14	295	5	256	261	617
07:45 AM	40	16	56	273	18	291	12	273	285	632
Total	185	70	255	1065	64	1129	43	1066	1109	2493
08:00 AM	38	14	52	257	15	272	9	271	280	604
08:15 AM	40	21	61	262	13	275	13	255	268	604
08:30 AM	45	21	66	271	21	292	11	316	327	685
08:45 AM	38	14	52	285	15	300	17	315	332	684
Total	161	70	231	1075	64	1139	50	1157	1207	2577
Grand Total	346	140	486	2140	128	2268	93	2223	2316	5070
Apprch %	71.2	28.8		94.4	5.6		4	96		
Total %	6.8	2.8	9.6	42.2	2.5	44.7	1.8	43.8	45.7	

	Golf Club Drive Southbound			East Palm Canyon Drive Westbound			East Palm Canyon Drive Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 08:00 AM										
08:00 AM	38	14	52	257	15	272	9	271	280	604
08:15 AM	40	**21**	61	262	13	275	13	255	268	604
08:30 AM	**45**	21	**66**	271	**21**	292	11	**316**	327	**685**
08:45 AM	38	14	52	**285**	15	**300**	**17**	315	**332**	684
Total Volume	161	70	231	1075	64	1139	50	1157	1207	2577
% App. Total	69.7	30.3		94.4	5.6		4.1	95.9		
PHF	.894	.833	.875	.943	.762	.949	.735	.915	.909	.941

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City of Cathedral City
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Weather: Clear

File Name : 09_CTC_Golf Club_E Palm Cyn AM
Site Code : 06718258
Start Date : 4/10/2018
Page No : 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:15 AM			08:00 AM		
+0 mins.	**55**	12	67	265	16	281	9	271	280
+15 mins.	52	19	**71**	**281**	14	**295**	13	255	268
+30 mins.	38	**23**	61	273	**18**	291	11	**316**	327
+45 mins.	40	16	56	257	15	272	**17**	315	**332**
Total Volume	185	70	255	1076	63	1139	50	1157	1207
% App. Total	72.5	27.5		94.5	5.5		4.1	95.9	
PHF	.841	.761	.898	.957	.875	.965	.735	.915	.909

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City of Cathedral City
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File Name : 09_CTC_Golf Club_E Palm Cyn PM
Site Code : 06718258
Start Date : 4/10/2018
Page No : 1

Groups Printed- Total Volume

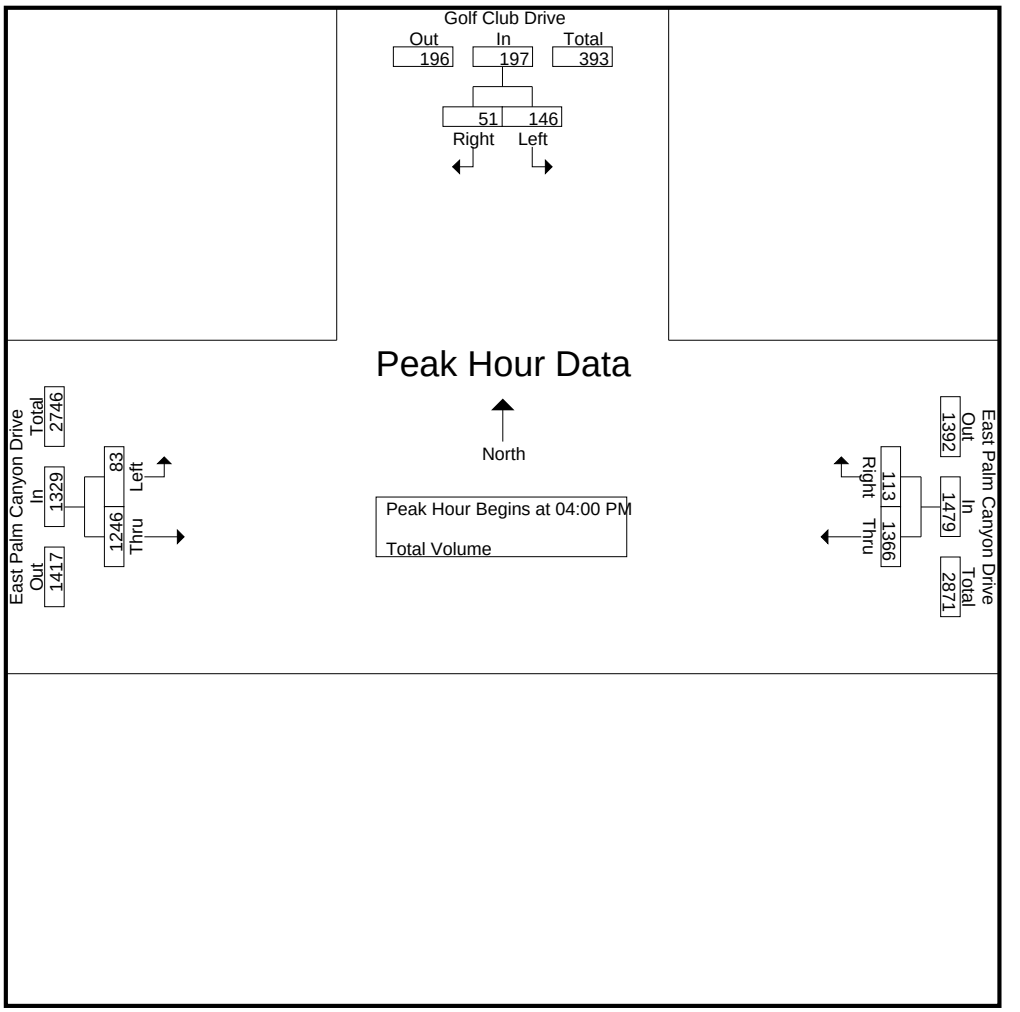
	Golf Club Drive Southbound			East Palm Canyon Drive Westbound			East Palm Canyon Drive Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
04:00 PM	33	12	45	349	28	377	24	338	362	784
04:15 PM	33	11	44	392	29	421	22	326	348	813
04:30 PM	38	12	50	302	31	333	23	318	341	724
04:45 PM	42	16	58	323	25	348	14	264	278	684
Total	146	51	197	1366	113	1479	83	1246	1329	3005
05:00 PM	34	8	42	277	31	308	15	261	276	626
05:15 PM	33	18	51	266	25	291	17	246	263	605
05:30 PM	50	8	58	276	20	296	11	203	214	568
05:45 PM	44	13	57	244	30	274	15	223	238	569
Total	161	47	208	1063	106	1169	58	933	991	2368
Grand Total	307	98	405	2429	219	2648	141	2179	2320	5373
Apprch %	75.8	24.2		91.7	8.3		6.1	93.9		
Total %	5.7	1.8	7.5	45.2	4.1	49.3	2.6	40.6	43.2	

	Golf Club Drive Southbound			East Palm Canyon Drive Westbound			East Palm Canyon Drive Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:00 PM										
04:00 PM	33	12	45	349	28	377	**24**	**338**	**362**	784
04:15 PM	33	11	44	**392**	29	**421**	22	326	348	**813**
04:30 PM	38	12	50	302	**31**	333	23	318	341	724
04:45 PM	**42**	**16**	**58**	323	25	348	14	264	278	684
Total Volume	146	51	197	1366	113	1479	83	1246	1329	3005
% App. Total	74.1	25.9		92.4	7.6		6.2	93.8		
PHF	.869	.797	.849	.871	.911	.878	.865	.922	.918	.924

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File Name : 09_CTC_Golf Club_E Palm Cyn PM
Site Code : 06718258
Start Date : 4/10/2018
Page No : 2



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:45 PM			04:00 PM			04:00 PM		
+0 mins.	42	16	**58**	349	28	377	**24**	**338**	**362**
+15 mins.	34	8	42	**392**	29	**421**	22	326	348
+30 mins.	33	**18**	51	302	**31**	333	23	318	341
+45 mins.	**50**	8	58	323	25	348	14	264	278
Total Volume	159	50	209	1366	113	1479	83	1246	1329
% App. Total	76.1	23.9		92.4	7.6		6.2	93.8	
PHF	.795	.694	.901	.871	.911	.878	.865	.922	.918

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File Name : 09_CTC_Golf Club_E Palm Cyn SAT
Site Code : 06718258
Start Date : 4/14/2018

Groups Printed- Total Volume

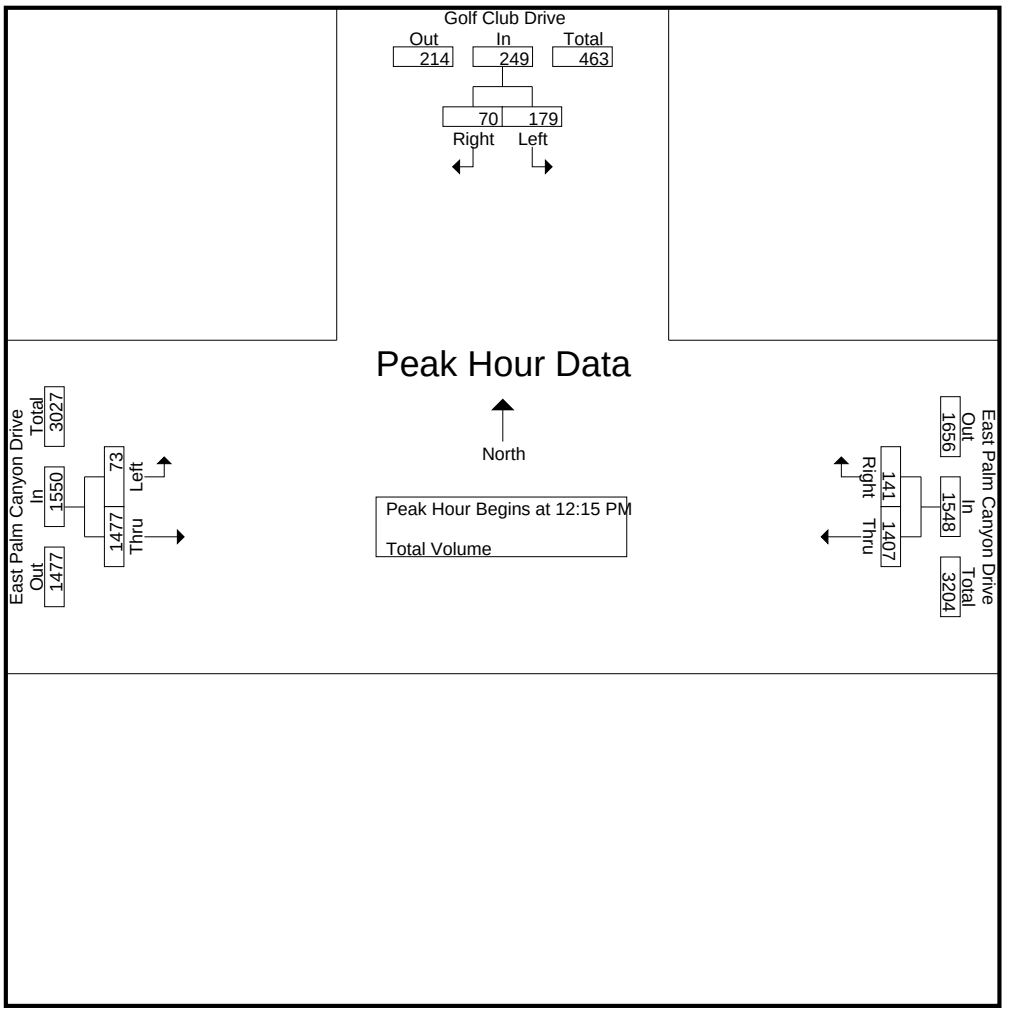
	Golf Club Drive Southbound			East Palm Canyon Drive Westbound			East Palm Canyon Drive Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
12:00 PM	48	16	64	343	36	379	21	359	380	823
12:15 PM	49	18	67	334	34	368	11	420	431	866
12:30 PM	43	11	54	358	42	400	17	362	379	833
12:45 PM	46	22	68	356	26	382	21	349	370	820
Total	186	67	253	1391	138	1529	70	1490	1560	3342
01:00 PM	41	19	60	359	39	398	24	346	370	828
01:15 PM	40	13	53	336	32	368	13	357	370	791
01:30 PM	41	21	62	358	32	390	20	328	348	800
01:45 PM	49	15	64	342	34	376	17	307	324	764
Total	171	68	239	1395	137	1532	74	1338	1412	3183
Grand Total	357	135	492	2786	275	3061	144	2828	2972	6525
Apprch %	72.6	27.4		91	9		4.8	95.2		
Total %	5.5	2.1	7.5	42.7	4.2	46.9	2.2	43.3	45.5	

	Golf Club Drive Southbound			East Palm Canyon Drive Westbound			East Palm Canyon Drive Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 12:15 PM										
12:15 PM	**49**	18	67	334	34	368	11	**420**	**431**	**866**
12:30 PM	43	11	54	358	**42**	**400**	17	362	379	833
12:45 PM	46	**22**	**68**	356	26	382	21	349	370	820
01:00 PM	41	19	60	**359**	39	398	**24**	346	370	828
Total Volume	179	70	249	1407	141	1548	73	1477	1550	3347
% App. Total	71.9	28.1		90.9	9.1		4.7	95.3		
PHF	.913	.795	.915	.980	.839	.968	.760	.879	.899	.966

Counts Unlimited
PO Box 1178
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(951) 268-6268

City of Cathedral City
N/S: Golf Club Drive
E/W: East Palm Canyon Drive (SR-111)
Weather: Clear

File Name : 09_CTC_Golf Club_E Palm Cyn SAT
Site Code : 06718258
Start Date : 4/14/2018
Page No : 2



Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	12:00 PM			12:15 PM			12:00 PM		
+0 mins.	48	16	64	334	34	368	**21**	359	380
+15 mins.	**49**	18	67	358	**42**	**400**	11	**420**	**431**
+30 mins.	43	11	54	356	26	382	17	362	379
+45 mins.	46	**22**	**68**	**359**	39	398	21	349	370
Total Volume	186	67	253	1407	141	1548	70	1490	1560
% App. Total	73.5	26.5		90.9	9.1		4.5	95.5	
PHF	.949	.761	.930	.980	.839	.968	.833	.887	.905

Counts Unlimited
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Corona, CA 92878
(951) 268-6268

City of Cathedral City
N/S: Cathedral Canyon Drive
E/W: Officer David Vasquez Road
Weather: Clear

File Name : 25_CTC_Cathedral Cyn_Officer David Vasquez Rd AM
Site Code : 06718258
Start Date : 4/10/2018

Groups Printed- Total Volume

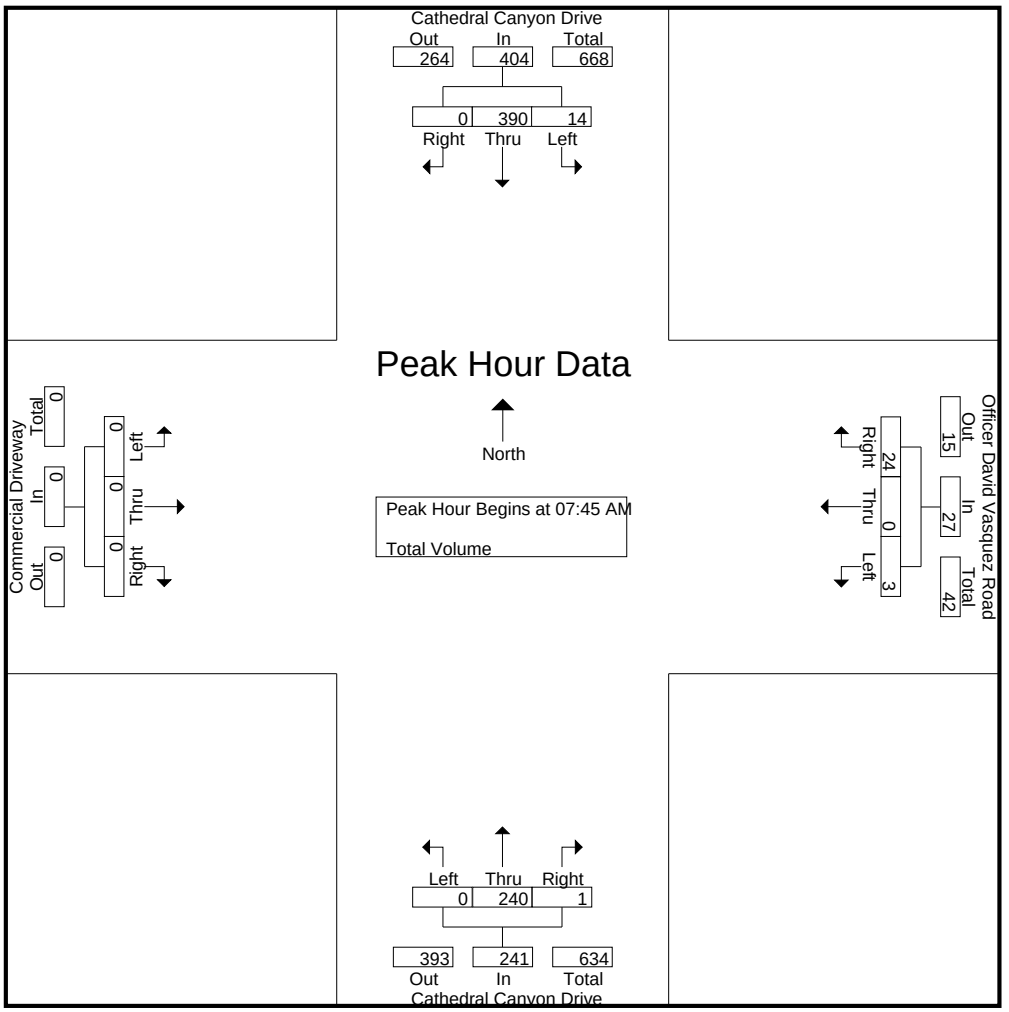
	Cathedral Canyon Drive Southbound				Officer David Vasquez Road Westbound				Cathedral Canyon Drive Northbound				Commercial Driveway Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	6	67	0	73	1	0	2	3	0	40	1	41	0	0	0	0	117
07:15 AM	1	79	0	80	0	0	5	5	0	54	0	54	0	0	0	0	139
07:30 AM	4	98	0	102	0	0	4	4	0	56	0	56	0	0	0	0	162
07:45 AM	4	132	0	136	1	0	10	11	0	49	0	49	0	0	0	0	196
Total	15	376	0	391	2	0	21	23	0	199	1	200	0	0	0	0	614
08:00 AM	3	84	0	87	0	0	3	3	0	57	0	57	0	0	0	0	147
08:15 AM	3	79	0	82	0	0	4	4	0	65	1	66	0	0	0	0	152
08:30 AM	4	95	0	99	2	0	7	9	0	69	0	69	0	0	0	0	177
08:45 AM	1	87	0	88	0	0	6	6	0	69	0	69	0	0	0	0	163
Total	11	345	0	356	2	0	20	22	0	260	1	261	0	0	0	0	639
Grand Total	26	721	0	747	4	0	41	45	0	459	2	461	0	0	0	0	1253
Apprch %	3.5	96.5	0		8.9	0	91.1		0	99.6	0.4		0	0	0		
Total %	2.1	57.5	0	59.6	0.3	0	3.3	3.6	0	36.6	0.2	36.8	0	0	0	0	

	Cathedral Canyon Drive Southbound				Officer David Vasquez Road Westbound				Cathedral Canyon Drive Northbound				Commercial Driveway Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	**4**	**132**	0	**136**	1	0	**10**	**11**	0	49	0	49	0	0	0	0	**196**
08:00 AM	3	84	0	87	0	0	3	3	0	57	0	57	0	0	0	0	147
08:15 AM	3	79	0	82	0	0	4	4	0	65	**1**	66	0	0	0	0	152
08:30 AM	4	95	0	99	**2**	0	7	9	0	**69**	0	**69**	0	0	0	0	177
Total Volume	14	390	0	404	3	0	24	27	0	240	1	241	0	0	0	0	672
% App. Total	3.5	96.5	0		11.1	0	88.9		0	99.6	0.4		0	0	0		
PHF	.875	.739	.000	.743	.375	.000	.600	.614	.000	.870	.250	.873	.000	.000	.000	.000	.857

Counts Unlimited
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City of Cathedral City
N/S: Cathedral Canyon Drive
E/W: Officer David Vasquez Road
Weather: Clear

File Name : 25_CTC_Cathedral Cyn_Officer David Vasquez Rd AM
Site Code : 06718258
Start Date : 4/10/2018



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:30 AM				07:45 AM				08:00 AM				07:00 AM			
+0 mins.	**4**	98	0	102	1	0	**10**	**11**	0	57	0	57	0	0	0	0
+15 mins.	4	**132**	0	**136**	0	0	3	3	0	65	**1**	66	0	0	0	0
+30 mins.	3	84	0	87	0	0	4	4	0	**69**	0	**69**	0	0	0	0
+45 mins.	3	79	0	82	**2**	0	7	9	0	69	0	69	0	0	0	0
Total Volume	14	393	0	407	3	0	24	27	0	260	1	261	0	0	0	0
% App. Total	3.4	96.6	0		11.1	0	88.9		0	99.6	0.4		0	0	0	
PHF	.875	.744	.000	.748	.375	.000	.600	.614	.000	.942	.250	.946	.000	.000	.000	.000

Counts Unlimited
PO Box 1178
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City of Cathedral City
N/S: Cathedral Canyon Drive
E/W: Officer David Vasquez Road
Weather: Clear

File Name : 25_CTC_Cathedral Cyn_Officer David Vasquez Rd PM
Site Code : 06718258
Start Date : 4/10/2018

Groups Printed- Total Volume

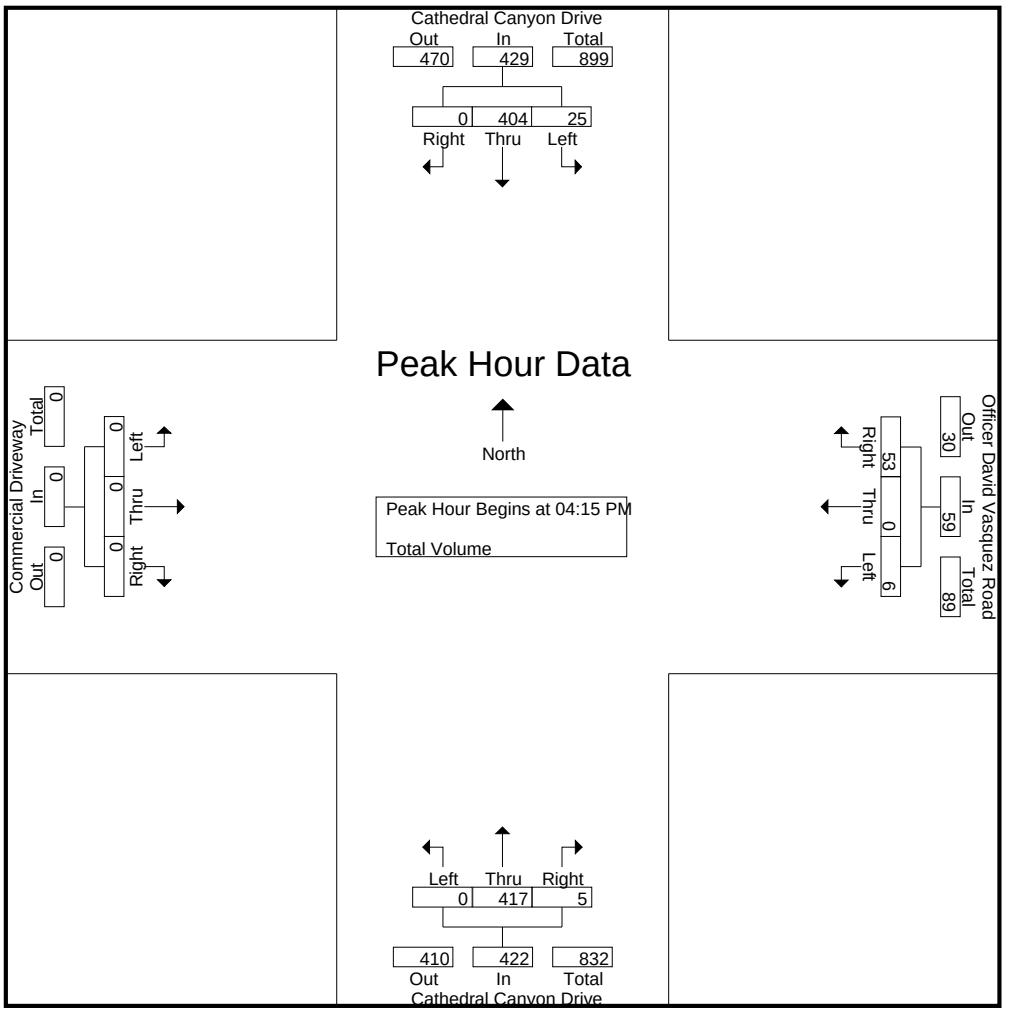
	Cathedral Canyon Drive Southbound				Officer David Vasquez Road Westbound				Cathedral Canyon Drive Northbound				Commercial Driveway Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	3	97	0	100	1	0	16	17	0	84	3	87	0	0	0	0	204
04:15 PM	5	103	0	108	5	0	14	19	0	105	0	105	0	0	0	0	232
04:30 PM	2	104	0	106	0	0	11	11	0	96	2	98	0	0	0	0	215
04:45 PM	11	105	0	116	0	0	13	13	0	117	3	120	0	0	0	0	249
Total	21	409	0	430	6	0	54	60	0	402	8	410	0	0	0	0	900
05:00 PM	7	92	0	99	1	0	15	16	0	99	0	99	0	0	0	0	214
05:15 PM	8	99	0	107	2	0	8	10	0	108	2	110	0	0	0	0	227
05:30 PM	6	69	0	75	1	0	7	8	0	93	0	93	0	0	0	0	176
05:45 PM	6	68	0	74	0	0	5	5	0	95	3	98	0	0	0	0	177
Total	27	328	0	355	4	0	35	39	0	395	5	400	0	0	0	0	794
Grand Total	48	737	0	785	10	0	89	99	0	797	13	810	0	0	0	0	1694
Apprch %	6.1	93.9	0		10.1	0	89.9		0	98.4	1.6		0	0	0		
Total %	2.8	43.5	0	46.3	0.6	0	5.3	5.8	0	47	0.8	47.8	0	0	0	0	

	Cathedral Canyon Drive Southbound				Officer David Vasquez Road Westbound				Cathedral Canyon Drive Northbound				Commercial Driveway Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	5	103	0	108	**5**	0	14	**19**	0	105	0	105	0	0	0	0	232
04:30 PM	2	104	0	106	0	0	11	11	0	96	2	98	0	0	0	0	215
04:45 PM	**11**	**105**	0	**116**	0	0	13	13	0	**117**	**3**	**120**	0	0	0	0	**249**
05:00 PM	7	92	0	99	1	0	**15**	16	0	99	0	99	0	0	0	0	214
Total Volume	25	404	0	429	6	0	53	59	0	417	5	422	0	0	0	0	910
% App. Total	5.8	94.2	0		10.2	0	89.8		0	98.8	1.2		0	0	0		
PHF	.568	.962	.000	.925	.300	.000	.883	.776	.000	.891	.417	.879	.000	.000	.000	.000	.914

Counts Unlimited
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(951) 268-6268

City of Cathedral City
N/S: Cathedral Canyon Drive
E/W: Officer David Vasquez Road
Weather: Clear

File Name : 25_CTC_Cathedral Cyn_Officer David Vasquez Rd PM
Site Code : 06718258
Start Date : 4/10/2018



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM				04:00 PM				04:30 PM				04:00 PM			
+0 mins.	3	97	0	100	1	0	**16**	17	0	96	2	98	0	0	0	0
+15 mins.	5	103	0	108	**5**	0	14	**19**	0	**117**	**3**	**120**	0	0	0	0
+30 mins.	2	104	0	106	0	0	11	11	0	99	0	99	0	0	0	0
+45 mins.	**11**	**105**	0	**116**	0	0	13	13	0	108	2	110	0	0	0	0
Total Volume	21	409	0	430	6	0	54	60	0	420	7	427	0	0	0	0
% App. Total	4.9	95.1	0		10	0	90		0	98.4	1.6		0	0	0	
PHF	.477	.974	.000	.927	.300	.000	.844	.789	.000	.897	.583	.890	.000	.000	.000	.000

Counts Unlimited
PO Box 1178
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(951) 268-6268

City of Cathedral City
N/S: Cathedral Canyon Drive
E/W: Officer David Vasquez Road
Weather: Clear

File Name : 25_CTC_Cathedral Cyn_Officer David Vasquez Rd SAT
Site Code : 06718258
Start Date : 4/14/2018

Groups Printed- Total Volume

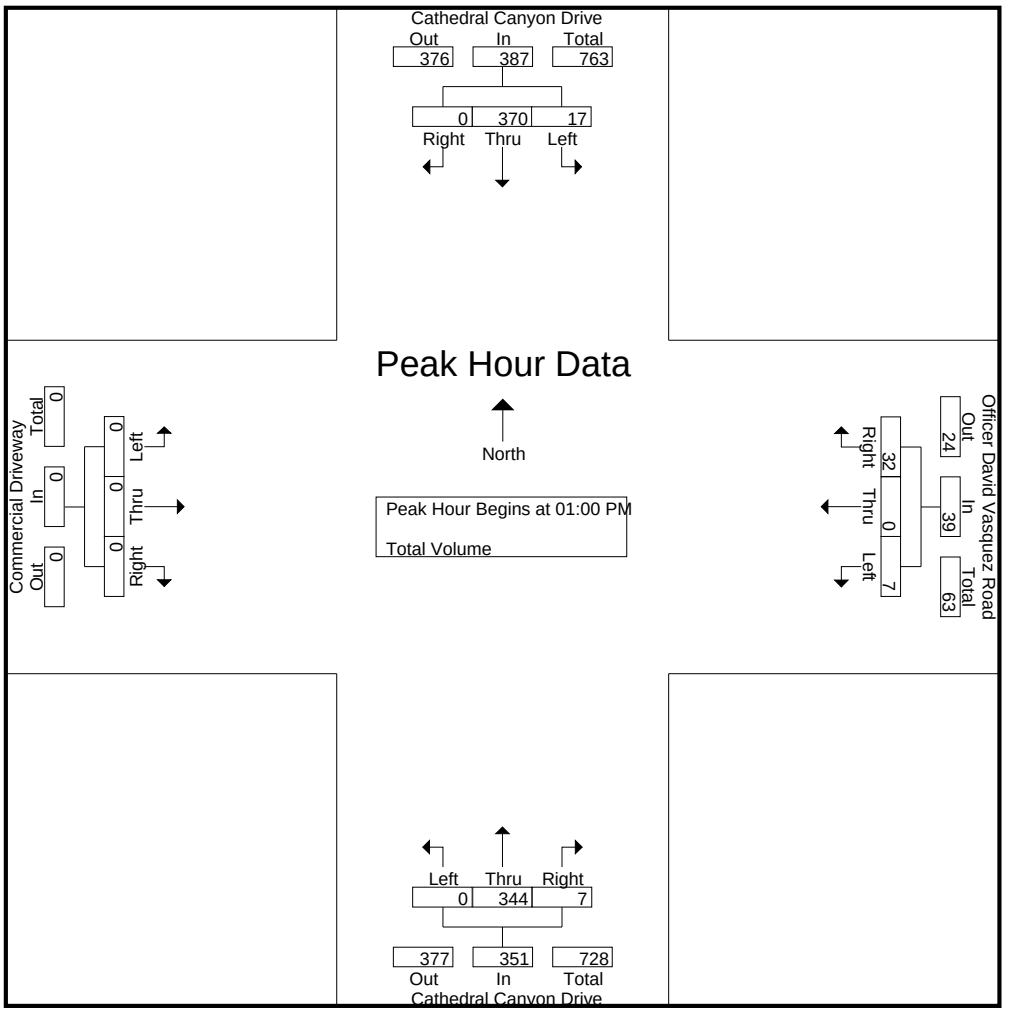
	Cathedral Canyon Drive Southbound				Officer David Vasquez Road Westbound				Cathedral Canyon Drive Northbound				Commercial Driveway Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
12:00 PM	3	86	0	89	0	0	8	8	0	65	2	67	0	0	0	0	164
12:15 PM	2	84	0	86	0	0	4	4	0	82	1	83	0	0	0	0	173
12:30 PM	2	104	0	106	0	0	5	5	0	79	0	79	0	0	0	0	190
12:45 PM	1	61	0	62	0	0	5	5	0	69	0	69	0	0	0	0	136
Total	8	335	0	343	0	0	22	22	0	295	3	298	0	0	0	0	663
01:00 PM	6	90	0	96	1	0	2	3	0	86	0	86	0	0	0	0	185
01:15 PM	2	82	0	84	0	0	12	12	0	70	2	72	0	0	0	0	168
01:30 PM	3	94	0	97	4	0	9	13	0	87	3	90	0	0	0	0	200
01:45 PM	6	104	0	110	2	0	9	11	0	101	2	103	0	0	0	0	224
Total	17	370	0	387	7	0	32	39	0	344	7	351	0	0	0	0	777
Grand Total	25	705	0	730	7	0	54	61	0	639	10	649	0	0	0	0	1440
Apprch %	3.4	96.6	0		11.5	0	88.5		0	98.5	1.5		0	0	0		
Total %	1.7	49	0	50.7	0.5	0	3.8	4.2	0	44.4	0.7	45.1	0	0	0	0	

	Cathedral Canyon Drive Southbound				Officer David Vasquez Road Westbound				Cathedral Canyon Drive Northbound				Commercial Driveway Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 01:00 PM																	
01:00 PM	**6**	90	0	96	1	0	2	3	0	86	0	86	0	0	0	0	185
01:15 PM	2	82	0	84	0	0	**12**	12	0	70	2	72	0	0	0	0	168
01:30 PM	3	94	0	97	**4**	0	9	**13**	0	87	**3**	90	0	0	0	0	200
01:45 PM	6	**104**	0	**110**	2	0	9	11	0	**101**	2	**103**	0	0	0	0	**224**
Total Volume	17	370	0	387	7	0	32	39	0	344	7	351	0	0	0	0	777
% App. Total	4.4	95.6	0		17.9	0	82.1		0	98	2		0	0	0		
PHF	.708	.889	.000	.880	.438	.000	.667	.750	.000	.851	.583	.852	.000	.000	.000	.000	.867

Counts Unlimited
PO Box 1178
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City of Cathedral City
N/S: Cathedral Canyon Drive
E/W: Officer David Vasquez Road
Weather: Clear

File Name : 25_CTC_Cathedral Cyn_Officer David Vasquez Rd SAT
Site Code : 06718258
Start Date : 4/14/2018
Page No : 2



Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	01:00 PM				01:00 PM				01:00 PM				12:00 PM			
+0 mins.	**6**	90	0	96	1	0	2	3	0	86	0	86	0	0	0	0
+15 mins.	2	82	0	84	0	0	**12**	12	0	70	2	72	0	0	0	0
+30 mins.	3	94	0	97	**4**	0	9	**13**	0	87	**3**	90	0	0	0	0
+45 mins.	6	**104**	0	**110**	2	0	9	11	0	**101**	2	**103**	0	0	0	0
Total Volume	17	370	0	387	7	0	32	39	0	344	7	351	0	0	0	0
% App. Total	4.4	95.6	0		17.9	0	82.1		0	98	2		0	0	0	
PHF	.708	.889	.000	.880	.438	.000	.667	.750	.000	.851	.583	.852	.000	.000	.000	.000

Counts Unlimited
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(951) 268-6268

City of Cathedral City
N/S: Cathedral Canyon Drive
E/W: Perez Road
Weather: Clear

File Name : 10_CTC_Cathedral Cyn_Perez AM
Site Code : 06718258
Start Date : 4/10/2018

Groups Printed- Total Volume

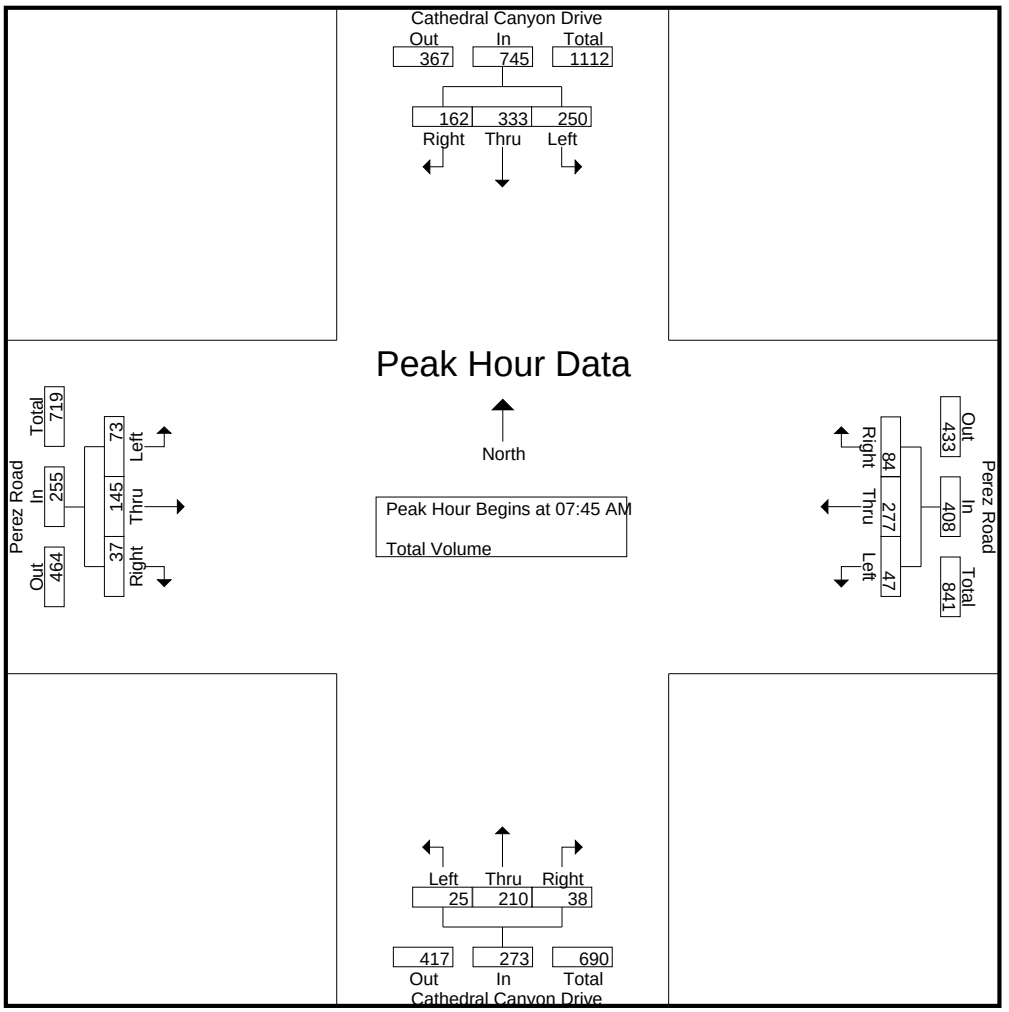
	Cathedral Canyon Drive Southbound				Perez Road Westbound				Cathedral Canyon Drive Northbound				Perez Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	28	57	27	112	5	50	15	70	2	26	10	38	4	24	7	35	255
07:15 AM	39	78	31	148	7	52	12	71	4	43	16	63	8	28	5	41	323
07:30 AM	66	84	38	188	16	63	24	103	3	42	12	57	6	32	7	45	393
07:45 AM	78	110	45	233	6	80	15	101	2	50	10	62	14	27	13	54	450
Total	211	329	141	681	34	245	66	345	11	161	48	220	32	111	32	175	1421
08:00 AM	73	72	47	192	12	72	26	110	6	44	10	60	15	45	9	69	431
08:15 AM	46	70	35	151	9	68	22	99	7	54	9	70	21	35	8	64	384
08:30 AM	53	81	35	169	20	57	21	98	10	62	9	81	23	38	7	68	416
08:45 AM	48	66	44	158	7	65	26	98	5	44	19	68	16	38	9	63	387
Total	220	289	161	670	48	262	95	405	28	204	47	279	75	156	33	264	1618
Grand Total	431	618	302	1351	82	507	161	750	39	365	95	499	107	267	65	439	3039
Apprch %	31.9	45.7	22.4		10.9	67.6	21.5		7.8	73.1	19		24.4	60.8	14.8		
Total %	14.2	20.3	9.9	44.5	2.7	16.7	5.3	24.7	1.3	12	3.1	16.4	3.5	8.8	2.1	14.4	

	Cathedral Canyon Drive Southbound				Perez Road Westbound				Cathedral Canyon Drive Northbound				Perez Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	**78**	**110**	45	**233**	6	**80**	15	101	2	50	**10**	62	14	27	**13**	54	**450**
08:00 AM	73	72	**47**	192	12	72	**26**	**110**	6	44	10	60	15	**45**	9	**69**	431
08:15 AM	46	70	35	151	9	68	22	99	7	54	9	70	21	35	8	64	384
08:30 AM	53	81	35	169	**20**	57	21	98	**10**	**62**	9	**81**	**23**	38	7	68	416
Total Volume	250	333	162	745	47	277	84	408	25	210	38	273	73	145	37	255	1681
% App. Total	33.6	44.7	21.7		11.5	67.9	20.6		9.2	76.9	13.9		28.6	56.9	14.5		
PHF	.801	.757	.862	.799	.588	.866	.808	.927	.625	.847	.950	.843	.793	.806	.712	.924	.934

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Cathedral City
N/S: Cathedral Canyon Drive
E/W: Perez Road
Weather: Clear

File Name : 10_CTC_Cathedral Cyn_Perez AM
Site Code : 06718258
Start Date : 4/10/2018



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:30 AM				07:30 AM				08:00 AM				08:00 AM			
+0 mins.	66	84	38	188	**16**	63	24	103	6	44	10	60	15	**45**	**9**	**69**
+15 mins.	**78**	**110**	45	**233**	6	**80**	15	101	7	54	9	70	21	35	8	64
+30 mins.	73	72	**47**	192	12	72	**26**	**110**	**10**	**62**	9	**81**	**23**	38	7	68
+45 mins.	46	70	35	151	9	68	22	99	5	44	**19**	68	16	38	9	63
Total Volume	263	336	165	764	43	283	87	413	28	204	47	279	75	156	33	264
% App. Total	34.4	44	21.6		10.4	68.5	21.1		10	73.1	16.8		28.4	59.1	12.5	
PHF	.843	.764	.878	.820	.672	.884	.837	.939	.700	.823	.618	.861	.815	.867	.917	.957

Counts Unlimited
PO Box 1178
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(951) 268-6268

City of Cathedral City
N/S: Cathedral Canyon Drive
E/W: Perez Road
Weather: Clear

File Name : 10_CTC_Cathedral Cyn_Perez PM
Site Code : 06718258
Start Date : 4/10/2018

Groups Printed- Total Volume

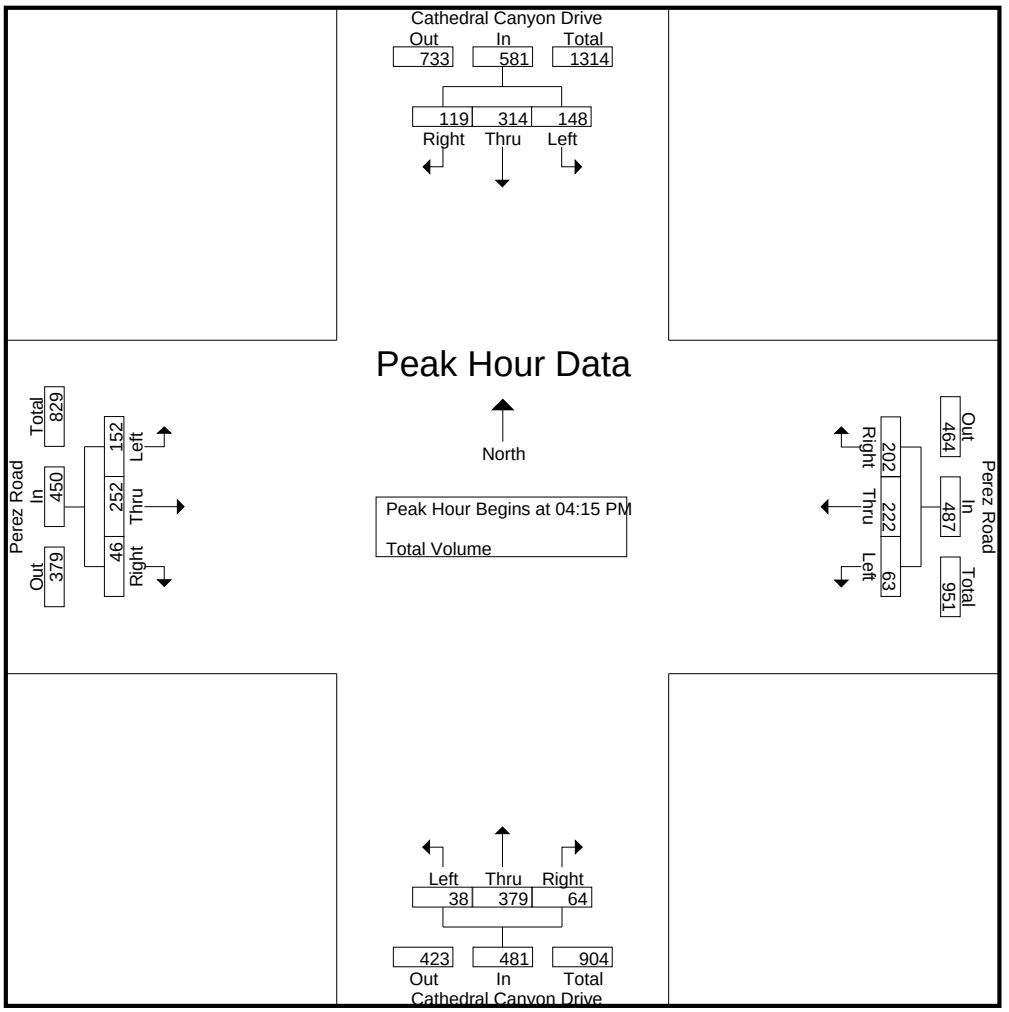
	Cathedral Canyon Drive Southbound				Perez Road Westbound				Cathedral Canyon Drive Northbound				Perez Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	40	68	34	142	14	55	58	127	7	75	16	98	32	61	16	109	476
04:15 PM	49	81	33	163	17	56	51	124	17	96	10	123	35	58	14	107	517
04:30 PM	38	70	30	138	18	51	58	127	5	84	17	106	28	68	12	108	479
04:45 PM	33	87	36	156	15	62	37	114	8	102	24	134	37	63	11	111	515
Total	160	306	133	599	64	224	204	492	37	357	67	461	132	250	53	435	1987
05:00 PM	28	76	20	124	13	53	56	122	8	97	13	118	52	63	9	124	488
05:15 PM	30	80	26	136	11	46	37	94	2	103	21	126	40	44	11	95	451
05:30 PM	25	59	27	111	12	39	32	83	11	89	16	116	38	60	3	101	411
05:45 PM	30	69	19	118	11	40	39	90	2	89	6	97	40	53	3	96	401
Total	113	284	92	489	47	178	164	389	23	378	56	457	170	220	26	416	1751
Grand Total	273	590	225	1088	111	402	368	881	60	735	123	918	302	470	79	851	3738
Apprch %	25.1	54.2	20.7		12.6	45.6	41.8		6.5	80.1	13.4		35.5	55.2	9.3		
Total %	7.3	15.8	6	29.1	3	10.8	9.8	23.6	1.6	19.7	3.3	24.6	8.1	12.6	2.1	22.8	

	Cathedral Canyon Drive Southbound				Perez Road Westbound				Cathedral Canyon Drive Northbound				Perez Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	**49**	81	33	**163**	17	56	51	124	**17**	96	10	123	35	58	**14**	107	**517**
04:30 PM	38	70	30	138	**18**	51	**58**	**127**	5	84	17	106	28	**68**	12	108	479
04:45 PM	33	**87**	**36**	156	15	**62**	37	114	8	**102**	**24**	**134**	37	63	11	111	515
05:00 PM	28	76	20	124	13	53	56	122	8	97	13	118	**52**	63	9	**124**	488
Total Volume	148	314	119	581	63	222	202	487	38	379	64	481	152	252	46	450	1999
% App. Total	25.5	54	20.5		12.9	45.6	41.5		7.9	78.8	13.3		33.8	56	10.2		
PHF	.755	.902	.826	.891	.875	.895	.871	.959	.559	.929	.667	.897	.731	.926	.821	.907	.967

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City of Cathedral City
N/S: Cathedral Canyon Drive
E/W: Perez Road
Weather: Clear

File Name : 10_CTC_Cathedral Cyn_Perez PM
Site Code : 06718258
Start Date : 4/10/2018
Page No : 2



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM				04:00 PM				04:45 PM				04:15 PM			
+0 mins.	40	68	34	142	14	55	**58**	**127**	8	102	**24**	**134**	35	58	**14**	107
+15 mins.	**49**	81	33	**163**	17	56	51	124	8	97	13	118	28	**68**	12	108
+30 mins.	38	70	30	138	**18**	51	58	127	2	**103**	21	126	37	63	11	111
+45 mins.	33	**87**	**36**	156	15	**62**	37	114	**11**	89	16	116	**52**	63	9	**124**
Total Volume	160	306	133	599	64	224	204	492	29	391	74	494	152	252	46	450
% App. Total	26.7	51.1	22.2		13	45.5	41.5		5.9	79.1	15		33.8	56	10.2	
PHF	.816	.879	.924	.919	.889	.903	.879	.969	.659	.949	.771	.922	.731	.926	.821	.907

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City of Cathedral City
N/S: Cathedral Canyon Drive
E/W: Perez Road
Weather: Clear

File Name : 10_CTC_Cathedral Cyn_Perez SAT
Site Code : 06718258
Start Date : 4/14/2018
Page No : 1

Groups Printed- Total Volume

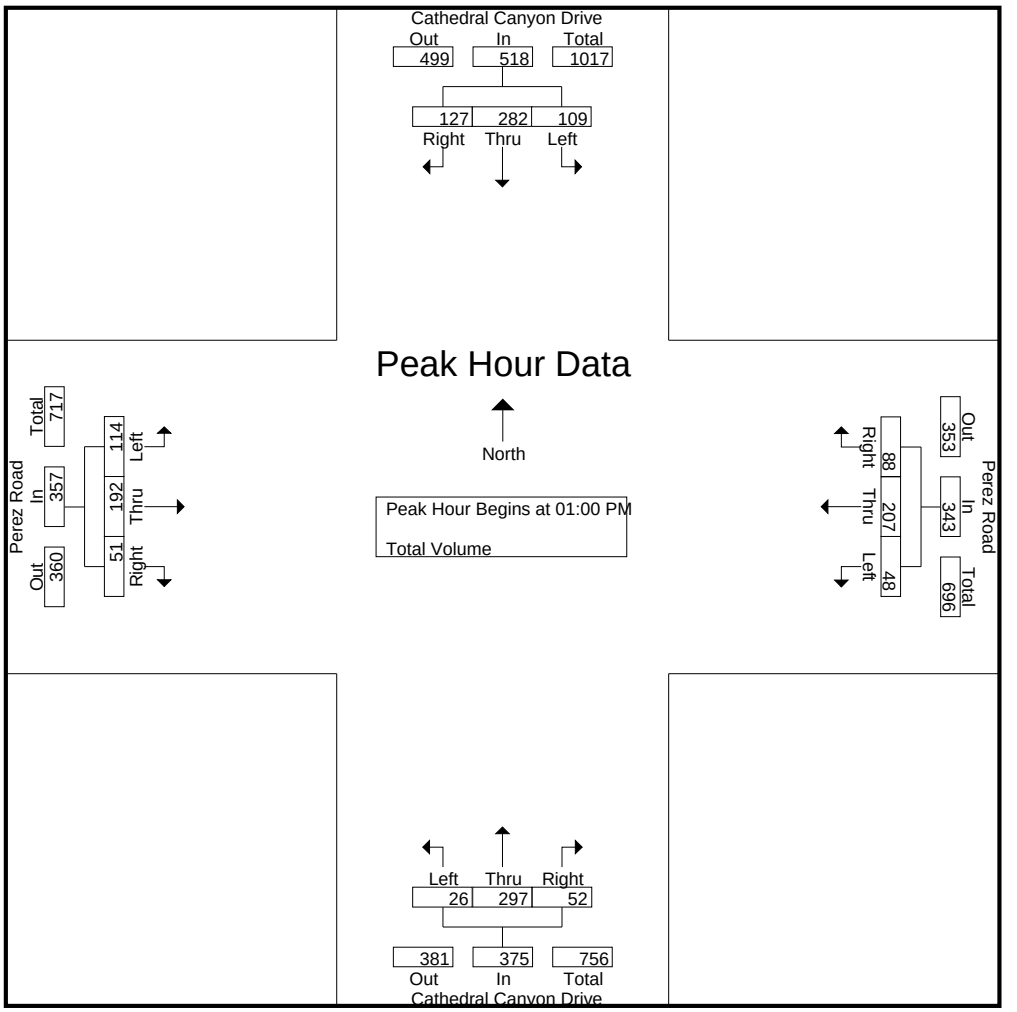
	Cathedral Canyon Drive Southbound				Perez Road Westbound				Cathedral Canyon Drive Northbound				Perez Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
12:00 PM	22	64	41	127	21	55	28	104	8	53	18	79	36	56	11	103	413
12:15 PM	36	67	31	134	8	67	23	98	6	64	13	83	24	50	8	82	397
12:30 PM	24	76	33	133	15	55	35	105	5	66	7	78	25	53	13	91	407
12:45 PM	22	53	28	103	5	50	25	80	6	64	7	77	30	39	8	77	337
Total	104	260	133	497	49	227	111	387	25	247	45	317	115	198	40	353	1554
01:00 PM	36	70	28	134	14	56	20	90	7	69	16	92	32	52	9	93	409
01:15 PM	26	59	39	124	13	60	20	93	9	59	12	80	34	45	14	93	390
01:30 PM	26	79	27	132	14	46	21	81	3	76	14	93	22	50	11	83	389
01:45 PM	21	74	33	128	7	45	27	79	7	93	10	110	26	45	17	88	405
Total	109	282	127	518	48	207	88	343	26	297	52	375	114	192	51	357	1593
Grand Total	213	542	260	1015	97	434	199	730	51	544	97	692	229	390	91	710	3147
Apprch %	21	53.4	25.6		13.3	59.5	27.3		7.4	78.6	14		32.3	54.9	12.8		
Total %	6.8	17.2	8.3	32.3	3.1	13.8	6.3	23.2	1.6	17.3	3.1	22	7.3	12.4	2.9	22.6	

	Cathedral Canyon Drive Southbound				Perez Road Westbound				Cathedral Canyon Drive Northbound				Perez Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 01:00 PM																	
01:00 PM	**36**	70	28	**134**	**14**	56	20	90	7	69	**16**	92	32	**52**	9	**93**	**409**
01:15 PM	26	59	**39**	124	13	**60**	20	**93**	**9**	59	12	80	**34**	45	14	93	390
01:30 PM	26	**79**	27	132	14	46	21	81	3	76	14	93	22	50	11	83	389
01:45 PM	21	74	33	128	7	45	**27**	79	7	**93**	10	**110**	26	45	**17**	88	405
Total Volume	109	282	127	518	48	207	88	343	26	297	52	375	114	192	51	357	1593
% App. Total	21	54.4	24.5		14	60.3	25.7		6.9	79.2	13.9		31.9	53.8	14.3		
PHF	.757	.892	.814	.966	.857	.863	.815	.922	.722	.798	.813	.852	.838	.923	.750	.960	.974

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City of Cathedral City
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Weather: Clear

File Name : 10_CTC_Cathedral Cyn_Perez SAT
Site Code : 06718258
Start Date : 4/14/2018
Page No : 2



Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	01:00 PM				12:00 PM				01:00 PM				01:00 PM			
+0 mins.	**36**	70	28	**134**	**21**	55	28	104	7	69	**16**	92	32	**52**	9	**93**
+15 mins.	26	59	**39**	124	8	**67**	23	98	**9**	59	12	80	**34**	45	14	93
+30 mins.	26	**79**	27	132	15	55	**35**	**105**	3	76	14	93	22	50	11	83
+45 mins.	21	74	33	128	5	50	25	80	7	**93**	10	**110**	26	45	**17**	88
Total Volume	109	282	127	518	49	227	111	387	26	297	52	375	114	192	51	357
% App. Total	21	54.4	24.5		12.7	58.7	28.7		6.9	79.2	13.9		31.9	53.8	14.3	
PHF	.757	.892	.814	.966	.583	.847	.793	.921	.722	.798	.813	.852	.838	.923	.750	.960

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City of Cathedral City
N/S: Cathedral Canyon Drive
E/W: Paseo Real
Weather: Clear

File Name : 11_CTC_Cathedral Cyn_Paseo Real AM
Site Code : 06718258
Start Date : 4/10/2018
Page No : 1

Groups Printed- Total Volume

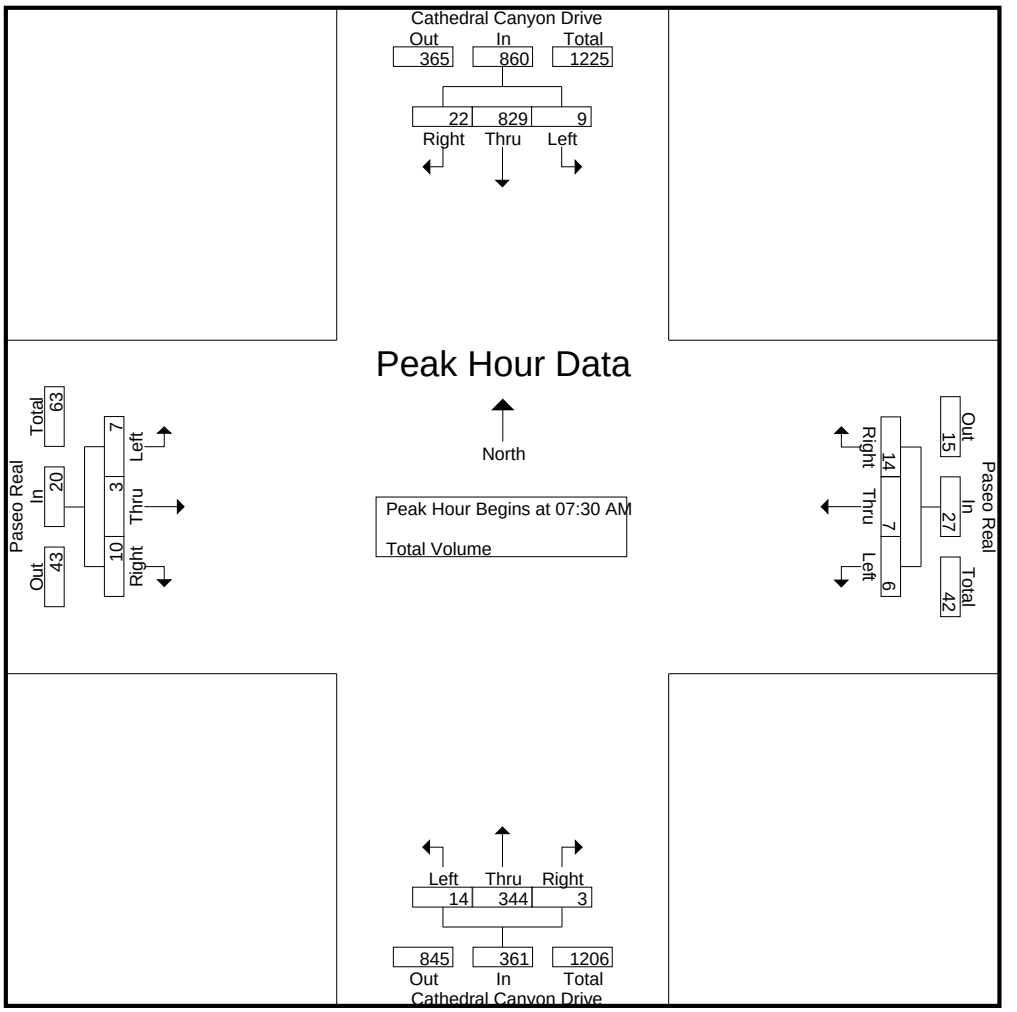
	Cathedral Canyon Drive Southbound				Paseo Real Westbound				Cathedral Canyon Drive Northbound				Paseo Real Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	1	125	5	131	4	0	0	4	2	52	1	55	0	0	3	3	193
07:15 AM	2	168	7	177	1	2	3	6	3	60	0	63	0	0	2	2	248
07:30 AM	3	200	15	218	2	4	3	9	8	78	3	89	2	1	3	6	322
07:45 AM	2	291	0	293	2	1	5	8	4	82	0	86	1	1	4	6	393
Total	8	784	27	819	9	7	11	27	17	272	4	293	3	2	12	17	1156
08:00 AM	2	189	3	194	1	0	0	1	1	88	0	89	0	1	3	4	288
08:15 AM	2	149	4	155	1	2	6	9	1	96	0	97	4	0	0	4	265
08:30 AM	3	167	3	173	4	1	1	6	1	97	1	99	1	1	4	6	284
08:45 AM	0	156	9	165	2	0	5	7	1	89	1	91	2	1	3	6	269
Total	7	661	19	687	8	3	12	23	4	370	2	376	7	3	10	20	1106
Grand Total	15	1445	46	1506	17	10	23	50	21	642	6	669	10	5	22	37	2262
Apprch %	1	95.9	3.1		34	20	46		3.1	96	0.9		27	13.5	59.5		
Total %	0.7	63.9	2	66.6	0.8	0.4	1	2.2	0.9	28.4	0.3	29.6	0.4	0.2	1	1.6	

	Cathedral Canyon Drive Southbound				Paseo Real Westbound				Cathedral Canyon Drive Northbound				Paseo Real Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	**3**	200	**15**	218	**2**	**4**	3	**9**	**8**	78	**3**	89	2	**1**	3	**6**	322
07:45 AM	2	**291**	0	**293**	2	1	5	8	4	82	0	86	1	1	**4**	6	**393**
08:00 AM	2	189	3	194	1	0	0	1	1	88	0	89	0	1	3	4	288
08:15 AM	2	149	4	155	1	2	**6**	9	1	**96**	0	**97**	**4**	0	0	4	265
Total Volume	9	829	22	860	6	7	14	27	14	344	3	361	7	3	10	20	1268
% App. Total	1	96.4	2.6		22.2	25.9	51.9		3.9	95.3	0.8		35	15	50		
PHF	.750	.712	.367	.734	.750	.438	.583	.750	.438	.896	.250	.930	.438	.750	.625	.833	.807

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City of Cathedral City
N/S: Cathedral Canyon Drive
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Weather: Clear

File Name : 11_CTC_Cathedral Cyn_Paseo Real AM
Site Code : 06718258
Start Date : 4/10/2018



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:15 AM				07:00 AM				08:00 AM				07:30 AM			
+0 mins.	2	168	7	177	**4**	0	0	4	**1**	88	0	89	2	**1**	3	**6**
+15 mins.	**3**	200	**15**	218	1	2	3	6	1	96	0	97	1	1	**4**	6
+30 mins.	2	**291**	0	**293**	2	**4**	3	**9**	1	**97**	**1**	**99**	0	1	3	4
+45 mins.	2	189	3	194	2	1	**5**	8	1	89	1	91	**4**	0	0	4
Total Volume	9	848	25	882	9	7	11	27	4	370	2	376	7	3	10	20
% App. Total	1	96.1	2.8		33.3	25.9	40.7		1.1	98.4	0.5		35	15	50	
PHF	.750	.729	.417	.753	.563	.438	.550	.750	1.000	.954	.500	.949	.438	.750	.625	.833

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City of Cathedral City
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Weather: Clear

File Name : 11_CTC_Cathedral Cyn_Paseo Real PM
Site Code : 06718258
Start Date : 4/10/2018
Page No : 1

Groups Printed- Total Volume

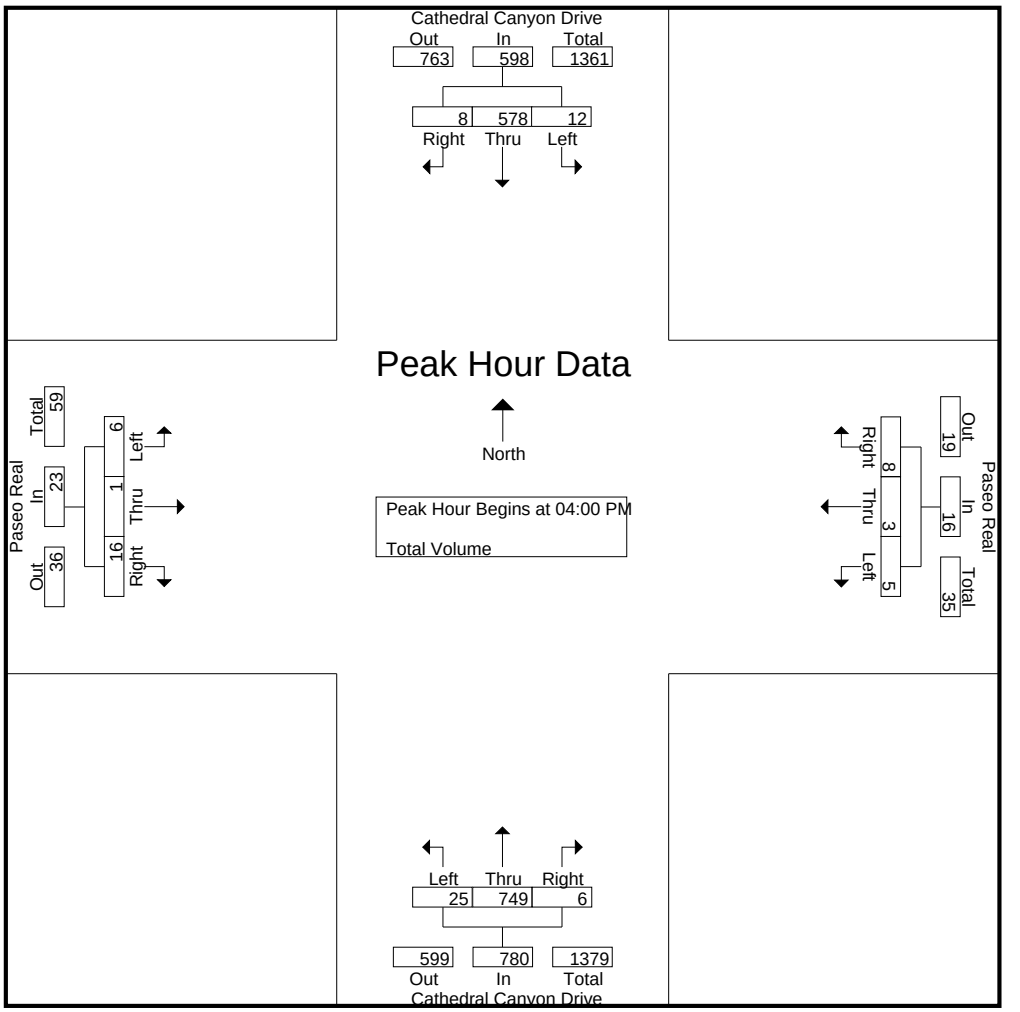
	Cathedral Canyon Drive Southbound				Paseo Real Westbound				Cathedral Canyon Drive Northbound				Paseo Real Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	4	155	1	160	3	1	3	7	7	193	0	200	2	1	6	9	376
04:15 PM	4	156	2	162	1	0	2	3	7	195	3	205	1	0	7	8	378
04:30 PM	2	123	2	127	1	1	0	2	3	194	1	198	2	0	1	3	330
04:45 PM	2	144	3	149	0	1	3	4	8	167	2	177	1	0	2	3	333
Total	12	578	8	598	5	3	8	16	25	749	6	780	6	1	16	23	1417
05:00 PM	2	112	1	115	3	1	0	4	3	226	0	229	2	1	0	3	351
05:15 PM	2	136	2	140	0	0	3	3	2	195	0	197	7	0	2	9	349
05:30 PM	4	110	2	116	0	0	4	4	1	167	5	173	4	0	2	6	299
05:45 PM	2	114	0	116	2	0	2	4	3	162	2	167	2	1	3	6	293
Total	10	472	5	487	5	1	9	15	9	750	7	766	15	2	7	24	1292
Grand Total	22	1050	13	1085	10	4	17	31	34	1499	13	1546	21	3	23	47	2709
Apprch %	2	96.8	1.2		32.3	12.9	54.8		2.2	97	0.8		44.7	6.4	48.9		
Total %	0.8	38.8	0.5	40.1	0.4	0.1	0.6	1.1	1.3	55.3	0.5	57.1	0.8	0.1	0.8	1.7	

	Cathedral Canyon Drive Southbound				Paseo Real Westbound				Cathedral Canyon Drive Northbound				Paseo Real Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	**4**	155	1	160	**3**	**1**	**3**	**7**	7	193	0	200	**2**	**1**	6	**9**	376
04:15 PM	4	**156**	2	**162**	1	0	2	3	7	**195**	**3**	**205**	1	0	**7**	8	**378**
04:30 PM	2	123	2	127	1	1	0	2	3	194	1	198	2	0	1	3	330
04:45 PM	2	144	**3**	149	0	1	3	4	**8**	167	2	177	1	0	2	3	333
Total Volume	12	578	8	598	5	3	8	16	25	749	6	780	6	1	16	23	1417
% App. Total	2	96.7	1.3		31.2	18.8	50		3.2	96	0.8		26.1	4.3	69.6		
PHF	.750	.926	.667	.923	.417	.750	.667	.571	.781	.960	.500	.951	.750	.250	.571	.639	.937

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File Name : 11_CTC_Cathedral Cyn_Paseo Real PM
Site Code : 06718258
Start Date : 4/10/2018
Page No : 2



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM				04:00 PM				04:15 PM				05:00 PM			
+0 mins.	**4**	155	1	160	**3**	**1**	**3**	**7**	7	195	**3**	205	2	**1**	0	3
+15 mins.	4	**156**	2	**162**	1	0	2	3	3	194	1	198	**7**	0	2	**9**
+30 mins.	2	123	2	127	1	1	0	2	**8**	167	2	177	4	0	2	6
+45 mins.	2	144	**3**	149	0	1	3	4	3	**226**	0	**229**	2	1	**3**	6
Total Volume	12	578	8	598	5	3	8	16	21	782	6	809	15	2	7	24
% App. Total	2	96.7	1.3		31.2	18.8	50		2.6	96.7	0.7		62.5	8.3	29.2	
PHF	.750	.926	.667	.923	.417	.750	.667	.571	.656	.865	.500	.883	.536	.500	.583	.667

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Page No : 1

Groups Printed- Total Volume

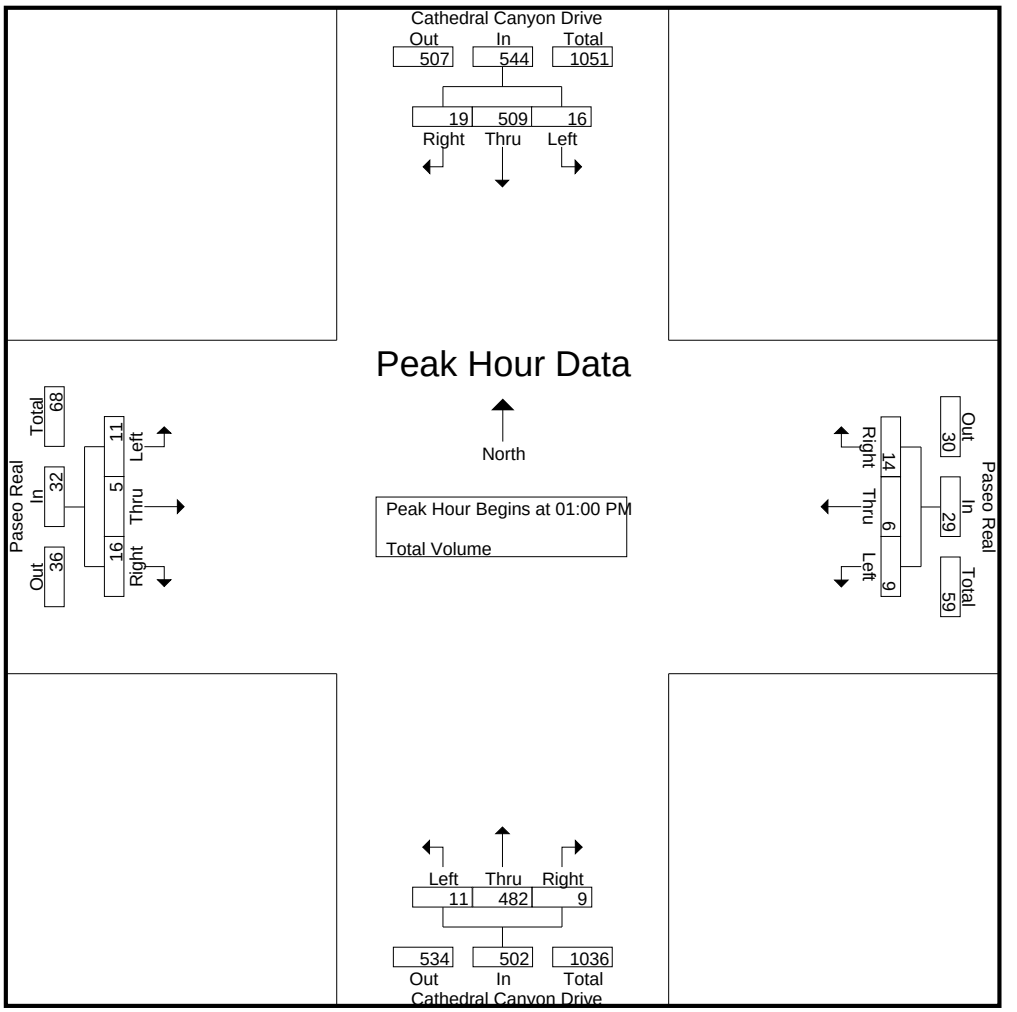
	Cathedral Canyon Drive Southbound				Paseo Real Westbound				Cathedral Canyon Drive Northbound				Paseo Real Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
12:00 PM	3	111	4	118	3	4	3	10	2	110	0	112	6	1	4	11	251
12:15 PM	1	136	4	141	3	0	5	8	7	103	5	115	5	4	5	14	278
12:30 PM	1	127	6	134	4	0	3	7	5	118	3	126	8	3	8	19	286
12:45 PM	1	103	5	109	1	3	2	6	7	112	0	119	6	0	5	11	245
Total	6	477	19	502	11	7	13	31	21	443	8	472	25	8	22	55	1060
01:00 PM	3	131	4	138	3	2	1	6	2	116	3	121	3	0	4	7	272
01:15 PM	4	130	7	141	3	1	5	9	1	114	3	118	2	3	2	7	275
01:30 PM	6	127	4	137	2	2	6	10	4	114	1	119	2	2	4	8	274
01:45 PM	3	121	4	128	1	1	2	4	4	138	2	144	4	0	6	10	286
Total	16	509	19	544	9	6	14	29	11	482	9	502	11	5	16	32	1107
Grand Total	22	986	38	1046	20	13	27	60	32	925	17	974	36	13	38	87	2167
Apprch %	2.1	94.3	3.6		33.3	21.7	45		3.3	95	1.7		41.4	14.9	43.7		
Total %	1	45.5	1.8	48.3	0.9	0.6	1.2	2.8	1.5	42.7	0.8	44.9	1.7	0.6	1.8	4	

	Cathedral Canyon Drive Southbound				Paseo Real Westbound				Cathedral Canyon Drive Northbound				Paseo Real Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 01:00 PM																	
01:00 PM	3	**131**	4	138	**3**	**2**	1	6	2	116	**3**	121	3	0	4	7	272
01:15 PM	4	130	**7**	**141**	3	1	5	9	1	114	3	118	2	**3**	2	7	275
01:30 PM	**6**	127	4	137	2	2	**6**	**10**	**4**	114	1	119	2	2	4	8	274
01:45 PM	3	121	4	128	1	1	2	4	4	**138**	2	**144**	**4**	0	**6**	**10**	**286**
Total Volume	16	509	19	544	9	6	14	29	11	482	9	502	11	5	16	32	1107
% App. Total	2.9	93.6	3.5		31	20.7	48.3		2.2	96	1.8		34.4	15.6	50		
PHF	.667	.971	.679	.965	.750	.750	.583	.725	.688	.873	.750	.872	.688	.417	.667	.800	.968

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City of Cathedral City
N/S: Cathedral Canyon Drive
E/W: Paseo Real
Weather: Clear

File Name : 11_CTC_Cathedral Cyn_Paseo Real SAT
Site Code : 06718258
Start Date : 4/14/2018
Page No : 2



Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	01:00 PM				12:00 PM				01:00 PM				12:00 PM			
+0 mins.	3	**131**	4	138	3	**4**	3	**10**	2	116	**3**	121	6	1	4	11
+15 mins.	4	130	**7**	**141**	3	0	**5**	8	1	114	3	118	5	**4**	5	14
+30 mins.	**6**	127	4	137	**4**	0	3	7	**4**	114	1	119	**8**	3	**8**	**19**
+45 mins.	3	121	4	128	1	3	2	6	4	**138**	2	**144**	6	0	5	11
Total Volume	16	509	19	544	11	7	13	31	11	482	9	502	25	8	22	55
% App. Total	2.9	93.6	3.5		35.5	22.6	41.9		2.2	96	1.8		45.5	14.5	40	
PHF	.667	.971	.679	.965	.688	.438	.650	.775	.688	.873	.750	.872	.781	.500	.688	.724

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City of Cathedral City
N/S: Cathedral Canyon Drive
E/W: Dinah Shore Drive
Weather: Clear

File Name : 12_CTC_Cathedral Cyn_Dinah Shore AM
Site Code : 06718258
Start Date : 4/10/2018
Page No : 1

Groups Printed- Total Volume

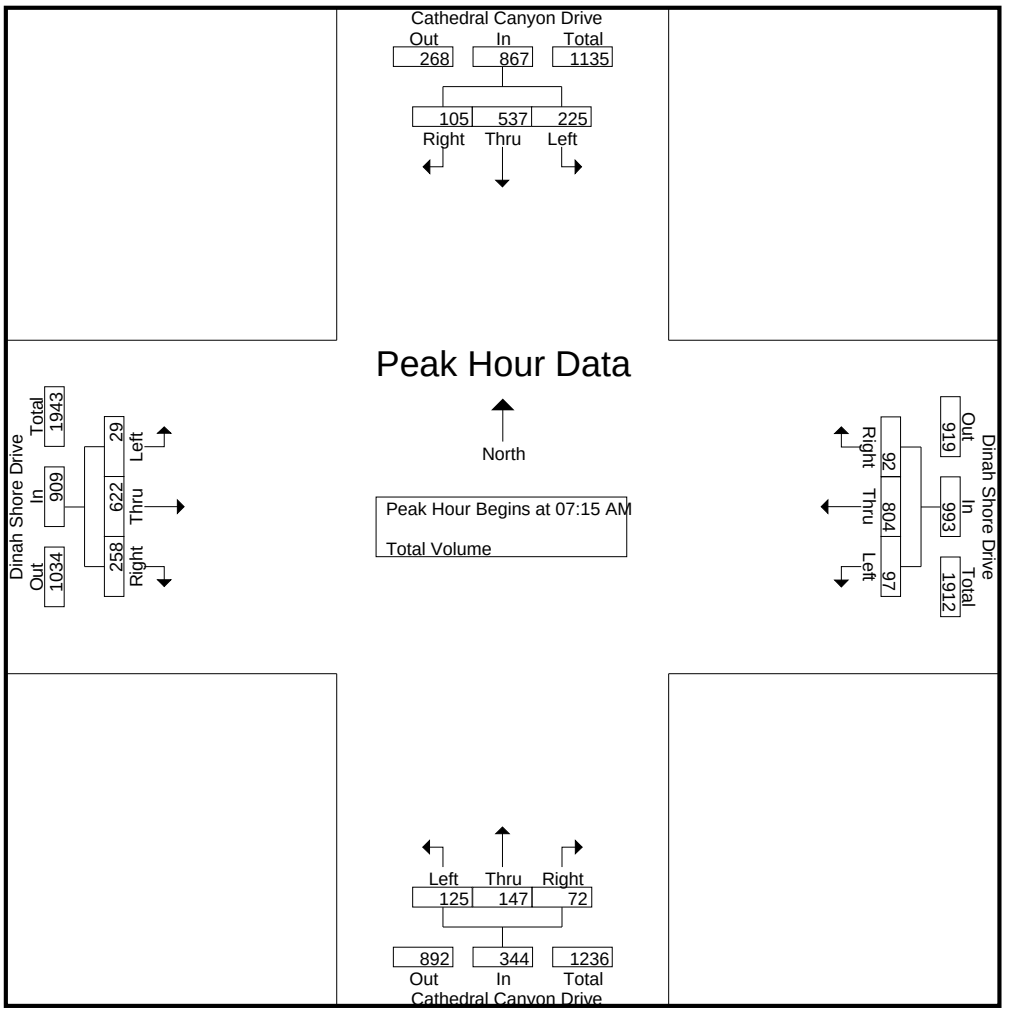
	Cathedral Canyon Drive Southbound				Dinah Shore Drive Westbound				Cathedral Canyon Drive Northbound				Dinah Shore Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	60	94	13	167	15	131	17	163	22	26	7	55	3	118	28	149	534
07:15 AM	65	103	16	184	17	187	28	232	27	27	18	72	4	135	53	192	680
07:30 AM	59	142	39	240	32	236	24	292	28	41	18	87	4	165	54	223	842
07:45 AM	57	180	33	270	20	230	25	275	33	42	15	90	14	179	79	272	907
Total	241	519	101	861	84	784	94	962	110	136	58	304	25	597	214	836	2963
08:00 AM	44	112	17	173	28	151	15	194	37	37	21	95	7	143	72	222	684
08:15 AM	59	77	12	148	21	161	24	206	46	51	16	113	14	140	46	200	667
08:30 AM	40	80	12	132	26	178	14	218	40	41	21	102	7	123	67	197	649
08:45 AM	32	87	14	133	21	162	17	200	28	58	17	103	9	123	64	196	632
Total	175	356	55	586	96	652	70	818	151	187	75	413	37	529	249	815	2632
Grand Total	416	875	156	1447	180	1436	164	1780	261	323	133	717	62	1126	463	1651	5595
Apprch %	28.7	60.5	10.8		10.1	80.7	9.2		36.4	45	18.5		3.8	68.2	28		
Total %	7.4	15.6	2.8	25.9	3.2	25.7	2.9	31.8	4.7	5.8	2.4	12.8	1.1	20.1	8.3	29.5	

	Cathedral Canyon Drive Southbound				Dinah Shore Drive Westbound				Cathedral Canyon Drive Northbound				Dinah Shore Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	**65**	103	16	184	17	187	**28**	232	27	27	18	72	4	135	53	192	680
07:30 AM	59	142	**39**	240	**32**	**236**	24	**292**	28	41	18	87	4	165	54	223	842
07:45 AM	57	**180**	33	**270**	20	230	25	275	33	**42**	15	90	**14**	**179**	**79**	**272**	**907**
08:00 AM	44	112	17	173	28	151	15	194	**37**	37	**21**	**95**	7	143	72	222	684
Total Volume	225	537	105	867	97	804	92	993	125	147	72	344	29	622	258	909	3113
% App. Total	26	61.9	12.1		9.8	81	9.3		36.3	42.7	20.9		3.2	68.4	28.4		
PHF	.865	.746	.673	.803	.758	.852	.821	.850	.845	.875	.857	.905	.518	.869	.816	.835	.858

Counts Unlimited
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City of Cathedral City
N/S: Cathedral Canyon Drive
E/W: Dinah Shore Drive
Weather: Clear

File Name : 12_CTC_Cathedral Cyn_Dinah Shore AM
Site Code : 06718258
Start Date : 4/10/2018



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:15 AM				07:15 AM				08:00 AM				07:30 AM			
+0 mins.	**65**	103	16	184	17	187	**28**	232	37	37	**21**	95	4	165	54	223
+15 mins.	59	142	**39**	240	**32**	**236**	24	**292**	**46**	51	16	**113**	**14**	**179**	**79**	**272**
+30 mins.	57	**180**	33	**270**	20	230	25	275	40	41	21	102	7	143	72	222
+45 mins.	44	112	17	173	28	151	15	194	28	**58**	17	103	14	140	46	200
Total Volume	225	537	105	867	97	804	92	993	151	187	75	413	39	627	251	917
% App. Total	26	61.9	12.1		9.8	81	9.3		36.6	45.3	18.2		4.3	68.4	27.4	
PHF	.865	.746	.673	.803	.758	.852	.821	.850	.821	.806	.893	.914	.696	.876	.794	.843

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City of Cathedral City
N/S: Cathedral Canyon Drive
E/W: Dinah Shore Drive
Weather: Clear

File Name : 12_CTC_Cathedral Cyn_Dinah Shore PM
Site Code : 06718258
Start Date : 4/10/2018
Page No : 1

Groups Printed- Total Volume

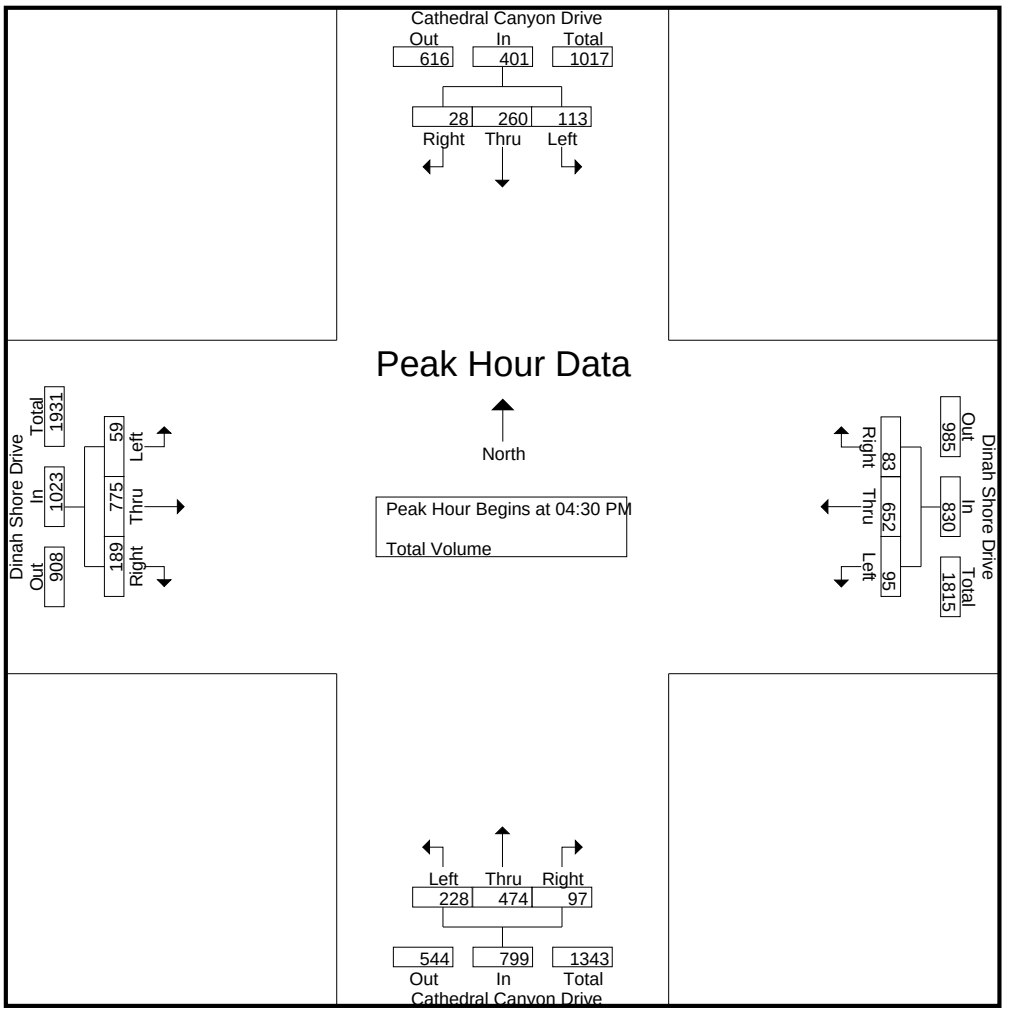
	Cathedral Canyon Drive Southbound				Dinah Shore Drive Westbound				Cathedral Canyon Drive Northbound				Dinah Shore Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	27	73	13	113	27	178	27	232	59	109	23	191	15	166	62	243	779
04:15 PM	17	79	13	109	38	180	22	240	60	122	33	215	18	164	57	239	803
04:30 PM	21	58	7	86	23	175	18	216	49	107	23	179	13	197	51	261	742
04:45 PM	30	84	8	122	21	144	23	188	49	121	20	190	17	165	44	226	726
Total	95	294	41	430	109	677	90	876	217	459	99	775	63	692	214	969	3050
05:00 PM	32	47	6	85	26	163	14	203	54	121	24	199	18	213	50	281	768
05:15 PM	30	71	7	108	25	170	28	223	76	125	30	231	11	200	44	255	817
05:30 PM	34	65	7	106	28	168	28	224	60	103	25	188	11	159	38	208	726
05:45 PM	29	60	9	98	29	177	28	234	41	96	20	157	8	165	32	205	694
Total	125	243	29	397	108	678	98	884	231	445	99	775	48	737	164	949	3005
Grand Total	220	537	70	827	217	1355	188	1760	448	904	198	1550	111	1429	378	1918	6055
Apprch %	26.6	64.9	8.5		12.3	77	10.7		28.9	58.3	12.8		5.8	74.5	19.7		
Total %	3.6	8.9	1.2	13.7	3.6	22.4	3.1	29.1	7.4	14.9	3.3	25.6	1.8	23.6	6.2	31.7	

	Cathedral Canyon Drive Southbound				Dinah Shore Drive Westbound				Cathedral Canyon Drive Northbound				Dinah Shore Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	21	58	7	86	23	**175**	18	216	49	107	23	179	13	197	**51**	261	742
04:45 PM	30	**84**	**8**	**122**	21	144	23	188	49	121	20	190	17	165	44	226	726
05:00 PM	**32**	47	6	85	**26**	163	14	203	54	121	24	199	**18**	**213**	50	**281**	768
05:15 PM	30	71	7	108	25	170	**28**	**223**	**76**	**125**	**30**	**231**	11	200	44	255	**817**
Total Volume	113	260	28	401	95	652	83	830	228	474	97	799	59	775	189	1023	3053
% App. Total	28.2	64.8	7		11.4	78.6	10		28.5	59.3	12.1		5.8	75.8	18.5		
PHF	.883	.774	.875	.822	.913	.931	.741	.930	.750	.948	.808	.865	.819	.910	.926	.910	.934

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City of Cathedral City
N/S: Cathedral Canyon Drive
E/W: Dinah Shore Drive
Weather: Clear

File Name : 12_CTC_Cathedral Cyn_Dinah Shore PM
Site Code : 06718258
Start Date : 4/10/2018
Page No : 2



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM				05:00 PM				04:45 PM				04:30 PM			
+0 mins.	27	73	**13**	113	26	163	14	203	49	121	20	190	13	197	**51**	261
+15 mins.	17	79	13	109	25	170	**28**	223	54	121	24	199	17	165	44	226
+30 mins.	21	58	7	86	28	168	28	224	**76**	**125**	**30**	**231**	**18**	**213**	50	**281**
+45 mins.	**30**	**84**	8	**122**	**29**	**177**	28	**234**	60	103	25	188	11	200	44	255
Total Volume	95	294	41	430	108	678	98	884	239	470	99	808	59	775	189	1023
% App. Total	22.1	68.4	9.5		12.2	76.7	11.1		29.6	58.2	12.3		5.8	75.8	18.5	
PHF	.792	.875	.788	.881	.931	.958	.875	.944	.786	.940	.825	.874	.819	.910	.926	.910

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City of Cathedral City
N/S: Cathedral Canyon Drive
E/W: Dinah Shore Drive
Weather: Clear

File Name : 12_CTC_Cathedral Cyn_Dinah Shore SAT
Site Code : 06718258
Start Date : 4/14/2018
Page No : 1

Groups Printed- Total Volume

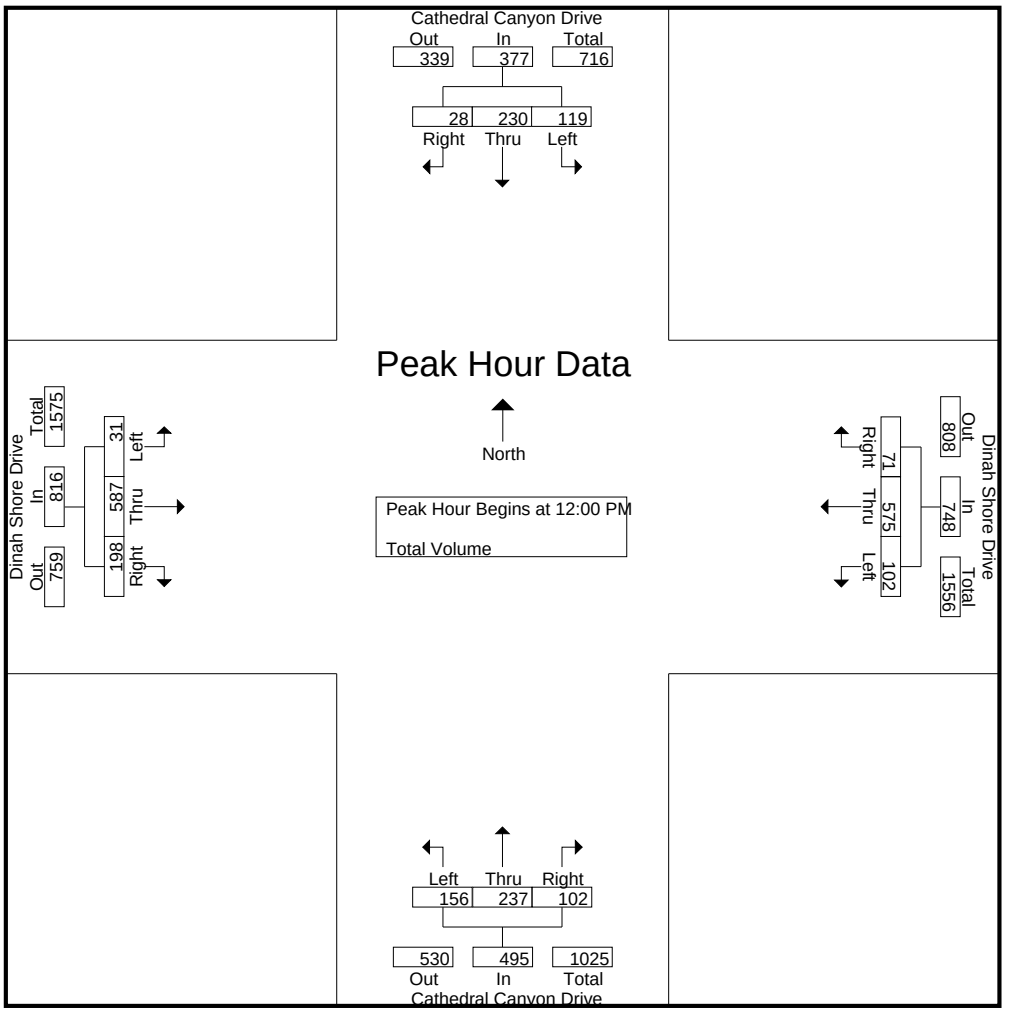
	Cathedral Canyon Drive Southbound				Dinah Shore Drive Westbound				Cathedral Canyon Drive Northbound				Dinah Shore Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
12:00 PM	35	55	6	96	25	150	20	195	38	62	25	125	10	150	50	210	626
12:15 PM	32	56	7	95	30	159	14	203	31	56	23	110	8	158	54	220	628
12:30 PM	25	68	5	98	28	134	18	180	45	58	26	129	4	134	46	184	591
12:45 PM	27	51	10	88	19	132	19	170	42	61	28	131	9	145	48	202	591
Total	119	230	28	377	102	575	71	748	156	237	102	495	31	587	198	816	2436
01:00 PM	23	54	9	86	32	140	28	200	33	60	29	122	6	139	59	204	612
01:15 PM	26	67	9	102	27	116	20	163	55	66	14	135	6	126	48	180	580
01:30 PM	31	64	5	100	19	153	20	192	37	65	18	120	8	118	49	175	587
01:45 PM	28	55	10	93	27	148	21	196	54	78	26	158	7	132	51	190	637
Total	108	240	33	381	105	557	89	751	179	269	87	535	27	515	207	749	2416
Grand Total	227	470	61	758	207	1132	160	1499	335	506	189	1030	58	1102	405	1565	4852
Apprch %	29.9	62	8		13.8	75.5	10.7		32.5	49.1	18.3		3.7	70.4	25.9		
Total %	4.7	9.7	1.3	15.6	4.3	23.3	3.3	30.9	6.9	10.4	3.9	21.2	1.2	22.7	8.3	32.3	

	Cathedral Canyon Drive Southbound				Dinah Shore Drive Westbound				Cathedral Canyon Drive Northbound				Dinah Shore Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 12:00 PM																	
12:00 PM	**35**	55	6	96	25	150	**20**	195	38	**62**	25	125	**10**	150	50	210	626
12:15 PM	32	56	7	95	**30**	**159**	14	**203**	31	56	23	110	8	**158**	**54**	**220**	**628**
12:30 PM	25	**68**	5	**98**	28	134	18	180	**45**	58	26	129	4	134	46	184	591
12:45 PM	27	51	**10**	88	19	132	19	170	42	61	**28**	**131**	9	145	48	202	591
Total Volume	119	230	28	377	102	575	71	748	156	237	102	495	31	587	198	816	2436
% App. Total	31.6	61	7.4		13.6	76.9	9.5		31.5	47.9	20.6		3.8	71.9	24.3		
PHF	.850	.846	.700	.962	.850	.904	.888	.921	.867	.956	.911	.945	.775	.929	.917	.927	.970

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City of Cathedral City
N/S: Cathedral Canyon Drive
E/W: Dinah Shore Drive
Weather: Clear

File Name : 12_CTC_Cathedral Cyn_Dinah Shore SAT
Site Code : 06718258
Start Date : 4/14/2018
Page No : 2



Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	01:00 PM				12:15 PM				01:00 PM				12:00 PM			
+0 mins.	23	54	9	86	30	**159**	14	**203**	33	60	**29**	122	**10**	150	50	210
+15 mins.	26	**67**	9	**102**	28	134	18	180	**55**	66	14	135	8	**158**	**54**	**220**
+30 mins.	**31**	64	5	100	19	132	19	170	37	65	18	120	4	134	46	184
+45 mins.	28	55	**10**	93	**32**	140	**28**	200	54	**78**	26	**158**	9	145	48	202
Total Volume	108	240	33	381	109	565	79	753	179	269	87	535	31	587	198	816
% App. Total	28.3	63	8.7		14.5	75	10.5		33.5	50.3	16.3		3.8	71.9	24.3	
PHF	.871	.896	.825	.934	.852	.888	.705	.927	.814	.862	.750	.847	.775	.929	.917	.927

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City of Cathedral City
N/S: Date Palm Drive
E/W: Gerald Ford Drive
Weather: Clear

File Name : 13_CTC_Date Palm_Gerald Ford AM
Site Code : 06718258
Start Date : 4/10/2018
Page No : 1

Groups Printed- Total Volume

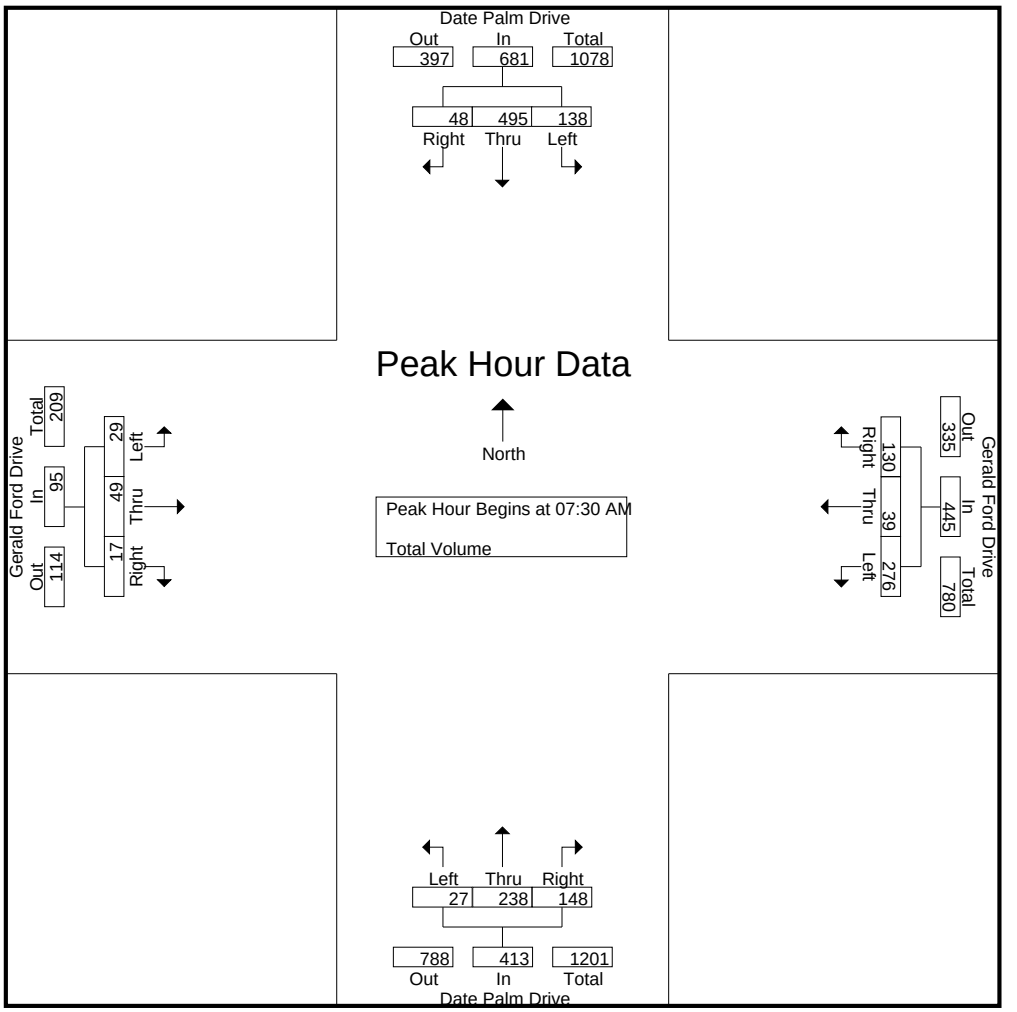
	Date Palm Drive Southbound				Gerald Ford Drive Westbound				Date Palm Drive Northbound				Gerald Ford Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	22	69	13	104	55	6	30	91	3	46	29	78	12	7	9	28	301
07:15 AM	32	91	18	141	77	6	36	119	4	63	36	103	6	14	10	30	393
07:30 AM	43	121	13	177	85	10	21	116	5	51	35	91	8	12	4	24	408
07:45 AM	45	132	15	192	81	6	35	122	4	59	33	96	11	11	5	27	437
Total	142	413	59	614	298	28	122	448	16	219	133	368	37	44	28	109	1539
08:00 AM	27	114	12	153	60	9	30	99	12	58	37	107	5	6	3	14	373
08:15 AM	23	128	8	159	50	14	44	108	6	70	43	119	5	20	5	30	416
08:30 AM	28	93	12	133	67	11	27	105	5	72	31	108	9	5	7	21	367
08:45 AM	26	114	11	151	51	13	25	89	6	73	46	125	15	19	5	39	404
Total	104	449	43	596	228	47	126	401	29	273	157	459	34	50	20	104	1560
Grand Total	246	862	102	1210	526	75	248	849	45	492	290	827	71	94	48	213	3099
Apprch %	20.3	71.2	8.4		62	8.8	29.2		5.4	59.5	35.1		33.3	44.1	22.5		
Total %	7.9	27.8	3.3	39	17	2.4	8	27.4	1.5	15.9	9.4	26.7	2.3	3	1.5	6.9	

	Date Palm Drive Southbound				Gerald Ford Drive Westbound				Date Palm Drive Northbound				Gerald Ford Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	43	121	13	177	**85**	10	21	116	5	51	35	91	8	12	4	24	408
07:45 AM	**45**	**132**	**15**	**192**	81	6	35	**122**	4	59	33	96	**11**	11	**5**	27	**437**
08:00 AM	27	114	12	153	60	9	30	99	**12**	58	37	107	5	6	3	14	373
08:15 AM	23	128	8	159	50	**14**	**44**	108	6	**70**	**43**	**119**	5	**20**	5	**30**	416
Total Volume	138	495	48	681	276	39	130	445	27	238	148	413	29	49	17	95	1634
% App. Total	20.3	72.7	7		62	8.8	29.2		6.5	57.6	35.8		30.5	51.6	17.9		
PHF	.767	.938	.800	.887	.812	.696	.739	.912	.563	.850	.860	.868	.659	.613	.850	.792	.935

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City of Cathedral City
N/S: Date Palm Drive
E/W: Gerald Ford Drive
Weather: Clear

File Name : 13_CTC_Date Palm_Gerald Ford AM
Site Code : 06718258
Start Date : 4/10/2018
Page No : 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:30 AM				07:15 AM				08:00 AM				07:00 AM			
+0 mins.	43	121	13	177	77	6	**36**	119	**12**	58	37	107	**12**	7	9	28
+15 mins.	**45**	**132**	**15**	**192**	**85**	**10**	21	116	6	70	43	119	6	**14**	**10**	**30**
+30 mins.	27	114	12	153	81	6	35	**122**	5	72	31	108	8	12	4	24
+45 mins.	23	128	8	159	60	9	30	99	6	**73**	**46**	**125**	11	11	5	27
Total Volume	138	495	48	681	303	31	122	456	29	273	157	459	37	44	28	109
% App. Total	20.3	72.7	7		66.4	6.8	26.8		6.3	59.5	34.2		33.9	40.4	25.7	
PHF	.767	.938	.800	.887	.891	.775	.847	.934	.604	.935	.853	.918	.771	.786	.700	.908

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City of Cathedral City
N/S: Date Palm Drive
E/W: Gerald Ford Drive
Weather: Clear

File Name : 13_CTC_Date Palm_Gerald Ford PM
Site Code : 06718258
Start Date : 4/10/2018
Page No : 1

Groups Printed- Total Volume

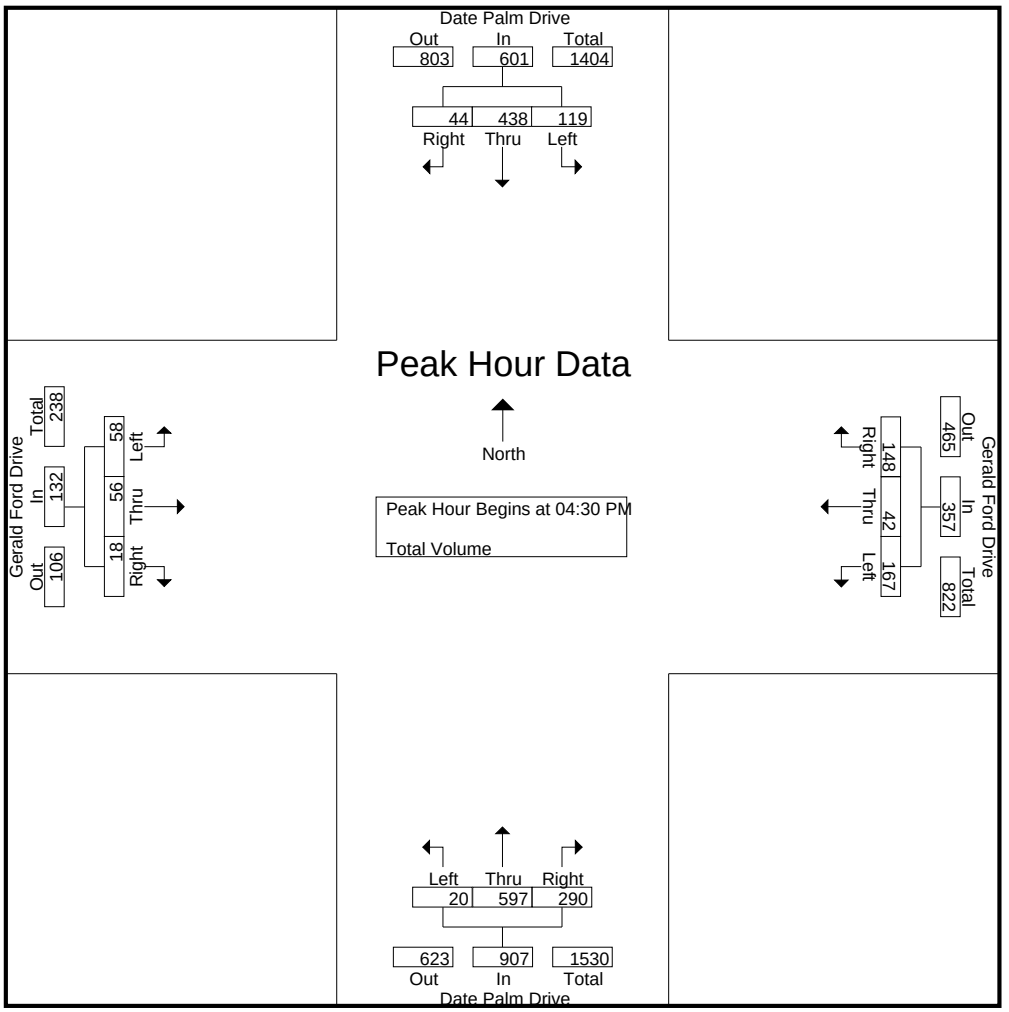
	Date Palm Drive Southbound				Gerald Ford Drive Westbound				Date Palm Drive Northbound				Gerald Ford Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	42	98	9	149	43	9	35	87	3	139	79	221	15	11	4	30	487
04:15 PM	23	112	10	145	65	11	44	120	9	125	65	199	11	7	9	27	491
04:30 PM	30	105	6	141	41	9	30	80	5	157	72	234	13	13	5	31	486
04:45 PM	30	107	5	142	41	9	30	80	5	158	74	237	13	13	4	30	489
Total	125	422	30	577	190	38	139	367	22	579	290	891	52	44	22	118	1953
05:00 PM	25	102	12	139	49	13	29	91	5	151	80	236	11	17	2	30	496
05:15 PM	34	124	21	179	36	11	59	106	5	131	64	200	21	13	7	41	526
05:30 PM	30	81	14	125	38	9	33	80	7	100	66	173	27	11	6	44	422
05:45 PM	30	89	13	132	31	10	24	65	8	118	51	177	13	10	8	31	405
Total	119	396	60	575	154	43	145	342	25	500	261	786	72	51	23	146	1849
Grand Total	244	818	90	1152	344	81	284	709	47	1079	551	1677	124	95	45	264	3802
Apprch %	21.2	71	7.8		48.5	11.4	40.1		2.8	64.3	32.9		47	36	17		
Total %	6.4	21.5	2.4	30.3	9	2.1	7.5	18.6	1.2	28.4	14.5	44.1	3.3	2.5	1.2	6.9	

	Date Palm Drive Southbound				Gerald Ford Drive Westbound				Date Palm Drive Northbound				Gerald Ford Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	30	105	6	141	41	9	30	80	**5**	157	72	234	13	13	5	31	486
04:45 PM	30	107	5	142	41	9	30	80	5	**158**	74	**237**	13	13	4	30	489
05:00 PM	25	102	12	139	**49**	**13**	29	91	5	151	**80**	236	11	**17**	2	30	496
05:15 PM	**34**	**124**	**21**	**179**	36	11	**59**	**106**	5	131	64	200	**21**	13	**7**	**41**	**526**
Total Volume	119	438	44	601	167	42	148	357	20	597	290	907	58	56	18	132	1997
% App. Total	19.8	72.9	7.3		46.8	11.8	41.5		2.2	65.8	32		43.9	42.4	13.6		
PHF	.875	.883	.524	.839	.852	.808	.627	.842	1.00	.945	.906	.957	.690	.824	.643	.805	.949

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File Name : 13_CTC_Date Palm_Gerald Ford PM
Site Code : 06718258
Start Date : 4/10/2018
Page No : 2



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:30 PM				04:15 PM				04:30 PM				05:00 PM			
+0 mins.	30	105	6	141	**65**	11	**44**	**120**	**5**	157	72	234	11	**17**	2	30
+15 mins.	30	107	5	142	41	9	30	80	5	**158**	74	**237**	21	13	7	41
+30 mins.	25	102	12	139	41	9	30	80	5	151	**80**	236	**27**	11	6	**44**
+45 mins.	**34**	**124**	**21**	**179**	49	**13**	29	91	5	131	64	200	13	10	**8**	31
Total Volume	119	438	44	601	196	42	133	371	20	597	290	907	72	51	23	146
% App. Total	19.8	72.9	7.3		52.8	11.3	35.8		2.2	65.8	32		49.3	34.9	15.8	
PHF	.875	.883	.524	.839	.754	.808	.756	.773	1.000	.945	.906	.957	.667	.750	.719	.830

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City of Cathedral City
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Weather: Clear

File Name : 13_CTC_Date Palm_Gerald Ford SAT
Site Code : 06718258
Start Date : 4/14/2018

Groups Printed- Total Volume

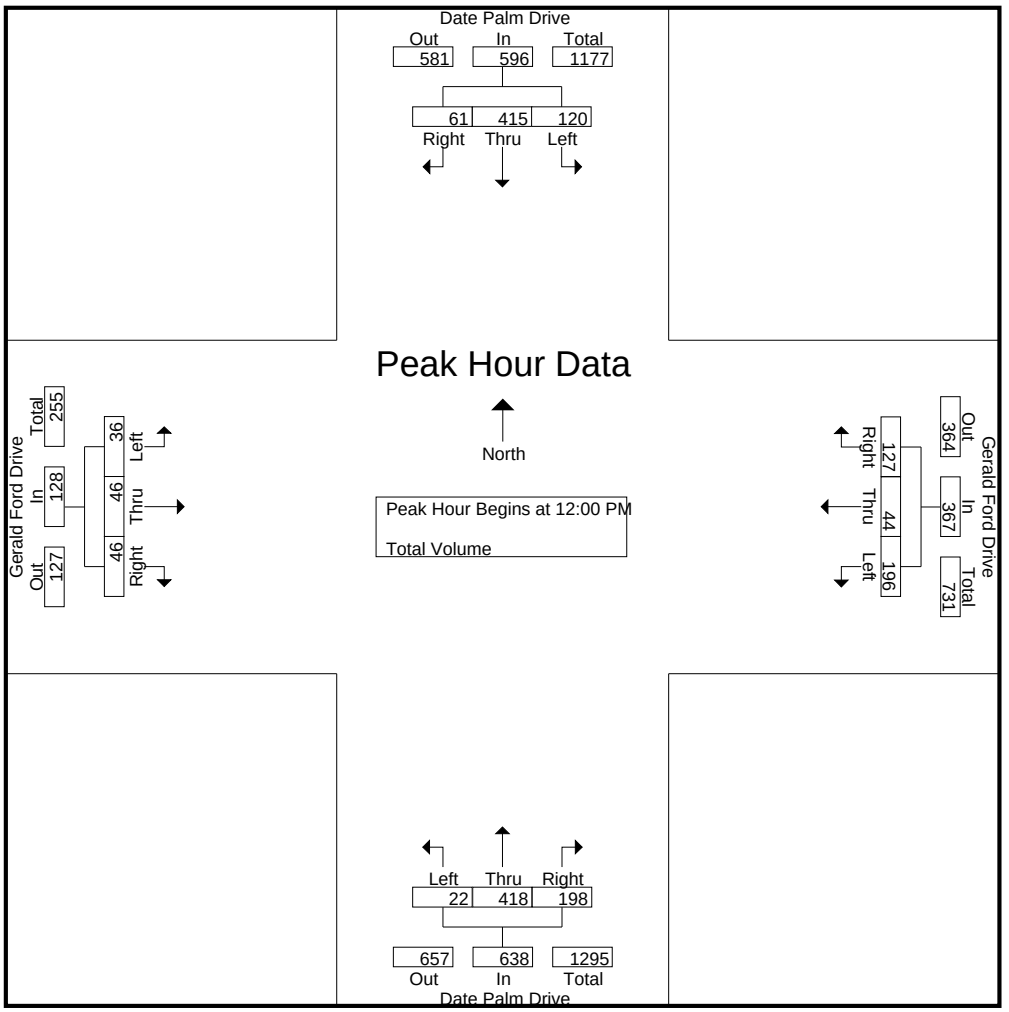
	Date Palm Drive Southbound				Gerald Ford Drive Westbound				Date Palm Drive Northbound				Gerald Ford Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
12:00 PM	22	102	15	139	38	14	33	85	10	116	47	173	10	17	16	43	440
12:15 PM	40	112	18	170	53	8	25	86	5	101	59	165	11	10	9	30	451
12:30 PM	27	100	14	141	57	13	37	107	2	104	53	159	9	11	11	31	438
12:45 PM	31	101	14	146	48	9	32	89	5	97	39	141	6	8	10	24	400
Total	120	415	61	596	196	44	127	367	22	418	198	638	36	46	46	128	1729
01:00 PM	34	90	12	136	32	11	33	76	5	118	42	165	19	12	10	41	418
01:15 PM	20	104	18	142	30	15	29	74	6	118	42	166	16	13	8	37	419
01:30 PM	23	123	6	152	37	6	31	74	3	154	58	215	13	10	4	27	468
01:45 PM	20	96	9	125	38	8	32	78	7	102	45	154	14	14	6	34	391
Total	97	413	45	555	137	40	125	302	21	492	187	700	62	49	28	139	1696
Grand Total	217	828	106	1151	333	84	252	669	43	910	385	1338	98	95	74	267	3425
Apprch %	18.9	71.9	9.2		49.8	12.6	37.7		3.2	68	28.8		36.7	35.6	27.7		
Total %	6.3	24.2	3.1	33.6	9.7	2.5	7.4	19.5	1.3	26.6	11.2	39.1	2.9	2.8	2.2	7.8	

	Date Palm Drive Southbound				Gerald Ford Drive Westbound				Date Palm Drive Northbound				Gerald Ford Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 12:00 PM																	
12:00 PM	22	102	15	139	38	**14**	33	85	**10**	**116**	47	**173**	10	**17**	**16**	**43**	440
12:15 PM	**40**	**112**	**18**	**170**	53	8	25	86	5	101	**59**	165	**11**	10	9	30	**451**
12:30 PM	27	100	14	141	**57**	13	**37**	**107**	2	104	53	159	9	11	11	31	438
12:45 PM	31	101	14	146	48	9	32	89	5	97	39	141	6	8	10	24	400
Total Volume	120	415	61	596	196	44	127	367	22	418	198	638	36	46	46	128	1729
% App. Total	20.1	69.6	10.2		53.4	12	34.6		3.4	65.5	31		28.1	35.9	35.9		
PHF	.750	.926	.847	.876	.860	.786	.858	.857	.550	.901	.839	.922	.818	.676	.719	.744	.958

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File Name : 13_CTC_Date Palm_Gerald Ford SAT
Site Code : 06718258
Start Date : 4/14/2018
Page No : 2



Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	12:00 PM				12:00 PM				01:00 PM				01:00 PM			
+0 mins.	22	102	15	139	38	**14**	33	85	5	118	42	165	**19**	12	**10**	**41**
+15 mins.	**40**	**112**	**18**	**170**	53	8	25	86	6	118	42	166	16	13	8	37
+30 mins.	27	100	14	141	**57**	13	**37**	**107**	3	**154**	**58**	**215**	13	10	4	27
+45 mins.	31	101	14	146	48	9	32	89	**7**	102	45	154	14	**14**	6	34
Total Volume	120	415	61	596	196	44	127	367	21	492	187	700	62	49	28	139
% App. Total	20.1	69.6	10.2		53.4	12	34.6		3	70.3	26.7		44.6	35.3	20.1	
PHF	.750	.926	.847	.876	.860	.786	.858	.857	.750	.799	.806	.814	.816	.875	.700	.848

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N/S: Date Palm Drive
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Weather: Clear

File Name : 14_CTC_Date Palm_Dinah Shore AM
Site Code : 06718258
Start Date : 4/10/2018
Page No : 1

Groups Printed- Total Volume

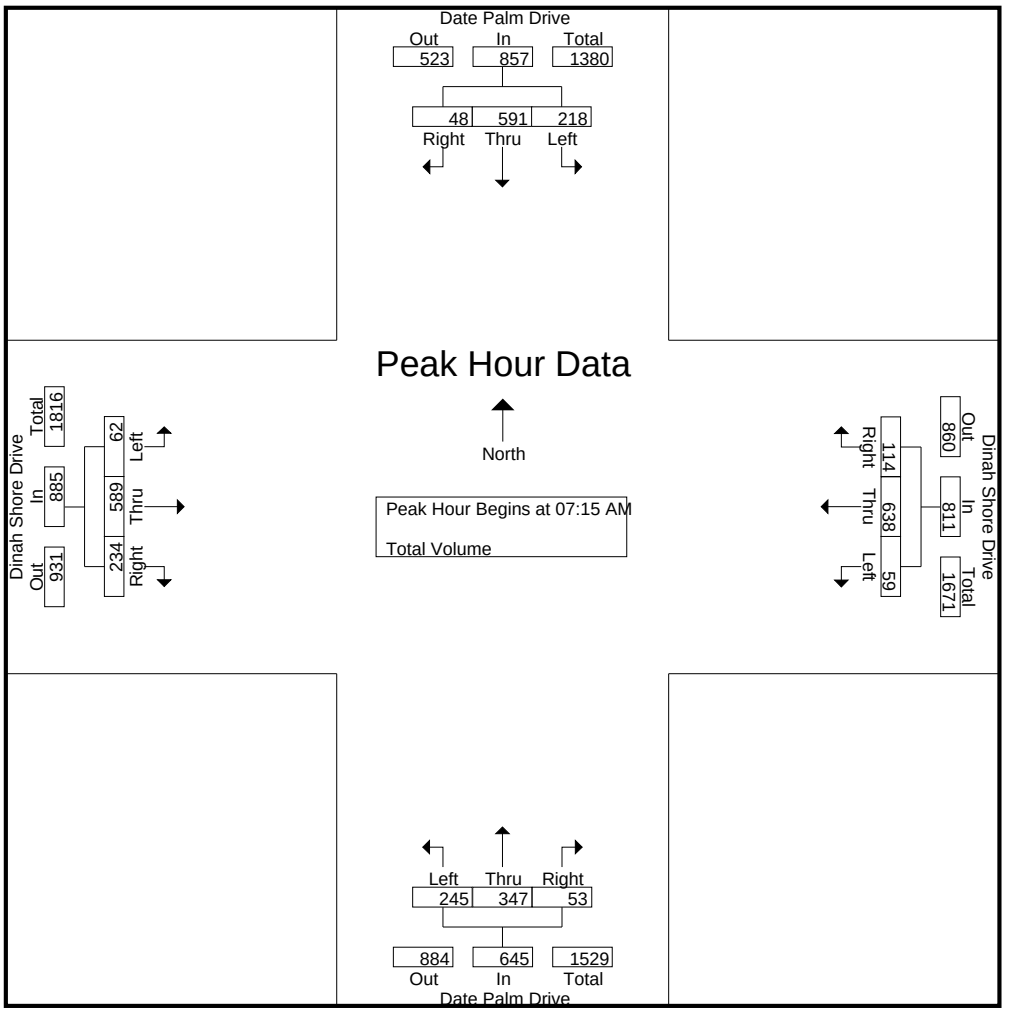
	Date Palm Drive Southbound				Dinah Shore Drive Westbound				Date Palm Drive Northbound				Dinah Shore Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	51	146	4	201	12	90	21	123	48	68	13	129	5	105	42	152	605
07:15 AM	66	149	13	228	9	138	28	175	67	105	9	181	9	144	59	212	796
07:30 AM	72	139	5	216	12	191	30	233	77	96	21	194	18	163	58	239	882
07:45 AM	49	153	18	220	21	184	42	247	54	69	16	139	20	175	57	252	858
Total	238	587	40	865	54	603	121	778	246	338	59	643	52	587	216	855	3141
08:00 AM	31	150	12	193	17	125	14	156	47	77	7	131	15	107	60	182	662
08:15 AM	21	199	9	229	9	93	23	125	63	84	5	152	22	103	79	204	710
08:30 AM	12	158	23	193	8	114	15	137	71	110	12	193	28	96	73	197	720
08:45 AM	30	142	12	184	10	136	13	159	49	106	15	170	19	98	42	159	672
Total	94	649	56	799	44	468	65	577	230	377	39	646	84	404	254	742	2764
Grand Total	332	1236	96	1664	98	1071	186	1355	476	715	98	1289	136	991	470	1597	5905
Apprch %	20	74.3	5.8		7.2	79	13.7		36.9	55.5	7.6		8.5	62.1	29.4		
Total %	5.6	20.9	1.6	28.2	1.7	18.1	3.1	22.9	8.1	12.1	1.7	21.8	2.3	16.8	8	27	

	Date Palm Drive Southbound				Dinah Shore Drive Westbound				Date Palm Drive Northbound				Dinah Shore Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	66	149	13	**228**	9	138	28	175	67	**105**	9	181	9	144	59	212	796
07:30 AM	**72**	139	5	216	12	**191**	30	233	**77**	96	**21**	**194**	18	163	58	239	**882**
07:45 AM	49	**153**	**18**	220	**21**	184	**42**	**247**	54	69	16	139	**20**	**175**	57	**252**	858
08:00 AM	31	150	12	193	17	125	14	156	47	77	7	131	15	107	**60**	182	662
Total Volume	218	591	48	857	59	638	114	811	245	347	53	645	62	589	234	885	3198
% App. Total	25.4	69	5.6		7.3	78.7	14.1		38	53.8	8.2		7	66.6	26.4		
PHF	.757	.966	.667	.940	.702	.835	.679	.821	.795	.826	.631	.831	.775	.841	.975	.878	.906

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Weather: Clear

File Name : 14_CTC_Date Palm_Dinah Shore AM
Site Code : 06718258
Start Date : 4/10/2018



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM				07:15 AM				08:00 AM				07:15 AM			
+0 mins.	51	146	4	201	9	138	28	175	47	77	7	131	9	144	59	212
+15 mins.	66	149	13	**228**	12	**191**	30	233	63	84	5	152	18	163	58	239
+30 mins.	**72**	139	5	216	**21**	184	**42**	**247**	**71**	**110**	12	**193**	**20**	**175**	57	**252**
+45 mins.	49	**153**	**18**	220	17	125	14	156	49	106	**15**	170	15	107	**60**	182
Total Volume	238	587	40	865	59	638	114	811	230	377	39	646	62	589	234	885
% App. Total	27.5	67.9	4.6		7.3	78.7	14.1		35.6	58.4	6		7	66.6	26.4	
PHF	.826	.959	.556	.948	.702	.835	.679	.821	.810	.857	.650	.837	.775	.841	.975	.878

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File Name : 14_CTC_Date Palm_Dinah Shore PM
Site Code : 06718258
Start Date : 4/10/2018
Page No : 1

Groups Printed- Total Volume

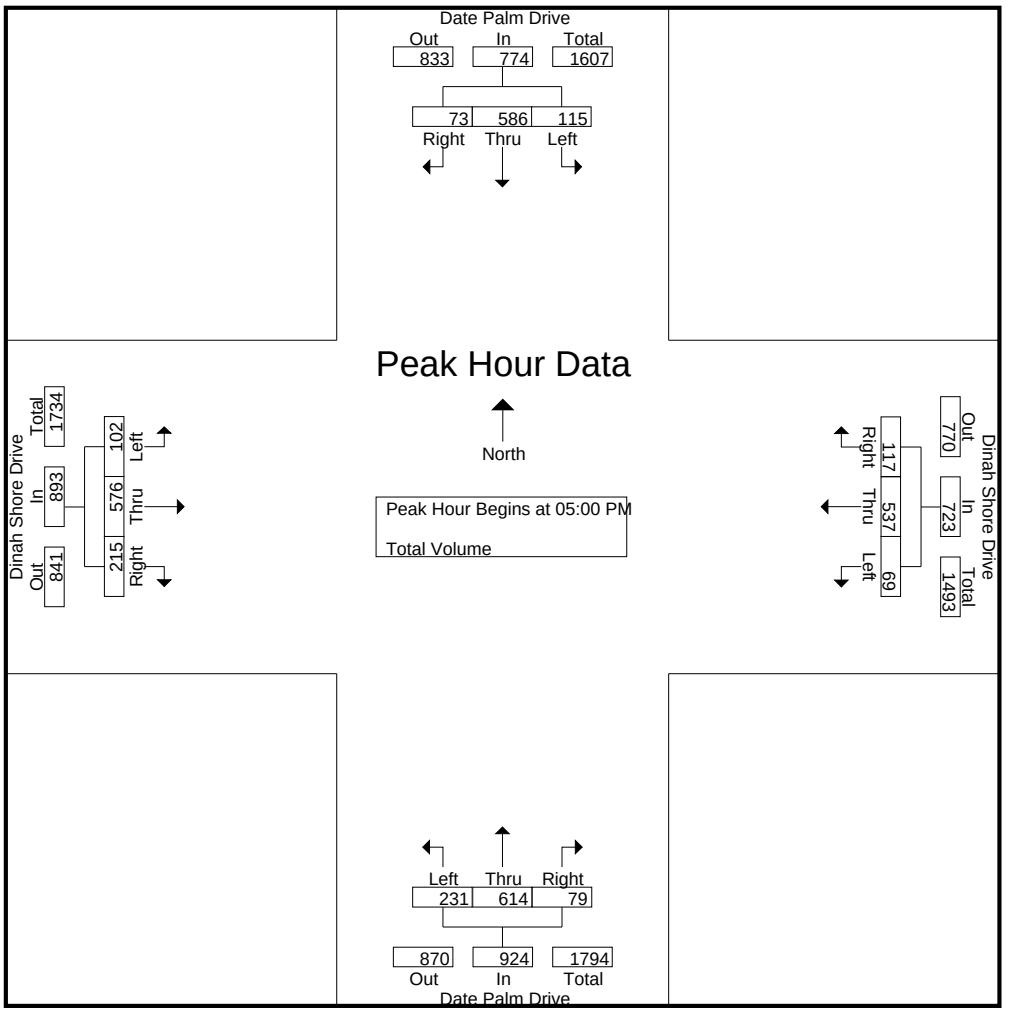
	Date Palm Drive Southbound				Dinah Shore Drive Westbound				Date Palm Drive Northbound				Dinah Shore Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	35	137	26	198	17	137	43	197	63	151	25	239	27	125	60	212	846
04:15 PM	19	121	18	158	21	147	39	207	61	160	14	235	26	137	49	212	812
04:30 PM	39	141	18	198	14	132	32	178	48	135	23	206	25	121	46	192	774
04:45 PM	28	153	17	198	16	119	24	159	46	157	20	223	18	132	51	201	781
Total	121	552	79	752	68	535	138	741	218	603	82	903	96	515	206	817	3213
05:00 PM	36	151	21	208	16	120	22	158	46	168	25	239	18	163	47	228	833
05:15 PM	25	170	15	210	18	148	32	198	62	168	18	248	29	148	69	246	902
05:30 PM	32	134	18	184	19	125	35	179	64	126	17	207	30	136	48	214	784
05:45 PM	22	131	19	172	16	144	28	188	59	152	19	230	25	129	51	205	795
Total	115	586	73	774	69	537	117	723	231	614	79	924	102	576	215	893	3314
Grand Total	236	1138	152	1526	137	1072	255	1464	449	1217	161	1827	198	1091	421	1710	6527
Apprch %	15.5	74.6	10		9.4	73.2	17.4		24.6	66.6	8.8		11.6	63.8	24.6		
Total %	3.6	17.4	2.3	23.4	2.1	16.4	3.9	22.4	6.9	18.6	2.5	28	3	16.7	6.5	26.2	

	Date Palm Drive Southbound				Dinah Shore Drive Westbound				Date Palm Drive Northbound				Dinah Shore Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	**36**	151	**21**	208	16	120	22	158	46	**168**	**25**	239	18	**163**	47	228	833
05:15 PM	25	**170**	15	**210**	18	**148**	32	**198**	62	168	18	**248**	29	148	**69**	**246**	**902**
05:30 PM	32	134	18	184	**19**	125	**35**	179	**64**	126	17	207	**30**	136	48	214	784
05:45 PM	22	131	19	172	16	144	28	188	59	152	19	230	25	129	51	205	795
Total Volume	115	586	73	774	69	537	117	723	231	614	79	924	102	576	215	893	3314
% App. Total	14.9	75.7	9.4		9.5	74.3	16.2		25	66.5	8.5		11.4	64.5	24.1		
PHF	.799	.862	.869	.921	.908	.907	.836	.913	.902	.914	.790	.931	.850	.883	.779	.908	.919

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Site Code : 06718258
Start Date : 4/10/2018
Page No : 2



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:30 PM				04:00 PM				05:00 PM				05:00 PM			
+0 mins.	**39**	141	18	198	17	137	**43**	197	46	**168**	**25**	239	18	**163**	47	228
+15 mins.	28	153	17	198	**21**	**147**	39	**207**	62	168	18	**248**	29	148	**69**	**246**
+30 mins.	36	151	**21**	208	14	132	32	178	**64**	126	17	207	**30**	136	48	214
+45 mins.	25	**170**	15	**210**	16	119	24	159	59	152	19	230	25	129	51	205
Total Volume	128	615	71	814	68	535	138	741	231	614	79	924	102	576	215	893
% App. Total	15.7	75.6	8.7		9.2	72.2	18.6		25	66.5	8.5		11.4	64.5	24.1	
PHF	.821	.904	.845	.969	.810	.910	.802	.895	.902	.914	.790	.931	.850	.883	.779	.908

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File Name : 14_CTC_Date Palm_Dinah Shore SAT
Site Code : 06718258
Start Date : 4/14/2018
Page No : 1

Groups Printed- Total Volume

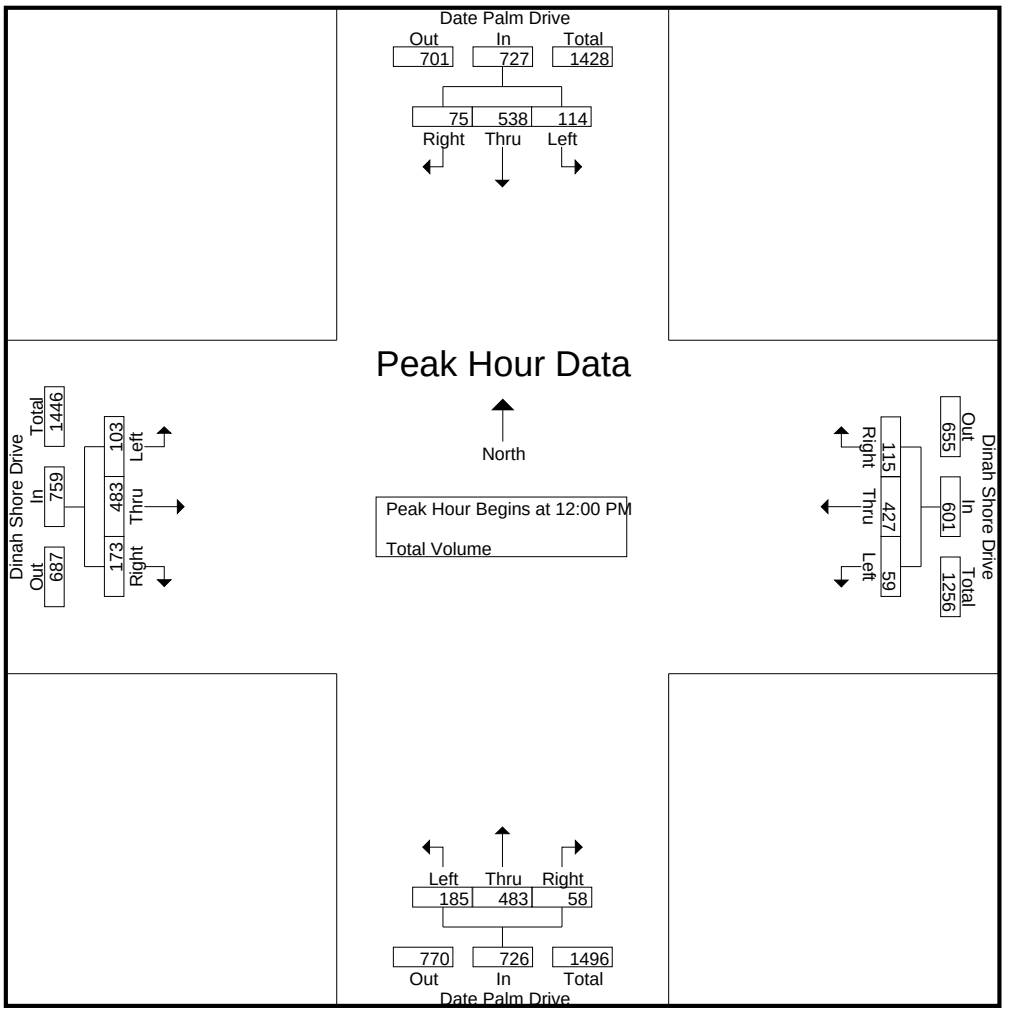
	Date Palm Drive Southbound				Dinah Shore Drive Westbound				Date Palm Drive Northbound				Dinah Shore Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
12:00 PM	27	139	18	184	22	119	30	171	46	134	22	202	32	109	47	188	745
12:15 PM	35	156	20	211	11	98	28	137	51	116	15	182	26	118	46	190	720
12:30 PM	23	106	14	143	14	116	33	163	45	122	11	178	20	140	32	192	676
12:45 PM	29	137	23	189	12	94	24	130	43	111	10	164	25	116	48	189	672
Total	114	538	75	727	59	427	115	601	185	483	58	726	103	483	173	759	2813
01:00 PM	30	134	24	188	15	122	34	171	52	133	21	206	21	94	36	151	716
01:15 PM	27	132	21	180	12	93	27	132	39	140	17	196	28	109	31	168	676
01:30 PM	32	121	16	169	6	109	22	137	47	163	14	224	25	92	41	158	688
01:45 PM	39	125	19	183	13	112	35	160	44	133	16	193	23	96	27	146	682
Total	128	512	80	720	46	436	118	600	182	569	68	819	97	391	135	623	2762
Grand Total	242	1050	155	1447	105	863	233	1201	367	1052	126	1545	200	874	308	1382	5575
Apprch %	16.7	72.6	10.7		8.7	71.9	19.4		23.8	68.1	8.2		14.5	63.2	22.3		
Total %	4.3	18.8	2.8	26	1.9	15.5	4.2	21.5	6.6	18.9	2.3	27.7	3.6	15.7	5.5	24.8	

	Date Palm Drive Southbound				Dinah Shore Drive Westbound				Date Palm Drive Northbound				Dinah Shore Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 12:00 PM																	
12:00 PM	27	139	18	184	**22**	**119**	30	**171**	46	**134**	**22**	**202**	**32**	109	47	188	**745**
12:15 PM	**35**	**156**	20	**211**	11	98	28	137	**51**	116	15	182	26	118	46	190	720
12:30 PM	23	106	14	143	14	116	**33**	163	45	122	11	178	20	**140**	32	**192**	676
12:45 PM	29	137	**23**	189	12	94	24	130	43	111	10	164	25	116	**48**	189	672
Total Volume	114	538	75	727	59	427	115	601	185	483	58	726	103	483	173	759	2813
% App. Total	15.7	74	10.3		9.8	71	19.1		25.5	66.5	8		13.6	63.6	22.8		
PHF	.814	.862	.815	.861	.670	.897	.871	.879	.907	.901	.659	.899	.805	.863	.901	.988	.944

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City of Cathedral City
N/S: Date Palm Drive
E/W: Dinah Shore Drive
Weather: Clear

File Name : 14_CTC_Date Palm_Dinah Shore SAT
Site Code : 06718258
Start Date : 4/14/2018
Page No : 2



Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	12:15 PM				12:00 PM				01:00 PM				12:00 PM			
+0 mins.	**35**	**156**	20	**211**	**22**	**119**	30	**171**	**52**	133	**21**	206	**32**	109	47	188
+15 mins.	23	106	14	143	11	98	28	137	39	140	17	196	26	118	46	190
+30 mins.	29	137	23	189	14	116	**33**	163	47	**163**	14	**224**	20	**140**	32	**192**
+45 mins.	30	134	**24**	188	12	94	24	130	44	133	16	193	25	116	**48**	189
Total Volume	117	533	81	731	59	427	115	601	182	569	68	819	103	483	173	759
% App. Total	16	72.9	11.1		9.8	71	19.1		22.2	69.5	8.3		13.6	63.6	22.8	
PHF	.836	.854	.844	.866	.670	.897	.871	.879	.875	.873	.810	.914	.805	.863	.901	.988

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City of Cathedral City
N/S: Date Palm Drive
E/W: Ramon Road
Weather: Clear

File Name : 15_CTC_Date Palm_Ramon AM
Site Code : 06718258
Start Date : 4/10/2018
Page No : 1

Groups Printed- Total Volume

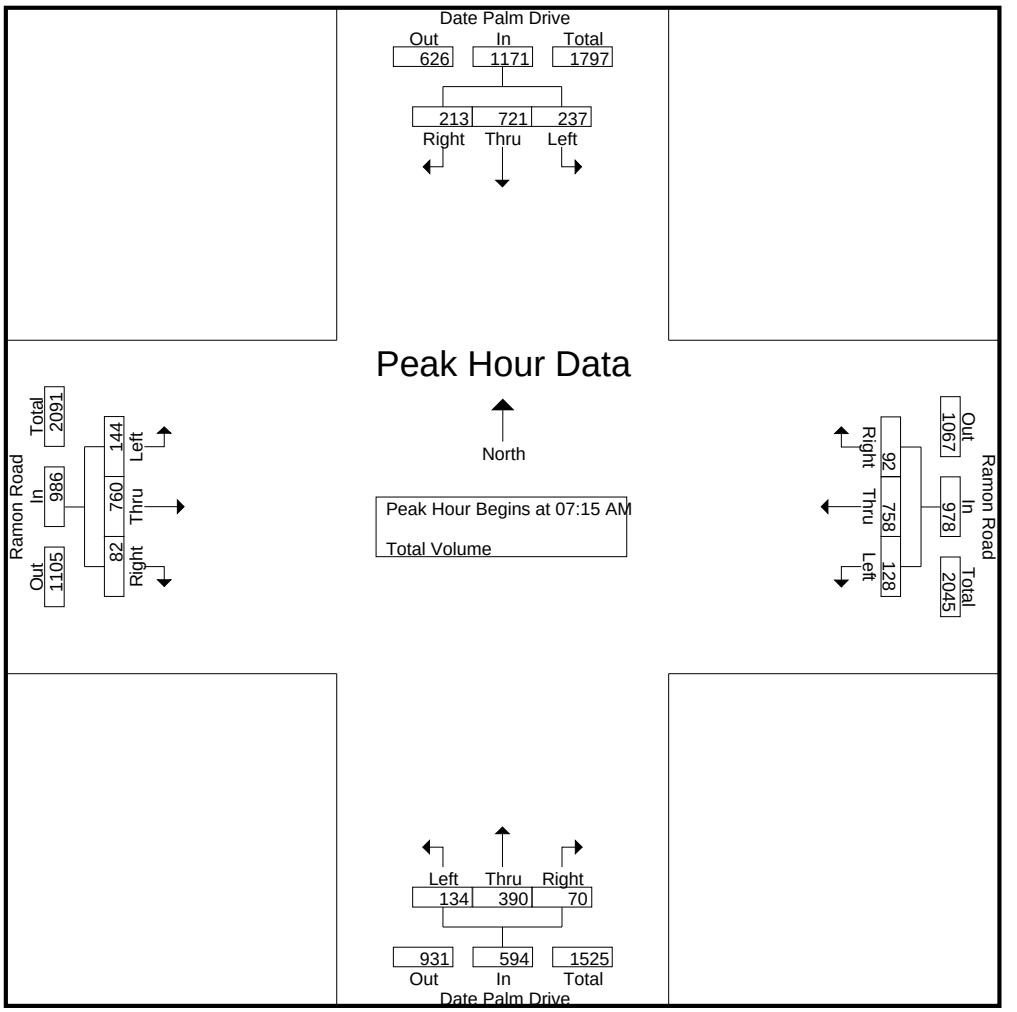
	Date Palm Drive Southbound				Ramon Road Westbound				Date Palm Drive Northbound				Ramon Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	45	154	33	232	21	138	10	169	13	67	15	95	32	147	23	202	698
07:15 AM	55	166	52	273	22	175	14	211	28	94	17	139	45	181	15	241	864
07:30 AM	69	206	66	341	40	218	28	286	28	94	17	139	35	222	29	286	1052
07:45 AM	61	220	54	335	38	182	26	246	48	93	20	161	30	202	19	251	993
Total	230	746	205	1181	121	713	78	912	117	348	69	534	142	752	86	980	3607
08:00 AM	52	129	41	222	28	183	24	235	30	109	16	155	34	155	19	208	820
08:15 AM	42	140	33	215	32	127	13	172	22	73	22	117	28	137	19	184	688
08:30 AM	53	116	36	205	33	127	17	177	39	78	22	139	27	152	16	195	716
08:45 AM	47	118	40	205	27	140	12	179	22	87	23	132	23	118	19	160	676
Total	194	503	150	847	120	577	66	763	113	347	83	543	112	562	73	747	2900
Grand Total	424	1249	355	2028	241	1290	144	1675	230	695	152	1077	254	1314	159	1727	6507
Apprch %	20.9	61.6	17.5		14.4	77	8.6		21.4	64.5	14.1		14.7	76.1	9.2		
Total %	6.5	19.2	5.5	31.2	3.7	19.8	2.2	25.7	3.5	10.7	2.3	16.6	3.9	20.2	2.4	26.5	

	Date Palm Drive Southbound				Ramon Road Westbound				Date Palm Drive Northbound				Ramon Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	55	166	52	273	22	175	14	211	28	94	17	139	**45**	181	15	241	864
07:30 AM	**69**	206	**66**	**341**	**40**	**218**	**28**	**286**	28	94	17	139	35	**222**	**29**	**286**	**1052**
07:45 AM	61	**220**	54	335	38	182	26	246	**48**	93	**20**	**161**	30	202	19	251	993
08:00 AM	52	129	41	222	28	183	24	235	30	**109**	16	155	34	155	19	208	820
Total Volume	237	721	213	1171	128	758	92	978	134	390	70	594	144	760	82	986	3729
% App. Total	20.2	61.6	18.2		13.1	77.5	9.4		22.6	65.7	11.8		14.6	77.1	8.3		
PHF	.859	.819	.807	.859	.800	.869	.821	.855	.698	.894	.875	.922	.800	.856	.707	.862	.886

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File Name : 15_CTC_Date Palm_Ramon AM
Site Code : 06718258
Start Date : 4/10/2018
Page No : 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM				07:15 AM				07:15 AM				07:15 AM			
+0 mins.	45	154	33	232	22	175	14	211	28	94	17	139	**45**	181	15	241
+15 mins.	55	166	52	273	**40**	**218**	**28**	**286**	28	94	17	139	35	**222**	**29**	**286**
+30 mins.	**69**	206	**66**	**341**	38	182	26	246	**48**	93	**20**	**161**	30	202	19	251
+45 mins.	61	**220**	54	335	28	183	24	235	30	**109**	16	155	34	155	19	208
Total Volume	230	746	205	1181	128	758	92	978	134	390	70	594	144	760	82	986
% App. Total	19.5	63.2	17.4		13.1	77.5	9.4		22.6	65.7	11.8		14.6	77.1	8.3	
PHF	.833	.848	.777	.866	.800	.869	.821	.855	.698	.894	.875	.922	.800	.856	.707	.862

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City of Cathedral City
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Weather: Clear

File Name : 15_CTC_Date Palm_Ramon PM
Site Code : 06718258
Start Date : 4/10/2018
Page No : 1

Groups Printed- Total Volume

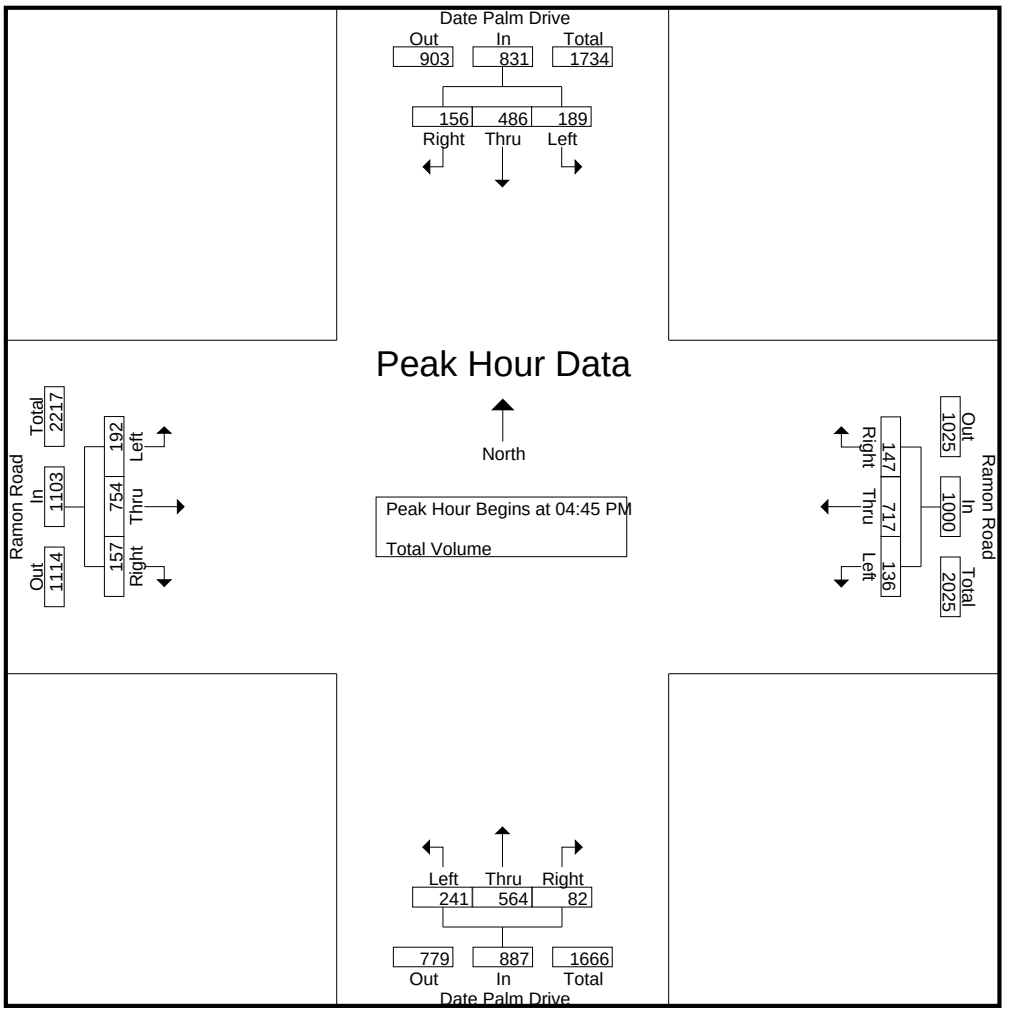
	Date Palm Drive Southbound				Ramon Road Westbound				Date Palm Drive Northbound				Ramon Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	44	133	30	207	44	186	36	266	62	145	26	233	55	178	34	267	973
04:15 PM	50	104	27	181	28	177	35	240	64	152	24	240	49	168	29	246	907
04:30 PM	43	139	31	213	40	187	30	257	60	121	21	202	54	163	30	247	919
04:45 PM	58	116	36	210	40	185	28	253	49	148	18	215	36	194	39	269	947
Total	195	492	124	811	152	735	129	1016	235	566	89	890	194	703	132	1029	3746
05:00 PM	41	123	32	196	32	185	53	270	64	141	16	221	49	202	40	291	978
05:15 PM	44	133	35	212	31	181	37	249	67	149	28	244	45	173	43	261	966
05:30 PM	46	114	53	213	33	166	29	228	61	126	20	207	62	185	35	282	930
05:45 PM	54	136	32	222	37	160	31	228	43	133	16	192	50	159	30	239	881
Total	185	506	152	843	133	692	150	975	235	549	80	864	206	719	148	1073	3755
Grand Total	380	998	276	1654	285	1427	279	1991	470	1115	169	1754	400	1422	280	2102	7501
Apprch %	23	60.3	16.7		14.3	71.7	14		26.8	63.6	9.6		19	67.6	13.3		
Total %	5.1	13.3	3.7	22.1	3.8	19	3.7	26.5	6.3	14.9	2.3	23.4	5.3	19	3.7	28	

	Date Palm Drive Southbound				Ramon Road Westbound				Date Palm Drive Northbound				Ramon Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	**58**	116	36	210	**40**	**185**	28	253	49	148	18	215	36	194	39	269	947
05:00 PM	41	123	32	196	32	185	**53**	**270**	64	141	16	221	49	**202**	40	**291**	**978**
05:15 PM	44	**133**	35	212	31	181	37	249	**67**	**149**	**28**	**244**	45	173	**43**	261	966
05:30 PM	46	114	**53**	**213**	33	166	29	228	61	126	20	207	**62**	185	35	282	930
Total Volume	189	486	156	831	136	717	147	1000	241	564	82	887	192	754	157	1103	3821
% App. Total	22.7	58.5	18.8		13.6	71.7	14.7		27.2	63.6	9.2		17.4	68.4	14.2		
PHF	.815	.914	.736	.975	.850	.969	.693	.926	.899	.946	.732	.909	.774	.933	.913	.948	.977

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City of Cathedral City
N/S: Date Palm Drive
E/W: Ramon Road
Weather: Clear

File Name : 15_CTC_Date Palm_Ramon PM
Site Code : 06718258
Start Date : 4/10/2018



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	05:00 PM				04:30 PM				04:00 PM				04:45 PM			
+0 mins.	41	123	32	196	**40**	**187**	30	257	62	145	**26**	233	36	194	39	269
+15 mins.	44	133	35	212	40	185	28	253	**64**	**152**	24	**240**	49	**202**	40	**291**
+30 mins.	46	114	**53**	213	32	185	**53**	**270**	60	121	21	202	45	173	**43**	261
+45 mins.	**54**	**136**	32	**222**	31	181	37	249	49	148	18	215	**62**	185	35	282
Total Volume	185	506	152	843	143	738	148	1029	235	566	89	890	192	754	157	1103
% App. Total	21.9	60	18		13.9	71.7	14.4		26.4	63.6	10		17.4	68.4	14.2	
PHF	.856	.930	.717	.949	.894	.987	.698	.953	.918	.931	.856	.927	.774	.933	.913	.948

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City of Cathedral City
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File Name : 15_CTC_Date Palm_Ramon SAT
Site Code : 06718258
Start Date : 4/14/2018
Page No : 1

Groups Printed- Total Volume

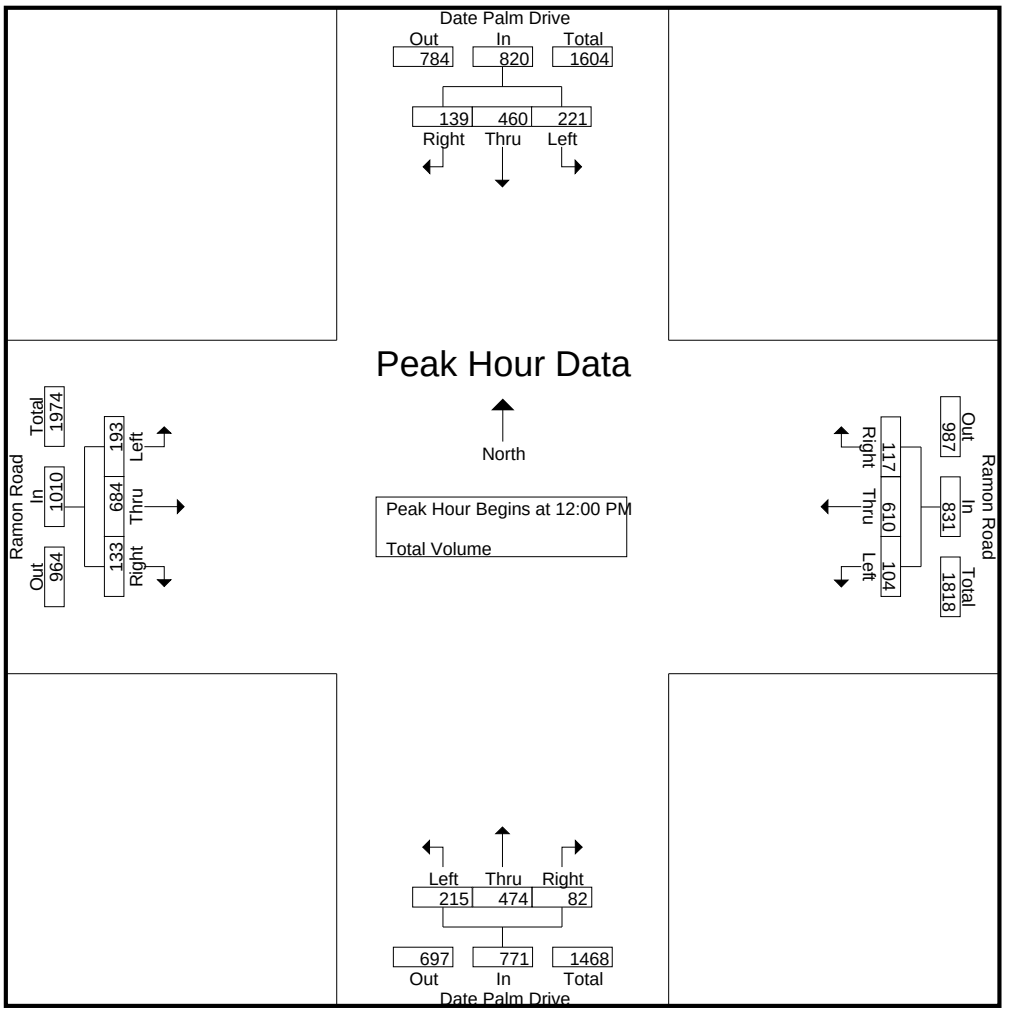
	Date Palm Drive Southbound				Ramon Road Westbound				Date Palm Drive Northbound				Ramon Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
12:00 PM	37	102	39	178	22	170	34	226	46	128	23	197	53	165	36	254	855
12:15 PM	69	128	34	231	24	157	31	212	65	126	19	210	49	176	31	256	909
12:30 PM	63	120	38	221	23	130	27	180	55	118	22	195	42	184	30	256	852
12:45 PM	52	110	28	190	35	153	25	213	49	102	18	169	49	159	36	244	816
Total	221	460	139	820	104	610	117	831	215	474	82	771	193	684	133	1010	3432
01:00 PM	55	119	39	213	27	115	18	160	60	117	19	196	45	167	29	241	810
01:15 PM	58	115	34	207	21	127	22	170	39	130	21	190	54	153	29	236	803
01:30 PM	57	127	33	217	30	177	28	235	54	135	17	206	29	165	20	214	872
01:45 PM	55	125	37	217	27	160	27	214	49	118	24	191	38	143	32	213	835
Total	225	486	143	854	105	579	95	779	202	500	81	783	166	628	110	904	3320
Grand Total	446	946	282	1674	209	1189	212	1610	417	974	163	1554	359	1312	243	1914	6752
Apprch %	26.6	56.5	16.8		13	73.9	13.2		26.8	62.7	10.5		18.8	68.5	12.7		
Total %	6.6	14	4.2	24.8	3.1	17.6	3.1	23.8	6.2	14.4	2.4	23	5.3	19.4	3.6	28.3	

	Date Palm Drive Southbound				Ramon Road Westbound				Date Palm Drive Northbound				Ramon Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 12:00 PM																	
12:00 PM	37	102	**39**	178	22	**170**	**34**	**226**	46	**128**	**23**	197	**53**	165	**36**	254	855
12:15 PM	**69**	**128**	34	**231**	24	157	31	212	**65**	126	19	**210**	49	176	31	**256**	**909**
12:30 PM	63	120	38	221	23	130	27	180	55	118	22	195	42	**184**	30	256	852
12:45 PM	52	110	28	190	**35**	153	25	213	49	102	18	169	49	159	36	244	816
Total Volume	221	460	139	820	104	610	117	831	215	474	82	771	193	684	133	1010	3432
% App. Total	27	56.1	17		12.5	73.4	14.1		27.9	61.5	10.6		19.1	67.7	13.2		
PHF	.801	.898	.891	.887	.743	.897	.860	.919	.827	.926	.891	.918	.910	.929	.924	.986	.944

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City of Cathedral City
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E/W: Ramon Road
Weather: Clear

File Name : 15_CTC_Date Palm_Ramon SAT
Site Code : 06718258
Start Date : 4/14/2018
Page No : 2



Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	12:15 PM				12:00 PM				01:00 PM				12:00 PM			
+0 mins.	**69**	**128**	34	**231**	22	**170**	**34**	**226**	**60**	117	19	196	**53**	165	**36**	254
+15 mins.	63	120	38	221	24	157	31	212	39	130	21	190	49	176	31	**256**
+30 mins.	52	110	28	190	23	130	27	180	54	**135**	17	**206**	42	**184**	30	256
+45 mins.	55	119	**39**	213	**35**	153	25	213	49	118	**24**	191	49	159	36	244
Total Volume	239	477	139	855	104	610	117	831	202	500	81	783	193	684	133	1010
% App. Total	28	55.8	16.3		12.5	73.4	14.1		25.8	63.9	10.3		19.1	67.7	13.2	
PHF	.866	.932	.891	.925	.743	.897	.860	.919	.842	.926	.844	.950	.910	.929	.924	.986

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City of Cathedral City
N/S: Da Vall Drive
E/W: Dinah Shore Drive
Weather: Clear

File Name : 16_CTC_Da Vall_Dinah Shore AM
Site Code : 06718258
Start Date : 4/10/2018
Page No : 1

Groups Printed- Total Volume

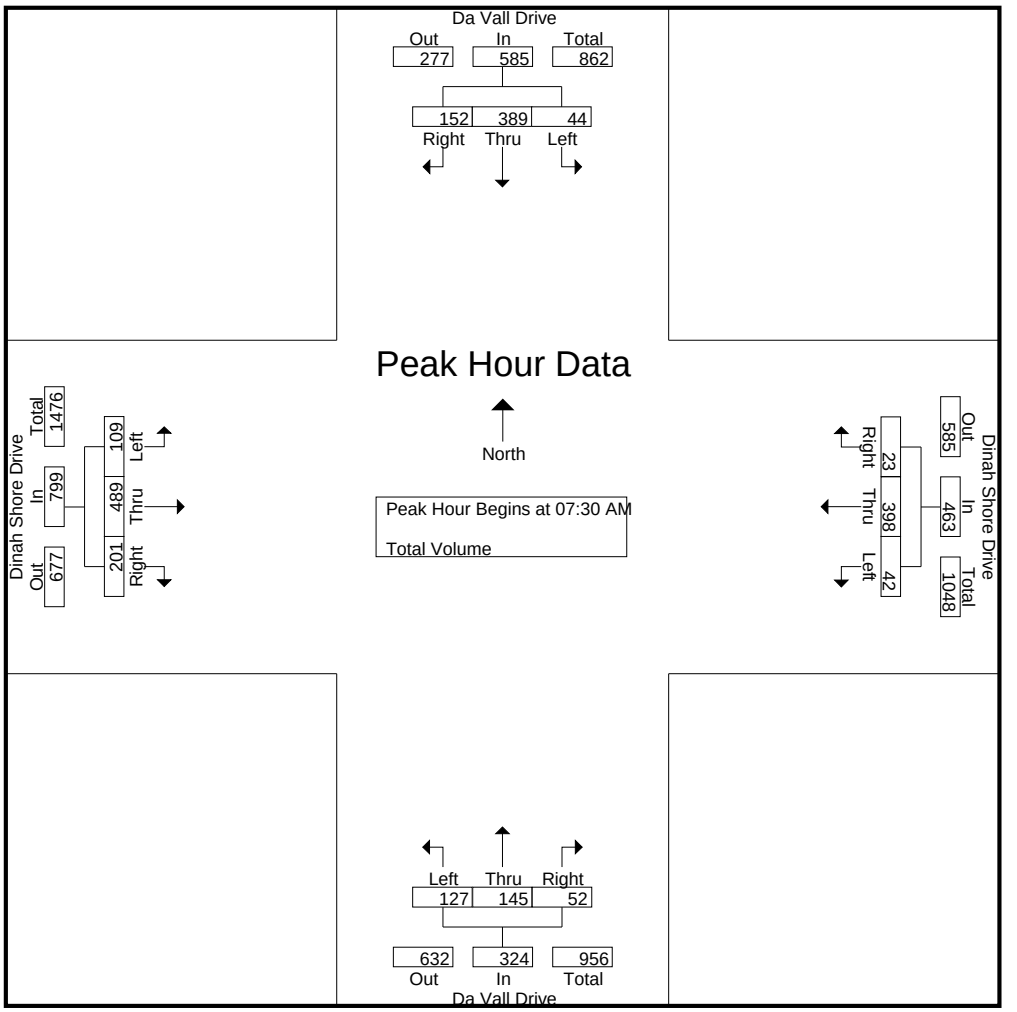
	Da Vall Drive Southbound				Dinah Shore Drive Westbound				Da Vall Drive Northbound				Dinah Shore Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	6	57	28	91	3	84	3	90	16	28	7	51	18	85	34	137	369
07:15 AM	11	69	50	130	9	70	6	85	22	34	9	65	39	84	29	152	432
07:30 AM	8	82	49	139	11	113	7	131	30	39	12	81	43	140	52	235	586
07:45 AM	16	128	59	203	8	112	10	130	29	48	12	89	44	137	63	244	666
Total	41	336	186	563	31	379	26	436	97	149	40	286	144	446	178	768	2053
08:00 AM	11	82	29	122	14	86	4	104	37	26	14	77	12	100	52	164	467
08:15 AM	9	97	15	121	9	87	2	98	31	32	14	77	10	112	34	156	452
08:30 AM	14	78	20	112	14	92	6	112	42	34	12	88	14	82	41	137	449
08:45 AM	10	76	18	104	8	107	10	125	23	35	11	69	8	107	39	154	452
Total	44	333	82	459	45	372	22	439	133	127	51	311	44	401	166	611	1820
Grand Total	85	669	268	1022	76	751	48	875	230	276	91	597	188	847	344	1379	3873
Apprch %	8.3	65.5	26.2		8.7	85.8	5.5		38.5	46.2	15.2		13.6	61.4	24.9		
Total %	2.2	17.3	6.9	26.4	2	19.4	1.2	22.6	5.9	7.1	2.3	15.4	4.9	21.9	8.9	35.6	

	Da Vall Drive Southbound				Dinah Shore Drive Westbound				Da Vall Drive Northbound				Dinah Shore Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	8	82	49	139	11	**113**	7	**131**	30	39	12	81	43	**140**	52	235	586
07:45 AM	**16**	**128**	**59**	**203**	8	112	**10**	130	29	**48**	12	**89**	**44**	137	**63**	**244**	**666**
08:00 AM	11	82	29	122	**14**	86	4	104	**37**	26	**14**	77	12	100	52	164	467
08:15 AM	9	97	15	121	9	87	2	98	31	32	14	77	10	112	34	156	452
Total Volume	44	389	152	585	42	398	23	463	127	145	52	324	109	489	201	799	2171
% App. Total	7.5	66.5	26		9.1	86	5		39.2	44.8	16		13.6	61.2	25.2		
PHF	.688	.760	.644	.720	.750	.881	.575	.884	.858	.755	.929	.910	.619	.873	.798	.819	.815

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City of Cathedral City
N/S: Da Vall Drive
E/W: Dinah Shore Drive
Weather: Clear

File Name : 16_CTC_Da Vall_Dinah Shore AM
Site Code : 06718258
Start Date : 4/10/2018



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:15 AM				07:30 AM				07:45 AM				07:30 AM			
+0 mins.	11	69	50	130	11	**113**	7	**131**	29	**48**	12	**89**	43	**140**	52	235
+15 mins.	8	82	49	139	8	112	**10**	130	37	26	**14**	77	**44**	137	**63**	**244**
+30 mins.	**16**	**128**	**59**	**203**	**14**	86	4	104	31	32	14	77	12	100	52	164
+45 mins.	11	82	29	122	9	87	2	98	**42**	34	12	88	10	112	34	156
Total Volume	46	361	187	594	42	398	23	463	139	140	52	331	109	489	201	799
% App. Total	7.7	60.8	31.5		9.1	86	5		42	42.3	15.7		13.6	61.2	25.2	
PHF	.719	.705	.792	.732	.750	.881	.575	.884	.827	.729	.929	.930	.619	.873	.798	.819

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City of Cathedral City
N/S: Da Vall Drive
E/W: Dinah Shore Drive
Weather: Clear

File Name : 16_CTC_Da Vall_Dinah Shore PM
Site Code : 06718258
Start Date : 4/10/2018
Page No : 1

Groups Printed- Total Volume

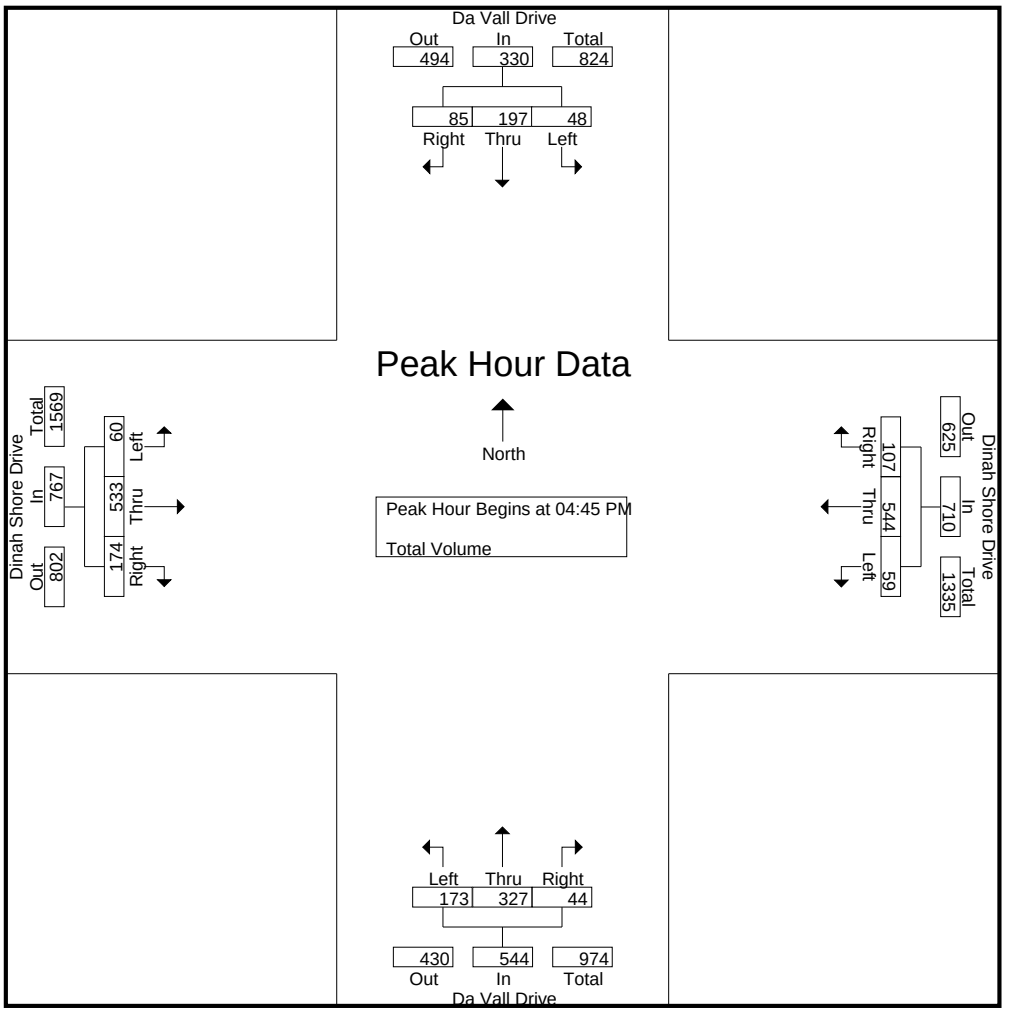
	Da Vall Drive Southbound				Dinah Shore Drive Westbound				Da Vall Drive Northbound				Dinah Shore Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	11	51	36	98	12	121	22	155	46	73	13	132	24	112	34	170	555
04:15 PM	10	40	23	73	16	151	19	186	38	64	12	114	19	118	31	168	541
04:30 PM	16	44	13	73	16	139	18	173	36	57	14	107	10	132	34	176	529
04:45 PM	12	53	20	85	17	128	35	180	39	82	12	133	14	137	40	191	589
Total	49	188	92	329	61	539	94	694	159	276	51	486	67	499	139	705	2214
05:00 PM	10	59	15	84	13	124	27	164	43	75	5	123	16	133	50	199	570
05:15 PM	12	45	25	82	15	161	29	205	46	90	12	148	22	143	46	211	646
05:30 PM	14	40	25	79	14	131	16	161	45	80	15	140	8	120	38	166	546
05:45 PM	7	39	17	63	13	150	19	182	31	64	16	111	17	121	28	166	522
Total	43	183	82	308	55	566	91	712	165	309	48	522	63	517	162	742	2284
Grand Total	92	371	174	637	116	1105	185	1406	324	585	99	1008	130	1016	301	1447	4498
Apprch %	14.4	58.2	27.3		8.3	78.6	13.2		32.1	58	9.8		9	70.2	20.8		
Total %	2	8.2	3.9	14.2	2.6	24.6	4.1	31.3	7.2	13	2.2	22.4	2.9	22.6	6.7	32.2	

	Da Vall Drive Southbound				Dinah Shore Drive Westbound				Da Vall Drive Northbound				Dinah Shore Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	12	53	20	**85**	**17**	128	**35**	180	39	82	12	133	14	137	40	191	589
05:00 PM	10	**59**	15	84	13	124	27	164	43	75	5	123	16	133	**50**	199	570
05:15 PM	12	45	**25**	82	15	**161**	29	**205**	**46**	**90**	12	**148**	**22**	**143**	46	**211**	**646**
05:30 PM	**14**	40	25	79	14	131	16	161	45	80	**15**	140	8	120	38	166	546
Total Volume	48	197	85	330	59	544	107	710	173	327	44	544	60	533	174	767	2351
% App. Total	14.5	59.7	25.8		8.3	76.6	15.1		31.8	60.1	8.1		7.8	69.5	22.7		
PHF	.857	.835	.850	.971	.868	.845	.764	.866	.940	.908	.733	.919	.682	.932	.870	.909	.910

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City of Cathedral City
N/S: Da Vall Drive
E/W: Dinah Shore Drive
Weather: Clear

File Name : 16_CTC_Da Vall_Dinah Shore PM
Site Code : 06718258
Start Date : 4/10/2018
Page No : 2



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:45 PM				04:30 PM				04:45 PM				04:30 PM			
+0 mins.	12	53	20	**85**	16	139	18	173	39	82	12	133	10	132	34	176
+15 mins.	10	**59**	15	84	**17**	128	**35**	180	43	75	5	123	14	137	40	191
+30 mins.	12	45	**25**	82	13	124	27	164	**46**	**90**	12	**148**	16	133	**50**	199
+45 mins.	**14**	40	25	79	15	**161**	29	**205**	45	80	**15**	140	**22**	**143**	46	**211**
Total Volume	48	197	85	330	61	552	109	722	173	327	44	544	62	545	170	777
% App. Total	14.5	59.7	25.8		8.4	76.5	15.1		31.8	60.1	8.1		8	70.1	21.9	
PHF	.857	.835	.850	.971	.897	.857	.779	.880	.940	.908	.733	.919	.705	.953	.850	.921

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City of Cathedral City
N/S: Da Vall Drive
E/W: Dinah Shore Drive
Weather: Clear

File Name : 16_CTC_Da Vall_Dinah Shore SAT
Site Code : 06718258
Start Date : 4/14/2018
Page No : 1

Groups Printed- Total Volume

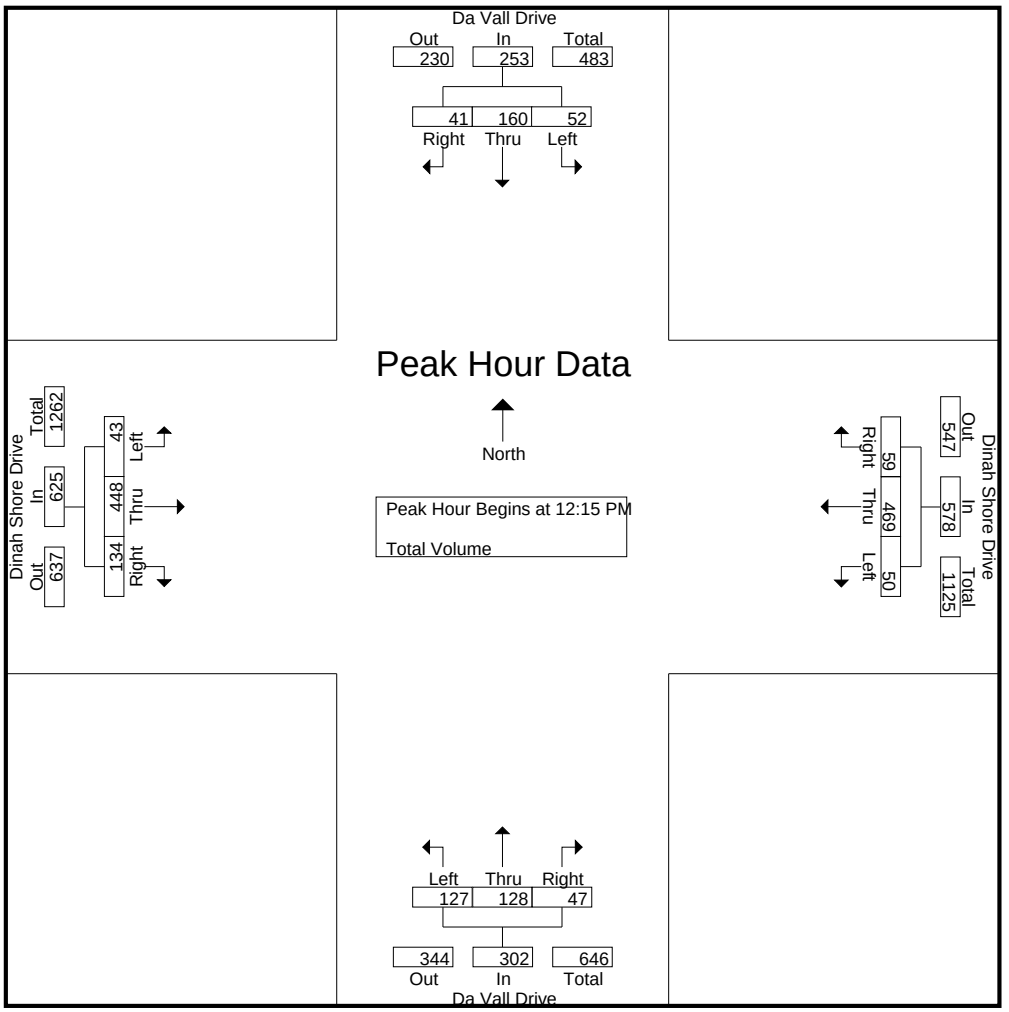
	Da Vall Drive Southbound				Dinah Shore Drive Westbound				Da Vall Drive Northbound				Dinah Shore Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
12:00 PM	4	48	16	68	13	122	23	158	30	36	7	73	8	109	38	155	454
12:15 PM	13	34	7	54	11	108	10	129	39	35	13	87	10	121	34	165	435
12:30 PM	13	39	14	66	11	107	12	130	37	27	6	70	11	109	31	151	417
12:45 PM	18	41	11	70	10	99	19	128	30	36	10	76	11	120	38	169	443
Total	48	162	48	258	45	436	64	545	136	134	36	306	40	459	141	640	1749
01:00 PM	8	46	9	63	18	155	18	191	21	30	18	69	11	98	31	140	463
01:15 PM	10	28	5	43	9	99	22	130	32	30	14	76	14	96	31	141	390
01:30 PM	11	42	7	60	16	119	21	156	39	47	11	97	8	93	32	133	446
01:45 PM	12	33	11	56	15	123	17	155	32	41	8	81	8	121	32	161	453
Total	41	149	32	222	58	496	78	632	124	148	51	323	41	408	126	575	1752
Grand Total	89	311	80	480	103	932	142	1177	260	282	87	629	81	867	267	1215	3501
Apprch %	18.5	64.8	16.7		8.8	79.2	12.1		41.3	44.8	13.8		6.7	71.4	22		
Total %	2.5	8.9	2.3	13.7	2.9	26.6	4.1	33.6	7.4	8.1	2.5	18	2.3	24.8	7.6	34.7	

	Da Vall Drive Southbound				Dinah Shore Drive Westbound				Da Vall Drive Northbound				Dinah Shore Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 12:15 PM																	
12:15 PM	13	34	7	54	11	108	10	129	**39**	35	13	**87**	10	**121**	34	165	435
12:30 PM	13	39	**14**	66	11	107	12	130	37	27	6	70	**11**	109	31	151	417
12:45 PM	**18**	41	11	**70**	10	99	**19**	128	30	**36**	10	76	11	120	**38**	**169**	443
01:00 PM	8	**46**	9	63	**18**	**155**	18	**191**	21	30	**18**	69	11	98	31	140	**463**
Total Volume	52	160	41	253	50	469	59	578	127	128	47	302	43	448	134	625	1758
% App. Total	20.6	63.2	16.2		8.7	81.1	10.2		42.1	42.4	15.6		6.9	71.7	21.4		
PHF	.722	.870	.732	.904	.694	.756	.776	.757	.814	.889	.653	.868	.977	.926	.882	.925	.949

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City of Cathedral City
N/S: Da Vall Drive
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Weather: Clear

File Name : 16_CTC_Da Vall_Dinah Shore SAT
Site Code : 06718258
Start Date : 4/14/2018
Page No : 2



Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	12:00 PM				01:00 PM				01:00 PM				12:00 PM			
+0 mins.	4	**48**	**16**	68	**18**	**155**	18	**191**	21	30	**18**	69	8	109	**38**	155
+15 mins.	13	34	7	54	9	99	**22**	130	32	30	14	76	10	**121**	34	165
+30 mins.	13	39	14	66	16	119	21	156	**39**	**47**	11	**97**	**11**	109	31	151
+45 mins.	**18**	41	11	**70**	15	123	17	155	32	41	8	81	11	120	38	**169**
Total Volume	48	162	48	258	58	496	78	632	124	148	51	323	40	459	141	640
% App. Total	18.6	62.8	18.6		9.2	78.5	12.3		38.4	45.8	15.8		6.2	71.7	22	
PHF	.667	.844	.750	.921	.806	.800	.886	.827	.795	.787	.708	.832	.909	.948	.928	.947

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City of Cathedral City
N/S: Da Vall Drive
E/W: Gerald Ford Drive
Weather: Clear

File Name : 17_CTC_Da Vall_Gerald Ford AM
Site Code : 06718258
Start Date : 4/10/2018
Page No : 1

Groups Printed- Total Volume

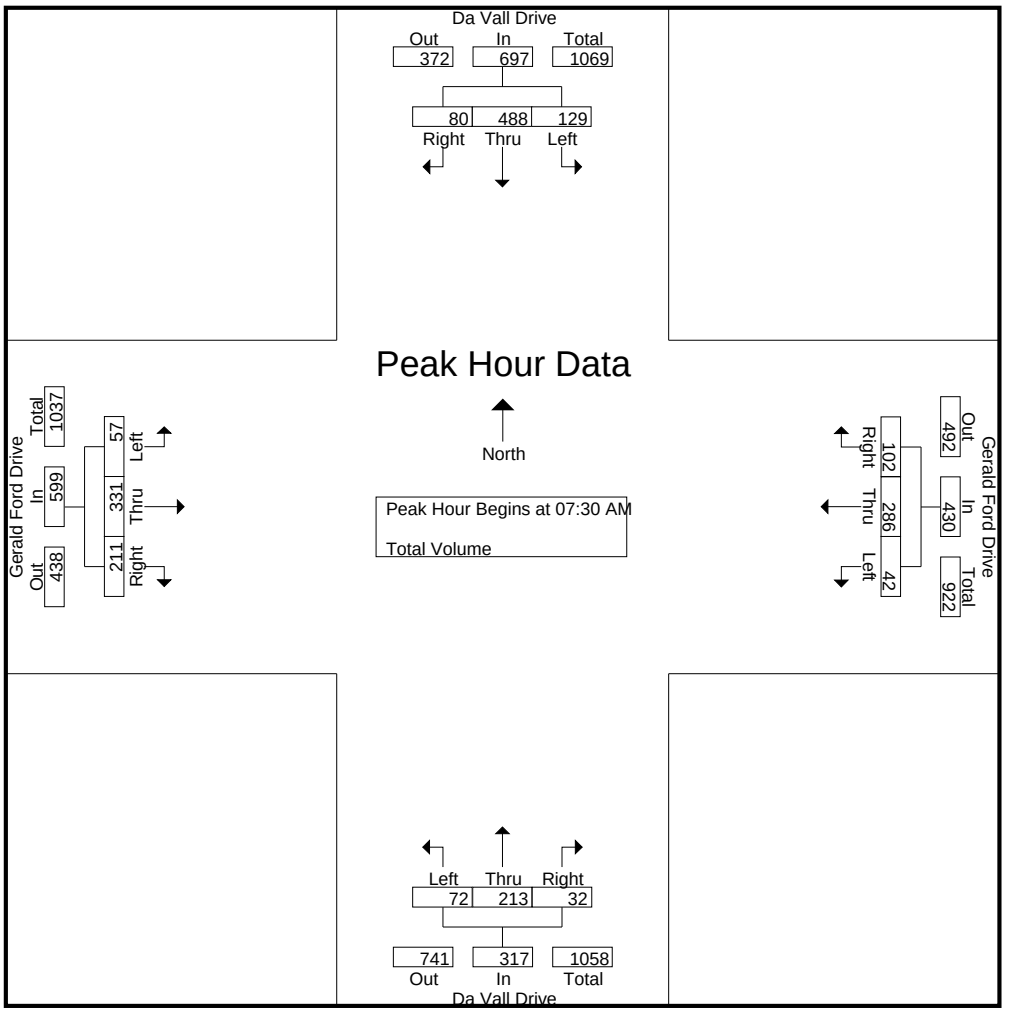
	Da Vall Drive Southbound				Gerald Ford Drive Westbound				Da Vall Drive Northbound				Gerald Ford Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	19	67	8	94	4	64	15	83	17	35	7	59	10	53	26	89	325
07:15 AM	18	72	8	98	6	91	31	128	26	35	10	71	16	70	47	133	430
07:30 AM	22	121	18	161	14	68	30	112	19	53	11	83	11	101	71	183	539
07:45 AM	35	136	25	196	10	79	26	115	19	80	7	106	17	73	58	148	565
Total	94	396	59	549	34	302	102	438	81	203	35	319	54	297	202	553	1859
08:00 AM	42	120	23	185	9	58	29	96	15	40	7	62	14	70	38	122	465
08:15 AM	30	111	14	155	9	81	17	107	19	40	7	66	15	87	44	146	474
08:30 AM	23	99	7	129	6	70	10	86	15	50	11	76	6	74	36	116	407
08:45 AM	28	90	14	132	9	56	16	81	14	36	9	59	11	71	33	115	387
Total	123	420	58	601	33	265	72	370	63	166	34	263	46	302	151	499	1733
Grand Total	217	816	117	1150	67	567	174	808	144	369	69	582	100	599	353	1052	3592
Apprch %	18.9	71	10.2		8.3	70.2	21.5		24.7	63.4	11.9		9.5	56.9	33.6		
Total %	6	22.7	3.3	32	1.9	15.8	4.8	22.5	4	10.3	1.9	16.2	2.8	16.7	9.8	29.3	

	Da Vall Drive Southbound				Gerald Ford Drive Westbound				Da Vall Drive Northbound				Gerald Ford Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	22	121	18	161	**14**	68	**30**	112	**19**	53	**11**	83	11	**101**	**71**	**183**	539
07:45 AM	35	**136**	**25**	**196**	10	79	26	**115**	19	**80**	7	**106**	**17**	73	58	148	**565**
08:00 AM	**42**	120	23	185	9	58	29	96	15	40	7	62	14	70	38	122	465
08:15 AM	30	111	14	155	9	**81**	17	107	19	40	7	66	15	87	44	146	474
Total Volume	129	488	80	697	42	286	102	430	72	213	32	317	57	331	211	599	2043
% App. Total	18.5	70	11.5		9.8	66.5	23.7		22.7	67.2	10.1		9.5	55.3	35.2		
PHF	.768	.897	.800	.889	.750	.883	.850	.935	.947	.666	.727	.748	.838	.819	.743	.818	.904

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City of Cathedral City
N/S: Da Vall Drive
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File Name : 17_CTC_Da Vall_Gerald Ford AM
Site Code : 06718258
Start Date : 4/10/2018
Page No : 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:30 AM				07:15 AM				07:15 AM				07:30 AM			
+0 mins.	22	121	18	161	6	**91**	**31**	**128**	**26**	35	10	71	11	**101**	**71**	**183**
+15 mins.	35	**136**	**25**	**196**	**14**	68	30	112	19	53	**11**	83	**17**	73	58	148
+30 mins.	**42**	120	23	185	10	79	26	115	19	**80**	7	**106**	14	70	38	122
+45 mins.	30	111	14	155	9	58	29	96	15	40	7	62	15	87	44	146
Total Volume	129	488	80	697	39	296	116	451	79	208	35	322	57	331	211	599
% App. Total	18.5	70	11.5		8.6	65.6	25.7		24.5	64.6	10.9		9.5	55.3	35.2	
PHF	.768	.897	.800	.889	.696	.813	.935	.881	.760	.650	.795	.759	.838	.819	.743	.818

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City of Cathedral City
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File Name : 17_CTC_Da Vall_Gerald Ford PM
Site Code : 06718258
Start Date : 4/10/2018
Page No : 1

Groups Printed- Total Volume

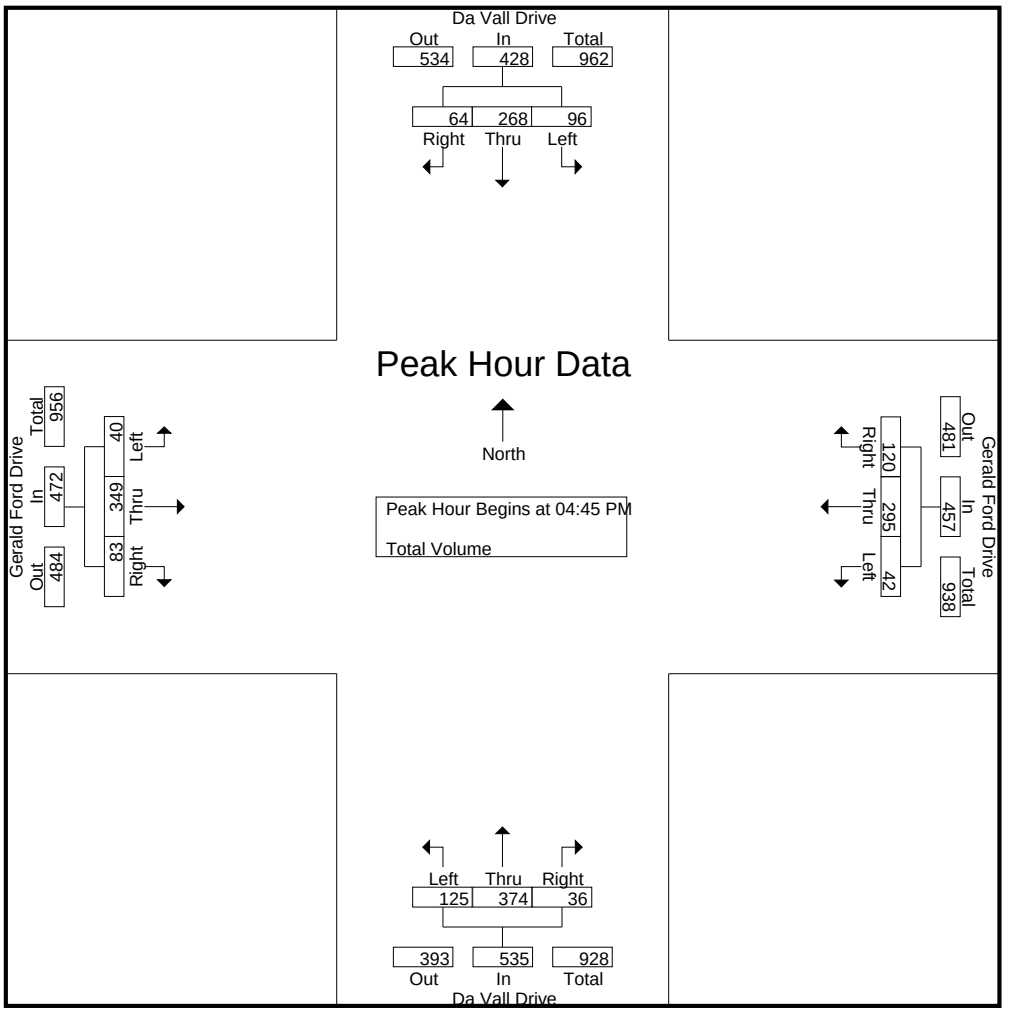
	Da Vall Drive Southbound				Gerald Ford Drive Westbound				Da Vall Drive Northbound				Gerald Ford Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	21	66	12	99	9	94	31	134	32	95	11	138	13	80	37	130	501
04:15 PM	16	68	17	101	11	85	34	130	39	84	8	131	10	80	21	111	473
04:30 PM	24	54	10	88	14	72	25	111	29	67	6	102	15	82	16	113	414
04:45 PM	22	79	18	119	10	62	26	98	37	87	13	137	13	89	22	124	478
Total	83	267	57	407	44	313	116	473	137	333	38	508	51	331	96	478	1866
05:00 PM	21	75	18	114	12	82	34	128	29	104	9	142	7	86	22	115	499
05:15 PM	27	57	16	100	13	76	29	118	32	106	8	146	12	69	14	95	459
05:30 PM	26	57	12	95	7	75	31	113	27	77	6	110	8	105	25	138	456
05:45 PM	17	74	8	99	11	52	23	86	23	79	11	113	10	61	28	99	397
Total	91	263	54	408	43	285	117	445	111	366	34	511	37	321	89	447	1811
Grand Total	174	530	111	815	87	598	233	918	248	699	72	1019	88	652	185	925	3677
Apprch %	21.3	65	13.6		9.5	65.1	25.4		24.3	68.6	7.1		9.5	70.5	20		
Total %	4.7	14.4	3	22.2	2.4	16.3	6.3	25	6.7	19	2	27.7	2.4	17.7	5	25.2	

	Da Vall Drive Southbound				Gerald Ford Drive Westbound				Da Vall Drive Northbound				Gerald Ford Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	22	**79**	**18**	**119**	10	62	26	98	**37**	87	**13**	137	**13**	89	22	124	478
05:00 PM	21	75	18	114	12	**82**	**34**	**128**	29	104	9	142	7	86	22	115	**499**
05:15 PM	**27**	57	16	100	**13**	76	29	118	32	**106**	8	**146**	12	69	14	95	459
05:30 PM	26	57	12	95	7	75	31	113	27	77	6	110	8	**105**	**25**	**138**	456
Total Volume	96	268	64	428	42	295	120	457	125	374	36	535	40	349	83	472	1892
% App. Total	22.4	62.6	15		9.2	64.6	26.3		23.4	69.9	6.7		8.5	73.9	17.6		
PHF	.889	.848	.889	.899	.808	.899	.882	.893	.845	.882	.692	.916	.769	.831	.830	.855	.948

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City of Cathedral City
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File Name : 17_CTC_Da Vall_Gerald Ford PM
Site Code : 06718258
Start Date : 4/10/2018
Page No : 2



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:45 PM				04:00 PM				04:45 PM				04:00 PM			
+0 mins.	22	**79**	**18**	**119**	9	**94**	31	**134**	**37**	87	**13**	137	13	80	**37**	**130**
+15 mins.	21	75	18	114	11	85	**34**	130	29	104	9	142	10	80	21	111
+30 mins.	**27**	57	16	100	**14**	72	25	111	32	**106**	8	**146**	**15**	82	16	113
+45 mins.	26	57	12	95	10	62	26	98	27	77	6	110	13	**89**	22	124
Total Volume	96	268	64	428	44	313	116	473	125	374	36	535	51	331	96	478
% App. Total	22.4	62.6	15		9.3	66.2	24.5		23.4	69.9	6.7		10.7	69.2	20.1	
PHF	.889	.848	.889	.899	.786	.832	.853	.882	.845	.882	.692	.916	.850	.930	.649	.919

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City of Cathedral City
N/S: Da Vall Drive
E/W: Gerald Ford Drive
Weather: Clear

File Name : 17_CTC_Da Vall_Gerald Ford SAT
Site Code : 06718258
Start Date : 4/14/2018

Groups Printed- Total Volume

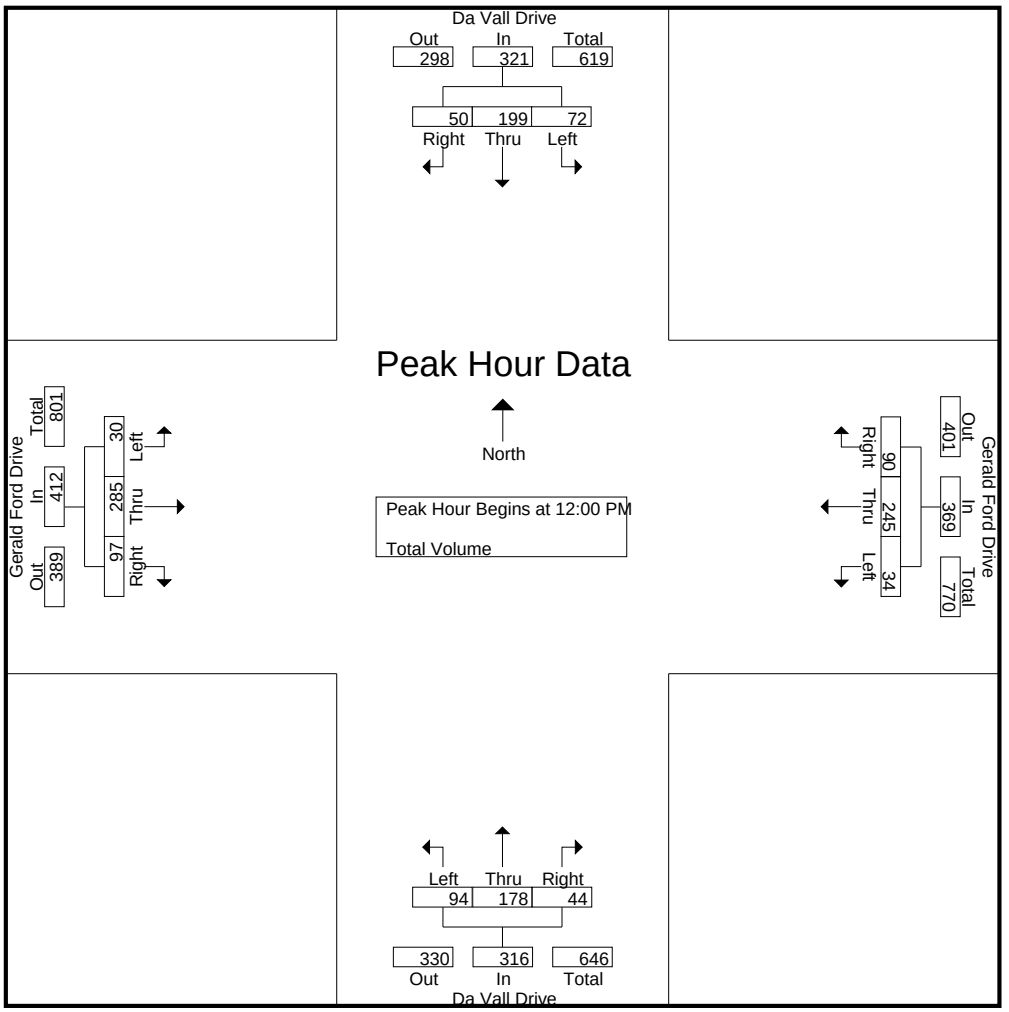
	Da Vall Drive Southbound				Gerald Ford Drive Westbound				Da Vall Drive Northbound				Gerald Ford Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
12:00 PM	14	60	13	87	10	56	23	89	23	42	15	80	4	69	26	99	355
12:15 PM	21	47	10	78	12	71	20	103	22	55	13	90	9	80	25	114	385
12:30 PM	14	48	15	77	5	65	27	97	30	39	8	77	7	79	26	112	363
12:45 PM	23	44	12	79	7	53	20	80	19	42	8	69	10	57	20	87	315
Total	72	199	50	321	34	245	90	369	94	178	44	316	30	285	97	412	1418
01:00 PM	23	52	9	84	7	62	20	89	22	35	15	72	4	52	17	73	318
01:15 PM	14	55	6	75	15	52	21	88	16	49	7	72	7	54	18	79	314
01:30 PM	13	55	10	78	10	63	26	99	21	62	13	96	8	52	17	77	350
01:45 PM	10	56	9	75	10	54	17	81	16	55	15	86	13	59	19	91	333
Total	60	218	34	312	42	231	84	357	75	201	50	326	32	217	71	320	1315
Grand Total	132	417	84	633	76	476	174	726	169	379	94	642	62	502	168	732	2733
Apprch %	20.9	65.9	13.3		10.5	65.6	24		26.3	59	14.6		8.5	68.6	23		
Total %	4.8	15.3	3.1	23.2	2.8	17.4	6.4	26.6	6.2	13.9	3.4	23.5	2.3	18.4	6.1	26.8	

	Da Vall Drive Southbound				Gerald Ford Drive Westbound				Da Vall Drive Northbound				Gerald Ford Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 12:00 PM																	
12:00 PM	14	**60**	13	**87**	10	56	23	89	23	42	**15**	80	4	69	**26**	99	355
12:15 PM	21	47	10	78	**12**	**71**	20	**103**	22	**55**	13	**90**	9	**80**	25	**114**	**385**
12:30 PM	14	48	**15**	77	5	65	**27**	97	**30**	39	8	77	7	79	26	112	363
12:45 PM	**23**	44	12	79	7	53	20	80	19	42	8	69	**10**	57	20	87	315
Total Volume	72	199	50	321	34	245	90	369	94	178	44	316	30	285	97	412	1418
% App. Total	22.4	62	15.6		9.2	66.4	24.4		29.7	56.3	13.9		7.3	69.2	23.5		
PHF	.783	.829	.833	.922	.708	.863	.833	.896	.783	.809	.733	.878	.750	.891	.933	.904	.921

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City of Cathedral City
N/S: Da Vall Drive
E/W: Gerald Ford Drive
Weather: Clear

File Name : 17_CTC_Da Vall_Gerald Ford SAT
Site Code : 06718258
Start Date : 4/14/2018
Page No : 2



Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	12:00 PM				12:00 PM				01:00 PM				12:00 PM			
+0 mins.	14	**60**	13	**87**	10	56	23	89	**22**	35	**15**	72	4	69	**26**	99
+15 mins.	21	47	10	78	**12**	**71**	20	**103**	16	49	7	72	9	**80**	25	**114**
+30 mins.	14	48	**15**	77	5	65	**27**	97	21	**62**	13	**96**	7	79	26	112
+45 mins.	**23**	44	12	79	7	53	20	80	16	55	15	86	**10**	57	20	87
Total Volume	72	199	50	321	34	245	90	369	75	201	50	326	30	285	97	412
% App. Total	22.4	62	15.6		9.2	66.4	24.4		23	61.7	15.3		7.3	69.2	23.5	
PHF	.783	.829	.833	.922	.708	.863	.833	.896	.852	.810	.833	.849	.750	.891	.933	.904

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City of Cathedral City
N/S: East Palm Canyon Drive (SR-111)
E/W: Frank Sinatra Drive
Weather: Clear

File Name : 18_CTC_E Palm Cyn_Frank Sinatra AM
Site Code : 06718258
Start Date : 4/10/2018
Page No : 1

Groups Printed- Total Volume

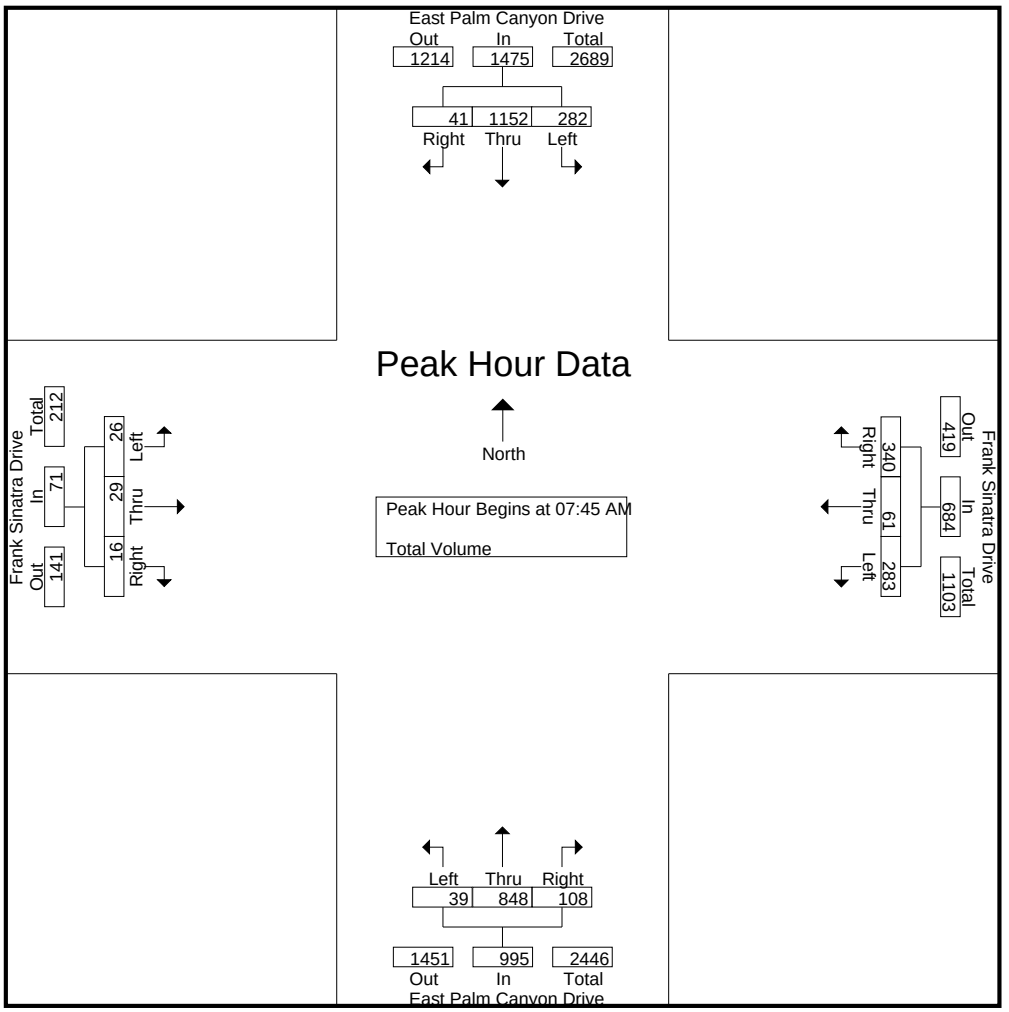
	East Palm Canyon Drive Southbound				Frank Sinatra Drive Westbound				East Palm Canyon Drive Northbound				Frank Sinatra Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	36	119	13	168	38	27	71	136	8	119	26	153	2	6	2	10	467
07:15 AM	47	188	11	246	49	16	63	128	6	189	24	219	2	5	1	8	601
07:30 AM	59	221	11	291	56	12	106	174	3	170	28	201	6	7	4	17	683
07:45 AM	95	298	12	405	70	22	109	201	12	222	36	270	5	8	2	15	891
Total	237	826	47	1110	213	77	349	639	29	700	114	843	15	26	9	50	2642
08:00 AM	67	290	15	372	86	16	77	179	8	189	22	219	12	8	5	25	795
08:15 AM	60	295	7	362	64	9	74	147	9	207	21	237	4	9	5	18	764
08:30 AM	60	269	7	336	63	14	80	157	10	230	29	269	5	4	4	13	775
08:45 AM	49	286	14	349	57	9	87	153	10	235	30	275	7	7	3	17	794
Total	236	1140	43	1419	270	48	318	636	37	861	102	1000	28	28	17	73	3128
Grand Total	473	1966	90	2529	483	125	667	1275	66	1561	216	1843	43	54	26	123	5770
Apprch %	18.7	77.7	3.6		37.9	9.8	52.3		3.6	84.7	11.7		35	43.9	21.1		
Total %	8.2	34.1	1.6	43.8	8.4	2.2	11.6	22.1	1.1	27.1	3.7	31.9	0.7	0.9	0.5	2.1	

	East Palm Canyon Drive Southbound				Frank Sinatra Drive Westbound				East Palm Canyon Drive Northbound				Frank Sinatra Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	**95**	**298**	12	**405**	70	**22**	**109**	**201**	**12**	222	**36**	**270**	5	8	2	15	**891**
08:00 AM	67	290	**15**	372	**86**	16	77	179	8	189	22	219	**12**	8	**5**	**25**	795
08:15 AM	60	295	7	362	64	9	74	147	9	207	21	237	4	**9**	5	18	764
08:30 AM	60	269	7	336	63	14	80	157	10	**230**	29	269	5	4	4	13	775
Total Volume	282	1152	41	1475	283	61	340	684	39	848	108	995	26	29	16	71	3225
% App. Total	19.1	78.1	2.8		41.4	8.9	49.7		3.9	85.2	10.9		36.6	40.8	22.5		
PHF	.742	.966	.683	.910	.823	.693	.780	.851	.813	.922	.750	.921	.542	.806	.800	.710	.905

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City of Cathedral City
N/S: East Palm Canyon Drive (SR-111)
E/W: Frank Sinatra Drive
Weather: Clear

File Name : 18_CTC_E Palm Cyn_Frank Sinatra AM
Site Code : 06718258
Start Date : 4/10/2018
Page No : 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:45 AM				07:30 AM				08:00 AM				07:30 AM			
+0 mins.	**95**	**298**	12	**405**	56	12	106	174	8	189	22	219	6	7	4	17
+15 mins.	67	290	**15**	372	70	**22**	**109**	**201**	9	207	21	237	5	8	2	15
+30 mins.	60	295	7	362	**86**	16	77	179	**10**	230	29	269	**12**	8	**5**	**25**
+45 mins.	60	269	7	336	64	9	74	147	10	**235**	**30**	**275**	4	**9**	5	18
Total Volume	282	1152	41	1475	276	59	366	701	37	861	102	1000	27	32	16	75
% App. Total	19.1	78.1	2.8		39.4	8.4	52.2		3.7	86.1	10.2		36	42.7	21.3	
PHF	.742	.966	.683	.910	.802	.670	.839	.872	.925	.916	.850	.909	.563	.889	.800	.750

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City of Cathedral City
N/S: East Palm Canyon Drive (SR-111)
E/W: Frank Sinatra Drive
Weather: Clear

File Name : 18_CTC_E Palm Cyn_Frank Sinatra PM
Site Code : 06718258
Start Date : 4/10/2018
Page No : 1

Groups Printed- Total Volume

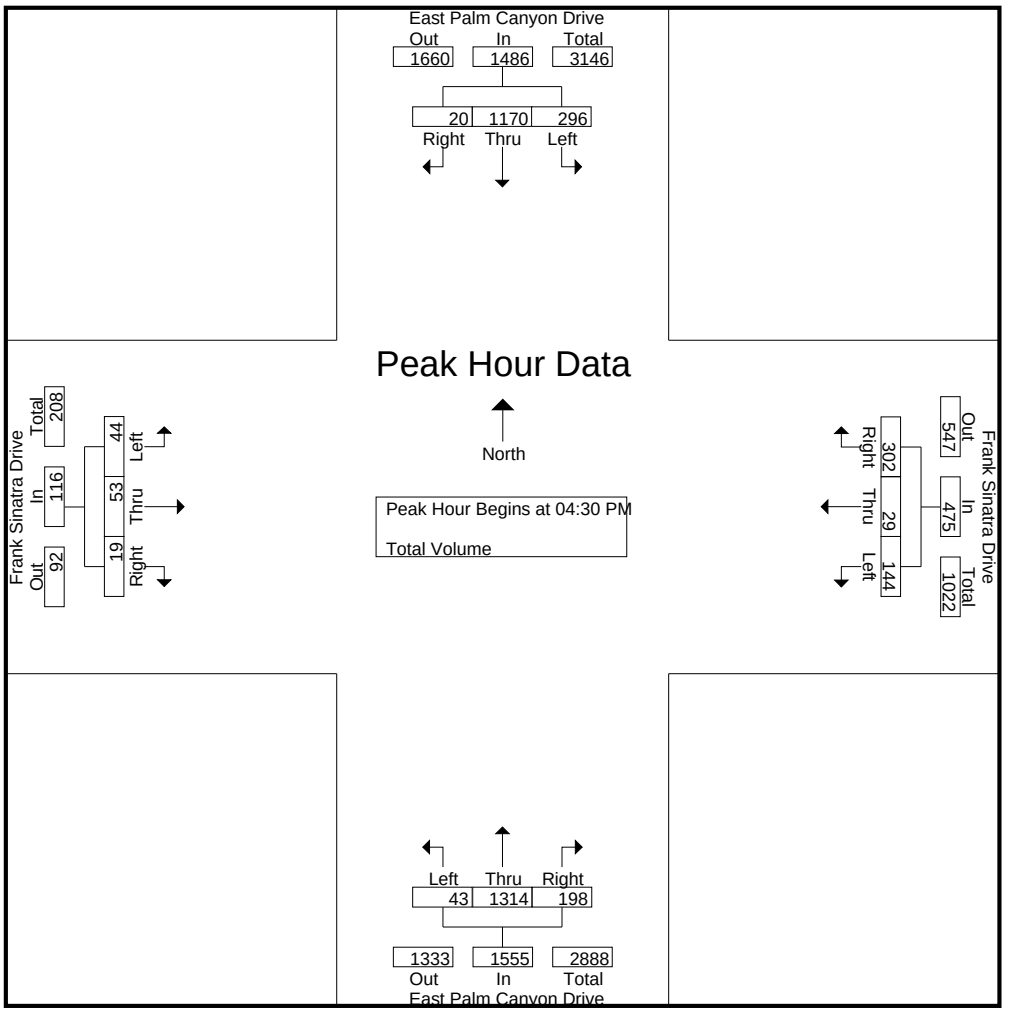
	East Palm Canyon Drive Southbound				Frank Sinatra Drive Westbound				East Palm Canyon Drive Northbound				Frank Sinatra Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	81	299	6	386	37	8	84	129	6	295	49	350	12	8	5	25	890
04:15 PM	85	256	4	345	42	10	63	115	6	319	47	372	9	12	8	29	861
04:30 PM	60	266	6	332	39	10	88	137	9	301	47	357	12	13	4	29	855
04:45 PM	68	300	6	374	32	10	72	114	11	312	43	366	9	12	3	24	878
Total	294	1121	22	1437	150	38	307	495	32	1227	186	1445	42	45	20	107	3484
05:00 PM	87	299	1	387	43	4	69	116	13	368	54	435	18	22	4	44	982
05:15 PM	81	305	7	393	30	5	73	108	10	333	54	397	5	6	8	19	917
05:30 PM	61	260	4	325	43	4	58	105	9	292	52	353	14	4	3	21	804
05:45 PM	69	242	7	318	47	5	68	120	6	300	52	358	4	12	7	23	819
Total	298	1106	19	1423	163	18	268	449	38	1293	212	1543	41	44	22	107	3522
Grand Total	592	2227	41	2860	313	56	575	944	70	2520	398	2988	83	89	42	214	7006
Apprch %	20.7	77.9	1.4		33.2	5.9	60.9		2.3	84.3	13.3		38.8	41.6	19.6		
Total %	8.4	31.8	0.6	40.8	4.5	0.8	8.2	13.5	1	36	5.7	42.6	1.2	1.3	0.6	3.1	

	East Palm Canyon Drive Southbound				Frank Sinatra Drive Westbound				East Palm Canyon Drive Northbound				Frank Sinatra Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	60	266	6	332	39	**10**	**88**	**137**	9	301	47	357	12	13	4	29	855
04:45 PM	68	300	6	374	32	10	72	114	11	312	43	366	9	12	3	24	878
05:00 PM	**87**	299	1	387	**43**	4	69	116	**13**	**368**	**54**	**435**	**18**	**22**	4	**44**	**982**
05:15 PM	81	**305**	**7**	**393**	30	5	73	108	10	333	54	397	5	6	**8**	19	917
Total Volume	296	1170	20	1486	144	29	302	475	43	1314	198	1555	44	53	19	116	3632
% App. Total	19.9	78.7	1.3		30.3	6.1	63.6		2.8	84.5	12.7		37.9	45.7	16.4		
PHF	.851	.959	.714	.945	.837	.725	.858	.867	.827	.893	.917	.894	.611	.602	.594	.659	.925

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City of Cathedral City
N/S: East Palm Canyon Drive (SR-111)
E/W: Frank Sinatra Drive
Weather: Clear

File Name : 18_CTC_E Palm Cyn_Frank Sinatra PM
Site Code : 06718258
Start Date : 4/10/2018
Page No : 2



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:30 PM				04:00 PM				04:30 PM				04:15 PM			
+0 mins.	60	266	6	332	37	8	84	129	9	301	47	357	9	12	**8**	29
+15 mins.	68	300	6	374	**42**	**10**	63	115	11	312	43	366	12	13	4	29
+30 mins.	**87**	299	1	387	39	10	**88**	**137**	**13**	**368**	**54**	**435**	9	12	3	24
+45 mins.	81	**305**	**7**	**393**	32	10	72	114	10	333	54	397	**18**	**22**	4	**44**
Total Volume	296	1170	20	1486	150	38	307	495	43	1314	198	1555	48	59	19	126
% App. Total	19.9	78.7	1.3		30.3	7.7	62		2.8	84.5	12.7		38.1	46.8	15.1	
PHF	.851	.959	.714	.945	.893	.950	.872	.903	.827	.893	.917	.894	.667	.670	.594	.716

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City of Cathedral City
N/S: East Palm Canyon Drive (SR-111)
E/W: Frank Sinatra Drive
Weather: Clear

File Name : 18_CTC_E Palm Cyn_Frank Sinatra SAT
Site Code : 06718258
Start Date : 4/14/2018
Page No : 1

Groups Printed- Total Volume

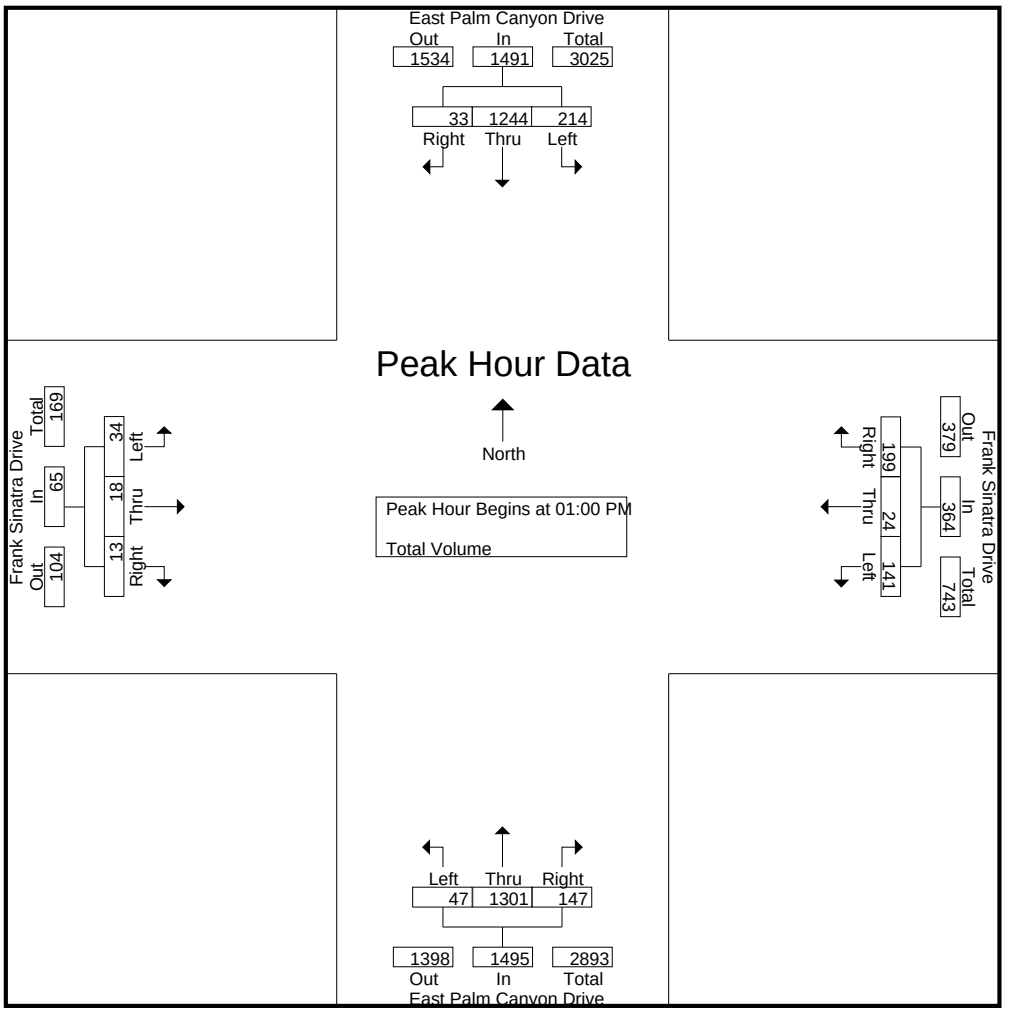
	East Palm Canyon Drive Southbound				Frank Sinatra Drive Westbound				East Palm Canyon Drive Northbound				Frank Sinatra Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
12:00 PM	46	275	11	332	36	13	65	114	17	319	31	367	10	6	5	21	834
12:15 PM	58	309	5	372	25	7	55	87	7	303	35	345	4	2	5	11	815
12:30 PM	43	308	8	359	40	9	59	108	7	267	32	306	7	8	5	20	793
12:45 PM	54	281	9	344	43	6	51	100	6	267	28	301	7	5	4	16	761
Total	201	1173	33	1407	144	35	230	409	37	1156	126	1319	28	21	19	68	3203
01:00 PM	63	305	5	373	32	4	46	82	10	323	36	369	8	2	3	13	837
01:15 PM	41	300	5	346	34	6	56	96	11	340	25	376	6	5	5	16	834
01:30 PM	61	324	11	396	35	8	50	93	10	358	50	418	11	7	2	20	927
01:45 PM	49	315	12	376	40	6	47	93	16	280	36	332	9	4	3	16	817
Total	214	1244	33	1491	141	24	199	364	47	1301	147	1495	34	18	13	65	3415
Grand Total	415	2417	66	2898	285	59	429	773	84	2457	273	2814	62	39	32	133	6618
Apprch %	14.3	83.4	2.3		36.9	7.6	55.5		3	87.3	9.7		46.6	29.3	24.1		
Total %	6.3	36.5	1	43.8	4.3	0.9	6.5	11.7	1.3	37.1	4.1	42.5	0.9	0.6	0.5	2	

	East Palm Canyon Drive Southbound				Frank Sinatra Drive Westbound				East Palm Canyon Drive Northbound				Frank Sinatra Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 01:00 PM																	
01:00 PM	**63**	305	5	373	32	4	46	82	10	323	36	369	8	2	3	13	837
01:15 PM	41	300	5	346	34	6	**56**	**96**	11	340	25	376	6	5	**5**	16	834
01:30 PM	61	**324**	11	**396**	35	**8**	50	93	10	**358**	**50**	**418**	**11**	**7**	2	**20**	**927**
01:45 PM	49	315	**12**	376	**40**	6	47	93	**16**	280	36	332	9	4	3	16	817
Total Volume	214	1244	33	1491	141	24	199	364	47	1301	147	1495	34	18	13	65	3415
% App. Total	14.4	83.4	2.2		38.7	6.6	54.7		3.1	87	9.8		52.3	27.7	20		
PHF	.849	.960	.688	.941	.881	.750	.888	.948	.734	.909	.735	.894	.773	.643	.650	.813	.921

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City of Cathedral City
N/S: East Palm Canyon Drive (SR-111)
E/W: Frank Sinatra Drive
Weather: Clear

File Name : 18_CTC_E Palm Cyn_Frank Sinatra SAT
Site Code : 06718258
Start Date : 4/14/2018
Page No : 2



Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	01:00 PM				12:00 PM				01:00 PM				12:00 PM			
+0 mins.	**63**	305	5	373	36	**13**	**65**	**114**	10	323	36	369	**10**	6	**5**	**21**
+15 mins.	41	300	5	346	25	7	55	87	11	340	25	376	4	2	5	11
+30 mins.	61	**324**	11	**396**	40	9	59	108	10	**358**	**50**	**418**	7	**8**	5	20
+45 mins.	49	315	**12**	376	**43**	6	51	100	**16**	280	36	332	7	5	4	16
Total Volume	214	1244	33	1491	144	35	230	409	47	1301	147	1495	28	21	19	68
% App. Total	14.4	83.4	2.2		35.2	8.6	56.2		3.1	87	9.8		41.2	30.9	27.9	
PHF	.849	.960	.688	.941	.837	.673	.885	.897	.734	.909	.735	.894	.700	.656	.950	.810

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City of Cathedral City
N/S: East Palm Canyon Drive (SR-111)
E/W: Mirage Cove Drive
Weather: Clear

File Name : 20_CTC_E Palm Cyn_Mirage Cove AM
Site Code : 06718258
Start Date : 4/10/2018
Page No : 1

Groups Printed- Total Volume

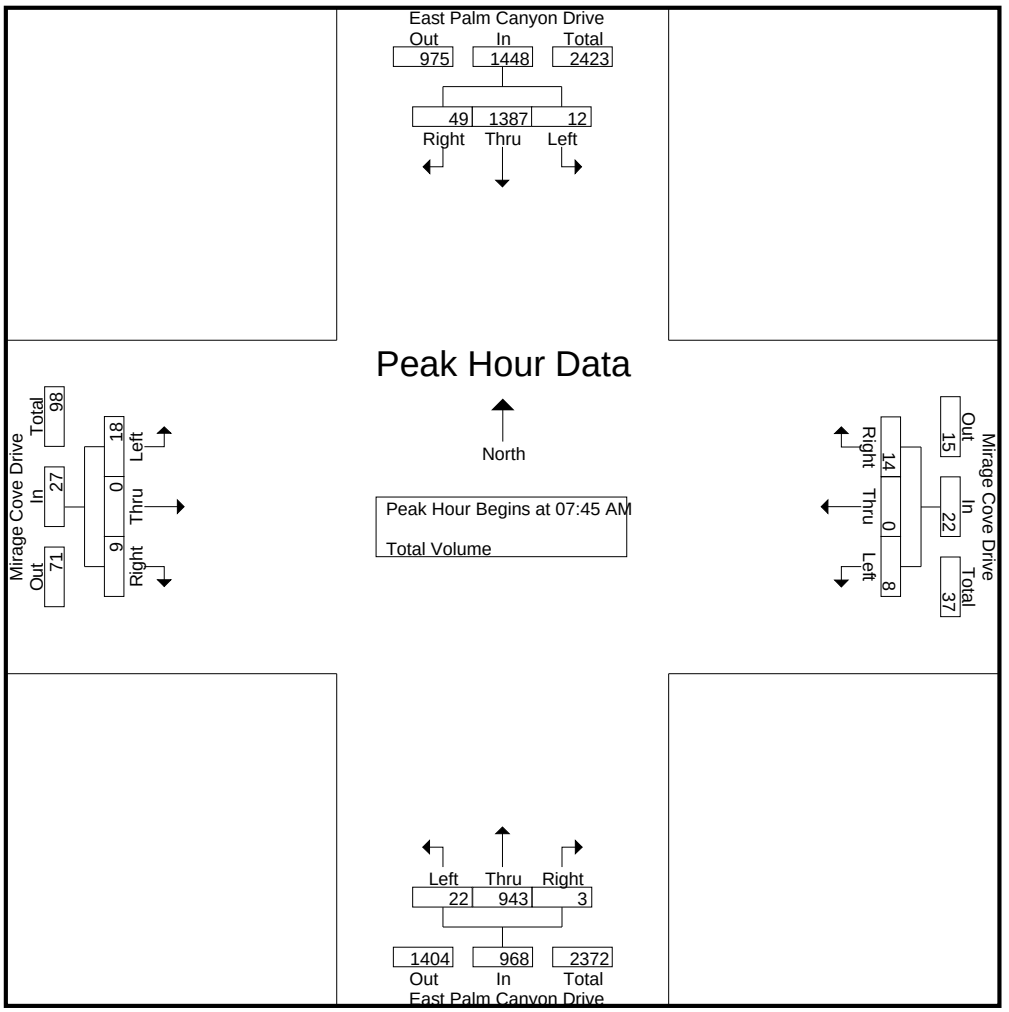
	East Palm Canyon Drive Southbound				Mirage Cove Drive Westbound				East Palm Canyon Drive Northbound				Mirage Cove Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	4	159	5	168	2	1	5	8	2	146	0	148	3	0	0	3	327
07:15 AM	2	231	13	246	1	0	6	7	2	223	1	226	5	0	1	6	485
07:30 AM	5	265	4	274	1	0	5	6	1	190	1	192	6	0	1	7	479
07:45 AM	4	362	9	375	3	0	5	8	5	242	0	247	4	0	2	6	636
Total	15	1017	31	1063	7	1	21	29	10	801	2	813	18	0	4	22	1927
08:00 AM	3	358	12	373	0	0	4	4	7	212	1	220	9	0	1	10	607
08:15 AM	2	338	12	352	4	0	2	6	5	247	2	254	1	0	3	4	616
08:30 AM	3	329	16	348	1	0	3	4	5	242	0	247	4	0	3	7	606
08:45 AM	2	314	13	329	0	0	15	15	3	245	0	248	7	1	1	9	601
Total	10	1339	53	1402	5	0	24	29	20	946	3	969	21	1	8	30	2430
Grand Total	25	2356	84	2465	12	1	45	58	30	1747	5	1782	39	1	12	52	4357
Apprch %	1	95.6	3.4		20.7	1.7	77.6		1.7	98	0.3		75	1.9	23.1		
Total %	0.6	54.1	1.9	56.6	0.3	0	1	1.3	0.7	40.1	0.1	40.9	0.9	0	0.3	1.2	

	East Palm Canyon Drive Southbound				Mirage Cove Drive Westbound				East Palm Canyon Drive Northbound				Mirage Cove Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	**4**	**362**	9	**375**	3	0	**5**	**8**	5	242	0	247	4	0	2	6	**636**
08:00 AM	3	358	12	373	0	0	4	4	**7**	212	1	220	**9**	0	1	**10**	607
08:15 AM	2	338	12	352	**4**	0	2	6	5	**247**	**2**	**254**	1	0	**3**	4	616
08:30 AM	3	329	**16**	348	1	0	3	4	5	242	0	247	4	0	3	7	606
Total Volume	12	1387	49	1448	8	0	14	22	22	943	3	968	18	0	9	27	2465
% App. Total	0.8	95.8	3.4		36.4	0	63.6		2.3	97.4	0.3		66.7	0	33.3		
PHF	.750	.958	.766	.965	.500	.000	.700	.688	.786	.954	.375	.953	.500	.000	.750	.675	.969

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City of Cathedral City
N/S: East Palm Canyon Drive (SR-111)
E/W: Mirage Cove Drive
Weather: Clear

File Name : 20_CTC_E Palm Cyn_Mirage Cove AM
Site Code : 06718258
Start Date : 4/10/2018
Page No : 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:45 AM				07:00 AM				08:00 AM				08:00 AM			
+0 mins.	**4**	**362**	9	**375**	2	**1**	5	**8**	**7**	212	1	220	**9**	0	1	**10**
+15 mins.	3	358	12	373	1	0	**6**	7	5	**247**	**2**	**254**	1	0	**3**	4
+30 mins.	2	338	12	352	1	0	5	6	5	242	0	247	4	0	3	7
+45 mins.	3	329	**16**	348	**3**	0	5	8	3	245	0	248	7	**1**	1	9
Total Volume	12	1387	49	1448	7	1	21	29	20	946	3	969	21	1	8	30
% App. Total	0.8	95.8	3.4		24.1	3.4	72.4		2.1	97.6	0.3		70	3.3	26.7	
PHF	.750	.958	.766	.965	.583	.250	.875	.906	.714	.957	.375	.954	.583	.250	.667	.750

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City of Cathedral City
N/S: East Palm Canyon Drive (SR-111)
E/W: Mirage Cove Drive
Weather: Clear

File Name : 20_CTC_E Palm Cyn_Mirage Cove PM
Site Code : 06718258
Start Date : 4/10/2018
Page No : 1

Groups Printed- Total Volume

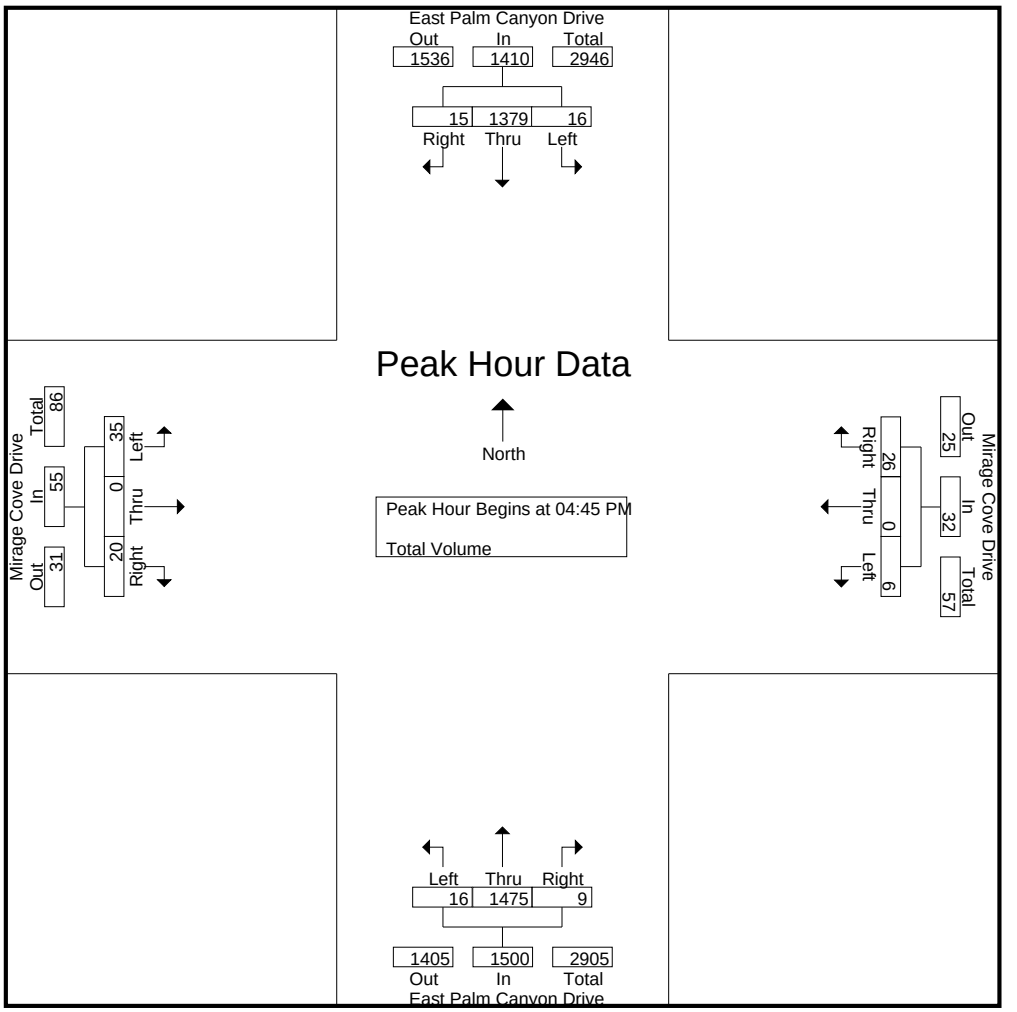
	East Palm Canyon Drive Southbound				Mirage Cove Drive Westbound				East Palm Canyon Drive Northbound				Mirage Cove Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	9	320	9	338	2	0	5	7	4	338	1	343	10	0	2	12	700
04:15 PM	9	303	8	320	0	0	8	8	6	331	1	338	8	0	5	13	679
04:30 PM	5	289	7	301	3	0	6	9	7	341	0	348	19	0	4	23	681
04:45 PM	7	343	1	351	0	0	5	5	1	354	3	358	8	0	5	13	727
Total	30	1255	25	1310	5	0	24	29	18	1364	5	1387	45	0	16	61	2787
05:00 PM	2	357	11	370	1	0	9	10	5	407	1	413	11	0	6	17	810
05:15 PM	6	329	2	337	3	0	3	6	6	376	1	383	7	0	7	14	740
05:30 PM	1	350	1	352	2	0	9	11	4	338	4	346	9	0	2	11	720
05:45 PM	5	254	4	263	1	0	6	7	2	329	3	334	2	0	0	2	606
Total	14	1290	18	1322	7	0	27	34	17	1450	9	1476	29	0	15	44	2876
Grand Total	44	2545	43	2632	12	0	51	63	35	2814	14	2863	74	0	31	105	5663
Apprch %	1.7	96.7	1.6		19	0	81		1.2	98.3	0.5		70.5	0	29.5		
Total %	0.8	44.9	0.8	46.5	0.2	0	0.9	1.1	0.6	49.7	0.2	50.6	1.3	0	0.5	1.9	

	East Palm Canyon Drive Southbound				Mirage Cove Drive Westbound				East Palm Canyon Drive Northbound				Mirage Cove Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	**7**	343	1	351	0	0	5	5	1	354	3	358	8	0	5	13	727
05:00 PM	2	**357**	**11**	**370**	1	0	**9**	10	5	**407**	1	**413**	**11**	0	6	**17**	**810**
05:15 PM	6	329	2	337	**3**	0	3	6	**6**	376	1	383	7	0	**7**	14	740
05:30 PM	1	350	1	352	2	0	9	**11**	4	338	**4**	346	9	0	2	11	720
Total Volume	16	1379	15	1410	6	0	26	32	16	1475	9	1500	35	0	20	55	2997
% App. Total	1.1	97.8	1.1		18.8	0	81.2		1.1	98.3	0.6		63.6	0	36.4		
PHF	.571	.966	.341	.953	.500	.000	.722	.727	.667	.906	.563	.908	.795	.000	.714	.809	.925

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City of Cathedral City
N/S: East Palm Canyon Drive (SR-111)
E/W: Mirage Cove Drive
Weather: Clear

File Name : 20_CTC_E Palm Cyn_Mirage Cove PM
Site Code : 06718258
Start Date : 4/10/2018
Page No : 2



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:45 PM				05:00 PM				04:30 PM				04:30 PM			
+0 mins.	**7**	343	1	351	1	0	**9**	10	**7**	341	0	348	**19**	0	4	**23**
+15 mins.	2	**357**	**11**	**370**	**3**	0	3	6	1	354	**3**	358	8	0	5	13
+30 mins.	6	329	2	337	2	0	9	**11**	5	**407**	1	**413**	11	0	6	17
+45 mins.	1	350	1	352	1	0	6	7	6	376	1	383	7	0	**7**	14
Total Volume	16	1379	15	1410	7	0	27	34	19	1478	5	1502	45	0	22	67
% App. Total	1.1	97.8	1.1		20.6	0	79.4		1.3	98.4	0.3		67.2	0	32.8	
PHF	.571	.966	.341	.953	.583	.000	.750	.773	.679	.908	.417	.909	.592	.000	.786	.728

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City of Cathedral City
N/S: East Palm Canyon Drive (SR-111)
E/W: Mirage Cove Drive
Weather: Clear

File Name : 20_CTC_E Palm Cyn_Mirage Cove SAT
Site Code : 06718258
Start Date : 4/14/2018

Groups Printed- Total Volume

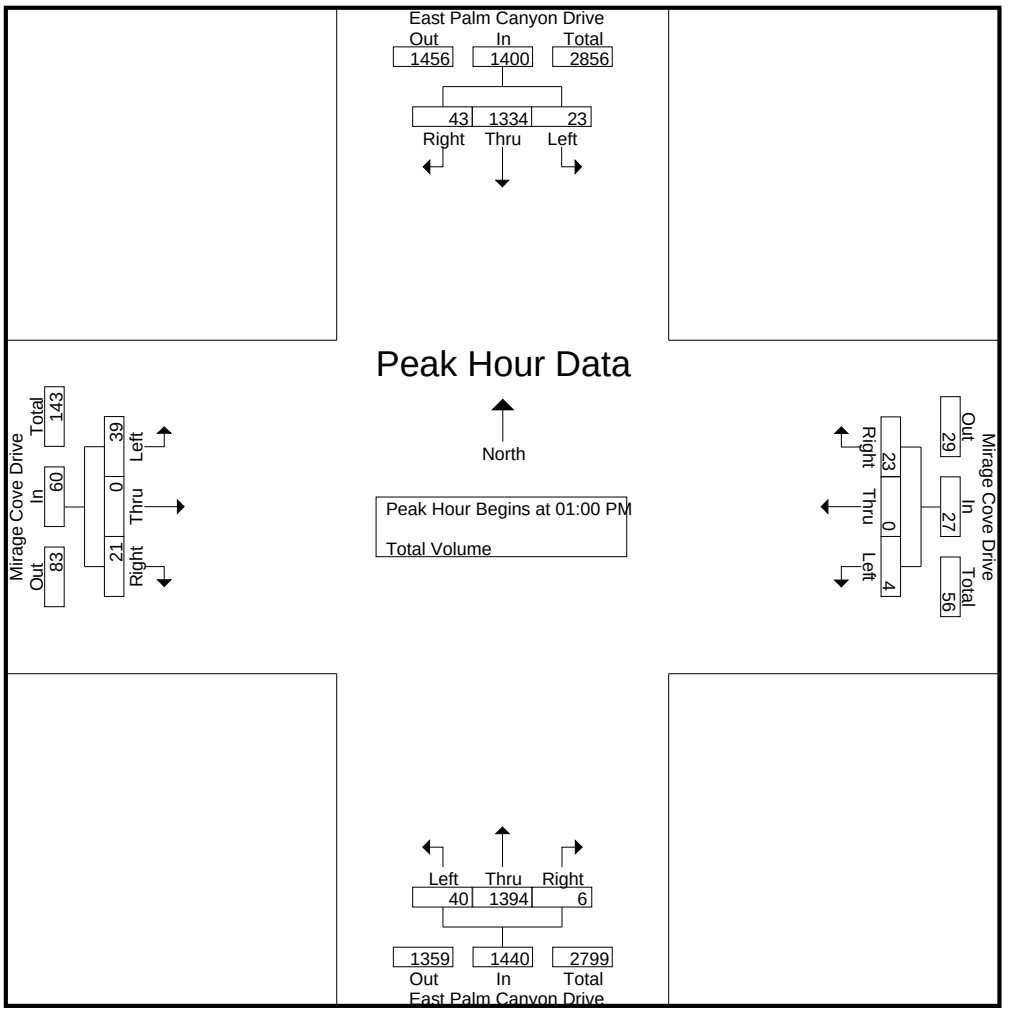
	East Palm Canyon Drive Southbound				Mirage Cove Drive Westbound				East Palm Canyon Drive Northbound				Mirage Cove Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
12:00 PM	5	324	3	332	2	0	2	4	9	319	3	331	13	1	6	20	687
12:15 PM	5	313	3	321	2	0	4	6	9	319	2	330	8	0	8	16	673
12:30 PM	3	348	12	363	0	1	2	3	37	279	6	322	3	0	5	8	696
12:45 PM	6	317	7	330	4	1	5	10	12	316	0	328	8	0	7	15	683
Total	19	1302	25	1346	8	2	13	23	67	1233	11	1311	32	1	26	59	2739
01:00 PM	4	328	11	343	2	0	3	5	10	337	1	348	9	0	3	12	708
01:15 PM	4	336	7	347	0	0	6	6	11	354	1	366	9	0	7	16	735
01:30 PM	9	330	15	354	1	0	8	9	8	382	2	392	8	0	4	12	767
01:45 PM	6	340	10	356	1	0	6	7	11	321	2	334	13	0	7	20	717
Total	23	1334	43	1400	4	0	23	27	40	1394	6	1440	39	0	21	60	2927
Grand Total	42	2636	68	2746	12	2	36	50	107	2627	17	2751	71	1	47	119	5666
Apprch %	1.5	96	2.5		24	4	72		3.9	95.5	0.6		59.7	0.8	39.5		
Total %	0.7	46.5	1.2	48.5	0.2	0	0.6	0.9	1.9	46.4	0.3	48.6	1.3	0	0.8	2.1	

	East Palm Canyon Drive Southbound				Mirage Cove Drive Westbound				East Palm Canyon Drive Northbound				Mirage Cove Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 01:00 PM																	
01:00 PM	4	328	11	343	**2**	0	3	5	10	337	1	348	9	0	3	12	708
01:15 PM	4	336	7	347	0	0	6	6	**11**	354	1	366	9	0	**7**	16	735
01:30 PM	**9**	330	**15**	354	1	0	**8**	**9**	8	**382**	**2**	**392**	8	0	4	12	**767**
01:45 PM	6	**340**	10	**356**	1	0	6	7	11	321	2	334	**13**	0	7	**20**	717
Total Volume	23	1334	43	1400	4	0	23	27	40	1394	6	1440	39	0	21	60	2927
% App. Total	1.6	95.3	3.1		14.8	0	85.2		2.8	96.8	0.4		65	0	35		
PHF	.639	.981	.717	.983	.500	.000	.719	.750	.909	.912	.750	.918	.750	.000	.750	.750	.954

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City of Cathedral City
N/S: East Palm Canyon Drive (SR-111)
E/W: Mirage Cove Drive
Weather: Clear

File Name : 20_CTC_E Palm Cyn_Mirage Cove SAT
Site Code : 06718258
Start Date : 4/14/2018
Page No : 2



Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	01:00 PM				12:45 PM				01:00 PM				01:00 PM			
+0 mins.	4	328	11	343	**4**	**1**	5	**10**	10	337	1	348	9	0	3	12
+15 mins.	4	336	7	347	2	0	3	5	**11**	354	1	366	9	0	**7**	16
+30 mins.	**9**	330	**15**	354	0	0	6	6	8	**382**	**2**	**392**	8	0	4	12
+45 mins.	6	**340**	10	**356**	1	0	**8**	9	11	321	2	334	**13**	0	7	**20**
Total Volume	23	1334	43	1400	7	1	22	30	40	1394	6	1440	39	0	21	60
% App. Total	1.6	95.3	3.1		23.3	3.3	73.3		2.8	96.8	0.4		65	0	35	
PHF	.639	.981	.717	.983	.438	.250	.688	.750	.909	.912	.750	.918	.750	.000	.750	.750

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City of Cathedral City
N/S: East Palm Canyon Drive (SR-111)
E/W: Mirage Cove Drive
Weather: Clear

File Name : 21_CTC_E Palm Cyn_Country Club AM
Site Code : 06718258
Start Date : 4/10/2018
Page No : 1

Groups Printed- Total Volume

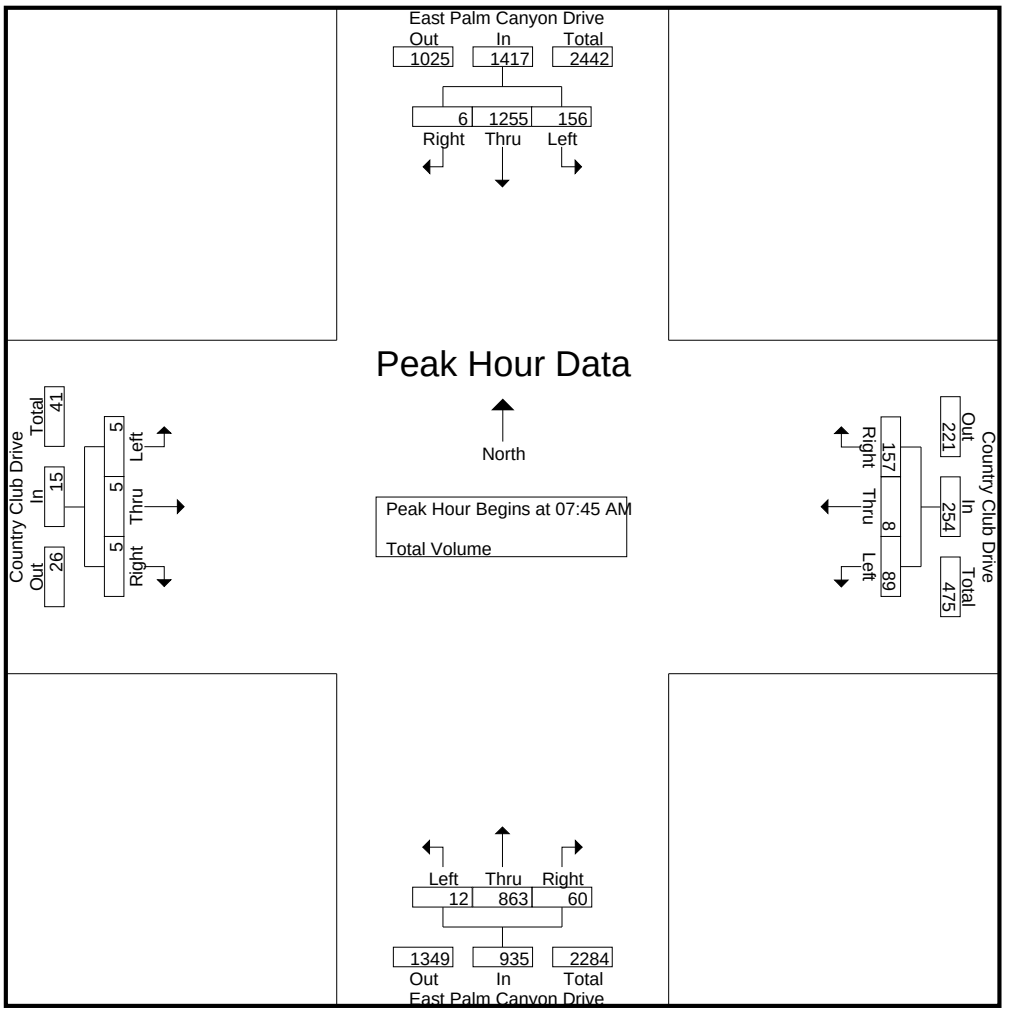
	East Palm Canyon Drive Southbound				Country Club Drive Westbound				East Palm Canyon Drive Northbound				Country Club Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	38	129	0	167	5	2	25	32	1	125	4	130	0	1	1	2	331
07:15 AM	28	189	1	218	3	1	44	48	1	180	6	187	0	1	2	3	456
07:30 AM	39	222	1	262	9	1	25	35	0	181	6	187	1	3	0	4	488
07:45 AM	43	322	1	366	18	2	34	54	5	216	10	231	2	0	1	3	654
Total	148	862	3	1013	35	6	128	169	7	702	26	735	3	5	4	12	1929
08:00 AM	46	300	2	348	29	5	34	68	3	214	9	226	1	1	1	3	645
08:15 AM	31	348	1	380	23	1	47	71	4	213	21	238	0	3	2	5	694
08:30 AM	36	285	2	323	19	0	42	61	0	220	20	240	2	1	1	4	628
08:45 AM	37	295	1	333	20	4	35	59	4	216	14	234	0	3	4	7	633
Total	150	1228	6	1384	91	10	158	259	11	863	64	938	3	8	8	19	2600
Grand Total	298	2090	9	2397	126	16	286	428	18	1565	90	1673	6	13	12	31	4529
Apprch %	12.4	87.2	0.4		29.4	3.7	66.8		1.1	93.5	5.4		19.4	41.9	38.7		
Total %	6.6	46.1	0.2	52.9	2.8	0.4	6.3	9.5	0.4	34.6	2	36.9	0.1	0.3	0.3	0.7	

	East Palm Canyon Drive Southbound				Country Club Drive Westbound				East Palm Canyon Drive Northbound				Country Club Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	43	322	1	366	18	2	34	54	**5**	216	10	231	**2**	0	1	3	654
08:00 AM	**46**	300	**2**	348	**29**	**5**	34	68	3	214	9	226	1	1	1	3	645
08:15 AM	31	**348**	1	**380**	23	1	**47**	**71**	4	213	**21**	238	0	**3**	**2**	**5**	**694**
08:30 AM	36	285	2	323	19	0	42	61	0	**220**	20	**240**	2	1	1	4	628
Total Volume	156	1255	6	1417	89	8	157	254	12	863	60	935	5	5	5	15	2621
% App. Total	11	88.6	0.4		35	3.1	61.8		1.3	92.3	6.4		33.3	33.3	33.3		
PHF	.848	.902	.750	.932	.767	.400	.835	.894	.600	.981	.714	.974	.625	.417	.625	.750	.944

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City of Cathedral City
N/S: East Palm Canyon Drive (SR-111)
E/W: Mirage Cove Drive
Weather: Clear

File Name : 21_CTC_E Palm Cyn_Country Club AM
Site Code : 06718258
Start Date : 4/10/2018



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:45 AM				08:00 AM				08:00 AM				08:00 AM			
+0 mins.	43	322	1	366	**29**	**5**	34	68	3	214	9	226	1	1	1	3
+15 mins.	**46**	300	**2**	348	23	1	**47**	**71**	**4**	213	**21**	238	0	**3**	2	5
+30 mins.	31	**348**	1	**380**	19	0	42	61	0	**220**	20	**240**	**2**	1	1	4
+45 mins.	36	285	2	323	20	4	35	59	4	216	14	234	0	3	**4**	**7**
Total Volume	156	1255	6	1417	91	10	158	259	11	863	64	938	3	8	8	19
% App. Total	11	88.6	0.4		35.1	3.9	61		1.2	92	6.8		15.8	42.1	42.1	
PHF	.848	.902	.750	.932	.784	.500	.840	.912	.688	.981	.762	.977	.375	.667	.500	.679

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City of Cathedral City
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File Name : 21_CTC_E Palm Cyn_Country Club PM
Site Code : 06718258
Start Date : 4/10/2018
Page No : 1

Groups Printed- Total Volume

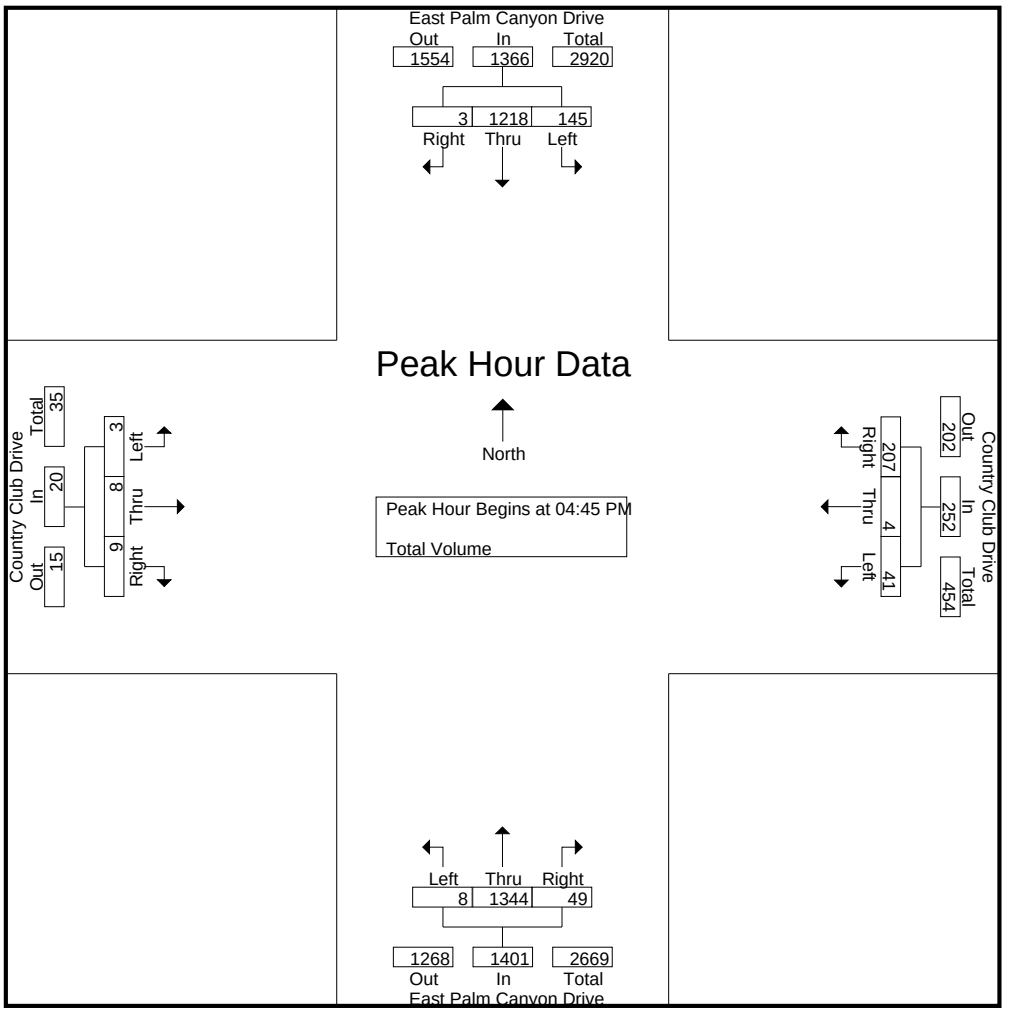
	East Palm Canyon Drive Southbound				Country Club Drive Westbound				East Palm Canyon Drive Northbound				Country Club Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	28	306	0	334	18	3	45	66	4	324	24	352	1	1	2	4	756
04:15 PM	22	267	0	289	13	2	41	56	3	311	19	333	0	1	2	3	681
04:30 PM	33	271	1	305	25	0	38	63	4	309	21	334	0	1	1	2	704
04:45 PM	33	289	0	322	8	1	54	63	4	325	7	336	0	0	2	2	723
Total	116	1133	1	1250	64	6	178	248	15	1269	71	1355	1	3	7	11	2864
05:00 PM	39	295	1	335	9	2	50	61	3	355	19	377	1	1	4	6	779
05:15 PM	43	337	1	381	11	1	58	70	1	339	14	354	1	4	1	6	811
05:30 PM	30	297	1	328	13	0	45	58	0	325	9	334	1	3	2	6	726
05:45 PM	32	235	1	268	7	1	42	50	2	307	15	324	3	2	2	7	649
Total	144	1164	4	1312	40	4	195	239	6	1326	57	1389	6	10	9	25	2965
Grand Total	260	2297	5	2562	104	10	373	487	21	2595	128	2744	7	13	16	36	5829
Apprch %	10.1	89.7	0.2		21.4	2.1	76.6		0.8	94.6	4.7		19.4	36.1	44.4		
Total %	4.5	39.4	0.1	44	1.8	0.2	6.4	8.4	0.4	44.5	2.2	47.1	0.1	0.2	0.3	0.6	

	East Palm Canyon Drive Southbound				Country Club Drive Westbound				East Palm Canyon Drive Northbound				Country Club Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	33	289	0	322	8	1	54	63	**4**	325	7	336	0	0	2	2	723
05:00 PM	39	295	**1**	335	9	**2**	50	61	3	**355**	**19**	**377**	**1**	1	**4**	**6**	779
05:15 PM	**43**	**337**	1	**381**	11	1	**58**	**70**	1	339	14	354	1	**4**	1	6	**811**
05:30 PM	30	297	1	328	**13**	0	45	58	0	325	9	334	1	3	2	6	726
Total Volume	145	1218	3	1366	41	4	207	252	8	1344	49	1401	3	8	9	20	3039
% App. Total	10.6	89.2	0.2		16.3	1.6	82.1		0.6	95.9	3.5		15	40	45		
PHF	.843	.904	.750	.896	.788	.500	.892	.900	.500	.946	.645	.929	.750	.500	.563	.833	.937

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City of Cathedral City
N/S: East Palm Canyon Drive (SR-111)
E/W: Mirage Cove Drive
Weather: Clear

File Name : 21_CTC_E Palm Cyn_Country Club PM
Site Code : 06718258
Start Date : 4/10/2018
Page No : 2



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:45 PM				04:30 PM				04:30 PM				05:00 PM			
+0 mins.	33	289	0	322	**25**	0	38	63	**4**	309	**21**	334	1	1	**4**	6
+15 mins.	39	295	**1**	335	8	1	54	63	4	325	7	336	1	**4**	1	6
+30 mins.	**43**	**337**	1	**381**	9	**2**	50	61	3	**355**	19	**377**	1	3	2	6
+45 mins.	30	297	1	328	11	1	**58**	**70**	1	339	14	354	**3**	2	2	**7**
Total Volume	145	1218	3	1366	53	4	200	257	12	1328	61	1401	6	10	9	25
% App. Total	10.6	89.2	0.2		20.6	1.6	77.8		0.9	94.8	4.4		24	40	36	
PHF	.843	.904	.750	.896	.530	.500	.862	.918	.750	.935	.726	.929	.500	.625	.563	.893

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City of Cathedral City
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Weather: Clear

File Name : 21_CTC_E Palm Cyn_Country Club SAT
Site Code : 06718258
Start Date : 4/14/2018
Page No : 1

Groups Printed- Total Volume

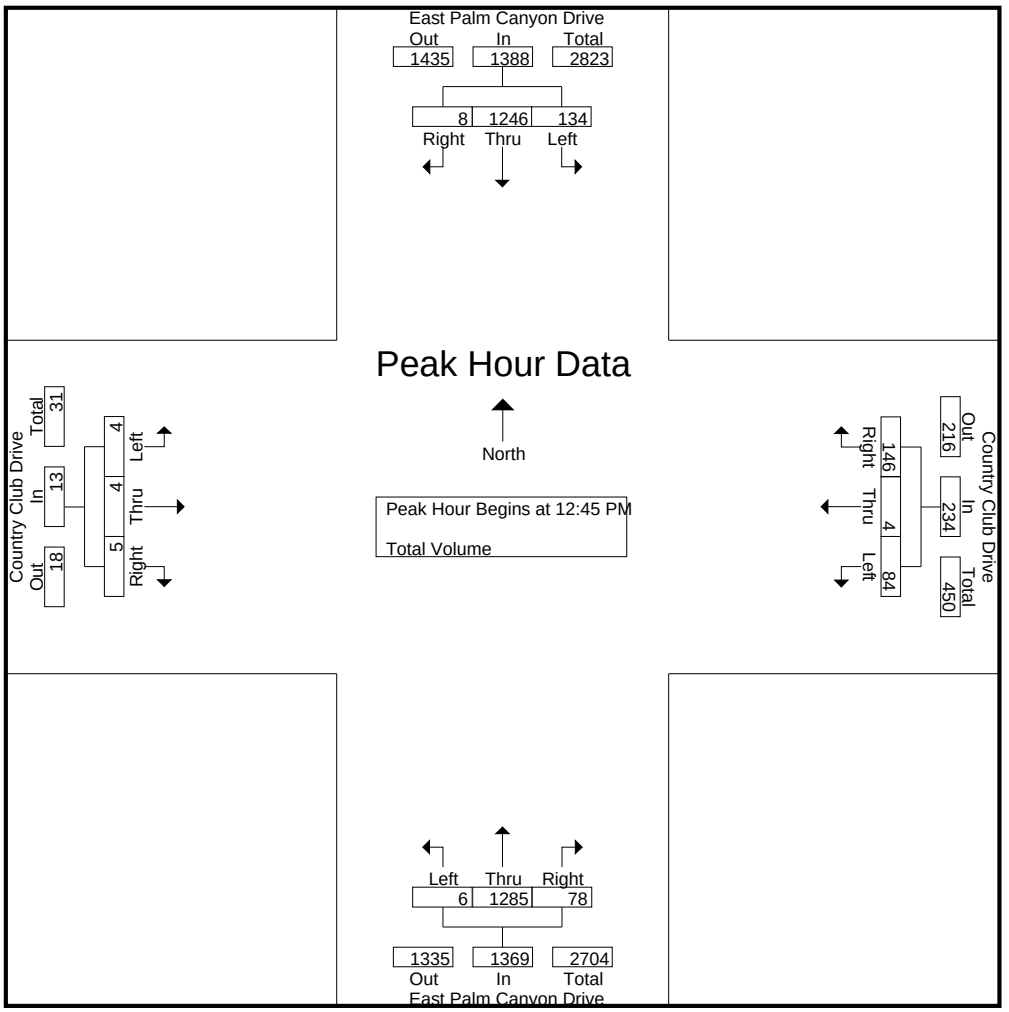
	East Palm Canyon Drive Southbound				Country Club Drive Westbound				East Palm Canyon Drive Northbound				Country Club Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
12:00 PM	39	289	0	328	16	1	36	53	2	292	16	310	2	0	1	3	694
12:15 PM	24	325	0	349	8	0	36	44	1	311	17	329	2	0	1	3	725
12:30 PM	24	304	1	329	21	0	39	60	3	274	9	286	2	1	1	4	679
12:45 PM	25	308	5	338	20	1	38	59	2	288	21	311	1	3	2	6	714
Total	112	1226	6	1344	65	2	149	216	8	1165	63	1236	7	4	5	16	2812
01:00 PM	38	308	0	346	17	1	33	51	2	294	18	314	0	0	1	1	712
01:15 PM	38	309	1	348	23	0	41	64	2	361	22	385	2	0	2	4	801
01:30 PM	33	321	2	356	24	2	34	60	0	342	17	359	1	1	0	2	777
01:45 PM	26	299	2	327	8	2	31	41	3	287	10	300	1	2	1	4	672
Total	135	1237	5	1377	72	5	139	216	7	1284	67	1358	4	3	4	11	2962
Grand Total	247	2463	11	2721	137	7	288	432	15	2449	130	2594	11	7	9	27	5774
Apprch %	9.1	90.5	0.4		31.7	1.6	66.7		0.6	94.4	5		40.7	25.9	33.3		
Total %	4.3	42.7	0.2	47.1	2.4	0.1	5	7.5	0.3	42.4	2.3	44.9	0.2	0.1	0.2	0.5	

	East Palm Canyon Drive Southbound				Country Club Drive Westbound				East Palm Canyon Drive Northbound				Country Club Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 12:45 PM																	
12:45 PM	25	308	**5**	338	20	1	38	59	**2**	288	21	311	1	**3**	**2**	**6**	714
01:00 PM	**38**	308	0	346	17	1	33	51	2	294	18	314	0	0	1	1	712
01:15 PM	38	309	1	348	23	0	**41**	**64**	2	**361**	**22**	**385**	**2**	0	2	4	**801**
01:30 PM	33	**321**	2	**356**	**24**	**2**	34	60	0	342	17	359	1	1	0	2	777
Total Volume	134	1246	8	1388	84	4	146	234	6	1285	78	1369	4	4	5	13	3004
% App. Total	9.7	89.8	0.6		35.9	1.7	62.4		0.4	93.9	5.7		30.8	30.8	38.5		
PHF	.882	.970	.400	.975	.875	.500	.890	.914	.750	.890	.886	.889	.500	.333	.625	.542	.938

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City of Cathedral City
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Weather: Clear

File Name : 21_CTC_E Palm Cyn_Country Club SAT
Site Code : 06718258
Start Date : 4/14/2018
Page No : 2



Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	12:45 PM				12:30 PM				12:45 PM				12:00 PM			
+0 mins.	25	308	**5**	338	21	0	39	60	**2**	288	21	311	**2**	0	1	3
+15 mins.	**38**	308	0	346	20	**1**	38	59	2	294	18	314	2	0	1	3
+30 mins.	38	309	1	348	17	1	33	51	2	**361**	**22**	**385**	2	1	1	4
+45 mins.	33	**321**	2	**356**	**23**	0	**41**	**64**	0	342	17	359	1	**3**	**2**	**6**
Total Volume	134	1246	8	1388	81	2	151	234	6	1285	78	1369	7	4	5	16
% App. Total	9.7	89.8	0.6		34.6	0.9	64.5		0.4	93.9	5.7		43.8	25	31.2	
PHF	.882	.970	.400	.975	.880	.500	.921	.914	.750	.890	.886	.889	.875	.333	.625	.667

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City of Cathedral City
N/S: Thompson Road/Morningside Drive
E/W: Frank Sinatra Drive
Weather: Clear

File Name : 19_CTC_Thompson_Morningside_Frank Sinatra SAT
Site Code : 06718258
Start Date : 4/14/2018
Page No : 1

Groups Printed- Total Volume

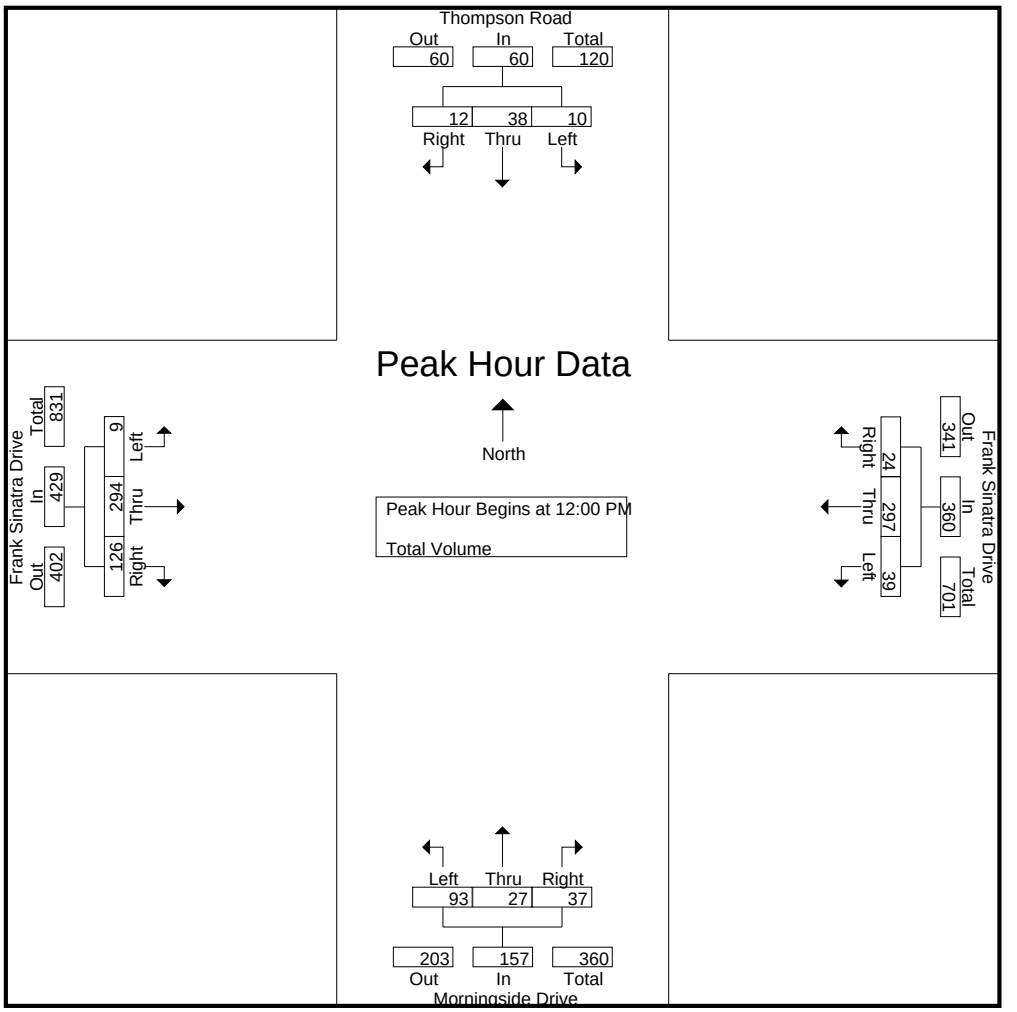
	Thompson Road Southbound				Frank Sinatra Drive Westbound				Morningside Drive Northbound				Frank Sinatra Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
12:00 PM	1	13	3	17	16	81	9	106	23	6	11	40	3	74	30	107	270
12:15 PM	4	10	4	18	9	71	5	85	32	8	8	48	1	71	37	109	260
12:30 PM	0	8	3	11	7	75	3	85	17	8	3	28	3	77	21	101	225
12:45 PM	5	7	2	14	7	70	7	84	21	5	15	41	2	72	38	112	251
Total	10	38	12	60	39	297	24	360	93	27	37	157	9	294	126	429	1006
01:00 PM	1	2	6	9	5	65	2	72	25	2	11	38	2	79	26	107	226
01:15 PM	4	8	1	13	9	70	5	84	31	11	13	55	2	66	27	95	247
01:30 PM	0	4	2	6	6	69	4	79	23	11	7	41	1	90	18	109	235
01:45 PM	0	6	4	10	5	68	5	78	33	5	4	42	2	63	26	91	221
Total	5	20	13	38	25	272	16	313	112	29	35	176	7	298	97	402	929
Grand Total	15	58	25	98	64	569	40	673	205	56	72	333	16	592	223	831	1935
Apprch %	15.3	59.2	25.5		9.5	84.5	5.9		61.6	16.8	21.6		1.9	71.2	26.8		
Total %	0.8	3	1.3	5.1	3.3	29.4	2.1	34.8	10.6	2.9	3.7	17.2	0.8	30.6	11.5	42.9	

	Thompson Road Southbound				Frank Sinatra Drive Westbound				Morningside Drive Northbound				Frank Sinatra Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 12:00 PM																	
12:00 PM	1	**13**	3	17	**16**	**81**	**9**	**106**	23	6	11	40	**3**	74	30	107	**270**
12:15 PM	4	10	**4**	**18**	9	71	5	85	**32**	**8**	8	**48**	1	71	37	109	260
12:30 PM	0	8	3	11	7	75	3	85	17	8	3	28	3	**77**	21	101	225
12:45 PM	**5**	7	2	14	7	70	7	84	21	5	**15**	41	2	72	**38**	**112**	251
Total Volume	10	38	12	60	39	297	24	360	93	27	37	157	9	294	126	429	1006
% App. Total	16.7	63.3	20		10.8	82.5	6.7		59.2	17.2	23.6		2.1	68.5	29.4		
PHF	.500	.731	.750	.833	.609	.917	.667	.849	.727	.844	.617	.818	.750	.955	.829	.958	.931

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N/S: Thompson Road/Morningside Drive
E/W: Frank Sinatra Drive
Weather: Clear

File Name : 19_CTC_Thompson_Morningside_Frank Sinatra SAT
Site Code : 06718258
Start Date : 4/14/2018



Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	12:00 PM				12:00 PM				01:00 PM				12:00 PM			
+0 mins.	1	**13**	3	17	**16**	**81**	**9**	**106**	25	2	11	38	**3**	74	30	107
+15 mins.	4	10	**4**	**18**	9	71	5	85	31	**11**	**13**	**55**	1	71	37	109
+30 mins.	0	8	3	11	7	75	3	85	23	11	7	41	3	**77**	21	101
+45 mins.	**5**	7	2	14	7	70	7	84	**33**	5	4	42	2	72	**38**	**112**
Total Volume	10	38	12	60	39	297	24	360	112	29	35	176	9	294	126	429
% App. Total	16.7	63.3	20		10.8	82.5	6.7		63.6	16.5	19.9		2.1	68.5	29.4	
PHF	.500	.731	.750	.833	.609	.917	.667	.849	.848	.659	.673	.800	.750	.955	.829	.958

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File Name : 19_CTC_Thompson_Morningside_Frank Sinatra PM
Site Code : 06718258
Start Date : 4/10/2018
Page No : 1

Groups Printed- Total Volume

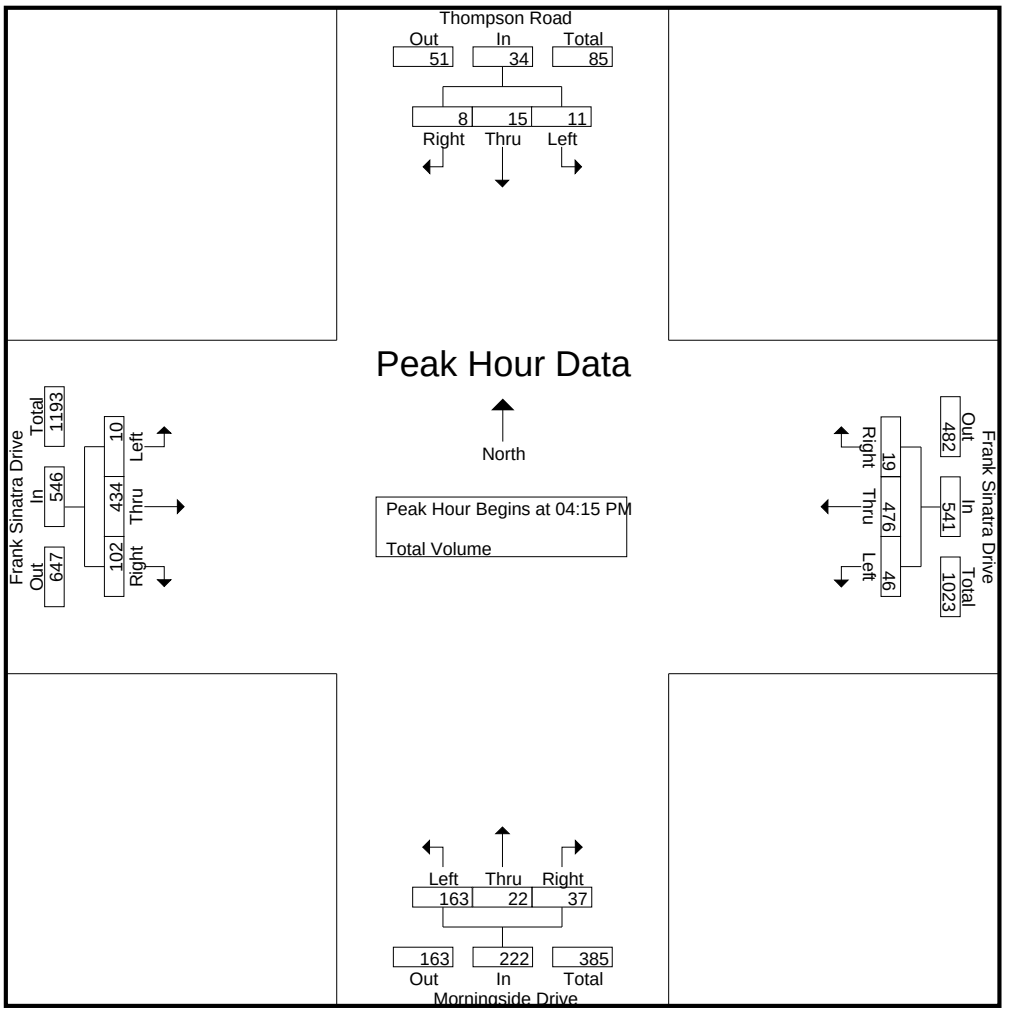
	Thompson Road Southbound				Frank Sinatra Drive Westbound				Morningside Drive Northbound				Frank Sinatra Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	3	3	0	6	16	96	6	118	38	6	12	56	1	95	31	127	307
04:15 PM	2	2	4	8	15	122	8	145	41	10	5	56	2	133	28	163	372
04:30 PM	1	5	0	6	9	136	4	149	37	6	9	52	5	97	16	118	325
04:45 PM	3	5	2	10	9	110	4	123	32	2	11	45	0	86	36	122	300
Total	9	15	6	30	49	464	22	535	148	24	37	209	8	411	111	530	1304
05:00 PM	5	3	2	10	13	108	3	124	53	4	12	69	3	118	22	143	346
05:15 PM	3	3	0	6	12	128	5	145	31	7	7	45	2	106	29	137	333
05:30 PM	6	7	2	15	9	100	4	113	29	6	10	45	1	84	26	111	284
05:45 PM	2	5	2	9	6	105	5	116	25	4	15	44	2	92	33	127	296
Total	16	18	6	40	40	441	17	498	138	21	44	203	8	400	110	518	1259
Grand Total	25	33	12	70	89	905	39	1033	286	45	81	412	16	811	221	1048	2563
Apprch %	35.7	47.1	17.1		8.6	87.6	3.8		69.4	10.9	19.7		1.5	77.4	21.1		
Total %	1	1.3	0.5	2.7	3.5	35.3	1.5	40.3	11.2	1.8	3.2	16.1	0.6	31.6	8.6	40.9	

	Thompson Road Southbound				Frank Sinatra Drive Westbound				Morningside Drive Northbound				Frank Sinatra Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	2	2	**4**	8	**15**	122	**8**	145	41	**10**	5	56	2	**133**	28	**163**	**372**
04:30 PM	1	**5**	0	6	9	**136**	4	**149**	37	6	9	52	**5**	97	16	118	325
04:45 PM	3	5	2	**10**	9	110	4	123	32	2	11	45	0	86	**36**	122	300
05:00 PM	**5**	3	2	10	13	108	3	124	**53**	4	**12**	**69**	3	118	22	143	346
Total Volume	11	15	8	34	46	476	19	541	163	22	37	222	10	434	102	546	1343
% App. Total	32.4	44.1	23.5		8.5	88	3.5		73.4	9.9	16.7		1.8	79.5	18.7		
PHF	.550	.750	.500	.850	.767	.875	.594	.908	.769	.550	.771	.804	.500	.816	.708	.837	.903

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File Name : 19_CTC_Thompson_Morningside_Frank Sinatra PM
Site Code : 06718258
Start Date : 4/10/2018
Page No : 2



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:45 PM				04:15 PM				04:15 PM				04:15 PM			
+0 mins.	3	5	**2**	10	**15**	122	**8**	145	41	**10**	5	56	2	**133**	28	**163**
+15 mins.	5	3	2	10	9	**136**	4	**149**	37	6	9	52	**5**	97	16	118
+30 mins.	3	3	0	6	9	110	4	123	32	2	11	45	0	86	**36**	122
+45 mins.	**6**	**7**	2	**15**	13	108	3	124	**53**	4	**12**	**69**	3	118	22	143
Total Volume	17	18	6	41	46	476	19	541	163	22	37	222	10	434	102	546
% App. Total	41.5	43.9	14.6		8.5	88	3.5		73.4	9.9	16.7		1.8	79.5	18.7	
PHF	.708	.643	.750	.683	.767	.875	.594	.908	.769	.550	.771	.804	.500	.816	.708	.837

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Site Code : 06718258
Start Date : 4/10/2018
Page No : 1

Groups Printed- Total Volume

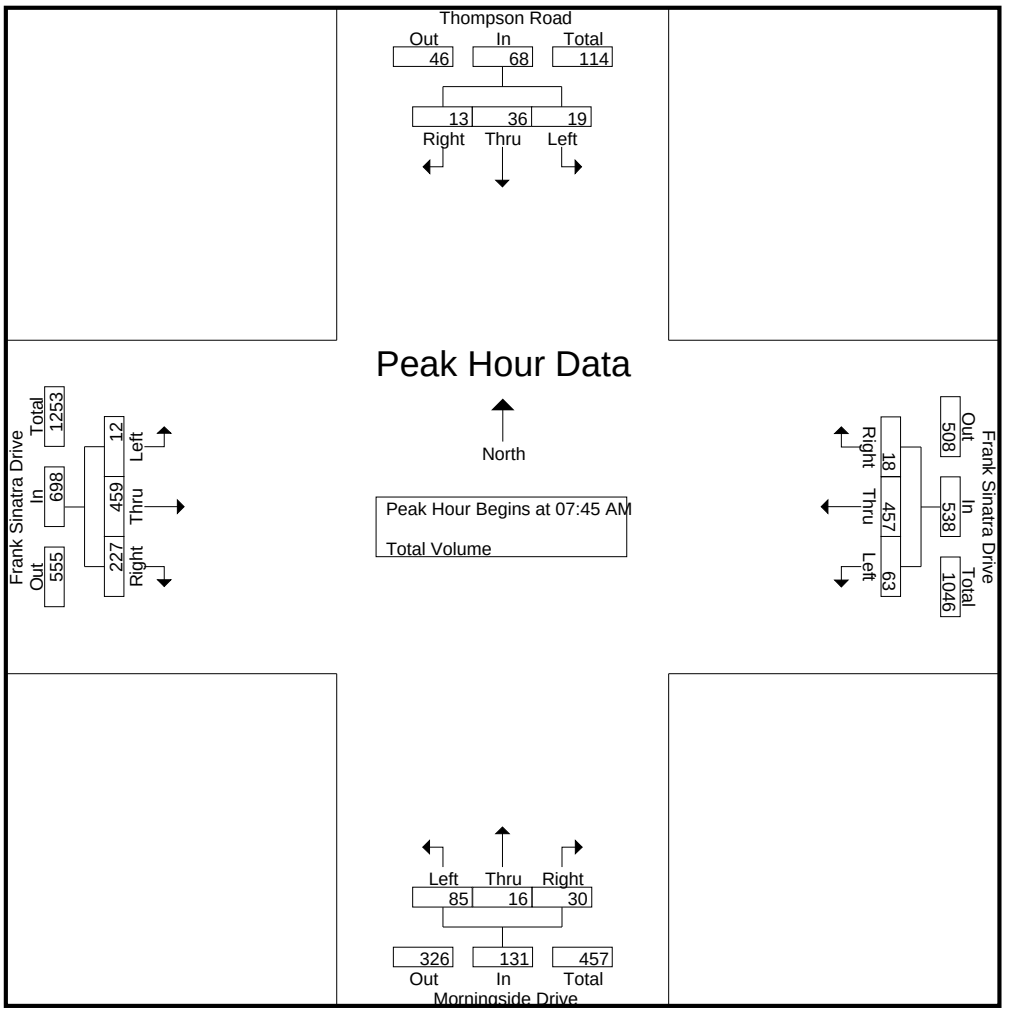
	Thompson Road Southbound				Frank Sinatra Drive Westbound				Morningside Drive Northbound				Frank Sinatra Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	6	3	3	12	14	81	1	96	12	1	7	20	1	59	32	92	220
07:15 AM	3	4	6	13	8	98	5	111	12	1	4	17	0	82	32	114	255
07:30 AM	4	8	2	14	12	129	3	144	17	3	4	24	5	124	37	166	348
07:45 AM	2	6	4	12	20	151	2	173	21	4	5	30	2	147	72	221	436
Total	15	21	15	51	54	459	11	524	62	9	20	91	8	412	173	593	1259
08:00 AM	6	8	4	18	15	95	4	114	27	2	6	35	4	106	43	153	320
08:15 AM	7	9	2	18	11	104	5	120	17	4	10	31	3	89	58	150	319
08:30 AM	4	13	3	20	17	107	7	131	20	6	9	35	3	117	54	174	360
08:45 AM	4	14	3	21	17	105	2	124	25	5	6	36	3	105	41	149	330
Total	21	44	12	77	60	411	18	489	89	17	31	137	13	417	196	626	1329
Grand Total	36	65	27	128	114	870	29	1013	151	26	51	228	21	829	369	1219	2588
Apprch %	28.1	50.8	21.1		11.3	85.9	2.9		66.2	11.4	22.4		1.7	68	30.3		
Total %	1.4	2.5	1	4.9	4.4	33.6	1.1	39.1	5.8	1	2	8.8	0.8	32	14.3	47.1	

	Thompson Road Southbound				Frank Sinatra Drive Westbound				Morningside Drive Northbound				Frank Sinatra Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	2	6	**4**	12	**20**	**151**	2	**173**	21	4	5	30	2	**147**	**72**	**221**	**436**
08:00 AM	6	8	4	18	15	95	4	114	**27**	2	6	**35**	**4**	106	43	153	320
08:15 AM	**7**	9	2	18	11	104	5	120	17	4	**10**	31	3	89	58	150	319
08:30 AM	4	**13**	3	**20**	17	107	**7**	131	20	**6**	9	35	3	117	54	174	360
Total Volume	19	36	13	68	63	457	18	538	85	16	30	131	12	459	227	698	1435
% App. Total	27.9	52.9	19.1		11.7	84.9	3.3		64.9	12.2	22.9		1.7	65.8	32.5		
PHF	.679	.692	.813	.850	.788	.757	.643	.777	.787	.667	.750	.936	.750	.781	.788	.790	.823

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File Name : 19_CTC_Thompson_Morningside_Frank Sinatra AM
Site Code : 06718258
Start Date : 4/10/2018



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	08:00 AM				07:30 AM				08:00 AM				07:45 AM			
+0 mins.	6	8	**4**	18	12	129	3	144	**27**	2	6	35	2	**147**	**72**	**221**
+15 mins.	**7**	9	2	18	**20**	**151**	2	**173**	17	4	**10**	31	**4**	106	43	153
+30 mins.	4	13	3	20	15	95	4	114	20	**6**	9	35	3	89	58	150
+45 mins.	4	**14**	3	**21**	11	104	**5**	120	25	5	6	**36**	3	117	54	174
Total Volume	21	44	12	77	58	479	14	551	89	17	31	137	12	459	227	698
% App. Total	27.3	57.1	15.6		10.5	86.9	2.5		65	12.4	22.6		1.7	65.8	32.5	
PHF	.750	.786	.750	.917	.725	.793	.700	.796	.824	.708	.775	.951	.750	.781	.788	.790

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City of Cathedral City
N/S: Van Fleet Street
E/W: B Street
Weather: Clear

File Name : 22_CTC_Van Fleet_B St AM
Site Code : 06718258
Start Date : 4/10/2018
Page No : 1

Groups Printed- Total Volume

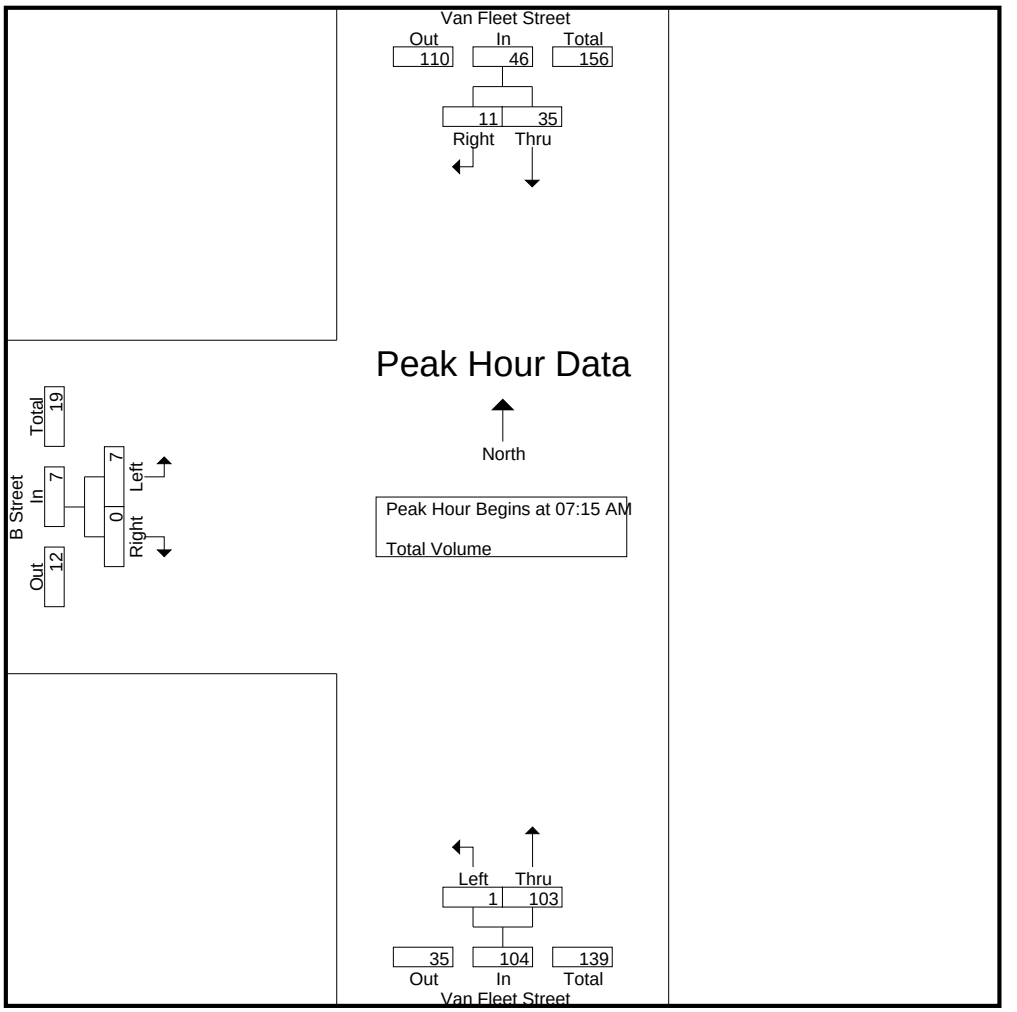
	Van Fleet Street Southbound			Van Fleet Street Northbound			B Street Eastbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
07:00 AM	7	1	8	0	24	24	2	0	2	34
07:15 AM	11	3	14	1	25	26	3	0	3	43
07:30 AM	9	2	11	0	33	33	3	0	3	47
07:45 AM	8	4	12	0	19	19	0	0	0	31
Total	35	10	45	1	101	102	8	0	8	155
08:00 AM	7	2	9	0	26	26	1	0	1	36
08:15 AM	5	5	10	0	22	22	1	0	1	33
08:30 AM	10	5	15	0	16	16	1	0	1	32
08:45 AM	3	5	8	0	12	12	0	1	1	21
Total	25	17	42	0	76	76	3	1	4	122
Grand Total	60	27	87	1	177	178	11	1	12	277
Apprch %	69	31		0.6	99.4		91.7	8.3		
Total %	21.7	9.7	31.4	0.4	63.9	64.3	4	0.4	4.3	

	Van Fleet Street Southbound			Van Fleet Street Northbound			B Street Eastbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:15 AM										
07:15 AM	**11**	3	**14**	**1**	25	26	**3**	0	**3**	43
07:30 AM	9	2	11	0	**33**	**33**	3	0	3	**47**
07:45 AM	8	**4**	12	0	19	19	0	0	0	31
08:00 AM	7	2	9	0	26	26	1	0	1	36
Total Volume	35	11	46	1	103	104	7	0	7	157
% App. Total	76.1	23.9		1	99		100	0		
PHF	.795	.688	.821	.250	.780	.788	.583	.000	.583	.835

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File Name : 22_CTC_Van Fleet_B St AM
Site Code : 06718258
Start Date : 4/10/2018
Page No : 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:15 AM			07:15 AM			07:00 AM		
+0 mins.	**11**	3	**14**	**1**	25	26	2	0	2
+15 mins.	9	2	11	0	**33**	**33**	**3**	0	**3**
+30 mins.	8	**4**	12	0	19	19	3	0	3
+45 mins.	7	2	9	0	26	26	0	0	0
Total Volume	35	11	46	1	103	104	8	0	8
% App. Total	76.1	23.9		1	99		100	0	
PHF	.795	.688	.821	.250	.780	.788	.667	.000	.667

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File Name : 22_CTC_Van Fleet_B St PM
Site Code : 06718258
Start Date : 4/10/2018
Page No : 1

Groups Printed- Total Volume

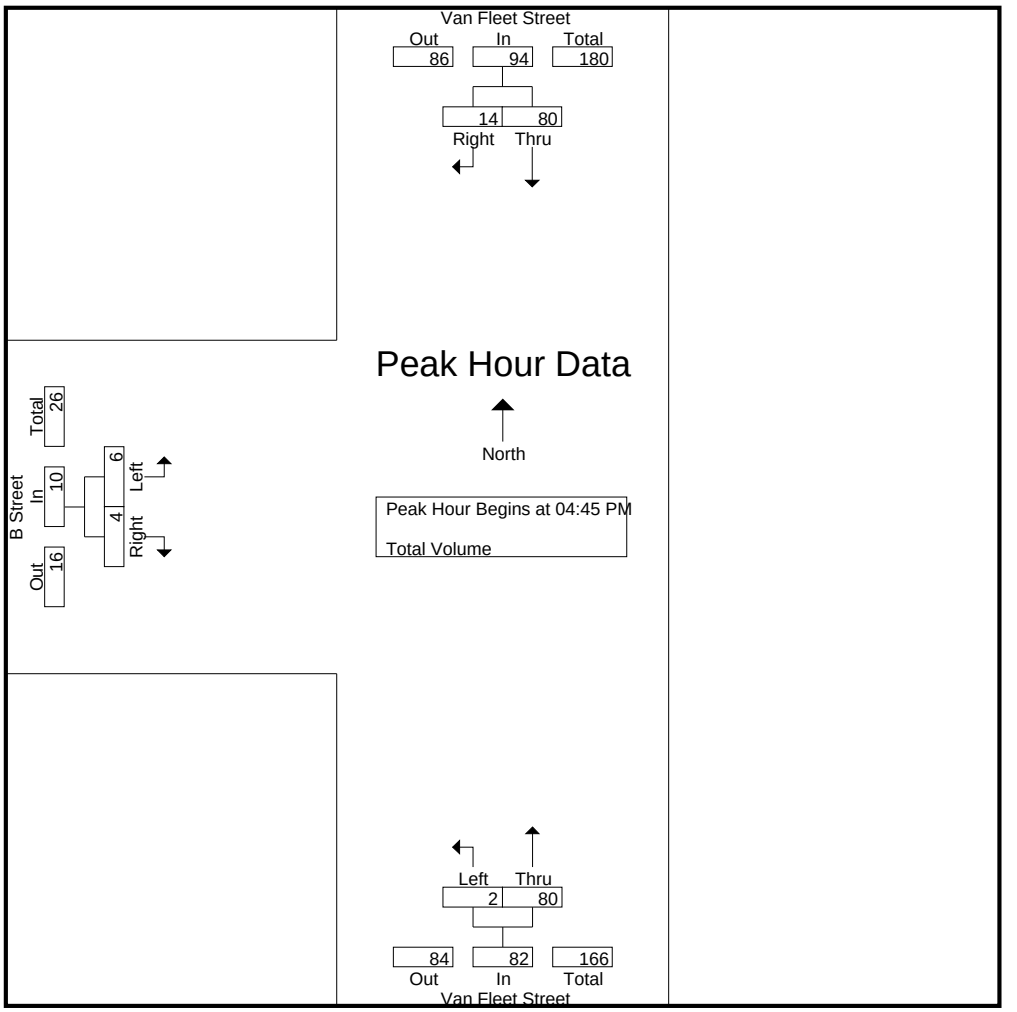
	Van Fleet Street Southbound			Van Fleet Street Northbound			B Street Eastbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
04:00 PM	27	5	32	0	5	5	0	1	1	38
04:15 PM	25	1	26	0	16	16	0	0	0	42
04:30 PM	21	4	25	1	14	15	0	3	3	43
04:45 PM	20	4	24	1	20	21	2	0	2	47
Total	93	14	107	2	55	57	2	4	6	170
05:00 PM	27	7	34	0	15	15	2	1	3	52
05:15 PM	22	1	23	1	11	12	2	2	4	39
05:30 PM	11	2	13	0	34	34	0	1	1	48
05:45 PM	16	4	20	0	13	13	2	0	2	35
Total	76	14	90	1	73	74	6	4	10	174
Grand Total	169	28	197	3	128	131	8	8	16	344
Apprch %	85.8	14.2		2.3	97.7		50	50		
Total %	49.1	8.1	57.3	0.9	37.2	38.1	2.3	2.3	4.7	

	Van Fleet Street Southbound			Van Fleet Street Northbound			B Street Eastbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:45 PM										
04:45 PM	20	4	24	**1**	20	21	**2**	0	2	47
05:00 PM	**27**	**7**	**34**	0	15	15	2	1	3	**52**
05:15 PM	22	1	23	1	11	12	2	**2**	**4**	39
05:30 PM	11	2	13	0	**34**	**34**	0	1	1	48
Total Volume	80	14	94	2	80	82	6	4	10	186
% App. Total	85.1	14.9		2.4	97.6		60	40		
PHF	.741	.500	.691	.500	.588	.603	.750	.500	.625	.894

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Site Code : 06718258
Start Date : 4/10/2018
Page No : 2



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:15 PM			04:45 PM			04:30 PM		
+0 mins.	25	1	26	**1**	20	21	0	**3**	3
+15 mins.	21	4	25	0	15	15	**2**	0	2
+30 mins.	20	4	24	1	11	12	2	1	3
+45 mins.	**27**	**7**	**34**	0	**34**	**34**	2	2	**4**
Total Volume	93	16	109	2	80	82	6	6	12
% App. Total	85.3	14.7		2.4	97.6		50	50	
PHF	.861	.571	.801	.500	.588	.603	.750	.500	.750

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City of Cathedral City
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Weather: Clear

File Name : 22_CTC_Van Fleet_B St SAT
Site Code : 06718258
Start Date : 4/14/2018
Page No : 1

Groups Printed- Total Volume

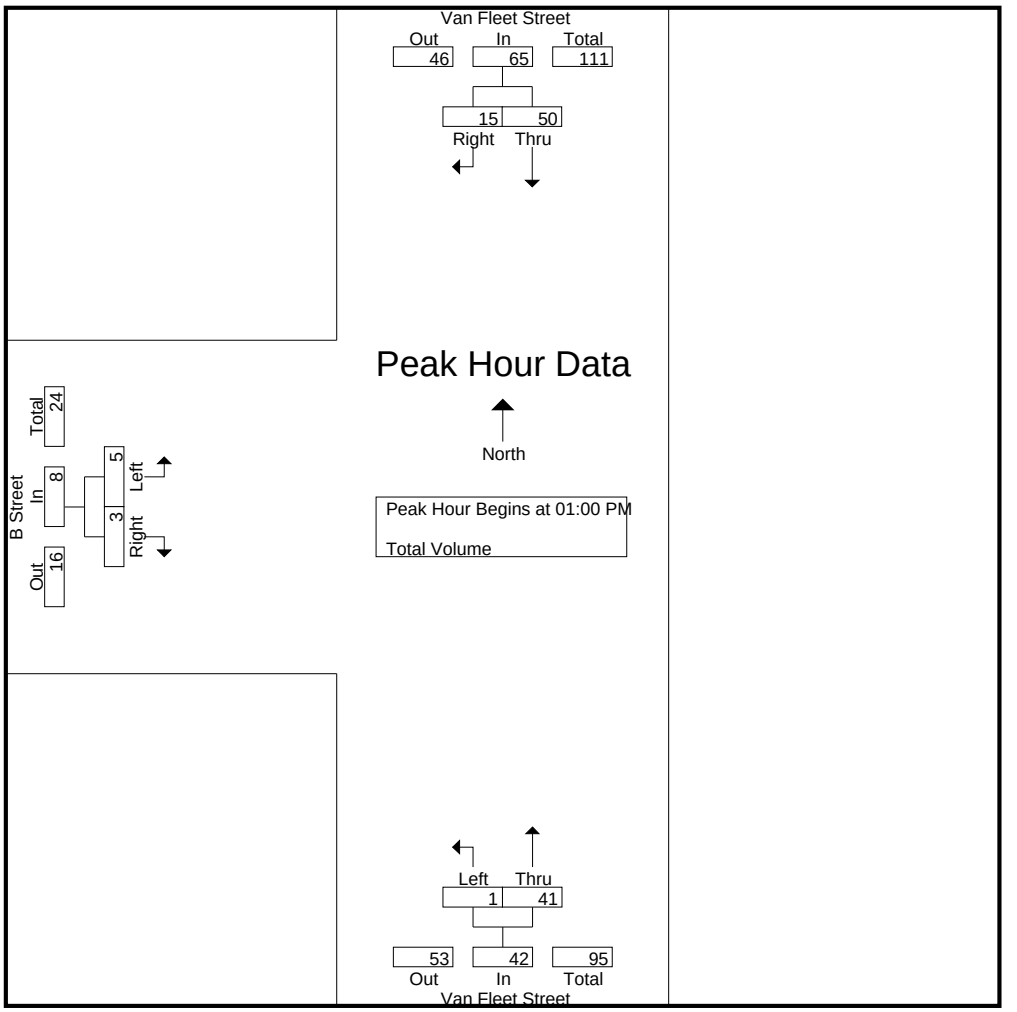
	Van Fleet Street Southbound			Van Fleet Street Northbound			B Street Eastbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
12:00 PM	14	5	19	0	12	12	2	1	3	34
12:15 PM	11	4	15	0	11	11	1	0	1	27
12:30 PM	9	4	13	0	6	6	1	1	2	21
12:45 PM	12	4	16	1	11	12	0	2	2	30
Total	46	17	63	1	40	41	4	4	8	112
01:00 PM	13	3	16	0	6	6	3	1	4	26
01:15 PM	6	3	9	0	8	8	0	0	0	17
01:30 PM	17	7	24	1	7	8	1	1	2	34
01:45 PM	14	2	16	0	20	20	1	1	2	38
Total	50	15	65	1	41	42	5	3	8	115
Grand Total	96	32	128	2	81	83	9	7	16	227
Apprch %	75	25		2.4	97.6		56.2	43.8		
Total %	42.3	14.1	56.4	0.9	35.7	36.6	4	3.1	7	

	Van Fleet Street Southbound			Van Fleet Street Northbound			B Street Eastbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 01:00 PM										
01:00 PM	13	3	16	0	6	6	**3**	**1**	**4**	26
01:15 PM	6	3	9	0	8	8	0	0	0	17
01:30 PM	**17**	**7**	**24**	**1**	7	8	1	1	2	34
01:45 PM	14	2	16	0	**20**	**20**	1	1	2	**38**
Total Volume	50	15	65	1	41	42	5	3	8	115
% App. Total	76.9	23.1		2.4	97.6		62.5	37.5		
PHF	.735	.536	.677	.250	.513	.525	.417	.750	.500	.757

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Site Code : 06718258
Start Date : 4/14/2018
Page No : 2



Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	12:45 PM			01:00 PM			12:15 PM		
+0 mins.	12	4	16	0	6	6	1	0	1
+15 mins.	13	3	16	0	8	8	1	1	2
+30 mins.	6	3	9	**1**	7	8	0	**2**	2
+45 mins.	**17**	**7**	**24**	0	**20**	**20**	**3**	1	**4**
Total Volume	48	17	65	1	41	42	5	4	9
% App. Total	73.8	26.2		2.4	97.6		55.6	44.4	
PHF	.706	.607	.677	.250	.513	.525	.417	.500	.563

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Site Code : 06718258
Start Date : 4/10/2018
Page No : 1

Groups Printed- Total Volume

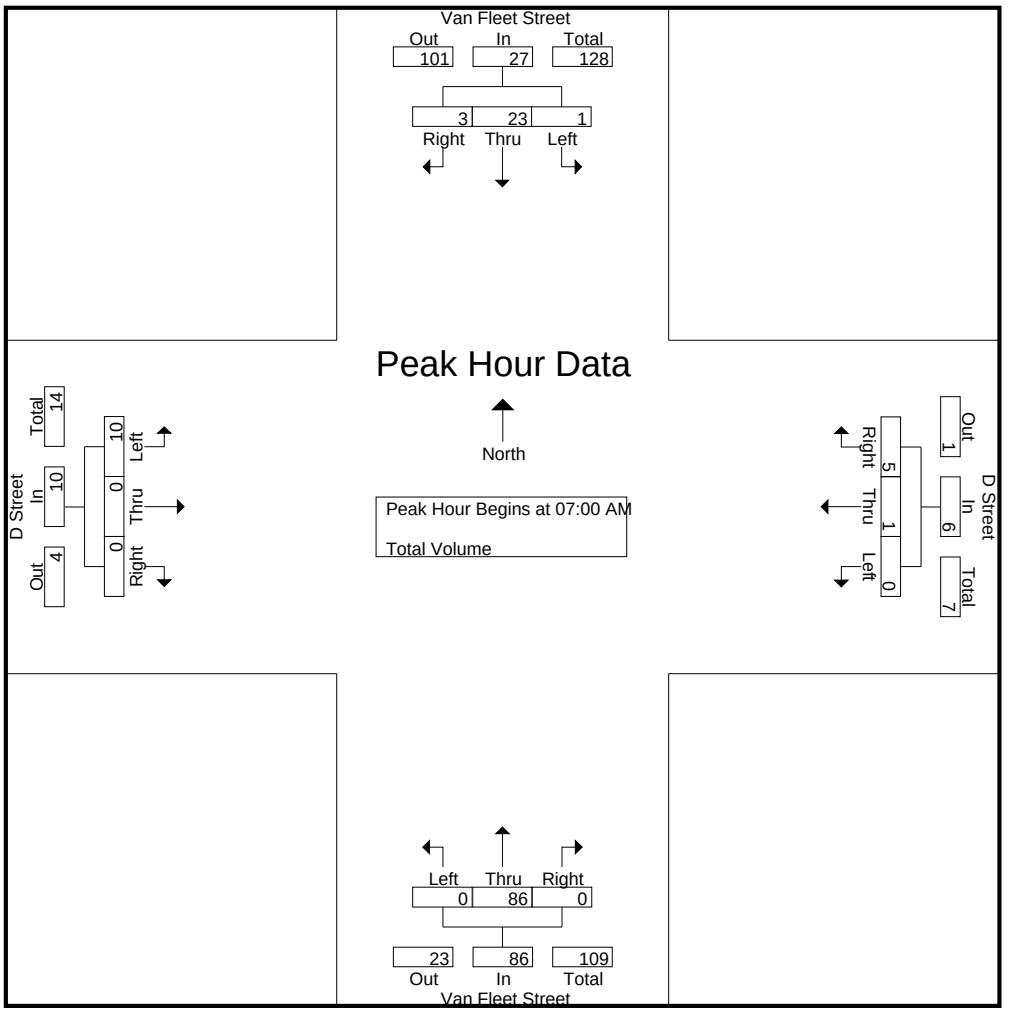
	Van Fleet Street Southbound				D Street Westbound				Van Fleet Street Northbound				D Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	1	5	0	6	0	0	0	0	0	21	0	21	4	0	0	4	31
07:15 AM	0	5	1	6	0	0	3	3	0	19	0	19	2	0	0	2	30
07:30 AM	0	6	2	8	0	1	1	2	0	28	0	28	2	0	0	2	40
07:45 AM	0	7	0	7	0	0	1	1	0	18	0	18	2	0	0	2	28
Total	1	23	3	27	0	1	5	6	0	86	0	86	10	0	0	10	129
08:00 AM	1	4	2	7	1	0	0	1	1	14	0	15	5	0	0	5	28
08:15 AM	0	5	0	5	0	0	1	1	1	18	0	19	0	0	0	0	25
08:30 AM	0	8	1	9	0	1	1	2	1	14	0	15	3	0	0	3	29
08:45 AM	0	3	0	3	0	1	0	1	1	9	0	10	1	0	0	1	15
Total	1	20	3	24	1	2	2	5	4	55	0	59	9	0	0	9	97
Grand Total	2	43	6	51	1	3	7	11	4	141	0	145	19	0	0	19	226
Apprch %	3.9	84.3	11.8		9.1	27.3	63.6		2.8	97.2	0		100	0	0		
Total %	0.9	19	2.7	22.6	0.4	1.3	3.1	4.9	1.8	62.4	0	64.2	8.4	0	0	8.4	

	Van Fleet Street Southbound				D Street Westbound				Van Fleet Street Northbound				D Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	**1**	5	0	6	0	0	0	0	0	21	0	21	**4**	0	0	**4**	31
07:15 AM	0	5	1	6	0	0	**3**	**3**	0	19	0	19	2	0	0	2	30
07:30 AM	0	6	**2**	**8**	0	**1**	1	2	0	**28**	0	**28**	2	0	0	2	**40**
07:45 AM	0	**7**	0	7	0	0	1	1	0	18	0	18	2	0	0	2	28
Total Volume	1	23	3	27	0	1	5	6	0	86	0	86	10	0	0	10	129
% App. Total	3.7	85.2	11.1		0	16.7	83.3		0	100	0		100	0	0		
PHF	.250	.821	.375	.844	.000	.250	.417	.500	.000	.768	.000	.768	.625	.000	.000	.625	.806

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Site Code : 06718258
Start Date : 4/10/2018



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:15 AM				07:15 AM				07:00 AM				07:15 AM			
+0 mins.	0	5	1	6	0	0	**3**	**3**	0	21	0	21	2	0	0	2
+15 mins.	0	6	**2**	**8**	0	**1**	1	2	0	19	0	19	2	0	0	2
+30 mins.	0	**7**	0	7	0	0	1	1	0	**28**	0	**28**	2	0	0	2
+45 mins.	**1**	4	2	7	**1**	0	0	1	0	18	0	18	**5**	0	0	**5**
Total Volume	1	22	5	28	1	1	5	7	0	86	0	86	11	0	0	11
% App. Total	3.6	78.6	17.9		14.3	14.3	71.4		0	100	0		100	0	0	
PHF	.250	.786	.625	.875	.250	.250	.417	.583	.000	.768	.000	.768	.550	.000	.000	.550

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File Name : 23_CTC_Van Fleet_D St PM
Site Code : 06718258
Start Date : 4/10/2018
Page No : 1

Groups Printed- Total Volume

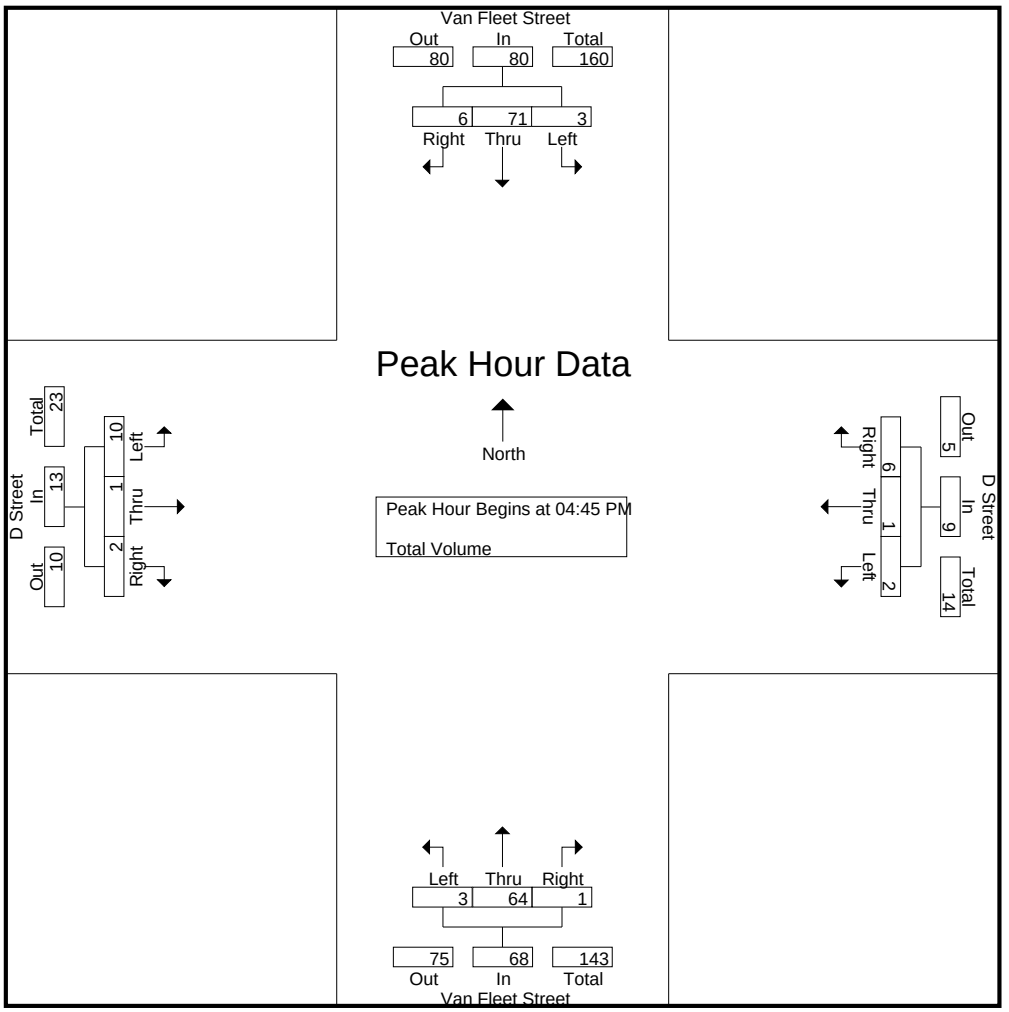
	Van Fleet Street Southbound				D Street Westbound				Van Fleet Street Northbound				D Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	2	24	1	27	1	1	1	3	0	2	0	2	1	0	0	1	33
04:15 PM	2	20	2	24	0	1	1	2	1	15	0	16	1	1	3	5	47
04:30 PM	2	17	4	23	0	0	0	0	0	11	0	11	2	0	0	2	36
04:45 PM	0	19	1	20	0	0	1	1	1	16	0	17	2	0	1	3	41
Total	6	80	8	94	1	2	3	6	2	44	0	46	6	1	4	11	157
05:00 PM	0	24	1	25	1	0	0	1	1	15	0	16	1	1	1	3	45
05:15 PM	2	17	2	21	1	1	1	3	1	8	1	10	0	0	0	0	34
05:30 PM	1	11	2	14	0	0	4	4	0	25	0	25	7	0	0	7	50
05:45 PM	0	13	3	16	0	1	2	3	2	8	0	10	2	0	0	2	31
Total	3	65	8	76	2	2	7	11	4	56	1	61	10	1	1	12	160
Grand Total	9	145	16	170	3	4	10	17	6	100	1	107	16	2	5	23	317
Apprch %	5.3	85.3	9.4		17.6	23.5	58.8		5.6	93.5	0.9		69.6	8.7	21.7		
Total %	2.8	45.7	5	53.6	0.9	1.3	3.2	5.4	1.9	31.5	0.3	33.8	5	0.6	1.6	7.3	

	Van Fleet Street Southbound				D Street Westbound				Van Fleet Street Northbound				D Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	0	19	1	20	0	0	1	1	**1**	16	0	17	2	0	**1**	3	41
05:00 PM	0	**24**	1	**25**	**1**	0	0	1	1	15	0	16	1	**1**	1	3	45
05:15 PM	**2**	17	**2**	21	1	**1**	1	3	1	8	**1**	10	0	0	0	0	34
05:30 PM	1	11	2	14	0	0	**4**	**4**	0	**25**	0	**25**	**7**	0	0	**7**	**50**
Total Volume	3	71	6	80	2	1	6	9	3	64	1	68	10	1	2	13	170
% App. Total	3.8	88.8	7.5		22.2	11.1	66.7		4.4	94.1	1.5		76.9	7.7	15.4		
PHF	.375	.740	.750	.800	.500	.250	.375	.563	.750	.640	.250	.680	.357	.250	.500	.464	.850

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File Name : 23_CTC_Van Fleet_D St PM
Site Code : 06718258
Start Date : 4/10/2018
Page No : 2



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM				05:00 PM				04:45 PM				04:15 PM			
+0 mins.	**2**	**24**	1	**27**	**1**	0	0	1	**1**	16	0	17	1	**1**	**3**	**5**
+15 mins.	2	20	2	24	1	**1**	1	3	1	15	0	16	**2**	0	0	2
+30 mins.	2	17	**4**	23	0	0	**4**	**4**	1	8	**1**	10	2	0	1	3
+45 mins.	0	19	1	20	0	1	2	3	0	**25**	0	**25**	1	1	1	3
Total Volume	6	80	8	94	2	2	7	11	3	64	1	68	6	2	5	13
% App. Total	6.4	85.1	8.5		18.2	18.2	63.6		4.4	94.1	1.5		46.2	15.4	38.5	
PHF	.750	.833	.500	.870	.500	.500	.438	.688	.750	.640	.250	.680	.750	.500	.417	.650

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Start Date : 4/14/2018
Page No : 1

Groups Printed- Total Volume

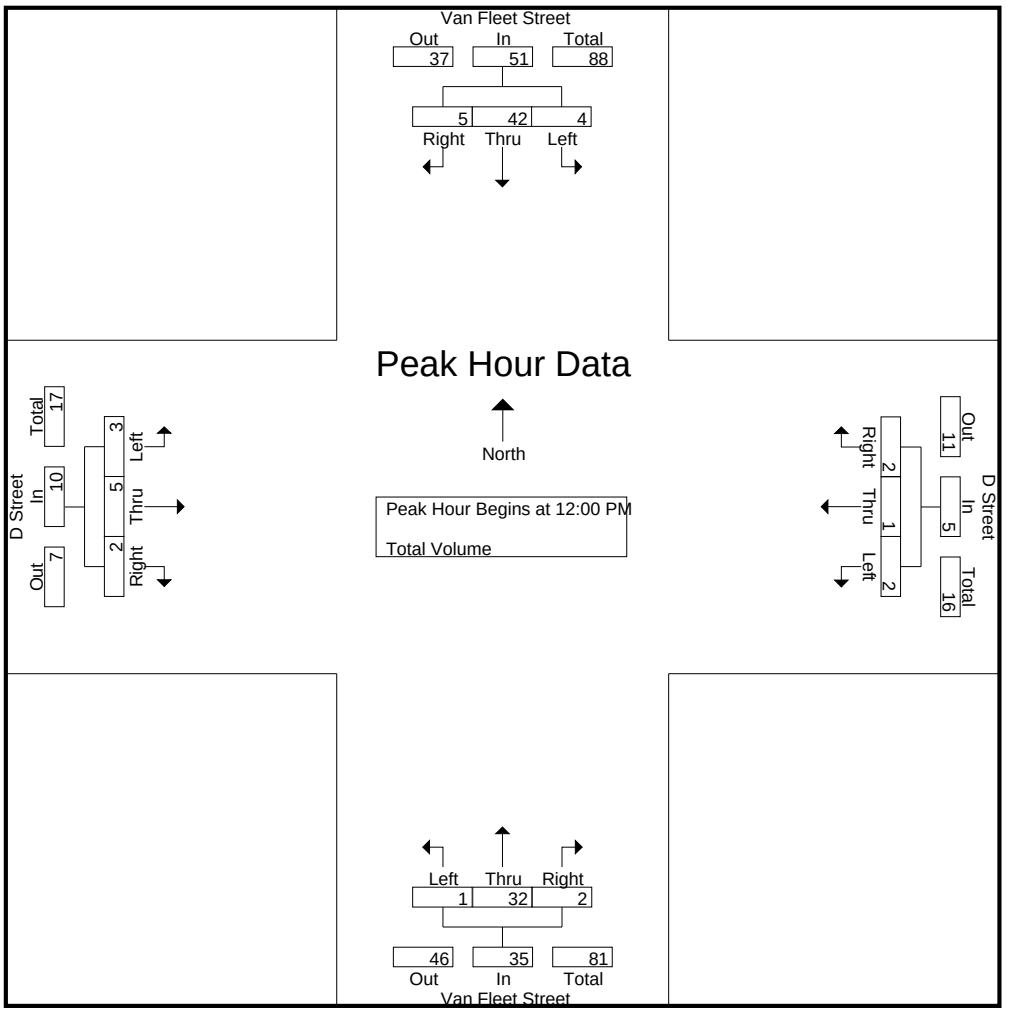
	Van Fleet Street Southbound				D Street Westbound				Van Fleet Street Northbound				D Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
12:00 PM	1	11	2	14	1	0	0	1	1	6	1	8	2	4	0	6	29
12:15 PM	1	9	1	11	0	0	2	2	0	9	0	9	1	0	0	1	23
12:30 PM	0	9	2	11	1	1	0	2	0	6	0	6	0	1	1	2	21
12:45 PM	2	13	0	15	0	0	0	0	0	11	1	12	0	0	1	1	28
Total	4	42	5	51	2	1	2	5	1	32	2	35	3	5	2	10	101
01:00 PM	0	10	2	12	0	1	0	1	0	5	0	5	1	0	0	1	19
01:15 PM	0	5	1	6	0	0	1	1	0	5	2	7	1	0	2	3	17
01:30 PM	2	15	3	20	1	0	3	4	0	4	1	5	1	0	0	1	30
01:45 PM	1	10	2	13	0	1	1	2	0	18	1	19	0	0	1	1	35
Total	3	40	8	51	1	2	5	8	0	32	4	36	3	0	3	6	101
Grand Total	7	82	13	102	3	3	7	13	1	64	6	71	6	5	5	16	202
Apprch %	6.9	80.4	12.7		23.1	23.1	53.8		1.4	90.1	8.5		37.5	31.2	31.2		
Total %	3.5	40.6	6.4	50.5	1.5	1.5	3.5	6.4	0.5	31.7	3	35.1	3	2.5	2.5	7.9	

	Van Fleet Street Southbound				D Street Westbound				Van Fleet Street Northbound				D Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 12:00 PM																	
12:00 PM	1	11	**2**	14	**1**	0	0	1	**1**	6	**1**	8	**2**	**4**	0	**6**	**29**
12:15 PM	1	9	1	11	0	0	**2**	**2**	0	9	0	9	1	0	0	1	23
12:30 PM	0	9	2	11	1	**1**	0	2	0	6	0	6	0	1	**1**	2	21
12:45 PM	**2**	**13**	0	**15**	0	0	0	0	0	**11**	1	**12**	0	0	1	1	28
Total Volume	4	42	5	51	2	1	2	5	1	32	2	35	3	5	2	10	101
% App. Total	7.8	82.4	9.8		40	20	40		2.9	91.4	5.7		30	50	20		
PHF	.500	.808	.625	.850	.500	.250	.250	.625	.250	.727	.500	.729	.375	.313	.500	.417	.871

Counts Unlimited
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City of Cathedral City
N/S: Van Fleet Street
E/W: D Street
Weather: Clear

File Name : 23_CTC_Van Fleet_D St SAT
Site Code : 06718258
Start Date : 4/14/2018
Page No : 2



Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	12:45 PM				01:00 PM				01:00 PM				12:00 PM			
+0 mins.	**2**	13	0	15	0	**1**	0	1	0	5	0	5	**2**	**4**	0	**6**
+15 mins.	0	10	2	12	0	0	1	1	0	5	**2**	7	1	0	0	1
+30 mins.	0	5	1	6	**1**	0	**3**	**4**	0	4	1	5	0	1	**1**	2
+45 mins.	2	**15**	**3**	**20**	0	1	1	2	0	**18**	1	**19**	0	0	1	1
Total Volume	4	43	6	53	1	2	5	8	0	32	4	36	3	5	2	10
% App. Total	7.5	81.1	11.3		12.5	25	62.5		0	88.9	11.1		30	50	20	
PHF	.500	.717	.500	.663	.250	.500	.417	.500	.000	.444	.500	.474	.375	.313	.500	.417

ADTs

Counts Unlimited, Inc.

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City of Cathedral City
East Palm Canyon Drive
B/ Golf Club Drive - Canyon Plaza Drive
24 Hour Directional Volume Count

CTC001
Site Code: 067-18258

Start Time	10-Apr-18 Tue	Eastbound Morning	Eastbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Westbound Morning	Westbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		18	285			35	302				
12:15		19	354			16	341				
12:30		16	336			20	320				
12:45		13	318	66	1293	10	289	81	1252	147	2545
01:00		14	341			13	338				
01:15		19	334			18	335				
01:30		6	288			14	332				
01:45		9	328	48	1291	10	347	55	1352	103	2643
02:00		9	323			10	337				
02:15		7	338			13	344				
02:30		9	296			6	367				
02:45		2	**347**	27	1304	4	300	33	1348	60	2652
03:00		4	**354**			11	**367**				
03:15		11	**338**			17	**337**				
03:30		11	**322**			20	**383**				
03:45		8	309	34	1323	15	**346**	63	1433	97	2756
04:00		16	298			27	316				
04:15		23	317			37	368				
04:30		30	316			37	311				
04:45		43	339	112	1270	39	379	140	1374	252	2644
05:00		46	287			36	345				
05:15		52	312			53	325				
05:30		64	267			76	292				
05:45		84	237	246	1103	67	283	232	1245	478	2348
06:00		107	247			100	257				
06:15		146	229			170	296				
06:30		163	208			163	217				
06:45		177	206	593	890	171	219	604	989	1197	1879
07:00		209	164			212	222				
07:15		287	154			283	186				
07:30		272	134			303	168				
07:45		273	171	1041	623	281	190	1079	766	2120	1389
08:00		286	133			258	176				
08:15		289	122			254	143				
08:30		265	173			292	148				
08:45		273	159	1113	587	252	156	1056	623	2169	1210
09:00		289	141			257	167				
09:15		306	95			285	131				
09:30		317	102			274	132				
09:45		289	104	1201	442	275	94	1091	524	2292	966
10:00		286	64			273	81				
10:15		282	67			330	66				
10:30		305	46			311	68				
10:45		286	51	1159	228	314	51	1228	266	2387	494
11:00		**354**	48			**300**	48				
11:15		**333**	33			**340**	47				
11:30		**308**	38			**320**	52				
11:45		**338**	26	1333	145	**328**	37	1288	184	2621	329
Total		6973	10499	6973	10499	6950	11356	6950	11356	13923	21855
Combined Total		17472		17472		18306		18306		35778	
AM Peak	-	11:00	-	-	-	11:00	-	-	-	-	-
Vol.	-	1333	-	-	-	1288	-	-	-	-	-
P.H.F.		0.941				0.947					
PM Peak	-	-	02:45	-	-	-	03:00	-	-	-	-
Vol.	-	-	1361	-	-	-	1433	-	-	-	-
P.H.F.			0.961				0.935				
Percentage		39.9%	60.1%			38.0%	62.0%				
ADT/AADT		ADT 33,699		AADT 33,699							

Counts Unlimited, Inc.

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City of Cathedral City
East Palm Canyon Drive
B/ Canyon Plaza Drive - Perez Road
24 Hour Directional Volume Count

CTC002
Site Code: 067-18258

Start Time	10-Apr-18 Tue	Eastbound Morning	Eastbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Westbound Morning	Westbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		18	347			29	**320**				
12:15		22	**379**			14	**357**				
12:30		13	**380**			21	**289**				
12:45		10	**334**	63	1440	10	**338**	74	1304	137	2744
01:00		18	**385**			7	312				
01:15		22	346			12	318				
01:30		6	311			13	298				
01:45		14	342	60	1384	16	282	48	1210	108	2594
02:00		12	328			10	293				
02:15		8	363			13	288				
02:30		7	334			7	265				
02:45		7	354	34	1379	6	259	36	1105	70	2484
03:00		5	392			16	244				
03:15		12	370			13	245				
03:30		10	334			22	249				
03:45		8	329	35	1425	13	227	64	965	99	2390
04:00		18	317			31	213				
04:15		23	351			40	224				
04:30		34	320			40	210				
04:45		37	363	112	1351	42	222	153	869	265	2220
05:00		43	319			31	215				
05:15		55	315			65	206				
05:30		57	289			79	171				
05:45		89	244	244	1167	78	167	253	759	497	1926
06:00		100	265			109	156				
06:15		142	228			182	145				
06:30		169	225			167	126				
06:45		166	220	577	938	194	108	652	535	1229	1473
07:00		205	177			225	119				
07:15		281	184			320	105				
07:30		278	160			337	95				
07:45		267	200	1031	721	301	105	1183	424	2214	1145
08:00		306	142			286	99				
08:15		281	145			265	87				
08:30		277	193			307	79				
08:45		275	163	1139	643	301	86	1159	351	2298	994
09:00		289	143			247	84				
09:15		316	111			281	63				
09:30		308	96			329	76				
09:45		287	104	1200	454	303	59	1160	282	2360	736
10:00		318	76			305	38				
10:15		277	68			318	32				
10:30		310	53			**359**	43				
10:45		319	46	1224	243	**344**	25	1326	138	2550	381
11:00		**341**	48			**322**	21				
11:15		**347**	31			**362**	26				
11:30		**335**	37			339	16				
11:45		**337**	28	1360	144	363	18	1386	81	2746	225
Total		7079	11289	7079	11289	7494	8023	7494	8023	14573	19312
Combined Total		18368		18368		15517		15517		33885	
AM Peak	-	11:00	-	-	-	10:30	-	-	-	-	-
Vol.	-	1360	-	-	-	1387	-	-	-	-	-
P.H.F.		0.980				0.958					
PM Peak	-	-	00:15	-	-	-	12:00	-	-	-	-
Vol.	-	-	1478	-	-	-	1304	-	-	-	-
P.H.F.			0.960				0.913				
Percentage		38.5%	61.5%			48.3%	51.7%				
ADT/AADT		ADT 34,434		AADT 34,434							

Counts Unlimited, Inc.

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City of Cathedral City
East Palm Canyon Drive
B/ Perez Road - Cathedral Canyon Drive
24 Hour Directional Volume Count

CTC003
Site Code: 067-18258

Start Time	10-Apr-18 Tue	Eastbound Morning	Eastbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Westbound Morning	Westbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		13	271			23	302				
12:15		19	299			12	288				
12:30		8	307			17	257				
12:45		10	284	50	1161	9	329	61	1176	111	2337
01:00		15	316			4	294				
01:15		18	299			12	301				
01:30		7	243			8	293				
01:45		7	293	47	1151	12	275	36	1163	83	2314
02:00		10	263			4	328				
02:15		9	309			11	324				
02:30		7	267			7	275				
02:45		9	**314**	35	1153	4	303	26	1230	61	2383
03:00		4	**314**			9	266				
03:15		8	**292**			13	**326**				
03:30		12	**292**			18	**320**				
03:45		7	297	31	1195	11	**319**	51	1231	82	2426
04:00		15	271			30	**298**				
04:15		20	300			40	249				
04:30		27	268			38	280				
04:45		31	323	93	1162	34	292	142	1119	235	2281
05:00		39	288			26	269				
05:15		43	260			63	287				
05:30		52	260			72	248				
05:45		72	202	206	1010	63	236	224	1040	430	2050
06:00		77	234			89	229				
06:15		97	200			146	208				
06:30		118	188			140	208				
06:45		125	195	417	817	167	191	542	836	959	1653
07:00		152	162			210	195				
07:15		221	152			252	147				
07:30		196	133			282	142				
07:45		236	149	805	596	244	164	988	648	1793	1244
08:00		241	149			238	156				
08:15		227	114			249	127				
08:30		225	150			269	125				
08:45		212	146	905	559	242	141	998	549	1903	1108
09:00		236	128			202	131				
09:15		251	98			236	105				
09:30		256	92			275	118				
09:45		232	87	975	405	260	93	973	447	1948	852
10:00		243	57			259	68				
10:15		237	59			261	49				
10:30		250	46			291	65				
10:45		269	37	999	199	**293**	45	1104	227	2103	426
11:00		**279**	39			**274**	41				
11:15		**318**	24			**290**	44				
11:30		**279**	27			**315**	35				
11:45		**279**	25	1155	115	289	28	1168	148	2323	263
Total		5718	9523	5718	9523	6313	9814	6313	9814	12031	19337
Combined Total		15241		15241		16127		16127		31368	
AM Peak	-	11:00	-	-	-	10:45	-	-	-	-	-
Vol.	-	1155	-	-	-	1172	-	-	-	-	-
P.H.F.		0.908				0.930					
PM Peak	-	-	02:45	-	-	-	03:15	-	-	-	-
Vol.	-	-	1212	-	-	-	1263	-	-	-	-
P.H.F.			0.959				0.969				
Percentage		37.5%	62.5%			39.1%	60.9%				
ADT/AADT		ADT 29,713		AADT 29,713							

Counts Unlimited, Inc.

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City of Cathedral Canyon
East Palm Canyon Drive
B/ Cathedral Canyon Drive - Date Palm Drive
24 Hour Directional Volume Count

CTC004
Site Code: 067-18258

Start Time	10-Apr-18 Tue	Eastbound Morning	Eastbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Westbound Morning	Westbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		9	265			18	293				
12:15		21	322			22	303				
12:30		10	300			23	291				
12:45		12	304	52	1191	18	306	81	1193	133	2384
01:00		14	316			8	269				
01:15		16	339			12	332				
01:30		11	308			8	287				
01:45		9	287	50	1250	10	295	38	1183	88	2433
02:00		10	305			6	316				
02:15		10	320			12	370				
02:30		10	301			3	306				
02:45		7	**317**	37	1243	1	273	22	1265	59	2508
03:00		3	**332**			11	307				
03:15		7	**312**			8	**378**				
03:30		12	**336**			19	**366**				
03:45		8	283	30	1263	15	**337**	53	1388	83	2651
04:00		22	291			25	**325**				
04:15		35	276			41	309				
04:30		38	309			35	289				
04:45		48	318	143	1194	31	358	132	1281	275	2475
05:00		49	334			33	321				
05:15		50	247			60	310				
05:30		76	249			57	279				
05:45		86	223	261	1053	62	271	212	1181	473	2234
06:00		125	226			84	265				
06:15		168	247			147	244				
06:30		186	200			154	216				
06:45		159	180	638	853	160	207	545	932	1183	1785
07:00		217	179			231	214				
07:15		280	150			250	179				
07:30		294	145			263	164				
07:45		256	189	1047	663	246	166	990	723	2037	1386
08:00		302	149			268	176				
08:15		279	129			242	148				
08:30		265	159			258	161				
08:45		253	164	1099	601	252	158	1020	643	2119	1244
09:00		244	120			205	137				
09:15		304	113			232	132				
09:30		255	78			256	135				
09:45		247	94	1050	405	258	116	951	520	2001	925
10:00		246	64			283	72				
10:15		269	65			260	68				
10:30		249	50			291	79				
10:45		**292**	39	1056	218	248	51	1082	270	2138	488
11:00		**286**	35			**307**	47				
11:15		**328**	24			**269**	40				
11:30		**288**	23			**327**	34				
11:45		292	32	1194	114	**309**	30	1212	151	2406	265
Total		6657	10048	6657	10048	6338	10730	6338	10730	12995	20778
Combined Total		16705		16705		17068		17068		33773	
AM Peak	-	10:45	-	-	-	11:00	-	-	-	-	-
Vol.	-	1194	-	-	-	1212	-	-	-	-	-
P.H.F.		0.910				0.927					
PM Peak	-	-	02:45	-	-	-	03:15	-	-	-	-
Vol.	-	-	1297	-	-	-	1406	-	-	-	-
P.H.F.			0.965				0.930				
Percentage		39.9%	60.1%			37.1%	62.9%				
ADT/AADT		ADT 31,394		AADT 31,394							

Counts Unlimited, Inc.

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City of Cathedral City
East Palm Canyon Drive
B/ Date Palm Drive - Frank Sinatra Drive
24 Hour Directional Volume Count

CTC005
Site Code: 067-18258

Start Time	10-Apr-18 Tue	Northbound Morning	Northbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Southbound Morning	Southbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		22	324			26	363				
12:15		32	344			13	321				
12:30		21	343			20	361				
12:45		18	362	93	1373	13	378	72	1423	165	2796
01:00		13	349			13	351				
01:15		19	369			15	382				
01:30		10	377			18	355				
01:45		16	361	58	1456	10	347	56	1435	114	2891
02:00		7	380			12	297				
02:15		12	381			6	352				
02:30		5	374			7	350				
02:45		5	**371**	29	1506	9	343	34	1342	63	2848
03:00		6	**411**			9	334				
03:15		15	**434**			8	401				
03:30		19	**404**			8	349				
03:45		15	367	55	1616	15	394	40	1478	95	3094
04:00		30	363			12	333				
04:15		45	391			26	321				
04:30		30	357			46	**347**				
04:45		35	413	140	1524	36	**363**	120	1364	260	2888
05:00		38	374			53	**379**				
05:15		71	329			51	**401**				
05:30		71	333			66	313				
05:45		78	315	258	1351	93	280	263	1373	521	2724
06:00		95	272			97	258				
06:15		166	263			154	257				
06:30		180	239			209	257				
06:45		190	267	631	1041	221	224	681	996	1312	2037
07:00		278	237			189	220				
07:15		255	201			262	182				
07:30		313	217			**351**	178				
07:45		274	176	1120	831	**372**	153	1174	733	2294	1564
08:00		284	198			**346**	166				
08:15		282	180			**356**	156				
08:30		290	180			327	142				
08:45		288	173	1144	731	307	154	1336	618	2480	1349
09:00		244	172			283	165				
09:15		279	168			302	139				
09:30		298	191			348	131				
09:45		297	162	1118	693	325	106	1258	541	2376	1234
10:00		305	91			289	111				
10:15		290	95			298	70				
10:30		313	87			319	71				
10:45		351	72	1259	345	302	57	1208	309	2467	654
11:00		**328**	66			349	39				
11:15		**312**	47			312	38				
11:30		**366**	46			363	30				
11:45		**356**	32	1362	191	304	24	1328	131	2690	322
Total		7267	12658	7267	12658	7570	11743	7570	11743	14837	24401
Combined Total		19925		19925		19313		19313		39238	
AM Peak	-	11:00	-	-	-	07:30	-	-	-	-	-
Vol.	-	1362	-	-	-	1425	-	-	-	-	-
P.H.F.		0.930				0.958					
PM Peak	-	-	02:45	-	-	-	04:30	-	-	-	-
Vol.	-	-	1620	-	-	-	1490	-	-	-	-
P.H.F.			0.933				0.929				
Percentage		36.5%	63.5%			39.2%	60.8%				
ADT/AADT		ADT 35,897		AADT 35,897							

Counts Unlimited, Inc.

PO Box 1178
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City of Cathedral City
East Palm Canyon Drive
B/ Frank Sinatra Drive - Country Club Drive
24 Hour Directional Volume Count

CTC006
Site Code: 067-18258

Start Time	10-Apr-18 Tue	Northbound Morning	Northbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Southbound Morning	Southbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		25	340			22	314				
12:15		19	326			14	287				
12:30		24	305			15	315				
12:45		12	316	80	1287	13	315	64	1231	144	2518
01:00		16	321			10	**328**				
01:15		13	316			12	**341**				
01:30		13	338			19	**312**				
01:45		9	343	51	1318	11	**320**	52	1301	103	2619
02:00		13	367			7	259				
02:15		4	349			6	289				
02:30		9	360			6	331				
02:45		5	324	31	1400	9	313	28	1192	59	2592
03:00		2	**345**			7	314				
03:15		6	**391**			4	333				
03:30		15	**456**			9	304				
03:45		12	**343**	35	1535	12	345	32	1296	67	2831
04:00		15	329			15	295				
04:15		27	326			21	300				
04:30		40	343			31	293				
04:45		22	352	104	1350	31	317	98	1205	202	2555
05:00		24	396			51	341				
05:15		35	348			48	330				
05:30		57	329			55	285				
05:45		43	320	159	1393	77	260	231	1216	390	2609
06:00		66	287			84	237				
06:15		81	253			107	227				
06:30		129	227			172	223				
06:45		132	238	408	1005	177	220	540	907	948	1912
07:00		176	256			185	186				
07:15		211	217			239	158				
07:30		209	193			305	144				
07:45		222	210	818	876	**329**	146	1058	634	1876	1510
08:00		230	171			**340**	135				
08:15		250	200			**317**	148				
08:30		246	184			**342**	106				
08:45		222	177	948	732	281	145	1280	534	2228	1266
09:00		248	172			263	138				
09:15		216	168			275	118				
09:30		249	151			304	98				
09:45		244	183	957	674	329	89	1171	443	2128	1117
10:00		258	152			266	93				
10:15		266	89			258	63				
10:30		265	100			304	58				
10:45		296	78	1085	419	293	52	1121	266	2206	685
11:00		**305**	58			292	29				
11:15		**280**	55			296	37				
11:30		**315**	43			334	23				
11:45		**331**	42	1231	198	314	17	1236	106	2467	304
Total		5907	12187	5907	12187	6911	10331	6911	10331	12818	22518
Combined Total		18094		18094		17242		17242		35336	
AM Peak	-	11:00	-	-	-	07:45	-	-	-	-	-
Vol.	-	1231	-	-	-	1328	-	-	-	-	-
P.H.F.		0.930				0.971					
PM Peak	-	-	03:00	-	-	-	01:00	-	-	-	-
Vol.	-	-	1535	-	-	-	1301	-	-	-	-
P.H.F.			0.842				0.954				
Percentage		32.6%	67.4%			40.1%	59.9%				
ADT/AADT		ADT 32,530		AADT 32,530							

Counts Unlimited, Inc.

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City of Cathedral City
Cathedral Canyon Drive
B/ East Palm Canyon Drive - Perez Road
24 Hour Directional Volume Count

CTC008
Site Code: 067-18258

Start Time	10-Apr-18 Tue	Northbound Morning	Northbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Southbound Morning	Southbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		4	98			1	101				
12:15		2	89			3	86				
12:30		2	105			5	**103**				
12:45		3	98	11	390	3	**106**	12	396	23	786
01:00		12	**125**			10	**106**				
01:15		7	**99**			9	**99**				
01:30		4	**107**			10	98				
01:45		6	**99**	29	430	13	104	42	407	71	837
02:00		8	99			15	90				
02:15		21	81			15	65				
02:30		21	95			33	73				
02:45		26	92	76	367	33	64	96	292	172	659
03:00		45	73			48	143				
03:15		50	78			55	113				
03:30		46	72			91	81				
03:45		52	57	193	280	67	65	261	402	454	682
04:00		50	69			83	67				
04:15		53	78			101	62				
04:30		62	124			120	47				
04:45		69	71	234	342	85	64	389	240	623	582
05:00		71	56			86	48				
05:15		56	49			107	49				
05:30		64	58			72	39				
05:45		58	56	249	219	88	47	353	183	602	402
06:00		75	62			90	31				
06:15		78	66			86	27				
06:30		72	46			83	35				
06:45		83	34	308	208	92	30	351	123	659	331
07:00		78	47			98	25				
07:15		68	25			103	24				
07:30		86	18			94	13				
07:45		79	12	311	102	89	11	384	73	695	175
08:00		83	27			96	12				
08:15		82	14			95	12				
08:30		99	17			88	14				
08:45		88	16	352	74	95	7	374	45	726	119
09:00		84	10			88	8				
09:15		100	9			76	8				
09:30		86	6			95	6				
09:45		79	3	349	28	89	4	348	26	697	54
10:00		91	5			**104**	6				
10:15		97	6			**123**	8				
10:30		92	5			**93**	4				
10:45		94	2	374	18	**95**	7	415	25	789	43
11:00		**98**	2			87	0				
11:15		**99**	2			92	0				
11:30		**104**	2			96	4				
11:45		**113**	5	414	11	83	2	358	6	772	17
Total		2900	2469	2900	2469	3383	2218	3383	2218	6283	4687
Combined Total		5369		5369		5601		5601		10970	
AM Peak	-	11:00	-	-	-	10:00	-	-	-	-	-
Vol.	-	414	-	-	-	415	-	-	-	-	-
P.H.F.		0.916				0.843					
PM Peak	-	-	01:00	-	-	-	00:30	-	-	-	-
Vol.	-	-	430	-	-	-	414	-	-	-	-
P.H.F.			0.860				0.976				
Percentage		54.0%	46.0%			60.4%	39.6%				
ADT/AADT		ADT 9,900		AADT 9,900							

Counts Unlimited, Inc.

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City of Cathedral City
Cathedral Canyon Drive
B/ Perez Road - Dinah Shore Drive
24 Hour Directional Volume Count

CTC009
Site Code: 067-18258

Start Time	10-Apr-18 Tue	Northbound Morning	Northbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Southbound Morning	Southbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		74	102			35	126				
12:15		79	100			37	131				
12:30		67	99			24	132				
12:45		76	115	296	416	24	118	120	507	416	923
01:00		72	126			21	121				
01:15		53	111			22	118				
01:30		43	121			29	105				
01:45		44	145	212	503	18	134	90	478	302	981
02:00		28	116			8	124				
02:15		30	120			6	108				
02:30		13	125			2	124				
02:45		17	136	88	497	13	122	29	478	117	975
03:00		17	129			2	109				
03:15		22	159			5	98				
03:30		14	136			6	114				
03:45		7	128	60	552	8	138	21	459	81	1011
04:00		16	138			5	128				
04:15		9	137			1	133				
04:30		10	146			1	127				
04:45		8	131	43	552	4	116	11	504	54	1056
05:00		3	146			1	118				
05:15		9	140			2	104				
05:30		5	143			1	128				
05:45		2	187	19	616	5	134	9	484	28	1100
06:00		6	173			0	111				
06:15		1	168			2	119				
06:30		5	177			2	**125**				
06:45		3	215	15	733	3	**129**	7	484	22	1217
07:00		4	177			2	**147**				
07:15		1	193			9	**126**				
07:30		5	185			16	114				
07:45		17	**204**	27	759	27	122	54	509	81	1268
08:00		6	**170**			22	95				
08:15		9	**227**			18	136				
08:30		16	**186**			27	89				
08:45		16	195	47	778	53	93	120	413	167	1191
09:00		22	138			57	89				
09:15		25	151			83	148				
09:30		24	131			132	111				
09:45		58	112	129	532	192	96	464	444	593	976
10:00		61	116			142	82				
10:15		56	136			**191**	67				
10:30		67	99			**219**	69				
10:45		92	101	276	452	**275**	64	827	282	1103	734
11:00		**88**	102			**182**	72				
11:15		**88**	145			142	53				
11:30		**109**	116			172	44				
11:45		**95**	81	380	444	171	42	667	211	1047	655
Total		1592	6834	1592	6834	2419	5253	2419	5253	4011	12087
Combined Total		8426		8426		7672		7672		16098	
AM Peak	-	11:00	-	-	-	10:15	-	-	-	-	-
Vol.	-	380	-	-	-	867	-	-	-	-	-
P.H.F.		0.872				0.788					
PM Peak	-	-	07:45	-	-	-	06:30	-	-	-	-
Vol.	-	-	787	-	-	-	527	-	-	-	-
P.H.F.			0.867				0.896				
Percentage		18.9%	81.1%			31.5%	68.5%				
ADT/AADT		ADT 14,157		AADT 14,157							

Counts Unlimited, Inc.

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City of Cathedral City
Date Palm Drive
B/ East Palm Canyon Drive - Gerald Ford Drive
24 Hour Directional Volume Count

CTC010
Site Code: 067-18258

Start Time	10-Apr-18 Tue	Northbound Morning	Northbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Southbound Morning	Southbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		7	128			9	125				
12:15		13	111			4	116				
12:30		8	121			15	139				
12:45		8	130	36	490	8	121	36	501	72	991
01:00		7	128			2	131				
01:15		9	128			7	112				
01:30		4	137			0	120				
01:45		4	146	24	539	3	88	12	451	36	990
02:00		8	141			2	123				
02:15		7	141			3	153				
02:30		5	147			2	111				
02:45		9	147	29	576	4	127	11	514	40	1090
03:00		2	133			11	129				
03:15		7	**179**			3	122				
03:30		0	**178**			8	**139**				
03:45		5	**137**	14	627	3	**121**	25	511	39	1138
04:00		7	**157**			7	**128**				
04:15		6	142			19	**146**				
04:30		8	153			15	125				
04:45		15	171	36	623	17	130	58	529	94	1152
05:00		20	142			17	117				
05:15		11	111			31	116				
05:30		20	105			30	94				
05:45		32	134	83	492	41	110	119	437	202	929
06:00		18	97			48	109				
06:15		40	103			94	96				
06:30		54	91			91	95				
06:45		77	100	189	391	99	89	332	389	521	780
07:00		87	78			116	68				
07:15		61	78			**127**	71				
07:30		86	78			**159**	58				
07:45		69	105	303	339	**165**	66	567	263	870	602
08:00		96	90			**125**	60				
08:15		80	74			108	39				
08:30		109	72			125	48				
08:45		80	72	365	308	93	54	451	201	816	509
09:00		94	63			101	47				
09:15		97	82			108	40				
09:30		84	76			148	47				
09:45		95	70	370	291	121	40	478	174	848	465
10:00		79	54			110	29				
10:15		91	39			133	21				
10:30		95	29			113	28				
10:45		**117**	36	382	158	126	14	482	92	864	250
11:00		**120**	26			116	8				
11:15		**116**	13			127	10				
11:30		**134**	23			111	8				
11:45		115	11	485	73	146	10	500	36	985	109
Total		2316	4907	2316	4907	3071	4098	3071	4098	5387	9005
Combined Total		7223		7223		7169		7169		14392	
AM Peak	-	10:45	-	-	-	07:15	-	-	-	-	-
Vol.	-	487	-	-	-	576	-	-	-	-	-
P.H.F.		0.909				0.873					
PM Peak	-	-	03:15	-	-	-	03:30	-	-	-	-
Vol.	-	-	651	-	-	-	534	-	-	-	-
P.H.F.			0.909				0.914				
Percentage		32.1%	67.9%			42.8%	57.2%				
ADT/AADT		ADT 13,214		AADT 13,214							

Counts Unlimited, Inc.

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City of Cathedral City
Date Palm Drive
B/ Gerald Ford Drive - Dinah Shore Drive
24 Hour Directional Volume Count

CTC011
Site Code: 067-18258

Start Time	10-Apr-18 Tue	Northbound Morning	Northbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Southbound Morning	Southbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		17	203			14	188				
12:15		17	208			14	179				
12:30		11	175			13	200				
12:45		9	197	54	783	9	163	50	730	104	1513
01:00		12	167			9	195				
01:15		14	190			5	144				
01:30		10	191			3	159				
01:45		11	189	47	737	4	149	21	647	68	1384
02:00		8	186			7	180				
02:15		6	175			4	199				
02:30		10	231			6	165				
02:45		8	197	32	789	2	**206**	19	750	51	1539
03:00		4	**212**			13	**207**				
03:15		7	**344**			7	**209**				
03:30		6	**227**			11	**188**				
03:45		8	**212**	25	995	13	175	44	779	69	1774
04:00		12	188			10	167				
04:15		8	213			33	194				
04:30		12	197			31	180				
04:45		18	209	50	807	30	192	104	733	154	1540
05:00		21	211			27	207				
05:15		20	189			57	189				
05:30		30	186			60	160				
05:45		43	211	114	797	77	156	221	712	335	1509
06:00		41	149			90	148				
06:15		57	139			148	134				
06:30		59	144			144	131				
06:45		105	156	262	588	158	145	540	558	802	1146
07:00		117	137			165	114				
07:15		110	146			**225**	119				
07:30		109	142			**219**	111				
07:45		120	133	456	558	**238**	108	847	452	1303	1010
08:00		147	142			**258**	100				
08:15		189	118			204	79				
08:30		144	124			174	71				
08:45		126	130	606	514	161	85	797	335	1403	849
09:00		123	152			169	81				
09:15		150	132			161	67				
09:30		137	107			172	58				
09:45		143	97	553	488	177	56	679	262	1232	750
10:00		149	95			166	45				
10:15		167	69			189	32				
10:30		161	50			199	36				
10:45		148	60	625	274	188	22	742	135	1367	409
11:00		**178**	45			177	19				
11:15		**184**	29			146	17				
11:30		**153**	33			189	18				
11:45		**181**	19	696	126	164	13	676	67	1372	193
Total		3520	7456	3520	7456	4740	6160	4740	6160	8260	13616
Combined Total		10976		10976		10900		10900		21876	
AM Peak	-	11:00	-	-	-	07:15	-	-	-	-	-
Vol.	-	696	-	-	-	940	-	-	-	-	-
P.H.F.		0.946				0.911					
PM Peak	-	-	03:00	-	-	-	02:45	-	-	-	-
Vol.	-	-	995	-	-	-	810	-	-	-	-
P.H.F.			0.723				0.969				
Percentage		32.1%	67.9%			43.5%	56.5%				
ADT/AADT		ADT 19,450		AADT 19,450							

Casino Intersections

City: Coachella
Location: Van Buren Street/Driveway 1
Date: 3/1/2018
Count Type: Peak Hour Driveway Count

Casino: Augustine Casino
84-001 Ave 54
Coachella, CA 92236

	Entering Total Vehicles
7:00	4
7:15	9
7:30	5
7:45	11
8:00	3
8:15	6
8:30	9
8:45	11
9:00	10
9:15	7
9:30	5
9:45	6
10:00	9
10:15	13
10:30	6
10:45	15
11:00	6
11:15	12
11:30	7
11:45	10
12:00	10
12:15	4
12:30	7
12:45	6
13:00	7
13:15	5
13:30	13
13:45	11
14:00	11
14:15	10
14:30	13
14:45	14
15:00	9
15:15	14
15:30	7
15:45	9
16:00	9
16:15	10
16:30	7
16:45	16
17:00	14
17:15	4
17:30	11
17:45	7
18:00	10
18:15	6
18:30	6
18:45	6
TOTAL	**420**

	Exiting Total Vehicles
7:00	1
7:15	2
7:30	11
7:45	5
8:00	3
8:15	2
8:30	1
8:45	2
9:00	1
9:15	4
9:30	2
9:45	3
10:00	2
10:15	6
10:30	3
10:45	4
11:00	5
11:15	5
11:30	8
11:45	7
12:00	15
12:15	10
12:30	10
12:45	11
13:00	7
13:15	5
13:30	14
13:45	8
14:00	11
14:15	7
14:30	21
14:45	12
15:00	14
15:15	11
15:30	25
15:45	11
16:00	15
16:15	9
16:30	8
16:45	8
17:00	19
17:15	10
17:30	15
17:45	5
18:00	12
18:15	2
18:30	9
18:45	13
	394

City: Coachella
Location: Driveway 2/Avenue 54
Date: 3/1/2018
Count Type: Peak Hour Driveway Count

Casino: Augustine Casino
84-001 Ave 54
Coachella, CA 92236

	Entering
	Total Vehicles
7:00	5
7:15	10
7:30	4
7:45	11
8:00	4
8:15	7
8:30	8
8:45	11
9:00	11
9:15	10
9:30	14
9:45	7
10:00	21
10:15	11
10:30	10
10:45	16
11:00	18
11:15	15
11:30	22
11:45	15
12:00	19
12:15	20
12:30	3
12:45	21
13:00	17
13:15	17
13:30	24
13:45	21
14:00	13
14:15	12
14:30	13
14:45	23
15:00	9
15:15	21
15:30	13
15:45	14
16:00	10
16:15	20
16:30	11
16:45	18
17:00	12
17:15	17
17:30	15
17:45	16
18:00	11
18:15	18
18:30	13
18:45	10
TOTAL	**661**

	Exiting
	Total Vehicles
7:00	3
7:15	1
7:30	10
7:45	5
8:00	3
8:15	3
8:30	3
8:45	5
9:00	5
9:15	10
9:30	6
9:45	7
10:00	5
10:15	9
10:30	7
10:45	6
11:00	11
11:15	10
11:30	8
11:45	9
12:00	15
12:15	16
12:30	2
12:45	10
13:00	23
13:15	22
13:30	19
13:45	19
14:00	19
14:15	17
14:30	20
14:45	14
15:00	22
15:15	10
15:30	18
15:45	13
16:00	20
16:15	22
16:30	11
16:45	11
17:00	21
17:15	9
17:30	11
17:45	15
18:00	20
18:15	13
18:30	7
18:45	13
	558

City: Coachella
Location: Driveway 3/Avenue 54
Date: 3/1/2018
Count Type: Peak Hour Driveway Count

Casino: Augustine Casino
84-001 Ave 54
Coachella, CA 92236

	Entering
	Total Vehicles
7:00	4
7:15	1
7:30	4
7:45	5
8:00	2
8:15	13
8:30	8
8:45	16
9:00	12
9:15	9
9:30	12
9:45	13
10:00	10
10:15	15
10:30	9
10:45	9
11:00	12
11:15	11
11:30	13
11:45	6
12:00	9
12:15	9
12:30	12
12:45	11
13:00	7
13:15	8
13:30	8
13:45	7
14:00	5
14:15	12
14:30	15
14:45	9
15:00	2
15:15	11
15:30	8
15:45	8
16:00	7
16:15	13
16:30	4
16:45	14
17:00	16
17:15	16
17:30	10
17:45	15
18:00	18
18:15	8
18:30	14
18:45	11
TOTAL	**471**

	Exiting
	Total Vehicles
7:00	2
7:15	1
7:30	2
7:45	2
8:00	0
8:15	0
8:30	5
8:45	4
9:00	6
9:15	3
9:30	8
9:45	5
10:00	10
10:15	11
10:30	8
10:45	8
11:00	11
11:15	9
11:30	8
11:45	7
12:00	7
12:15	7
12:30	6
12:45	9
13:00	5
13:15	13
13:30	9
13:45	7
14:00	5
14:15	5
14:30	9
14:45	4
15:00	7
15:15	5
15:30	10
15:45	7
16:00	4
16:15	3
16:30	2
16:45	4
17:00	3
17:15	6
17:30	16
17:45	3
18:00	4
18:15	6
18:30	5
18:45	5
	286

City: Coachella
Location: Driveway 4/Avenue 54
Date: 3/1/2018
Count Type: Peak Hour Driveway Count

Casino: Augustine Casino
84-001 Ave 54
Coachella, CA 92236

	Entering
	Total Vehicles
7:00	4
7:15	2
7:30	6
7:45	6
8:00	8
8:15	8
8:30	11
8:45	8
9:00	8
9:15	6
9:30	7
9:45	8
10:00	14
10:15	4
10:30	6
10:45	9
11:00	11
11:15	10
11:30	10
11:45	9
12:00	18
12:15	11
12:30	8
12:45	9
13:00	2
13:15	9
13:30	7
13:45	8
14:00	7
14:15	4
14:30	6
14:45	3
15:00	3
15:15	2
15:30	6
15:45	11
16:00	7
16:15	10
16:30	9
16:45	7
17:00	7
17:15	7
17:30	11
17:45	9
18:00	6
18:15	10
18:30	10
18:45	12
TOTAL	**374**

	Exiting
	Total Vehicles
7:00	4
7:15	3
7:30	1
7:45	5
8:00	1
8:15	2
8:30	2
8:45	2
9:00	2
9:15	4
9:30	5
9:45	8
10:00	7
10:15	5
10:30	8
10:45	6
11:00	6
11:15	12
11:30	13
11:45	7
12:00	9
12:15	10
12:30	8
12:45	9
13:00	16
13:15	12
13:30	9
13:45	11
14:00	9
14:15	16
14:30	8
14:45	7
15:00	1
15:15	5
15:30	4
15:45	6
16:00	13
16:15	7
16:30	10
16:45	9
17:00	12
17:15	8
17:30	9
17:45	3
18:00	7
18:15	8
18:30	9
18:45	8
	346

City: Coachella
Location: TOTAL DRIVEWAYS
Date: 3/1/2018
Count Type: Peak Hour Driveway Count

Casino: Augustine Casino
84-001 Ave 54
Coachella, CA 92236

	Entering Total Vehicles
7:00	17
7:15	22
7:30	19
7:45	33
8:00	17
8:15	34
8:30	36
8:45	46
9:00	41
9:15	32
9:30	38
9:45	34
10:00	54
10:15	43
10:30	31
10:45	49
11:00	47
11:15	48
11:30	52
11:45	40
12:00	56
12:15	44
12:30	30
12:45	47
13:00	33
13:15	39
13:30	52
13:45	47
14:00	36
14:15	38
14:30	47
14:45	49
15:00	23
15:15	48
15:30	34
15:45	42
16:00	33
16:15	53
16:30	31
16:45	55
17:00	49
17:15	44
17:30	47
17:45	47
18:00	45
18:15	42
18:30	43
18:45	39
TOTAL	**1926**

	Exiting Total Vehicles
7:00	10
7:15	7
7:30	24
7:45	17
8:00	7
8:15	7
8:30	11
8:45	13
9:00	14
9:15	21
9:30	21
9:45	23
10:00	24
10:15	31
10:30	26
10:45	24
11:00	33
11:15	36
11:30	37
11:45	30
12:00	46
12:15	43
12:30	26
12:45	39
13:00	51
13:15	52
13:30	51
13:45	45
14:00	44
14:15	45
14:30	58
14:45	37
15:00	44
15:15	31
15:30	57
15:45	37
16:00	52
16:15	41
16:30	31
16:45	32
17:00	55
17:15	33
17:30	51
17:45	26
18:00	43
18:15	29
18:30	30
18:45	39
	1584

City: Coachella
Location: Van Buren Street/Driveway 1
Date: 3/3/2018
Count Type: Peak Hour Driveway Count

Casino: Augustine Casino
84-001 Ave 54
Coachella, CA 92236

	Entering Total Vehicles
7:00	5
7:15	10
7:30	5
7:45	1
8:00	8
8:15	7
8:30	7
8:45	5
9:00	8
9:15	3
9:30	8
9:45	5
10:00	3
10:15	9
10:30	6
10:45	5
11:00	10
11:15	9
11:30	9
11:45	11
12:00	12
12:15	7
12:30	10
12:45	7
13:00	12
13:15	8
13:30	7
13:45	15
14:00	10
14:15	12
14:30	11
14:45	16
15:00	10
15:15	7
15:30	3
15:45	9
16:00	11
16:15	6
16:30	10
16:45	11
17:00	8
17:15	7
17:30	17
17:45	12
18:00	10
18:15	6
18:30	9
18:45	9
TOTAL	**406**

	Exiting Total Vehicles
7:00	2
7:15	1
7:30	12
7:45	3
8:00	10
8:15	6
8:30	3
8:45	3
9:00	6
9:15	2
9:30	2
9:45	5
10:00	9
10:15	5
10:30	4
10:45	10
11:00	8
11:15	4
11:30	5
11:45	8
12:00	5
12:15	4
12:30	12
12:45	7
13:00	3
13:15	9
13:30	6
13:45	11
14:00	14
14:15	6
14:30	22
14:45	4
15:00	12
15:15	16
15:30	19
15:45	4
16:00	13
16:15	5
16:30	11
16:45	19
17:00	12
17:15	14
17:30	13
17:45	15
18:00	9
18:15	8
18:30	18
18:45	7
	406

City: Coachella
Location: Driveway 2/Avenue 54
Date: 3/3/2018
Count Type: Peak Hour Driveway Count

Casino: Augustine Casino
84-001 Ave 54
Coachella, CA 92236

	Entering
	Total Vehicles
7:00	7
7:15	7
7:30	7
7:45	4
8:00	9
8:15	6
8:30	4
8:45	8
9:00	9
9:15	9
9:30	15
9:45	7
10:00	14
10:15	12
10:30	9
10:45	10
11:00	7
11:15	18
11:30	14
11:45	14
12:00	16
12:15	14
12:30	9
12:45	9
13:00	11
13:15	17
13:30	14
13:45	21
14:00	13
14:15	18
14:30	10
14:45	15
15:00	18
15:15	15
15:30	13
15:45	21
16:00	13
16:15	21
16:30	10
16:45	20
17:00	18
17:15	23
17:30	22
17:45	11
18:00	23
18:15	26
18:30	22
18:45	20
TOTAL	**653**

	Exiting
	Total Vehicles
7:00	5
7:15	5
7:30	5
7:45	3
8:00	10
8:15	3
8:30	4
8:45	6
9:00	4
9:15	7
9:30	8
9:45	9
10:00	9
10:15	6
10:30	8
10:45	3
11:00	3
11:15	7
11:30	10
11:45	10
12:00	3
12:15	12
12:30	6
12:45	17
13:00	17
13:15	12
13:30	13
13:45	16
14:00	15
14:15	17
14:30	17
14:45	11
15:00	16
15:15	11
15:30	24
15:45	14
16:00	18
16:15	13
16:30	8
16:45	20
17:00	15
17:15	9
17:30	19
17:45	16
18:00	24
18:15	10
18:30	12
18:45	12
	522

City: San Jacinto
Location: Soboba Road/Driveway 1
Date: 3/1/2018
Count Type: Peak Hour Driveway Count

Casino: Soboba Casino
23333 Soboba Road
San Jacinto, CA 92583

	Entering Total Vehicles
7:00	0
7:15	0
7:30	0
7:45	0
8:00	0
8:15	0
8:30	0
8:45	0
9:00	0
9:15	0
9:30	0
9:45	0
10:00	0
10:15	0
10:30	0
10:45	0
11:00	0
11:15	0
11:30	0
11:45	0
12:00	0
12:15	0
12:30	0
12:45	0
13:00	0
13:15	0
13:30	0
13:45	0
14:00	0
14:15	0
14:30	0
14:45	0
15:00	0
15:15	0
15:30	0
15:45	0
16:00	0
16:15	0
16:30	0
16:45	0
17:00	0
17:15	0
17:30	0
17:45	0
18:00	0
18:15	0
18:30	0
18:45	0
TOTAL	**0**

	Exiting Total Vehicles
7:00	1
7:15	0
7:30	0
7:45	0
8:00	0
8:15	1
8:30	3
8:45	0
9:00	0
9:15	0
9:30	0
9:45	0
10:00	1
10:15	0
10:30	0
10:45	1
11:00	1
11:15	0
11:30	0
11:45	0
12:00	0
12:15	0
12:30	1
12:45	0
13:00	2
13:15	0
13:30	0
13:45	0
14:00	1
14:15	0
14:30	0
14:45	1
15:00	0
15:15	1
15:30	0
15:45	0
16:00	0
16:15	0
16:30	1
16:45	0
17:00	0
17:15	0
17:30	0
17:45	0
18:00	0
18:15	0
18:30	0
18:45	0
	15

City: San Jacinto
Location: Soboba Road/Driveway 2
Date: 3/1/2018
Count Type: Peak Hour Driveway Count

Casino: Soboba Casino
23333 Soboba Road
San Jacinto, CA 92583

	Entering
	Total Vehicles
7:00	24
7:15	16
7:30	30
7:45	22
8:00	27
8:15	24
8:30	18
8:45	25
9:00	30
9:15	28
9:30	29
9:45	23
10:00	38
10:15	38
10:30	43
10:45	34
11:00	37
11:15	42
11:30	36
11:45	41
12:00	34
12:15	43
12:30	16
12:45	30
13:00	39
13:15	25
13:30	22
13:45	41
14:00	24
14:15	37
14:30	37
14:45	39
15:00	35
15:15	38
15:30	27
15:45	36
16:00	33
16:15	30
16:30	31
16:45	33
17:00	39
17:15	31
17:30	32
17:45	34
18:00	29
18:15	35
18:30	30
18:45	33
TOTAL	**1518**

	Exiting
	Total Vehicles
7:00	25
7:15	22
7:30	19
7:45	16
8:00	13
8:15	20
8:30	26
8:45	12
9:00	16
9:15	21
9:30	22
9:45	25
10:00	23
10:15	17
10:30	21
10:45	21
11:00	16
11:15	34
11:30	31
11:45	28
12:00	31
12:15	43
12:30	16
12:45	45
13:00	51
13:15	30
13:30	38
13:45	42
14:00	39
14:15	34
14:30	36
14:45	41
15:00	51
15:15	36
15:30	43
15:45	34
16:00	39
16:15	45
16:30	49
16:45	29
17:00	41
17:15	47
17:30	41
17:45	39
18:00	40
18:15	34
18:30	31
18:45	36
	1509

City: San Jacinto
Location: Soboba Road/Driveway 1
Date: 3/3/2018
Count Type: Peak Hour Driveway Count

Casino: Soboba Casino
23333 Soboba Road
San Jacinto, CA 92583

	Entering Total Vehicles
7:00	0
7:15	0
7:30	0
7:45	0
8:00	0
8:15	0
8:30	0
8:45	0
9:00	0
9:15	0
9:30	0
9:45	0
10:00	0
10:15	0
10:30	0
10:45	0
11:00	0
11:15	0
11:30	0
11:45	0
12:00	0
12:15	0
12:30	0
12:45	0
13:00	0
13:15	0
13:30	0
13:45	0
14:00	0
14:15	0
14:30	0
14:45	0
15:00	0
15:15	0
15:30	0
15:45	0
16:00	0
16:15	0
16:30	0
16:45	0
17:00	0
17:15	0
17:30	0
17:45	0
18:00	0
18:15	0
18:30	0
18:45	0
TOTAL	**0**

	Exiting Total Vehicles
7:00	0
7:15	0
7:30	0
7:45	0
8:00	0
8:15	0
8:30	0
8:45	0
9:00	0
9:15	0
9:30	0
9:45	1
10:00	0
10:15	0
10:30	2
10:45	0
11:00	1
11:15	1
11:30	0
11:45	0
12:00	0
12:15	0
12:30	0
12:45	0
13:00	0
13:15	0
13:30	0
13:45	0
14:00	0
14:15	1
14:30	0
14:45	1
15:00	2
15:15	0
15:30	0
15:45	0
16:00	1
16:15	0
16:30	0
16:45	0
17:00	0
17:15	0
17:30	0
17:45	0
18:00	1
18:15	0
18:30	0
18:45	0
	11

Traffic Signal Warrants

APPENDIX D

Existing Conditions

Signal Warrants Report For Intersection 1: North Project Driveway (Western)-Allen Avenue / Buddy Rogers Avenue

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	E, W
Minor Approaches	S, N
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets	
	E	W	S	N
1	31	29	10	0
2	30	28	10	0
3	29	27	9	0
4	25	23	8	0
5	24	22	8	0
6	21	20	7	0
7	20	18	6	0
8	19	17	6	0
9	15	14	5	0
10	14	13	5	0
11	14	13	5	0
12	13	12	4	0
13	12	11	4	0
14	11	10	4	0
15	11	10	4	0
16	11	10	4	0
17	6	6	2	0
18	3	3	1	0
19	3	3	1	0
20	1	1	0	0
21	1	1	0	0
22	1	1	0	0
23	1	1	0	0
24	1	1	0	0

Warrant Analysis by Hour

Hour	Major Lanes		Minor Lanes		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	2	60	3	10	No	No	No	No	No	No	No	No	No	No
2	2	58	3	10	No	No	No	No	No	No	No	No	No	No
3	2	56	3	9	No	No	No	No	No	No	No	No	No	No
4	2	48	3	8	No	No	No	No	No	No	No	No	No	No
5	2	46	3	8	No	No	No	No	No	No	No	No	No	No
6	2	41	3	7	No	No	No	No	No	No	No	No	No	No
7	2	38	3	6	No	No	No	No	No	No	No	No	No	No
8	2	36	3	6	No	No	No	No	No	No	No	No	No	No
9	2	29	3	5	No	No	No	No	No	No	No	No	No	No
10	2	27	3	5	No	No	No	No	No	No	No	No	No	No
11	2	27	3	5	No	No	No	No	No	No	No	No	No	No
12	2	25	3	4	No	No	No	No	No	No	No	No	No	No
13	2	23	3	4	No	No	No	No	No	No	No	No	No	No
14	2	21	3	4	No	No	No	No	No	No	No	No	No	No
15	2	21	3	4	No	No	No	No	No	No	No	No	No	No
16	2	21	3	4	No	No	No	No	No	No	No	No	No	No
17	2	12	3	2	No	No	No	No	No	No	No	No	No	No
18	2	6	3	1	No	No	No	No	No	No	No	No	No	No
19	2	6	3	1	No	No	No	No	No	No	No	No	No	No
20	2	2	3	0	No	No	No	No	No	No	No	No	No	No
21	2	2	3	0	No	No	No	No	No	No	No	No	No	No
22	2	2	3	0	No	No	No	No	No	No	No	No	No	No
23	2	2	3	0	No	No	No	No	No	No	No	No	No	No
24	2	2	3	0	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	S	N
Total Stopped Delay Per Vehicle on Minor Approach (s)	8.6	8.9
Number of Lanes on Minor Street Approach	2	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:01	0:00
Delay Condition Met	No	No
Volume on Minor Street Approach During Same Hour	10	0
High Minor Volume Condition Met	No	No
Total Entering Volume on All Approaches During Same Hour	70	70
Number of Approaches on Intersection	4	4
Total Volume Condition Met	No	No
Warrant Met for Approach	No	No
Warrant Met for Intersection	**No**	

Signal Warrants Report For Intersection 2: Date Palm Drive / Buddy Rogers Avenue

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	S, N
Minor Approaches	W
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets
	S	N	W
1	675	560	29
2	648	538	28
3	635	526	27
4	540	448	23
5	513	426	22
6	459	381	20
7	425	353	18
8	405	336	17
9	324	269	14
10	304	252	13
11	304	252	13
12	290	241	12
13	263	218	11
14	243	202	10
15	243	202	10
16	236	196	10
17	135	112	6
18	74	62	3
19	68	56	3
20	27	22	1
21	20	17	1
22	20	17	1
23	14	11	1
24	14	11	1

Warrant Analysis by Hour

Hour	Major Lanes		Minor Lanes		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	5	1235	1	29	No	No	No	No	No	No	No	No	No	No
2	5	1186	1	28	No	No	No	No	No	No	No	No	No	No
3	5	1161	1	27	No	No	No	No	No	No	No	No	No	No
4	5	988	1	23	No	No	No	No	No	No	No	No	No	No
5	5	939	1	22	No	No	No	No	No	No	No	No	No	No
6	5	840	1	20	No	No	No	No	No	No	No	No	No	No
7	5	778	1	18	No	No	No	No	No	No	No	No	No	No
8	5	741	1	17	No	No	No	No	No	No	No	No	No	No
9	5	593	1	14	No	No	No	No	No	No	No	No	No	No
10	5	556	1	13	No	No	No	No	No	No	No	No	No	No
11	5	556	1	13	No	No	No	No	No	No	No	No	No	No
12	5	531	1	12	No	No	No	No	No	No	No	No	No	No
13	5	481	1	11	No	No	No	No	No	No	No	No	No	No
14	5	445	1	10	No	No	No	No	No	No	No	No	No	No
15	5	445	1	10	No	No	No	No	No	No	No	No	No	No
16	5	432	1	10	No	No	No	No	No	No	No	No	No	No
17	5	247	1	6	No	No	No	No	No	No	No	No	No	No
18	5	136	1	3	No	No	No	No	No	No	No	No	No	No
19	5	124	1	3	No	No	No	No	No	No	No	No	No	No
20	5	49	1	1	No	No	No	No	No	No	No	No	No	No
21	5	37	1	1	No	No	No	No	No	No	No	No	No	No
22	5	37	1	1	No	No	No	No	No	No	No	No	No	No
23	5	25	1	1	No	No	No	No	No	No	No	No	No	No
24	5	25	1	1	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	W
Total Stopped Delay Per Vehicle on Minor Approach (s)	18.2
Number of Lanes on Minor Street Approach	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:08
Delay Condition Met	No
Volume on Minor Street Approach During Same Hour	29
High Minor Volume Condition Met	No
Total Entering Volume on All Approaches During Same Hour	1264
Number of Approaches on Intersection	3
Total Volume Condition Met	Yes
Warrant Met for Approach	No
Warrant Met for Intersection	**No**

Signal Warrants Report For Intersection 6: Date Palm Drive / East Project Driveway - Hillery Road

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	N, S
Minor Approaches	W
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets
	N	S	W
1	539	8	5
2	517	8	5
3	507	8	5
4	431	6	4
5	410	6	4
6	367	5	3
7	340	5	3
8	323	5	3
9	259	4	2
10	243	4	2
11	243	4	2
12	232	3	2
13	210	3	2
14	194	3	2
15	194	3	2
16	189	3	2
17	108	2	1
18	59	1	1
19	54	1	1
20	22	0	0
21	16	0	0
22	16	0	0
23	11	0	0
24	11	0	0

Warrant Analysis by Hour

Hour	Major Lanes		Minor Lanes		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	4	547	1	5	No	No	No	No	No	No	No	No	No	No
2	4	525	1	5	No	No	No	No	No	No	No	No	No	No
3	4	515	1	5	No	No	No	No	No	No	No	No	No	No
4	4	437	1	4	No	No	No	No	No	No	No	No	No	No
5	4	416	1	4	No	No	No	No	No	No	No	No	No	No
6	4	372	1	3	No	No	No	No	No	No	No	No	No	No
7	4	345	1	3	No	No	No	No	No	No	No	No	No	No
8	4	328	1	3	No	No	No	No	No	No	No	No	No	No
9	4	263	1	2	No	No	No	No	No	No	No	No	No	No
10	4	247	1	2	No	No	No	No	No	No	No	No	No	No
11	4	247	1	2	No	No	No	No	No	No	No	No	No	No
12	4	235	1	2	No	No	No	No	No	No	No	No	No	No
13	4	213	1	2	No	No	No	No	No	No	No	No	No	No
14	4	197	1	2	No	No	No	No	No	No	No	No	No	No
15	4	197	1	2	No	No	No	No	No	No	No	No	No	No
16	4	192	1	2	No	No	No	No	No	No	No	No	No	No
17	4	110	1	1	No	No	No	No	No	No	No	No	No	No
18	4	60	1	1	No	No	No	No	No	No	No	No	No	No
19	4	55	1	1	No	No	No	No	No	No	No	No	No	No
20	4	22	1	0	No	No	No	No	No	No	No	No	No	No
21	4	16	1	0	No	No	No	No	No	No	No	No	No	No
22	4	16	1	0	No	No	No	No	No	No	No	No	No	No
23	4	11	1	0	No	No	No	No	No	No	No	No	No	No
24	4	11	1	0	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	W
Total Stopped Delay Per Vehicle on Minor Approach (s)	10.2
Number of Lanes on Minor Street Approach	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:00
Delay Condition Met	No
Volume on Minor Street Approach During Same Hour	5
High Minor Volume Condition Met	No
Total Entering Volume on All Approaches During Same Hour	552
Number of Approaches on Intersection	3
Total Volume Condition Met	No
Warrant Met for Approach	No
Warrant Met for Intersection	**No**

Signal Warrants Report For Intersection 7: North Project Driveway 2 / Buddy Rogers Avenue

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	E, W
Minor Approaches	S
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets
	E	W	S
1	31	29	0
2	30	28	0
3	29	27	0
4	25	23	0
5	24	22	0
6	21	20	0
7	20	18	0
8	19	17	0
9	15	14	0
10	14	13	0
11	14	13	0
12	13	12	0
13	12	11	0
14	11	10	0
15	11	10	0
16	11	10	0
17	6	6	0
18	3	3	0
19	3	3	0
20	1	1	0
21	1	1	0
22	1	1	0
23	1	1	0
24	1	1	0

Warrant Analysis by Hour

Hour	Major Lanes		Minor Lanes		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	2	60	1	0	No	No	No	No	No	No	No	No	No	No
2	2	58	1	0	No	No	No	No	No	No	No	No	No	No
3	2	56	1	0	No	No	No	No	No	No	No	No	No	No
4	2	48	1	0	No	No	No	No	No	No	No	No	No	No
5	2	46	1	0	No	No	No	No	No	No	No	No	No	No
6	2	41	1	0	No	No	No	No	No	No	No	No	No	No
7	2	38	1	0	No	No	No	No	No	No	No	No	No	No
8	2	36	1	0	No	No	No	No	No	No	No	No	No	No
9	2	29	1	0	No	No	No	No	No	No	No	No	No	No
10	2	27	1	0	No	No	No	No	No	No	No	No	No	No
11	2	27	1	0	No	No	No	No	No	No	No	No	No	No
12	2	25	1	0	No	No	No	No	No	No	No	No	No	No
13	2	23	1	0	No	No	No	No	No	No	No	No	No	No
14	2	21	1	0	No	No	No	No	No	No	No	No	No	No
15	2	21	1	0	No	No	No	No	No	No	No	No	No	No
16	2	21	1	0	No	No	No	No	No	No	No	No	No	No
17	2	12	1	0	No	No	No	No	No	No	No	No	No	No
18	2	6	1	0	No	No	No	No	No	No	No	No	No	No
19	2	6	1	0	No	No	No	No	No	No	No	No	No	No
20	2	2	1	0	No	No	No	No	No	No	No	No	No	No
21	2	2	1	0	No	No	No	No	No	No	No	No	No	No
22	2	2	1	0	No	No	No	No	No	No	No	No	No	No
23	2	2	1	0	No	No	No	No	No	No	No	No	No	No
24	2	2	1	0	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	S
Total Stopped Delay Per Vehicle on Minor Approach (s)	8.6
Number of Lanes on Minor Street Approach	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:00
Delay Condition Met	No
Volume on Minor Street Approach During Same Hour	0
High Minor Volume Condition Met	No
Total Entering Volume on All Approaches During Same Hour	60
Number of Approaches on Intersection	3
Total Volume Condition Met	No
Warrant Met for Approach	No
Warrant Met for Intersection	**No**

Signal Warrants Report For Intersection 8: Monty Hall Drive / Buddy Rogers Avenue

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	E, W
Minor Approaches	S, N
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets	
	E	W	S	N
1	25	40	23	35
2	24	38	22	34
3	24	38	22	33
4	20	32	18	28
5	19	30	17	27
6	17	27	16	24
7	16	25	14	22
8	15	24	14	21
9	12	19	11	17
10	11	18	10	16
11	11	18	10	16
12	11	17	10	15
13	10	16	9	14
14	9	14	8	13
15	9	14	8	13
16	9	14	8	12
17	5	8	5	7
18	3	4	3	4
19	3	4	2	4
20	1	2	1	1
21	1	1	1	1
22	1	1	1	1
23	1	1	0	1
24	1	1	0	1

Warrant Analysis by Hour

Hour	Major Lanes		Minor Lanes		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	2	65	2	58	No	No	No	No	No	No	No	No	No	No
2	2	62	2	56	No	No	No	No	No	No	No	No	No	No
3	2	62	2	55	No	No	No	No	No	No	No	No	No	No
4	2	52	2	46	No	No	No	No	No	No	No	No	No	No
5	2	49	2	44	No	No	No	No	No	No	No	No	No	No
6	2	44	2	40	No	No	No	No	No	No	No	No	No	No
7	2	41	2	36	No	No	No	No	No	No	No	No	No	No
8	2	39	2	35	No	No	No	No	No	No	No	No	No	No
9	2	31	2	28	No	No	No	No	No	No	No	No	No	No
10	2	29	2	26	No	No	No	No	No	No	No	No	No	No
11	2	29	2	26	No	No	No	No	No	No	No	No	No	No
12	2	28	2	25	No	No	No	No	No	No	No	No	No	No
13	2	26	2	23	No	No	No	No	No	No	No	No	No	No
14	2	23	2	21	No	No	No	No	No	No	No	No	No	No
15	2	23	2	21	No	No	No	No	No	No	No	No	No	No
16	2	23	2	20	No	No	No	No	No	No	No	No	No	No
17	2	13	2	12	No	No	No	No	No	No	No	No	No	No
18	2	7	2	7	No	No	No	No	No	No	No	No	No	No
19	2	7	2	6	No	No	No	No	No	No	No	No	No	No
20	2	3	2	2	No	No	No	No	No	No	No	No	No	No
21	2	2	2	2	No	No	No	No	No	No	No	No	No	No
22	2	2	2	2	No	No	No	No	No	No	No	No	No	No
23	2	2	2	1	No	No	No	No	No	No	No	No	No	No
24	2	2	2	1	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	S	N
Total Stopped Delay Per Vehicle on Minor Approach (s)	7.3	7.5
Number of Lanes on Minor Street Approach	1	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:02	0:04
Delay Condition Met	No	No
Volume on Minor Street Approach During Same Hour	23	35
High Minor Volume Condition Met	No	No
Total Entering Volume on All Approaches During Same Hour	123	123
Number of Approaches on Intersection	4	4
Total Volume Condition Met	No	No
Warrant Met for Approach	No	No
Warrant Met for Intersection	**No**	

Signal Warrants Report For Intersection 16: Cathedral Canyon Drive / Paseo Real

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	N, S
Minor Approaches	E, W
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets	
	N	S	E	W
1	598	780	16	23
2	574	749	15	22
3	562	733	15	22
4	478	624	13	18
5	454	593	12	17
6	407	530	11	16
7	377	491	10	14
8	359	468	10	14
9	287	374	8	11
10	269	351	7	10
11	269	351	7	10
12	257	335	7	10
13	233	304	6	9
14	215	281	6	8
15	215	281	6	8
16	209	273	6	8
17	120	156	3	5
18	66	86	2	3
19	60	78	2	2
20	24	31	1	1
21	18	23	0	1
22	18	23	0	1
23	12	16	0	0
24	12	16	0	0

Warrant Analysis by Hour

Hour	Major Lanes		Minor Lanes		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	6	1378	2	39	No	No	No	No	No	No	No	No	No	No
2	6	1323	2	37	No	No	No	No	No	No	No	No	No	No
3	6	1295	2	37	No	No	No	No	No	No	No	No	No	No
4	6	1102	2	31	No	No	No	No	No	No	No	No	No	No
5	6	1047	2	29	No	No	No	No	No	No	No	No	No	No
6	6	937	2	27	No	No	No	No	No	No	No	No	No	No
7	6	868	2	24	No	No	No	No	No	No	No	No	No	No
8	6	827	2	24	No	No	No	No	No	No	No	No	No	No
9	6	661	2	19	No	No	No	No	No	No	No	No	No	No
10	6	620	2	17	No	No	No	No	No	No	No	No	No	No
11	6	620	2	17	No	No	No	No	No	No	No	No	No	No
12	6	592	2	17	No	No	No	No	No	No	No	No	No	No
13	6	537	2	15	No	No	No	No	No	No	No	No	No	No
14	6	496	2	14	No	No	No	No	No	No	No	No	No	No
15	6	496	2	14	No	No	No	No	No	No	No	No	No	No
16	6	482	2	14	No	No	No	No	No	No	No	No	No	No
17	6	276	2	8	No	No	No	No	No	No	No	No	No	No
18	6	152	2	5	No	No	No	No	No	No	No	No	No	No
19	6	138	2	4	No	No	No	No	No	No	No	No	No	No
20	6	55	2	2	No	No	No	No	No	No	No	No	No	No
21	6	41	2	1	No	No	No	No	No	No	No	No	No	No
22	6	41	2	1	No	No	No	No	No	No	No	No	No	No
23	6	28	2	0	No	No	No	No	No	No	No	No	No	No
24	6	28	2	0	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	E	W
Total Stopped Delay Per Vehicle on Minor Approach (s)	23.1	16.7
Number of Lanes on Minor Street Approach	1	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:06	0:06
Delay Condition Met	No	No
Volume on Minor Street Approach During Same Hour	16	23
High Minor Volume Condition Met	No	No
Total Entering Volume on All Approaches During Same Hour	1417	1417
Number of Approaches on Intersection	4	4
Total Volume Condition Met	Yes	Yes
Warrant Met for Approach	No	No
Warrant Met for Intersection	**No**	

Signal Warrants Report For Intersection 27: Van Fleet Street / B Street-West Project Driveway

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	S, N
Minor Approaches	E, W
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets	
	S	N	E	W
1	82	94	0	10
2	79	90	0	10
3	77	88	0	9
4	66	75	0	8
5	62	71	0	8
6	56	64	0	7
7	52	59	0	6
8	49	56	0	6
9	39	45	0	5
10	37	42	0	5
11	37	42	0	5
12	35	40	0	4
13	32	37	0	4
14	30	34	0	4
15	30	34	0	4
16	29	33	0	4
17	16	19	0	2
18	9	10	0	1
19	8	9	0	1
20	3	4	0	0
21	2	3	0	0
22	2	3	0	0
23	2	2	0	0
24	2	2	0	0

Warrant Analysis by Hour

Hour	Major Lanes		Minor Lanes		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	2	176	2	10	No	No	No	No	No	No	No	No	No	No
2	2	169	2	10	No	No	No	No	No	No	No	No	No	No
3	2	165	2	9	No	No	No	No	No	No	No	No	No	No
4	2	141	2	8	No	No	No	No	No	No	No	No	No	No
5	2	133	2	8	No	No	No	No	No	No	No	No	No	No
6	2	120	2	7	No	No	No	No	No	No	No	No	No	No
7	2	111	2	6	No	No	No	No	No	No	No	No	No	No
8	2	105	2	6	No	No	No	No	No	No	No	No	No	No
9	2	84	2	5	No	No	No	No	No	No	No	No	No	No
10	2	79	2	5	No	No	No	No	No	No	No	No	No	No
11	2	79	2	5	No	No	No	No	No	No	No	No	No	No
12	2	75	2	4	No	No	No	No	No	No	No	No	No	No
13	2	69	2	4	No	No	No	No	No	No	No	No	No	No
14	2	64	2	4	No	No	No	No	No	No	No	No	No	No
15	2	64	2	4	No	No	No	No	No	No	No	No	No	No
16	2	62	2	4	No	No	No	No	No	No	No	No	No	No
17	2	35	2	2	No	No	No	No	No	No	No	No	No	No
18	2	19	2	1	No	No	No	No	No	No	No	No	No	No
19	2	17	2	1	No	No	No	No	No	No	No	No	No	No
20	2	7	2	0	No	No	No	No	No	No	No	No	No	No
21	2	5	2	0	No	No	No	No	No	No	No	No	No	No
22	2	5	2	0	No	No	No	No	No	No	No	No	No	No
23	2	4	2	0	No	No	No	No	No	No	No	No	No	No
24	2	4	2	0	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	E	W
Total Stopped Delay Per Vehicle on Minor Approach (s)	9.5	9.4
Number of Lanes on Minor Street Approach	1	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:00	0:01
Delay Condition Met	No	No
Volume on Minor Street Approach During Same Hour	0	10
High Minor Volume Condition Met	No	No
Total Entering Volume on All Approaches During Same Hour	186	186
Number of Approaches on Intersection	4	4
Total Volume Condition Met	No	No
Warrant Met for Approach	No	No
Warrant Met for Intersection	**No**	

Signal Warrants Report For Intersection 28: Van Fleet Street / D Street

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	S, N
Minor Approaches	E, W
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets	
	S	N	E	W
1	68	80	9	13
2	65	77	9	12
3	64	75	8	12
4	54	64	7	10
5	52	61	7	10
6	46	54	6	9
7	43	50	6	8
8	41	48	5	8
9	33	38	4	6
10	31	36	4	6
11	31	36	4	6
12	29	34	4	6
13	27	31	4	5
14	24	29	3	5
15	24	29	3	5
16	24	28	3	5
17	14	16	2	3
18	7	9	1	1
19	7	8	1	1
20	3	3	0	1
21	2	2	0	0
22	2	2	0	0
23	1	2	0	0
24	1	2	0	0

Warrant Analysis by Hour

Hour	Major Lanes		Minor Lanes		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	2	148	2	22	No	No	No	No	No	No	No	No	No	No
2	2	142	2	21	No	No	No	No	No	No	No	No	No	No
3	2	139	2	20	No	No	No	No	No	No	No	No	No	No
4	2	118	2	17	No	No	No	No	No	No	No	No	No	No
5	2	113	2	17	No	No	No	No	No	No	No	No	No	No
6	2	100	2	15	No	No	No	No	No	No	No	No	No	No
7	2	93	2	14	No	No	No	No	No	No	No	No	No	No
8	2	89	2	13	No	No	No	No	No	No	No	No	No	No
9	2	71	2	10	No	No	No	No	No	No	No	No	No	No
10	2	67	2	10	No	No	No	No	No	No	No	No	No	No
11	2	67	2	10	No	No	No	No	No	No	No	No	No	No
12	2	63	2	10	No	No	No	No	No	No	No	No	No	No
13	2	58	2	9	No	No	No	No	No	No	No	No	No	No
14	2	53	2	8	No	No	No	No	No	No	No	No	No	No
15	2	53	2	8	No	No	No	No	No	No	No	No	No	No
16	2	52	2	8	No	No	No	No	No	No	No	No	No	No
17	2	30	2	5	No	No	No	No	No	No	No	No	No	No
18	2	16	2	2	No	No	No	No	No	No	No	No	No	No
19	2	15	2	2	No	No	No	No	No	No	No	No	No	No
20	2	6	2	1	No	No	No	No	No	No	No	No	No	No
21	2	4	2	0	No	No	No	No	No	No	No	No	No	No
22	2	4	2	0	No	No	No	No	No	No	No	No	No	No
23	2	3	2	0	No	No	No	No	No	No	No	No	No	No
24	2	3	2	0	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	E	W
Total Stopped Delay Per Vehicle on Minor Approach (s)	9	9.7
Number of Lanes on Minor Street Approach	1	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:01	0:02
Delay Condition Met	No	No
Volume on Minor Street Approach During Same Hour	9	13
High Minor Volume Condition Met	No	No
Total Entering Volume on All Approaches During Same Hour	170	170
Number of Approaches on Intersection	4	4
Total Volume Condition Met	No	No
Warrant Met for Approach	No	No
Warrant Met for Intersection	**No**	

Signal Warrants Report For Intersection 29: South Project Driveway / D Street

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	E, W
Minor Approaches	N
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets
	E	W	N
1	9	5	0
2	9	5	0
3	8	5	0
4	7	4	0
5	7	4	0
6	6	3	0
7	6	3	0
8	5	3	0
9	4	2	0
10	4	2	0
11	4	2	0
12	4	2	0
13	4	2	0
14	3	2	0
15	3	2	0
16	3	2	0
17	2	1	0
18	1	1	0
19	1	1	0
20	0	0	0
21	0	0	0
22	0	0	0
23	0	0	0
24	0	0	0

Warrant Analysis by Hour

Hour	Major Lanes		Minor Lanes		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	2	14	1	0	No	No	No	No	No	No	No	No	No	No
2	2	14	1	0	No	No	No	No	No	No	No	No	No	No
3	2	13	1	0	No	No	No	No	No	No	No	No	No	No
4	2	11	1	0	No	No	No	No	No	No	No	No	No	No
5	2	11	1	0	No	No	No	No	No	No	No	No	No	No
6	2	9	1	0	No	No	No	No	No	No	No	No	No	No
7	2	9	1	0	No	No	No	No	No	No	No	No	No	No
8	2	8	1	0	No	No	No	No	No	No	No	No	No	No
9	2	6	1	0	No	No	No	No	No	No	No	No	No	No
10	2	6	1	0	No	No	No	No	No	No	No	No	No	No
11	2	6	1	0	No	No	No	No	No	No	No	No	No	No
12	2	6	1	0	No	No	No	No	No	No	No	No	No	No
13	2	6	1	0	No	No	No	No	No	No	No	No	No	No
14	2	5	1	0	No	No	No	No	No	No	No	No	No	No
15	2	5	1	0	No	No	No	No	No	No	No	No	No	No
16	2	5	1	0	No	No	No	No	No	No	No	No	No	No
17	2	3	1	0	No	No	No	No	No	No	No	No	No	No
18	2	2	1	0	No	No	No	No	No	No	No	No	No	No
19	2	2	1	0	No	No	No	No	No	No	No	No	No	No
20	2	0	1	0	No	No	No	No	No	No	No	No	No	No
21	2	0	1	0	No	No	No	No	No	No	No	No	No	No
22	2	0	1	0	No	No	No	No	No	No	No	No	No	No
23	2	0	1	0	No	No	No	No	No	No	No	No	No	No
24	2	0	1	0	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	N
Total Stopped Delay Per Vehicle on Minor Approach (s)	8.5
Number of Lanes on Minor Street Approach	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:00
Delay Condition Met	No
Volume on Minor Street Approach During Same Hour	0
High Minor Volume Condition Met	No
Total Entering Volume on All Approaches During Same Hour	14
Number of Approaches on Intersection	3
Total Volume Condition Met	No
Warrant Met for Approach	No
Warrant Met for Intersection	**No**

Signal Warrants Report For Intersection 1: North Project Driveway (Western)-Allen Avenue / Buddy Rogers Avenue

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	E, W
Minor Approaches	S, N
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets	
	E	W	S	N
1	31	29	10	0
2	30	28	10	0
3	29	27	9	0
4	25	23	8	0
5	24	22	8	0
6	21	20	7	0
7	20	18	6	0
8	19	17	6	0
9	15	14	5	0
10	14	13	5	0
11	14	13	5	0
12	13	12	4	0
13	12	11	4	0
14	11	10	4	0
15	11	10	4	0
16	11	10	4	0
17	6	6	2	0
18	3	3	1	0
19	3	3	1	0
20	1	1	0	0
21	1	1	0	0
22	1	1	0	0
23	1	1	0	0
24	1	1	0	0

Warrant Analysis by Hour

Hour	Major Lanes		Minor Lanes		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	2	60	3	10	No	No	No	No	No	No	No	No	No	No
2	2	58	3	10	No	No	No	No	No	No	No	No	No	No
3	2	56	3	9	No	No	No	No	No	No	No	No	No	No
4	2	48	3	8	No	No	No	No	No	No	No	No	No	No
5	2	46	3	8	No	No	No	No	No	No	No	No	No	No
6	2	41	3	7	No	No	No	No	No	No	No	No	No	No
7	2	38	3	6	No	No	No	No	No	No	No	No	No	No
8	2	36	3	6	No	No	No	No	No	No	No	No	No	No
9	2	29	3	5	No	No	No	No	No	No	No	No	No	No
10	2	27	3	5	No	No	No	No	No	No	No	No	No	No
11	2	27	3	5	No	No	No	No	No	No	No	No	No	No
12	2	25	3	4	No	No	No	No	No	No	No	No	No	No
13	2	23	3	4	No	No	No	No	No	No	No	No	No	No
14	2	21	3	4	No	No	No	No	No	No	No	No	No	No
15	2	21	3	4	No	No	No	No	No	No	No	No	No	No
16	2	21	3	4	No	No	No	No	No	No	No	No	No	No
17	2	12	3	2	No	No	No	No	No	No	No	No	No	No
18	2	6	3	1	No	No	No	No	No	No	No	No	No	No
19	2	6	3	1	No	No	No	No	No	No	No	No	No	No
20	2	2	3	0	No	No	No	No	No	No	No	No	No	No
21	2	2	3	0	No	No	No	No	No	No	No	No	No	No
22	2	2	3	0	No	No	No	No	No	No	No	No	No	No
23	2	2	3	0	No	No	No	No	No	No	No	No	No	No
24	2	2	3	0	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	S	N
Total Stopped Delay Per Vehicle on Minor Approach (s)	8.9	8.9
Number of Lanes on Minor Street Approach	2	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:01	0:00
Delay Condition Met	No	No
Volume on Minor Street Approach During Same Hour	10	0
High Minor Volume Condition Met	No	No
Total Entering Volume on All Approaches During Same Hour	70	70
Number of Approaches on Intersection	4	4
Total Volume Condition Met	No	No
Warrant Met for Approach	No	No
Warrant Met for Intersection	**No**	

Signal Warrants Report For Intersection 2: Date Palm Drive / Buddy Rogers Avenue

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	S, N
Minor Approaches	W
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets
	S	N	W
1	496	538	43
2	476	516	41
3	466	506	40
4	397	430	34
5	377	409	33
6	337	366	29
7	312	339	27
8	298	323	26
9	238	258	21
10	223	242	19
11	223	242	19
12	213	231	18
13	193	210	17
14	179	194	15
15	179	194	15
16	174	188	15
17	99	108	9
18	55	59	5
19	50	54	4
20	20	22	2
21	15	16	1
22	15	16	1
23	10	11	1
24	10	11	1

Warrant Analysis by Hour

Hour	Major Lanes		Minor Lanes		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	5	1034	1	43	No	No	No	No	No	No	No	Yes	No	No
2	5	992	1	41	No	No	No	No	No	No	No	No	No	No
3	5	972	1	40	No	No	No	No	No	No	No	No	No	No
4	5	827	1	34	No	No	No	No	No	No	No	No	No	No
5	5	786	1	33	No	No	No	No	No	No	No	No	No	No
6	5	703	1	29	No	No	No	No	No	No	No	No	No	No
7	5	651	1	27	No	No	No	No	No	No	No	No	No	No
8	5	621	1	26	No	No	No	No	No	No	No	No	No	No
9	5	496	1	21	No	No	No	No	No	No	No	No	No	No
10	5	465	1	19	No	No	No	No	No	No	No	No	No	No
11	5	465	1	19	No	No	No	No	No	No	No	No	No	No
12	5	444	1	18	No	No	No	No	No	No	No	No	No	No
13	5	403	1	17	No	No	No	No	No	No	No	No	No	No
14	5	373	1	15	No	No	No	No	No	No	No	No	No	No
15	5	373	1	15	No	No	No	No	No	No	No	No	No	No
16	5	362	1	15	No	No	No	No	No	No	No	No	No	No
17	5	207	1	9	No	No	No	No	No	No	No	No	No	No
18	5	114	1	5	No	No	No	No	No	No	No	No	No	No
19	5	104	1	4	No	No	No	No	No	No	No	No	No	No
20	5	42	1	2	No	No	No	No	No	No	No	No	No	No
21	5	31	1	1	No	No	No	No	No	No	No	No	No	No
22	5	31	1	1	No	No	No	No	No	No	No	No	No	No
23	5	21	1	1	No	No	No	No	No	No	No	No	No	No
24	5	21	1	1	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	1	0	0

Warrant 3 Condition A

Orientation	W
Total Stopped Delay Per Vehicle on Minor Approach (s)	15.8
Number of Lanes on Minor Street Approach	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:11
Delay Condition Met	No
Volume on Minor Street Approach During Same Hour	43
High Minor Volume Condition Met	No
Total Entering Volume on All Approaches During Same Hour	1077
Number of Approaches on Intersection	3
Total Volume Condition Met	Yes
Warrant Met for Approach	No
Warrant Met for Intersection	**No**

Signal Warrants Report For Intersection 6: Date Palm Drive / East Project Driveway - Hillery Road

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	N, S
Minor Approaches	W
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets
	N	S	W
1	539	8	4
2	517	8	4
3	507	8	4
4	431	6	3
5	410	6	3
6	367	5	3
7	340	5	3
8	323	5	2
9	259	4	2
10	243	4	2
11	243	4	2
12	232	3	2
13	210	3	2
14	194	3	1
15	194	3	1
16	189	3	1
17	108	2	1
18	59	1	0
19	54	1	0
20	22	0	0
21	16	0	0
22	16	0	0
23	11	0	0
24	11	0	0

Warrant Analysis by Hour

Hour	Major Lanes		Minor Lanes		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	4	547	1	4	No	No	No	No	No	No	No	No	No	No
2	4	525	1	4	No	No	No	No	No	No	No	No	No	No
3	4	515	1	4	No	No	No	No	No	No	No	No	No	No
4	4	437	1	3	No	No	No	No	No	No	No	No	No	No
5	4	416	1	3	No	No	No	No	No	No	No	No	No	No
6	4	372	1	3	No	No	No	No	No	No	No	No	No	No
7	4	345	1	3	No	No	No	No	No	No	No	No	No	No
8	4	328	1	2	No	No	No	No	No	No	No	No	No	No
9	4	263	1	2	No	No	No	No	No	No	No	No	No	No
10	4	247	1	2	No	No	No	No	No	No	No	No	No	No
11	4	247	1	2	No	No	No	No	No	No	No	No	No	No
12	4	235	1	2	No	No	No	No	No	No	No	No	No	No
13	4	213	1	2	No	No	No	No	No	No	No	No	No	No
14	4	197	1	1	No	No	No	No	No	No	No	No	No	No
15	4	197	1	1	No	No	No	No	No	No	No	No	No	No
16	4	192	1	1	No	No	No	No	No	No	No	No	No	No
17	4	110	1	1	No	No	No	No	No	No	No	No	No	No
18	4	60	1	0	No	No	No	No	No	No	No	No	No	No
19	4	55	1	0	No	No	No	No	No	No	No	No	No	No
20	4	22	1	0	No	No	No	No	No	No	No	No	No	No
21	4	16	1	0	No	No	No	No	No	No	No	No	No	No
22	4	16	1	0	No	No	No	No	No	No	No	No	No	No
23	4	11	1	0	No	No	No	No	No	No	No	No	No	No
24	4	11	1	0	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	W
Total Stopped Delay Per Vehicle on Minor Approach (s)	10.1
Number of Lanes on Minor Street Approach	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:00
Delay Condition Met	No
Volume on Minor Street Approach During Same Hour	4
High Minor Volume Condition Met	No
Total Entering Volume on All Approaches During Same Hour	551
Number of Approaches on Intersection	3
Total Volume Condition Met	No
Warrant Met for Approach	No
Warrant Met for Intersection	**No**

Signal Warrants Report For Intersection 7: North Project Driveway 2 / Buddy Rogers Avenue

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	E, W
Minor Approaches	S
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets
	E	W	S
1	31	29	0
2	30	28	0
3	29	27	0
4	25	23	0
5	24	22	0
6	21	20	0
7	20	18	0
8	19	17	0
9	15	14	0
10	14	13	0
11	14	13	0
12	13	12	0
13	12	11	0
14	11	10	0
15	11	10	0
16	11	10	0
17	6	6	0
18	3	3	0
19	3	3	0
20	1	1	0
21	1	1	0
22	1	1	0
23	1	1	0
24	1	1	0

Warrant Analysis by Hour

Hour	Major Lanes		Minor Lanes		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	2	60	1	0	No	No	No	No	No	No	No	No	No	No
2	2	58	1	0	No	No	No	No	No	No	No	No	No	No
3	2	56	1	0	No	No	No	No	No	No	No	No	No	No
4	2	48	1	0	No	No	No	No	No	No	No	No	No	No
5	2	46	1	0	No	No	No	No	No	No	No	No	No	No
6	2	41	1	0	No	No	No	No	No	No	No	No	No	No
7	2	38	1	0	No	No	No	No	No	No	No	No	No	No
8	2	36	1	0	No	No	No	No	No	No	No	No	No	No
9	2	29	1	0	No	No	No	No	No	No	No	No	No	No
10	2	27	1	0	No	No	No	No	No	No	No	No	No	No
11	2	27	1	0	No	No	No	No	No	No	No	No	No	No
12	2	25	1	0	No	No	No	No	No	No	No	No	No	No
13	2	23	1	0	No	No	No	No	No	No	No	No	No	No
14	2	21	1	0	No	No	No	No	No	No	No	No	No	No
15	2	21	1	0	No	No	No	No	No	No	No	No	No	No
16	2	21	1	0	No	No	No	No	No	No	No	No	No	No
17	2	12	1	0	No	No	No	No	No	No	No	No	No	No
18	2	6	1	0	No	No	No	No	No	No	No	No	No	No
19	2	6	1	0	No	No	No	No	No	No	No	No	No	No
20	2	2	1	0	No	No	No	No	No	No	No	No	No	No
21	2	2	1	0	No	No	No	No	No	No	No	No	No	No
22	2	2	1	0	No	No	No	No	No	No	No	No	No	No
23	2	2	1	0	No	No	No	No	No	No	No	No	No	No
24	2	2	1	0	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	S
Total Stopped Delay Per Vehicle on Minor Approach (s)	8.6
Number of Lanes on Minor Street Approach	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:00
Delay Condition Met	No
Volume on Minor Street Approach During Same Hour	0
High Minor Volume Condition Met	No
Total Entering Volume on All Approaches During Same Hour	60
Number of Approaches on Intersection	3
Total Volume Condition Met	No
Warrant Met for Approach	No
Warrant Met for Intersection	**No**

Signal Warrants Report For Intersection 8: Monty Hall Drive / Buddy Rogers Avenue

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	E, W
Minor Approaches	S, N
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets	
	E	W	S	N
1	44	20	29	23
2	42	19	28	22
3	41	19	27	22
4	35	16	23	18
5	33	15	22	17
6	30	14	20	16
7	28	13	18	14
8	26	12	17	14
9	21	10	14	11
10	20	9	13	10
11	20	9	13	10
12	19	9	12	10
13	17	8	11	9
14	16	7	10	8
15	16	7	10	8
16	15	7	10	8
17	9	4	6	5
18	5	2	3	3
19	4	2	3	2
20	2	1	1	1
21	1	1	1	1
22	1	1	1	1
23	1	0	1	0
24	1	0	1	0

Warrant Analysis by Hour

Hour	Major Lanes		Minor Lanes		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	2	64	2	52	No	No	No	No	No	No	No	No	No	No
2	2	61	2	50	No	No	No	No	No	No	No	No	No	No
3	2	60	2	49	No	No	No	No	No	No	No	No	No	No
4	2	51	2	41	No	No	No	No	No	No	No	No	No	No
5	2	48	2	39	No	No	No	No	No	No	No	No	No	No
6	2	44	2	36	No	No	No	No	No	No	No	No	No	No
7	2	41	2	32	No	No	No	No	No	No	No	No	No	No
8	2	38	2	31	No	No	No	No	No	No	No	No	No	No
9	2	31	2	25	No	No	No	No	No	No	No	No	No	No
10	2	29	2	23	No	No	No	No	No	No	No	No	No	No
11	2	29	2	23	No	No	No	No	No	No	No	No	No	No
12	2	28	2	22	No	No	No	No	No	No	No	No	No	No
13	2	25	2	20	No	No	No	No	No	No	No	No	No	No
14	2	23	2	18	No	No	No	No	No	No	No	No	No	No
15	2	23	2	18	No	No	No	No	No	No	No	No	No	No
16	2	22	2	18	No	No	No	No	No	No	No	No	No	No
17	2	13	2	11	No	No	No	No	No	No	No	No	No	No
18	2	7	2	6	No	No	No	No	No	No	No	No	No	No
19	2	6	2	5	No	No	No	No	No	No	No	No	No	No
20	2	3	2	2	No	No	No	No	No	No	No	No	No	No
21	2	2	2	2	No	No	No	No	No	No	No	No	No	No
22	2	2	2	2	No	No	No	No	No	No	No	No	No	No
23	2	1	2	1	No	No	No	No	No	No	No	No	No	No
24	2	1	2	1	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	S	N
Total Stopped Delay Per Vehicle on Minor Approach (s)	7.3	7.4
Number of Lanes on Minor Street Approach	1	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:03	0:02
Delay Condition Met	No	No
Volume on Minor Street Approach During Same Hour	29	23
High Minor Volume Condition Met	No	No
Total Entering Volume on All Approaches During Same Hour	116	116
Number of Approaches on Intersection	4	4
Total Volume Condition Met	No	No
Warrant Met for Approach	No	No
Warrant Met for Intersection	**No**	

Signal Warrants Report For Intersection 16: Cathedral Canyon Drive / Paseo Real

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	N, S
Minor Approaches	E, W
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets	
	N	S	E	W
1	544	502	29	32
2	522	482	28	31
3	511	472	27	30
4	435	402	23	26
5	413	382	22	24
6	370	341	20	22
7	343	316	18	20
8	326	301	17	19
9	261	241	14	15
10	245	226	13	14
11	245	226	13	14
12	234	216	12	14
13	212	196	11	12
14	196	181	10	12
15	196	181	10	12
16	190	176	10	11
17	109	100	6	6
18	60	55	3	4
19	54	50	3	3
20	22	20	1	1
21	16	15	1	1
22	16	15	1	1
23	11	10	1	1
24	11	10	1	1

Warrant Analysis by Hour

Hour	Major Lanes		Minor Lanes		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	6	1046	2	61	No	No	No	No	No	No	No	No	No	No
2	6	1004	2	59	No	No	No	No	No	No	No	No	No	No
3	6	983	2	57	No	No	No	No	No	No	No	No	No	No
4	6	837	2	49	No	No	No	No	No	No	No	No	No	No
5	6	795	2	46	No	No	No	No	No	No	No	No	No	No
6	6	711	2	42	No	No	No	No	No	No	No	No	No	No
7	6	659	2	38	No	No	No	No	No	No	No	No	No	No
8	6	627	2	36	No	No	No	No	No	No	No	No	No	No
9	6	502	2	29	No	No	No	No	No	No	No	No	No	No
10	6	471	2	27	No	No	No	No	No	No	No	No	No	No
11	6	471	2	27	No	No	No	No	No	No	No	No	No	No
12	6	450	2	26	No	No	No	No	No	No	No	No	No	No
13	6	408	2	23	No	No	No	No	No	No	No	No	No	No
14	6	377	2	22	No	No	No	No	No	No	No	No	No	No
15	6	377	2	22	No	No	No	No	No	No	No	No	No	No
16	6	366	2	21	No	No	No	No	No	No	No	No	No	No
17	6	209	2	12	No	No	No	No	No	No	No	No	No	No
18	6	115	2	7	No	No	No	No	No	No	No	No	No	No
19	6	104	2	6	No	No	No	No	No	No	No	No	No	No
20	6	42	2	2	No	No	No	No	No	No	No	No	No	No
21	6	31	2	2	No	No	No	No	No	No	No	No	No	No
22	6	31	2	2	No	No	No	No	No	No	No	No	No	No
23	6	21	2	2	No	No	No	No	No	No	No	No	No	No
24	6	21	2	2	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	E	W
Total Stopped Delay Per Vehicle on Minor Approach (s)	16.4	16.2
Number of Lanes on Minor Street Approach	1	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:07	0:08
Delay Condition Met	No	No
Volume on Minor Street Approach During Same Hour	29	32
High Minor Volume Condition Met	No	No
Total Entering Volume on All Approaches During Same Hour	1107	1107
Number of Approaches on Intersection	4	4
Total Volume Condition Met	Yes	Yes
Warrant Met for Approach	No	No
Warrant Met for Intersection	**No**	

Signal Warrants Report For Intersection 27: Van Fleet Street / B Street-West Project Driveway

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	S, N
Minor Approaches	E, W
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets	
	S	N	E	W
1	42	65	0	8
2	40	62	0	8
3	39	61	0	8
4	34	52	0	6
5	32	49	0	6
6	29	44	0	5
7	26	41	0	5
8	25	39	0	5
9	20	31	0	4
10	19	29	0	4
11	19	29	0	4
12	18	28	0	3
13	16	25	0	3
14	15	23	0	3
15	15	23	0	3
16	15	23	0	3
17	8	13	0	2
18	5	7	0	1
19	4	7	0	1
20	2	3	0	0
21	1	2	0	0
22	1	2	0	0
23	1	1	0	0
24	1	1	0	0

Warrant Analysis by Hour

Hour	Major Lanes		Minor Lanes		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	2	107	2	8	No	No	No	No	No	No	No	No	No	No
2	2	102	2	8	No	No	No	No	No	No	No	No	No	No
3	2	100	2	8	No	No	No	No	No	No	No	No	No	No
4	2	86	2	6	No	No	No	No	No	No	No	No	No	No
5	2	81	2	6	No	No	No	No	No	No	No	No	No	No
6	2	73	2	5	No	No	No	No	No	No	No	No	No	No
7	2	67	2	5	No	No	No	No	No	No	No	No	No	No
8	2	64	2	5	No	No	No	No	No	No	No	No	No	No
9	2	51	2	4	No	No	No	No	No	No	No	No	No	No
10	2	48	2	4	No	No	No	No	No	No	No	No	No	No
11	2	48	2	4	No	No	No	No	No	No	No	No	No	No
12	2	46	2	3	No	No	No	No	No	No	No	No	No	No
13	2	41	2	3	No	No	No	No	No	No	No	No	No	No
14	2	38	2	3	No	No	No	No	No	No	No	No	No	No
15	2	38	2	3	No	No	No	No	No	No	No	No	No	No
16	2	38	2	3	No	No	No	No	No	No	No	No	No	No
17	2	21	2	2	No	No	No	No	No	No	No	No	No	No
18	2	12	2	1	No	No	No	No	No	No	No	No	No	No
19	2	11	2	1	No	No	No	No	No	No	No	No	No	No
20	2	5	2	0	No	No	No	No	No	No	No	No	No	No
21	2	3	2	0	No	No	No	No	No	No	No	No	No	No
22	2	3	2	0	No	No	No	No	No	No	No	No	No	No
23	2	2	2	0	No	No	No	No	No	No	No	No	No	No
24	2	2	2	0	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	E	W
Total Stopped Delay Per Vehicle on Minor Approach (s)	9.2	9.1
Number of Lanes on Minor Street Approach	1	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:00	0:01
Delay Condition Met	No	No
Volume on Minor Street Approach During Same Hour	0	8
High Minor Volume Condition Met	No	No
Total Entering Volume on All Approaches During Same Hour	115	115
Number of Approaches on Intersection	4	4
Total Volume Condition Met	No	No
Warrant Met for Approach	No	No
Warrant Met for Intersection	**No**	

Signal Warrants Report For Intersection 28: Van Fleet Street / D Street

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	S, N
Minor Approaches	E, W
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets	
	S	N	E	W
1	35	51	5	10
2	34	49	5	10
3	33	48	5	9
4	28	41	4	8
5	27	39	4	8
6	24	35	3	7
7	22	32	3	6
8	21	31	3	6
9	17	24	2	5
10	16	23	2	5
11	16	23	2	5
12	15	22	2	4
13	14	20	2	4
14	13	18	2	4
15	13	18	2	4
16	12	18	2	4
17	7	10	1	2
18	4	6	1	1
19	4	5	1	1
20	1	2	0	0
21	1	2	0	0
22	1	2	0	0
23	1	1	0	0
24	1	1	0	0

Warrant Analysis by Hour

Hour	Major Lanes		Minor Lanes		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	2	86	2	15	No	No	No	No	No	No	No	No	No	No
2	2	83	2	15	No	No	No	No	No	No	No	No	No	No
3	2	81	2	14	No	No	No	No	No	No	No	No	No	No
4	2	69	2	12	No	No	No	No	No	No	No	No	No	No
5	2	66	2	12	No	No	No	No	No	No	No	No	No	No
6	2	59	2	10	No	No	No	No	No	No	No	No	No	No
7	2	54	2	9	No	No	No	No	No	No	No	No	No	No
8	2	52	2	9	No	No	No	No	No	No	No	No	No	No
9	2	41	2	7	No	No	No	No	No	No	No	No	No	No
10	2	39	2	7	No	No	No	No	No	No	No	No	No	No
11	2	39	2	7	No	No	No	No	No	No	No	No	No	No
12	2	37	2	6	No	No	No	No	No	No	No	No	No	No
13	2	34	2	6	No	No	No	No	No	No	No	No	No	No
14	2	31	2	6	No	No	No	No	No	No	No	No	No	No
15	2	31	2	6	No	No	No	No	No	No	No	No	No	No
16	2	30	2	6	No	No	No	No	No	No	No	No	No	No
17	2	17	2	3	No	No	No	No	No	No	No	No	No	No
18	2	10	2	2	No	No	No	No	No	No	No	No	No	No
19	2	9	2	2	No	No	No	No	No	No	No	No	No	No
20	2	3	2	0	No	No	No	No	No	No	No	No	No	No
21	2	3	2	0	No	No	No	No	No	No	No	No	No	No
22	2	3	2	0	No	No	No	No	No	No	No	No	No	No
23	2	2	2	0	No	No	No	No	No	No	No	No	No	No
24	2	2	2	0	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	E	W
Total Stopped Delay Per Vehicle on Minor Approach (s)	9	9.3
Number of Lanes on Minor Street Approach	1	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:00	0:01
Delay Condition Met	No	No
Volume on Minor Street Approach During Same Hour	5	10
High Minor Volume Condition Met	No	No
Total Entering Volume on All Approaches During Same Hour	101	101
Number of Approaches on Intersection	4	4
Total Volume Condition Met	No	No
Warrant Met for Approach	No	No
Warrant Met for Intersection	**No**	

Signal Warrants Report For Intersection 29: South Project Driveway / D Street

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	E, W
Minor Approaches	N
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets
	E	W	N
1	9	5	0
2	9	5	0
3	8	5	0
4	7	4	0
5	7	4	0
6	6	3	0
7	6	3	0
8	5	3	0
9	4	2	0
10	4	2	0
11	4	2	0
12	4	2	0
13	4	2	0
14	3	2	0
15	3	2	0
16	3	2	0
17	2	1	0
18	1	1	0
19	1	1	0
20	0	0	0
21	0	0	0
22	0	0	0
23	0	0	0
24	0	0	0

Warrant Analysis by Hour

Hour	Major Lanes		Minor Lanes		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	2	14	1	0	No	No	No	No	No	No	No	No	No	No
2	2	14	1	0	No	No	No	No	No	No	No	No	No	No
3	2	13	1	0	No	No	No	No	No	No	No	No	No	No
4	2	11	1	0	No	No	No	No	No	No	No	No	No	No
5	2	11	1	0	No	No	No	No	No	No	No	No	No	No
6	2	9	1	0	No	No	No	No	No	No	No	No	No	No
7	2	9	1	0	No	No	No	No	No	No	No	No	No	No
8	2	8	1	0	No	No	No	No	No	No	No	No	No	No
9	2	6	1	0	No	No	No	No	No	No	No	No	No	No
10	2	6	1	0	No	No	No	No	No	No	No	No	No	No
11	2	6	1	0	No	No	No	No	No	No	No	No	No	No
12	2	6	1	0	No	No	No	No	No	No	No	No	No	No
13	2	6	1	0	No	No	No	No	No	No	No	No	No	No
14	2	5	1	0	No	No	No	No	No	No	No	No	No	No
15	2	5	1	0	No	No	No	No	No	No	No	No	No	No
16	2	5	1	0	No	No	No	No	No	No	No	No	No	No
17	2	3	1	0	No	No	No	No	No	No	No	No	No	No
18	2	2	1	0	No	No	No	No	No	No	No	No	No	No
19	2	2	1	0	No	No	No	No	No	No	No	No	No	No
20	2	0	1	0	No	No	No	No	No	No	No	No	No	No
21	2	0	1	0	No	No	No	No	No	No	No	No	No	No
22	2	0	1	0	No	No	No	No	No	No	No	No	No	No
23	2	0	1	0	No	No	No	No	No	No	No	No	No	No
24	2	0	1	0	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	N
Total Stopped Delay Per Vehicle on Minor Approach (s)	8.5
Number of Lanes on Minor Street Approach	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:00
Delay Condition Met	No
Volume on Minor Street Approach During Same Hour	0
High Minor Volume Condition Met	No
Total Entering Volume on All Approaches During Same Hour	14
Number of Approaches on Intersection	3
Total Volume Condition Met	No
Warrant Met for Approach	No
Warrant Met for Intersection	**No**

Signal Warrants Report For Intersection 8: Monty Hall Drive / Buddy Rogers Avenue

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	E, W
Minor Approaches	S, N
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets	
	E	W	S	N
1	25	40	23	35
2	24	38	22	34
3	24	38	22	33
4	20	32	18	28
5	19	30	17	27
6	17	27	16	24
7	16	25	14	22
8	15	24	14	21
9	12	19	11	17
10	11	18	10	16
11	11	18	10	16
12	11	17	10	15
13	10	16	9	14
14	9	14	8	13
15	9	14	8	13
16	9	14	8	12
17	5	8	5	7
18	3	4	3	4
19	3	4	2	4
20	1	2	1	1
21	1	1	1	1
22	1	1	1	1
23	1	1	0	1
24	1	1	0	1

Warrant Analysis by Hour

Hour	Major Lanes		Minor Lanes		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	2	65	2	58	No	No	No	No	No	No	No	No	No	No
2	2	62	2	56	No	No	No	No	No	No	No	No	No	No
3	2	62	2	55	No	No	No	No	No	No	No	No	No	No
4	2	52	2	46	No	No	No	No	No	No	No	No	No	No
5	2	49	2	44	No	No	No	No	No	No	No	No	No	No
6	2	44	2	40	No	No	No	No	No	No	No	No	No	No
7	2	41	2	36	No	No	No	No	No	No	No	No	No	No
8	2	39	2	35	No	No	No	No	No	No	No	No	No	No
9	2	31	2	28	No	No	No	No	No	No	No	No	No	No
10	2	29	2	26	No	No	No	No	No	No	No	No	No	No
11	2	29	2	26	No	No	No	No	No	No	No	No	No	No
12	2	28	2	25	No	No	No	No	No	No	No	No	No	No
13	2	26	2	23	No	No	No	No	No	No	No	No	No	No
14	2	23	2	21	No	No	No	No	No	No	No	No	No	No
15	2	23	2	21	No	No	No	No	No	No	No	No	No	No
16	2	23	2	20	No	No	No	No	No	No	No	No	No	No
17	2	13	2	12	No	No	No	No	No	No	No	No	No	No
18	2	7	2	7	No	No	No	No	No	No	No	No	No	No
19	2	7	2	6	No	No	No	No	No	No	No	No	No	No
20	2	3	2	2	No	No	No	No	No	No	No	No	No	No
21	2	2	2	2	No	No	No	No	No	No	No	No	No	No
22	2	2	2	2	No	No	No	No	No	No	No	No	No	No
23	2	2	2	1	No	No	No	No	No	No	No	No	No	No
24	2	2	2	1	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	S	N
Total Stopped Delay Per Vehicle on Minor Approach (s)	7.3	7.5
Number of Lanes on Minor Street Approach	1	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:02	0:04
Delay Condition Met	No	No
Volume on Minor Street Approach During Same Hour	23	35
High Minor Volume Condition Met	No	No
Total Entering Volume on All Approaches During Same Hour	123	123
Number of Approaches on Intersection	4	4
Total Volume Condition Met	No	No
Warrant Met for Approach	No	No
Warrant Met for Intersection	**No**	

Signal Warrants Report For Intersection 16: Cathedral Canyon Drive / Paseo Real

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	N, S
Minor Approaches	E, W
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets	
	N	S	E	W
1	598	780	16	23
2	574	749	15	22
3	562	733	15	22
4	478	624	13	18
5	454	593	12	17
6	407	530	11	16
7	377	491	10	14
8	359	468	10	14
9	287	374	8	11
10	269	351	7	10
11	269	351	7	10
12	257	335	7	10
13	233	304	6	9
14	215	281	6	8
15	215	281	6	8
16	209	273	6	8
17	120	156	3	5
18	66	86	2	3
19	60	78	2	2
20	24	31	1	1
21	18	23	0	1
22	18	23	0	1
23	12	16	0	0
24	12	16	0	0

Warrant Analysis by Hour

Hour	Major Lanes		Minor Lanes		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	6	1378	2	39	No	No	No	No	No	No	No	No	No	No
2	6	1323	2	37	No	No	No	No	No	No	No	No	No	No
3	6	1295	2	37	No	No	No	No	No	No	No	No	No	No
4	6	1102	2	31	No	No	No	No	No	No	No	No	No	No
5	6	1047	2	29	No	No	No	No	No	No	No	No	No	No
6	6	937	2	27	No	No	No	No	No	No	No	No	No	No
7	6	868	2	24	No	No	No	No	No	No	No	No	No	No
8	6	827	2	24	No	No	No	No	No	No	No	No	No	No
9	6	661	2	19	No	No	No	No	No	No	No	No	No	No
10	6	620	2	17	No	No	No	No	No	No	No	No	No	No
11	6	620	2	17	No	No	No	No	No	No	No	No	No	No
12	6	592	2	17	No	No	No	No	No	No	No	No	No	No
13	6	537	2	15	No	No	No	No	No	No	No	No	No	No
14	6	496	2	14	No	No	No	No	No	No	No	No	No	No
15	6	496	2	14	No	No	No	No	No	No	No	No	No	No
16	6	482	2	14	No	No	No	No	No	No	No	No	No	No
17	6	276	2	8	No	No	No	No	No	No	No	No	No	No
18	6	152	2	5	No	No	No	No	No	No	No	No	No	No
19	6	138	2	4	No	No	No	No	No	No	No	No	No	No
20	6	55	2	2	No	No	No	No	No	No	No	No	No	No
21	6	41	2	1	No	No	No	No	No	No	No	No	No	No
22	6	41	2	1	No	No	No	No	No	No	No	No	No	No
23	6	28	2	0	No	No	No	No	No	No	No	No	No	No
24	6	28	2	0	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	E	W
Total Stopped Delay Per Vehicle on Minor Approach (s)	23.1	16.7
Number of Lanes on Minor Street Approach	1	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:06	0:06
Delay Condition Met	No	No
Volume on Minor Street Approach During Same Hour	16	23
High Minor Volume Condition Met	No	No
Total Entering Volume on All Approaches During Same Hour	1417	1417
Number of Approaches on Intersection	4	4
Total Volume Condition Met	Yes	Yes
Warrant Met for Approach	No	No
Warrant Met for Intersection	**No**	

EACP Conditions

Signal Warrants Report For Intersection 1: North Project Driveway 1 / Buddy Rogers Avenue

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	E, W
Minor Approaches	S, N
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets	
	E	W	S	N
1	32	30	0	0
2	31	29	0	0
3	30	28	0	0
4	26	24	0	0
5	24	23	0	0
6	22	20	0	0
7	20	19	0	0
8	19	18	0	0
9	15	14	0	0
10	14	14	0	0
11	14	14	0	0
12	14	13	0	0
13	12	12	0	0
14	12	11	0	0
15	12	11	0	0
16	11	11	0	0
17	6	6	0	0
18	4	3	0	0
19	3	3	0	0
20	1	1	0	0
21	1	1	0	0
22	1	1	0	0
23	1	1	0	0
24	1	1	0	0

Warrant Analysis by Hour

Hour	Major Lanes		Minor Lanes		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	2	62	3	0	No	No	No	No	No	No	No	No	No	No
2	2	60	3	0	No	No	No	No	No	No	No	No	No	No
3	2	58	3	0	No	No	No	No	No	No	No	No	No	No
4	2	50	3	0	No	No	No	No	No	No	No	No	No	No
5	2	47	3	0	No	No	No	No	No	No	No	No	No	No
6	2	42	3	0	No	No	No	No	No	No	No	No	No	No
7	2	39	3	0	No	No	No	No	No	No	No	No	No	No
8	2	37	3	0	No	No	No	No	No	No	No	No	No	No
9	2	29	3	0	No	No	No	No	No	No	No	No	No	No
10	2	28	3	0	No	No	No	No	No	No	No	No	No	No
11	2	28	3	0	No	No	No	No	No	No	No	No	No	No
12	2	27	3	0	No	No	No	No	No	No	No	No	No	No
13	2	24	3	0	No	No	No	No	No	No	No	No	No	No
14	2	23	3	0	No	No	No	No	No	No	No	No	No	No
15	2	23	3	0	No	No	No	No	No	No	No	No	No	No
16	2	22	3	0	No	No	No	No	No	No	No	No	No	No
17	2	12	3	0	No	No	No	No	No	No	No	No	No	No
18	2	7	3	0	No	No	No	No	No	No	No	No	No	No
19	2	6	3	0	No	No	No	No	No	No	No	No	No	No
20	2	2	3	0	No	No	No	No	No	No	No	No	No	No
21	2	2	3	0	No	No	No	No	No	No	No	No	No	No
22	2	2	3	0	No	No	No	No	No	No	No	No	No	No
23	2	2	3	0	No	No	No	No	No	No	No	No	No	No
24	2	2	3	0	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	S	N
Total Stopped Delay Per Vehicle on Minor Approach (s)	8.9	8.9
Number of Lanes on Minor Street Approach	2	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:00	0:00
Delay Condition Met	No	No
Volume on Minor Street Approach During Same Hour	0	0
High Minor Volume Condition Met	No	No
Total Entering Volume on All Approaches During Same Hour	62	62
Number of Approaches on Intersection	4	4
Total Volume Condition Met	No	No
Warrant Met for Approach	No	No
Warrant Met for Intersection	**No**	

Signal Warrants Report For Intersection 2: Date Palm Drive / Buddy Rogers Avenue

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	S, N
Minor Approaches	W
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets
	S	N	W
1	754	641	30
2	724	615	29
3	709	603	28
4	603	513	24
5	573	487	23
6	513	436	20
7	475	404	19
8	452	385	18
9	362	308	14
10	339	288	14
11	339	288	14
12	324	276	13
13	294	250	12
14	271	231	11
15	271	231	11
16	264	224	11
17	151	128	6
18	83	71	3
19	75	64	3
20	30	26	1
21	23	19	1
22	23	19	1
23	15	13	1
24	15	13	1

Warrant Analysis by Hour

Hour	Major Lanes		Minor Lanes		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	5	1395	1	30	No	No	No	No	No	No	No	No	No	No
2	5	1339	1	29	No	No	No	No	No	No	No	No	No	No
3	5	1312	1	28	No	No	No	No	No	No	No	No	No	No
4	5	1116	1	24	No	No	No	No	No	No	No	No	No	No
5	5	1060	1	23	No	No	No	No	No	No	No	No	No	No
6	5	949	1	20	No	No	No	No	No	No	No	No	No	No
7	5	879	1	19	No	No	No	No	No	No	No	No	No	No
8	5	837	1	18	No	No	No	No	No	No	No	No	No	No
9	5	670	1	14	No	No	No	No	No	No	No	No	No	No
10	5	627	1	14	No	No	No	No	No	No	No	No	No	No
11	5	627	1	14	No	No	No	No	No	No	No	No	No	No
12	5	600	1	13	No	No	No	No	No	No	No	No	No	No
13	5	544	1	12	No	No	No	No	No	No	No	No	No	No
14	5	502	1	11	No	No	No	No	No	No	No	No	No	No
15	5	502	1	11	No	No	No	No	No	No	No	No	No	No
16	5	488	1	11	No	No	No	No	No	No	No	No	No	No
17	5	279	1	6	No	No	No	No	No	No	No	No	No	No
18	5	154	1	3	No	No	No	No	No	No	No	No	No	No
19	5	139	1	3	No	No	No	No	No	No	No	No	No	No
20	5	56	1	1	No	No	No	No	No	No	No	No	No	No
21	5	42	1	1	No	No	No	No	No	No	No	No	No	No
22	5	42	1	1	No	No	No	No	No	No	No	No	No	No
23	5	28	1	1	No	No	No	No	No	No	No	No	No	No
24	5	28	1	1	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	W
Total Stopped Delay Per Vehicle on Minor Approach (s)	21.2
Number of Lanes on Minor Street Approach	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:10
Delay Condition Met	No
Volume on Minor Street Approach During Same Hour	30
High Minor Volume Condition Met	No
Total Entering Volume on All Approaches During Same Hour	1425
Number of Approaches on Intersection	3
Total Volume Condition Met	Yes
Warrant Met for Approach	No
Warrant Met for Intersection	**No**

Signal Warrants Report For Intersection 6: Date Palm Drive / East Palm Drive

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	N, S
Minor Approaches	W
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets
	N	S	W
1	620	60	0
2	595	58	0
3	583	56	0
4	496	48	0
5	471	46	0
6	422	41	0
7	391	38	0
8	372	36	0
9	298	29	0
10	279	27	0
11	279	27	0
12	267	26	0
13	242	23	0
14	223	22	0
15	223	22	0
16	217	21	0
17	124	12	0
18	68	7	0
19	62	6	0
20	25	2	0
21	19	2	0
22	19	2	0
23	12	1	0
24	12	1	0

Warrant Analysis by Hour

Hour	Major Lanes		Minor Lanes		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	4	680	1	0	No	No	No	No	No	No	No	No	No	No
2	4	653	1	0	No	No	No	No	No	No	No	No	No	No
3	4	639	1	0	No	No	No	No	No	No	No	No	No	No
4	4	544	1	0	No	No	No	No	No	No	No	No	No	No
5	4	517	1	0	No	No	No	No	No	No	No	No	No	No
6	4	463	1	0	No	No	No	No	No	No	No	No	No	No
7	4	429	1	0	No	No	No	No	No	No	No	No	No	No
8	4	408	1	0	No	No	No	No	No	No	No	No	No	No
9	4	327	1	0	No	No	No	No	No	No	No	No	No	No
10	4	306	1	0	No	No	No	No	No	No	No	No	No	No
11	4	306	1	0	No	No	No	No	No	No	No	No	No	No
12	4	293	1	0	No	No	No	No	No	No	No	No	No	No
13	4	265	1	0	No	No	No	No	No	No	No	No	No	No
14	4	245	1	0	No	No	No	No	No	No	No	No	No	No
15	4	245	1	0	No	No	No	No	No	No	No	No	No	No
16	4	238	1	0	No	No	No	No	No	No	No	No	No	No
17	4	136	1	0	No	No	No	No	No	No	No	No	No	No
18	4	75	1	0	No	No	No	No	No	No	No	No	No	No
19	4	68	1	0	No	No	No	No	No	No	No	No	No	No
20	4	27	1	0	No	No	No	No	No	No	No	No	No	No
21	4	21	1	0	No	No	No	No	No	No	No	No	No	No
22	4	21	1	0	No	No	No	No	No	No	No	No	No	No
23	4	13	1	0	No	No	No	No	No	No	No	No	No	No
24	4	13	1	0	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	W
Total Stopped Delay Per Vehicle on Minor Approach (s)	10.5
Number of Lanes on Minor Street Approach	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:00
Delay Condition Met	No
Volume on Minor Street Approach During Same Hour	0
High Minor Volume Condition Met	No
Total Entering Volume on All Approaches During Same Hour	680
Number of Approaches on Intersection	3
Total Volume Condition Met	Yes
Warrant Met for Approach	No
Warrant Met for Intersection	**No**

Signal Warrants Report For Intersection 7: North Project Driveway 2 / Buddy Rogers Avenue

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	E, W
Minor Approaches	S
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets
	E	W	S
1	32	30	0
2	31	29	0
3	30	28	0
4	26	24	0
5	24	23	0
6	22	20	0
7	20	19	0
8	19	18	0
9	15	14	0
10	14	14	0
11	14	14	0
12	14	13	0
13	12	12	0
14	12	11	0
15	12	11	0
16	11	11	0
17	6	6	0
18	4	3	0
19	3	3	0
20	1	1	0
21	1	1	0
22	1	1	0
23	1	1	0
24	1	1	0

Warrant Analysis by Hour

Hour	Major Lanes		Minor Lanes		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	2	62	1	0	No	No	No	No	No	No	No	No	No	No
2	2	60	1	0	No	No	No	No	No	No	No	No	No	No
3	2	58	1	0	No	No	No	No	No	No	No	No	No	No
4	2	50	1	0	No	No	No	No	No	No	No	No	No	No
5	2	47	1	0	No	No	No	No	No	No	No	No	No	No
6	2	42	1	0	No	No	No	No	No	No	No	No	No	No
7	2	39	1	0	No	No	No	No	No	No	No	No	No	No
8	2	37	1	0	No	No	No	No	No	No	No	No	No	No
9	2	29	1	0	No	No	No	No	No	No	No	No	No	No
10	2	28	1	0	No	No	No	No	No	No	No	No	No	No
11	2	28	1	0	No	No	No	No	No	No	No	No	No	No
12	2	27	1	0	No	No	No	No	No	No	No	No	No	No
13	2	24	1	0	No	No	No	No	No	No	No	No	No	No
14	2	23	1	0	No	No	No	No	No	No	No	No	No	No
15	2	23	1	0	No	No	No	No	No	No	No	No	No	No
16	2	22	1	0	No	No	No	No	No	No	No	No	No	No
17	2	12	1	0	No	No	No	No	No	No	No	No	No	No
18	2	7	1	0	No	No	No	No	No	No	No	No	No	No
19	2	6	1	0	No	No	No	No	No	No	No	No	No	No
20	2	2	1	0	No	No	No	No	No	No	No	No	No	No
21	2	2	1	0	No	No	No	No	No	No	No	No	No	No
22	2	2	1	0	No	No	No	No	No	No	No	No	No	No
23	2	2	1	0	No	No	No	No	No	No	No	No	No	No
24	2	2	1	0	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	S
Total Stopped Delay Per Vehicle on Minor Approach (s)	8.7
Number of Lanes on Minor Street Approach	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:00
Delay Condition Met	No
Volume on Minor Street Approach During Same Hour	0
High Minor Volume Condition Met	No
Total Entering Volume on All Approaches During Same Hour	62
Number of Approaches on Intersection	3
Total Volume Condition Met	No
Warrant Met for Approach	No
Warrant Met for Intersection	**No**

Signal Warrants Report For Intersection 8: Monty Hall Drive / Buddy Rogers Avenue

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	E, W
Minor Approaches	S, N
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets	
	E	W	S	N
1	25	42	24	36
2	24	40	23	35
3	24	39	23	34
4	20	34	19	29
5	19	32	18	27
6	17	29	16	24
7	16	26	15	23
8	15	25	14	22
9	12	20	12	17
10	11	19	11	16
11	11	19	11	16
12	11	18	10	15
13	10	16	9	14
14	9	15	9	13
15	9	15	9	13
16	9	15	8	13
17	5	8	5	7
18	3	5	3	4
19	3	4	2	4
20	1	2	1	1
21	1	1	1	1
22	1	1	1	1
23	1	1	0	1
24	1	1	0	1

Warrant Analysis by Hour

Hour	Major Lanes		Minor Lanes		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	2	67	2	60	No	No	No	No	No	No	No	No	No	No
2	2	64	2	58	No	No	No	No	No	No	No	No	No	No
3	2	63	2	57	No	No	No	No	No	No	No	No	No	No
4	2	54	2	48	No	No	No	No	No	No	No	No	No	No
5	2	51	2	45	No	No	No	No	No	No	No	No	No	No
6	2	46	2	40	No	No	No	No	No	No	No	No	No	No
7	2	42	2	38	No	No	No	No	No	No	No	No	No	No
8	2	40	2	36	No	No	No	No	No	No	No	No	No	No
9	2	32	2	29	No	No	No	No	No	No	No	No	No	No
10	2	30	2	27	No	No	No	No	No	No	No	No	No	No
11	2	30	2	27	No	No	No	No	No	No	No	No	No	No
12	2	29	2	25	No	No	No	No	No	No	No	No	No	No
13	2	26	2	23	No	No	No	No	No	No	No	No	No	No
14	2	24	2	22	No	No	No	No	No	No	No	No	No	No
15	2	24	2	22	No	No	No	No	No	No	No	No	No	No
16	2	24	2	21	No	No	No	No	No	No	No	No	No	No
17	2	13	2	12	No	No	No	No	No	No	No	No	No	No
18	2	8	2	7	No	No	No	No	No	No	No	No	No	No
19	2	7	2	6	No	No	No	No	No	No	No	No	No	No
20	2	3	2	2	No	No	No	No	No	No	No	No	No	No
21	2	2	2	2	No	No	No	No	No	No	No	No	No	No
22	2	2	2	2	No	No	No	No	No	No	No	No	No	No
23	2	2	2	1	No	No	No	No	No	No	No	No	No	No
24	2	2	2	1	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	S	N
Total Stopped Delay Per Vehicle on Minor Approach (s)	7.4	7.5
Number of Lanes on Minor Street Approach	1	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:02	0:04
Delay Condition Met	No	No
Volume on Minor Street Approach During Same Hour	24	36
High Minor Volume Condition Met	No	No
Total Entering Volume on All Approaches During Same Hour	127	127
Number of Approaches on Intersection	4	4
Total Volume Condition Met	No	No
Warrant Met for Approach	No	No
Warrant Met for Intersection	**No**	

Signal Warrants Report For Intersection 16: Cathedral Canyon Drive / Paseo Real

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	N, S
Minor Approaches	E, W
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets	
	N	S	E	W
1	636	820	16	24
2	611	787	15	23
3	598	771	15	23
4	509	656	13	19
5	483	623	12	18
6	432	558	11	16
7	401	517	10	15
8	382	492	10	14
9	305	394	8	12
10	286	369	7	11
11	286	369	7	11
12	273	353	7	10
13	248	320	6	9
14	229	295	6	9
15	229	295	6	9
16	223	287	6	8
17	127	164	3	5
18	70	90	2	3
19	64	82	2	2
20	25	33	1	1
21	19	25	0	1
22	19	25	0	1
23	13	16	0	0
24	13	16	0	0

Warrant Analysis by Hour

Hour	Major Lanes		Minor Lanes		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	6	1456	2	40	No	No	No	No	No	No	No	No	No	No
2	6	1398	2	38	No	No	No	No	No	No	No	No	No	No
3	6	1369	2	38	No	No	No	No	No	No	No	No	No	No
4	6	1165	2	32	No	No	No	No	No	No	No	No	No	No
5	6	1106	2	30	No	No	No	No	No	No	No	No	No	No
6	6	990	2	27	No	No	No	No	No	No	No	No	No	No
7	6	918	2	25	No	No	No	No	No	No	No	No	No	No
8	6	874	2	24	No	No	No	No	No	No	No	No	No	No
9	6	699	2	20	No	No	No	No	No	No	No	No	No	No
10	6	655	2	18	No	No	No	No	No	No	No	No	No	No
11	6	655	2	18	No	No	No	No	No	No	No	No	No	No
12	6	626	2	17	No	No	No	No	No	No	No	No	No	No
13	6	568	2	15	No	No	No	No	No	No	No	No	No	No
14	6	524	2	15	No	No	No	No	No	No	No	No	No	No
15	6	524	2	15	No	No	No	No	No	No	No	No	No	No
16	6	510	2	14	No	No	No	No	No	No	No	No	No	No
17	6	291	2	8	No	No	No	No	No	No	No	No	No	No
18	6	160	2	5	No	No	No	No	No	No	No	No	No	No
19	6	146	2	4	No	No	No	No	No	No	No	No	No	No
20	6	58	2	2	No	No	No	No	No	No	No	No	No	No
21	6	44	2	1	No	No	No	No	No	No	No	No	No	No
22	6	44	2	1	No	No	No	No	No	No	No	No	No	No
23	6	29	2	0	No	No	No	No	No	No	No	No	No	No
24	6	29	2	0	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	E	W
Total Stopped Delay Per Vehicle on Minor Approach (s)	25.2	17.6
Number of Lanes on Minor Street Approach	1	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:06	0:07
Delay Condition Met	No	No
Volume on Minor Street Approach During Same Hour	16	24
High Minor Volume Condition Met	No	No
Total Entering Volume on All Approaches During Same Hour	1496	1496
Number of Approaches on Intersection	4	4
Total Volume Condition Met	Yes	Yes
Warrant Met for Approach	No	No
Warrant Met for Intersection	**No**	

Signal Warrants Report For Intersection 27: Van Fleet Street / B Street-West Project Driveway

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	S, N
Minor Approaches	E, W
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets	
	S	N	E	W
1	85	98	0	10
2	82	94	0	10
3	80	92	0	9
4	68	78	0	8
5	65	74	0	8
6	58	67	0	7
7	54	62	0	6
8	51	59	0	6
9	41	47	0	5
10	38	44	0	5
11	38	44	0	5
12	37	42	0	4
13	33	38	0	4
14	31	35	0	4
15	31	35	0	4
16	30	34	0	4
17	17	20	0	2
18	9	11	0	1
19	9	10	0	1
20	3	4	0	0
21	3	3	0	0
22	3	3	0	0
23	2	2	0	0
24	2	2	0	0

Warrant Analysis by Hour

Hour	Major Lanes		Minor Lanes		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	2	183	2	10	No	No	No	No	No	No	No	No	No	No
2	2	176	2	10	No	No	No	No	No	No	No	No	No	No
3	2	172	2	9	No	No	No	No	No	No	No	No	No	No
4	2	146	2	8	No	No	No	No	No	No	No	No	No	No
5	2	139	2	8	No	No	No	No	No	No	No	No	No	No
6	2	125	2	7	No	No	No	No	No	No	No	No	No	No
7	2	116	2	6	No	No	No	No	No	No	No	No	No	No
8	2	110	2	6	No	No	No	No	No	No	No	No	No	No
9	2	88	2	5	No	No	No	No	No	No	No	No	No	No
10	2	82	2	5	No	No	No	No	No	No	No	No	No	No
11	2	82	2	5	No	No	No	No	No	No	No	No	No	No
12	2	79	2	4	No	No	No	No	No	No	No	No	No	No
13	2	71	2	4	No	No	No	No	No	No	No	No	No	No
14	2	66	2	4	No	No	No	No	No	No	No	No	No	No
15	2	66	2	4	No	No	No	No	No	No	No	No	No	No
16	2	64	2	4	No	No	No	No	No	No	No	No	No	No
17	2	37	2	2	No	No	No	No	No	No	No	No	No	No
18	2	20	2	1	No	No	No	No	No	No	No	No	No	No
19	2	19	2	1	No	No	No	No	No	No	No	No	No	No
20	2	7	2	0	No	No	No	No	No	No	No	No	No	No
21	2	6	2	0	No	No	No	No	No	No	No	No	No	No
22	2	6	2	0	No	No	No	No	No	No	No	No	No	No
23	2	4	2	0	No	No	No	No	No	No	No	No	No	No
24	2	4	2	0	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	E	W
Total Stopped Delay Per Vehicle on Minor Approach (s)	9.6	9.4
Number of Lanes on Minor Street Approach	1	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:00	0:01
Delay Condition Met	No	No
Volume on Minor Street Approach During Same Hour	0	10
High Minor Volume Condition Met	No	No
Total Entering Volume on All Approaches During Same Hour	193	193
Number of Approaches on Intersection	4	4
Total Volume Condition Met	No	No
Warrant Met for Approach	No	No
Warrant Met for Intersection	**No**	

Signal Warrants Report For Intersection 28: Van Fleet Street / D Street

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	S, N
Minor Approaches	E, W
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets	
	S	N	E	W
1	71	83	9	13
2	68	80	9	12
3	67	78	8	12
4	57	66	7	10
5	54	63	7	10
6	48	56	6	9
7	45	52	6	8
8	43	50	5	8
9	34	40	4	6
10	32	37	4	6
11	32	37	4	6
12	31	36	4	6
13	28	32	4	5
14	26	30	3	5
15	26	30	3	5
16	25	29	3	5
17	14	17	2	3
18	8	9	1	1
19	7	8	1	1
20	3	3	0	1
21	2	2	0	0
22	2	2	0	0
23	1	2	0	0
24	1	2	0	0

Warrant Analysis by Hour

Hour	Major Lanes		Minor Lanes		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	2	154	2	22	No	No	No	No	No	No	No	No	No	No
2	2	148	2	21	No	No	No	No	No	No	No	No	No	No
3	2	145	2	20	No	No	No	No	No	No	No	No	No	No
4	2	123	2	17	No	No	No	No	No	No	No	No	No	No
5	2	117	2	17	No	No	No	No	No	No	No	No	No	No
6	2	104	2	15	No	No	No	No	No	No	No	No	No	No
7	2	97	2	14	No	No	No	No	No	No	No	No	No	No
8	2	93	2	13	No	No	No	No	No	No	No	No	No	No
9	2	74	2	10	No	No	No	No	No	No	No	No	No	No
10	2	69	2	10	No	No	No	No	No	No	No	No	No	No
11	2	69	2	10	No	No	No	No	No	No	No	No	No	No
12	2	67	2	10	No	No	No	No	No	No	No	No	No	No
13	2	60	2	9	No	No	No	No	No	No	No	No	No	No
14	2	56	2	8	No	No	No	No	No	No	No	No	No	No
15	2	56	2	8	No	No	No	No	No	No	No	No	No	No
16	2	54	2	8	No	No	No	No	No	No	No	No	No	No
17	2	31	2	5	No	No	No	No	No	No	No	No	No	No
18	2	17	2	2	No	No	No	No	No	No	No	No	No	No
19	2	15	2	2	No	No	No	No	No	No	No	No	No	No
20	2	6	2	1	No	No	No	No	No	No	No	No	No	No
21	2	4	2	0	No	No	No	No	No	No	No	No	No	No
22	2	4	2	0	No	No	No	No	No	No	No	No	No	No
23	2	3	2	0	No	No	No	No	No	No	No	No	No	No
24	2	3	2	0	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	E	W
Total Stopped Delay Per Vehicle on Minor Approach (s)	9.1	9.7
Number of Lanes on Minor Street Approach	1	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:01	0:02
Delay Condition Met	No	No
Volume on Minor Street Approach During Same Hour	9	13
High Minor Volume Condition Met	No	No
Total Entering Volume on All Approaches During Same Hour	176	176
Number of Approaches on Intersection	4	4
Total Volume Condition Met	No	No
Warrant Met for Approach	No	No
Warrant Met for Intersection	**No**	

Signal Warrants Report For Intersection 29: South Project Driveway / D Street

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	E, W
Minor Approaches	N
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets
	E	W	N
1	9	5	0
2	9	5	0
3	8	5	0
4	7	4	0
5	7	4	0
6	6	3	0
7	6	3	0
8	5	3	0
9	4	2	0
10	4	2	0
11	4	2	0
12	4	2	0
13	4	2	0
14	3	2	0
15	3	2	0
16	3	2	0
17	2	1	0
18	1	1	0
19	1	1	0
20	0	0	0
21	0	0	0
22	0	0	0
23	0	0	0
24	0	0	0

Warrant Analysis by Hour

Hour	Major Lanes		Minor Lanes		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	2	14	1	0	No	No	No	No	No	No	No	No	No	No
2	2	14	1	0	No	No	No	No	No	No	No	No	No	No
3	2	13	1	0	No	No	No	No	No	No	No	No	No	No
4	2	11	1	0	No	No	No	No	No	No	No	No	No	No
5	2	11	1	0	No	No	No	No	No	No	No	No	No	No
6	2	9	1	0	No	No	No	No	No	No	No	No	No	No
7	2	9	1	0	No	No	No	No	No	No	No	No	No	No
8	2	8	1	0	No	No	No	No	No	No	No	No	No	No
9	2	6	1	0	No	No	No	No	No	No	No	No	No	No
10	2	6	1	0	No	No	No	No	No	No	No	No	No	No
11	2	6	1	0	No	No	No	No	No	No	No	No	No	No
12	2	6	1	0	No	No	No	No	No	No	No	No	No	No
13	2	6	1	0	No	No	No	No	No	No	No	No	No	No
14	2	5	1	0	No	No	No	No	No	No	No	No	No	No
15	2	5	1	0	No	No	No	No	No	No	No	No	No	No
16	2	5	1	0	No	No	No	No	No	No	No	No	No	No
17	2	3	1	0	No	No	No	No	No	No	No	No	No	No
18	2	2	1	0	No	No	No	No	No	No	No	No	No	No
19	2	2	1	0	No	No	No	No	No	No	No	No	No	No
20	2	0	1	0	No	No	No	No	No	No	No	No	No	No
21	2	0	1	0	No	No	No	No	No	No	No	No	No	No
22	2	0	1	0	No	No	No	No	No	No	No	No	No	No
23	2	0	1	0	No	No	No	No	No	No	No	No	No	No
24	2	0	1	0	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	N
Total Stopped Delay Per Vehicle on Minor Approach (s)	8.5
Number of Lanes on Minor Street Approach	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:00
Delay Condition Met	No
Volume on Minor Street Approach During Same Hour	0
High Minor Volume Condition Met	No
Total Entering Volume on All Approaches During Same Hour	14
Number of Approaches on Intersection	3
Total Volume Condition Met	No
Warrant Met for Approach	No
Warrant Met for Intersection	**No**

Signal Warrants Report For Intersection 1: North Project Driveway 1 / Buddy Rogers Avenue

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	E, W
Minor Approaches	S, N
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets	
	E	W	S	N
1	32	30	0	0
2	31	29	0	0
3	30	28	0	0
4	26	24	0	0
5	24	23	0	0
6	22	20	0	0
7	20	19	0	0
8	19	18	0	0
9	15	14	0	0
10	14	14	0	0
11	14	14	0	0
12	14	13	0	0
13	12	12	0	0
14	12	11	0	0
15	12	11	0	0
16	11	11	0	0
17	6	6	0	0
18	4	3	0	0
19	3	3	0	0
20	1	1	0	0
21	1	1	0	0
22	1	1	0	0
23	1	1	0	0
24	1	1	0	0

Warrant Analysis by Hour

Hour	Major Lanes		Minor Lanes		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	2	62	3	0	No	No	No	No	No	No	No	No	No	No
2	2	60	3	0	No	No	No	No	No	No	No	No	No	No
3	2	58	3	0	No	No	No	No	No	No	No	No	No	No
4	2	50	3	0	No	No	No	No	No	No	No	No	No	No
5	2	47	3	0	No	No	No	No	No	No	No	No	No	No
6	2	42	3	0	No	No	No	No	No	No	No	No	No	No
7	2	39	3	0	No	No	No	No	No	No	No	No	No	No
8	2	37	3	0	No	No	No	No	No	No	No	No	No	No
9	2	29	3	0	No	No	No	No	No	No	No	No	No	No
10	2	28	3	0	No	No	No	No	No	No	No	No	No	No
11	2	28	3	0	No	No	No	No	No	No	No	No	No	No
12	2	27	3	0	No	No	No	No	No	No	No	No	No	No
13	2	24	3	0	No	No	No	No	No	No	No	No	No	No
14	2	23	3	0	No	No	No	No	No	No	No	No	No	No
15	2	23	3	0	No	No	No	No	No	No	No	No	No	No
16	2	22	3	0	No	No	No	No	No	No	No	No	No	No
17	2	12	3	0	No	No	No	No	No	No	No	No	No	No
18	2	7	3	0	No	No	No	No	No	No	No	No	No	No
19	2	6	3	0	No	No	No	No	No	No	No	No	No	No
20	2	2	3	0	No	No	No	No	No	No	No	No	No	No
21	2	2	3	0	No	No	No	No	No	No	No	No	No	No
22	2	2	3	0	No	No	No	No	No	No	No	No	No	No
23	2	2	3	0	No	No	No	No	No	No	No	No	No	No
24	2	2	3	0	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	S	N
Total Stopped Delay Per Vehicle on Minor Approach (s)	8.9	8.9
Number of Lanes on Minor Street Approach	2	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:00	0:00
Delay Condition Met	No	No
Volume on Minor Street Approach During Same Hour	0	0
High Minor Volume Condition Met	No	No
Total Entering Volume on All Approaches During Same Hour	62	62
Number of Approaches on Intersection	4	4
Total Volume Condition Met	No	No
Warrant Met for Approach	No	No
Warrant Met for Intersection	**No**	

Signal Warrants Report For Intersection 2: Date Palm Drive / Buddy Rogers Avenue

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	S, N
Minor Approaches	W
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets
	S	N	W
1	593	683	58
2	569	656	56
3	557	642	55
4	474	546	46
5	451	519	44
6	403	464	39
7	374	430	37
8	356	410	35
9	285	328	28
10	267	307	26
11	267	307	26
12	255	294	25
13	231	266	23
14	213	246	21
15	213	246	21
16	208	239	20
17	119	137	12
18	65	75	6
19	59	68	6
20	24	27	2
21	18	20	2
22	18	20	2
23	12	14	1
24	12	14	1

Warrant Analysis by Hour

Hour	Major Lanes		Minor Lanes		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	5	1276	1	58	No	No	No	No	No	No	Yes	Yes	No	No
2	5	1225	1	56	No	No	No	No	No	No	Yes	Yes	No	No
3	5	1199	1	55	No	No	No	No	No	No	Yes	Yes	No	No
4	5	1020	1	46	No	No	No	No	No	No	No	Yes	No	No
5	5	970	1	44	No	No	No	No	No	No	No	Yes	No	No
6	5	867	1	39	No	No	No	No	No	No	No	No	No	No
7	5	804	1	37	No	No	No	No	No	No	No	No	No	No
8	5	766	1	35	No	No	No	No	No	No	No	No	No	No
9	5	613	1	28	No	No	No	No	No	No	No	No	No	No
10	5	574	1	26	No	No	No	No	No	No	No	No	No	No
11	5	574	1	26	No	No	No	No	No	No	No	No	No	No
12	5	549	1	25	No	No	No	No	No	No	No	No	No	No
13	5	497	1	23	No	No	No	No	No	No	No	No	No	No
14	5	459	1	21	No	No	No	No	No	No	No	No	No	No
15	5	459	1	21	No	No	No	No	No	No	No	No	No	No
16	5	447	1	20	No	No	No	No	No	No	No	No	No	No
17	5	256	1	12	No	No	No	No	No	No	No	No	No	No
18	5	140	1	6	No	No	No	No	No	No	No	No	No	No
19	5	127	1	6	No	No	No	No	No	No	No	No	No	No
20	5	51	1	2	No	No	No	No	No	No	No	No	No	No
21	5	38	1	2	No	No	No	No	No	No	No	No	No	No
22	5	38	1	2	No	No	No	No	No	No	No	No	No	No
23	5	26	1	1	No	No	No	No	No	No	No	No	No	No
24	5	26	1	1	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	3	5	0	0

Warrant 3 Condition A

Orientation	W
Total Stopped Delay Per Vehicle on Minor Approach (s)	20.7
Number of Lanes on Minor Street Approach	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:20
Delay Condition Met	No
Volume on Minor Street Approach During Same Hour	58
High Minor Volume Condition Met	No
Total Entering Volume on All Approaches During Same Hour	1334
Number of Approaches on Intersection	3
Total Volume Condition Met	Yes
Warrant Met for Approach	No
Warrant Met for Intersection	**No**

Signal Warrants Report For Intersection 6: Date Palm Drive / East Palm Drive

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	N, S
Minor Approaches	W
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets
	N	S	W
1	636	77	0
2	611	74	0
3	598	72	0
4	509	62	0
5	483	59	0
6	432	52	0
7	401	49	0
8	382	46	0
9	305	37	0
10	286	35	0
11	286	35	0
12	273	33	0
13	248	30	0
14	229	28	0
15	229	28	0
16	223	27	0
17	127	15	0
18	70	8	0
19	64	8	0
20	25	3	0
21	19	2	0
22	19	2	0
23	13	2	0
24	13	2	0

Warrant Analysis by Hour

Hour	Major Lanes		Minor Lanes		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	4	713	1	0	No	No	No	No	No	No	No	No	No	No
2	4	685	1	0	No	No	No	No	No	No	No	No	No	No
3	4	670	1	0	No	No	No	No	No	No	No	No	No	No
4	4	571	1	0	No	No	No	No	No	No	No	No	No	No
5	4	542	1	0	No	No	No	No	No	No	No	No	No	No
6	4	484	1	0	No	No	No	No	No	No	No	No	No	No
7	4	450	1	0	No	No	No	No	No	No	No	No	No	No
8	4	428	1	0	No	No	No	No	No	No	No	No	No	No
9	4	342	1	0	No	No	No	No	No	No	No	No	No	No
10	4	321	1	0	No	No	No	No	No	No	No	No	No	No
11	4	321	1	0	No	No	No	No	No	No	No	No	No	No
12	4	306	1	0	No	No	No	No	No	No	No	No	No	No
13	4	278	1	0	No	No	No	No	No	No	No	No	No	No
14	4	257	1	0	No	No	No	No	No	No	No	No	No	No
15	4	257	1	0	No	No	No	No	No	No	No	No	No	No
16	4	250	1	0	No	No	No	No	No	No	No	No	No	No
17	4	142	1	0	No	No	No	No	No	No	No	No	No	No
18	4	78	1	0	No	No	No	No	No	No	No	No	No	No
19	4	72	1	0	No	No	No	No	No	No	No	No	No	No
20	4	28	1	0	No	No	No	No	No	No	No	No	No	No
21	4	21	1	0	No	No	No	No	No	No	No	No	No	No
22	4	21	1	0	No	No	No	No	No	No	No	No	No	No
23	4	15	1	0	No	No	No	No	No	No	No	No	No	No
24	4	15	1	0	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	W
Total Stopped Delay Per Vehicle on Minor Approach (s)	10.5
Number of Lanes on Minor Street Approach	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:00
Delay Condition Met	No
Volume on Minor Street Approach During Same Hour	0
High Minor Volume Condition Met	No
Total Entering Volume on All Approaches During Same Hour	713
Number of Approaches on Intersection	3
Total Volume Condition Met	Yes
Warrant Met for Approach	No
Warrant Met for Intersection	**No**

Signal Warrants Report For Intersection 7: North Project Driveway 2 / Buddy Rogers Avenue

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	E, W
Minor Approaches	S
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets
	E	W	S
1	31	29	0
2	30	28	0
3	29	27	0
4	25	23	0
5	24	22	0
6	21	20	0
7	20	18	0
8	19	17	0
9	15	14	0
10	14	13	0
11	14	13	0
12	13	12	0
13	12	11	0
14	11	10	0
15	11	10	0
16	11	10	0
17	6	6	0
18	3	3	0
19	3	3	0
20	1	1	0
21	1	1	0
22	1	1	0
23	1	1	0
24	1	1	0

Warrant Analysis by Hour

Hour	Major Lanes		Minor Lanes		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	2	60	1	0	No	No	No	No	No	No	No	No	No	No
2	2	58	1	0	No	No	No	No	No	No	No	No	No	No
3	2	56	1	0	No	No	No	No	No	No	No	No	No	No
4	2	48	1	0	No	No	No	No	No	No	No	No	No	No
5	2	46	1	0	No	No	No	No	No	No	No	No	No	No
6	2	41	1	0	No	No	No	No	No	No	No	No	No	No
7	2	38	1	0	No	No	No	No	No	No	No	No	No	No
8	2	36	1	0	No	No	No	No	No	No	No	No	No	No
9	2	29	1	0	No	No	No	No	No	No	No	No	No	No
10	2	27	1	0	No	No	No	No	No	No	No	No	No	No
11	2	27	1	0	No	No	No	No	No	No	No	No	No	No
12	2	25	1	0	No	No	No	No	No	No	No	No	No	No
13	2	23	1	0	No	No	No	No	No	No	No	No	No	No
14	2	21	1	0	No	No	No	No	No	No	No	No	No	No
15	2	21	1	0	No	No	No	No	No	No	No	No	No	No
16	2	21	1	0	No	No	No	No	No	No	No	No	No	No
17	2	12	1	0	No	No	No	No	No	No	No	No	No	No
18	2	6	1	0	No	No	No	No	No	No	No	No	No	No
19	2	6	1	0	No	No	No	No	No	No	No	No	No	No
20	2	2	1	0	No	No	No	No	No	No	No	No	No	No
21	2	2	1	0	No	No	No	No	No	No	No	No	No	No
22	2	2	1	0	No	No	No	No	No	No	No	No	No	No
23	2	2	1	0	No	No	No	No	No	No	No	No	No	No
24	2	2	1	0	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	S
Total Stopped Delay Per Vehicle on Minor Approach (s)	8.6
Number of Lanes on Minor Street Approach	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:00
Delay Condition Met	No
Volume on Minor Street Approach During Same Hour	0
High Minor Volume Condition Met	No
Total Entering Volume on All Approaches During Same Hour	60
Number of Approaches on Intersection	3
Total Volume Condition Met	No
Warrant Met for Approach	No
Warrant Met for Intersection	**No**

Signal Warrants Report For Intersection 8: Monty Hall Drive / Buddy Rogers Avenue

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	E, W
Minor Approaches	S, N
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets	
	E	W	S	N
1	45	21	30	24
2	43	20	29	23
3	42	20	28	23
4	36	17	24	19
5	34	16	23	18
6	31	14	20	16
7	28	13	19	15
8	27	13	18	14
9	22	10	14	12
10	20	9	14	11
11	20	9	14	11
12	19	9	13	10
13	18	8	12	9
14	16	8	11	9
15	16	8	11	9
16	16	7	11	8
17	9	4	6	5
18	5	2	3	3
19	5	2	3	2
20	2	1	1	1
21	1	1	1	1
22	1	1	1	1
23	1	0	1	0
24	1	0	1	0

Warrant Analysis by Hour

Hour	Major Lanes		Minor Lanes		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	2	66	2	54	No	No	No	No	No	No	No	No	No	No
2	2	63	2	52	No	No	No	No	No	No	No	No	No	No
3	2	62	2	51	No	No	No	No	No	No	No	No	No	No
4	2	53	2	43	No	No	No	No	No	No	No	No	No	No
5	2	50	2	41	No	No	No	No	No	No	No	No	No	No
6	2	45	2	36	No	No	No	No	No	No	No	No	No	No
7	2	41	2	34	No	No	No	No	No	No	No	No	No	No
8	2	40	2	32	No	No	No	No	No	No	No	No	No	No
9	2	32	2	26	No	No	No	No	No	No	No	No	No	No
10	2	29	2	25	No	No	No	No	No	No	No	No	No	No
11	2	29	2	25	No	No	No	No	No	No	No	No	No	No
12	2	28	2	23	No	No	No	No	No	No	No	No	No	No
13	2	26	2	21	No	No	No	No	No	No	No	No	No	No
14	2	24	2	20	No	No	No	No	No	No	No	No	No	No
15	2	24	2	20	No	No	No	No	No	No	No	No	No	No
16	2	23	2	19	No	No	No	No	No	No	No	No	No	No
17	2	13	2	11	No	No	No	No	No	No	No	No	No	No
18	2	7	2	6	No	No	No	No	No	No	No	No	No	No
19	2	7	2	5	No	No	No	No	No	No	No	No	No	No
20	2	3	2	2	No	No	No	No	No	No	No	No	No	No
21	2	2	2	2	No	No	No	No	No	No	No	No	No	No
22	2	2	2	2	No	No	No	No	No	No	No	No	No	No
23	2	1	2	1	No	No	No	No	No	No	No	No	No	No
24	2	1	2	1	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	S	N
Total Stopped Delay Per Vehicle on Minor Approach (s)	7.4	7.4
Number of Lanes on Minor Street Approach	1	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:03	0:02
Delay Condition Met	No	No
Volume on Minor Street Approach During Same Hour	30	24
High Minor Volume Condition Met	No	No
Total Entering Volume on All Approaches During Same Hour	120	120
Number of Approaches on Intersection	4	4
Total Volume Condition Met	No	No
Warrant Met for Approach	No	No
Warrant Met for Intersection	**No**	

Signal Warrants Report For Intersection 16: Cathedral Canyon Drive / Paseo Real

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	N, S
Minor Approaches	E, W
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets	
	N	S	E	W
1	570	524	30	33
2	547	503	29	32
3	536	493	28	31
4	456	419	24	26
5	433	398	23	25
6	388	356	20	22
7	359	330	19	21
8	342	314	18	20
9	274	252	14	16
10	257	236	14	15
11	257	236	14	15
12	245	225	13	14
13	222	204	12	13
14	205	189	11	12
15	205	189	11	12
16	200	183	11	12
17	114	105	6	7
18	63	58	3	4
19	57	52	3	3
20	23	21	1	1
21	17	16	1	1
22	17	16	1	1
23	11	10	1	1
24	11	10	1	1

Warrant Analysis by Hour

Hour	Major Lanes		Minor Lanes		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	6	1094	2	63	No	No	No	No	No	No	No	No	No	No
2	6	1050	2	61	No	No	No	No	No	No	No	No	No	No
3	6	1029	2	59	No	No	No	No	No	No	No	No	No	No
4	6	875	2	50	No	No	No	No	No	No	No	No	No	No
5	6	831	2	48	No	No	No	No	No	No	No	No	No	No
6	6	744	2	42	No	No	No	No	No	No	No	No	No	No
7	6	689	2	40	No	No	No	No	No	No	No	No	No	No
8	6	656	2	38	No	No	No	No	No	No	No	No	No	No
9	6	526	2	30	No	No	No	No	No	No	No	No	No	No
10	6	493	2	29	No	No	No	No	No	No	No	No	No	No
11	6	493	2	29	No	No	No	No	No	No	No	No	No	No
12	6	470	2	27	No	No	No	No	No	No	No	No	No	No
13	6	426	2	25	No	No	No	No	No	No	No	No	No	No
14	6	394	2	23	No	No	No	No	No	No	No	No	No	No
15	6	394	2	23	No	No	No	No	No	No	No	No	No	No
16	6	383	2	23	No	No	No	No	No	No	No	No	No	No
17	6	219	2	13	No	No	No	No	No	No	No	No	No	No
18	6	121	2	7	No	No	No	No	No	No	No	No	No	No
19	6	109	2	6	No	No	No	No	No	No	No	No	No	No
20	6	44	2	2	No	No	No	No	No	No	No	No	No	No
21	6	33	2	2	No	No	No	No	No	No	No	No	No	No
22	6	33	2	2	No	No	No	No	No	No	No	No	No	No
23	6	21	2	2	No	No	No	No	No	No	No	No	No	No
24	6	21	2	2	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	E	W
Total Stopped Delay Per Vehicle on Minor Approach (s)	17	16.8
Number of Lanes on Minor Street Approach	1	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:08	0:09
Delay Condition Met	No	No
Volume on Minor Street Approach During Same Hour	30	33
High Minor Volume Condition Met	No	No
Total Entering Volume on All Approaches During Same Hour	1157	1157
Number of Approaches on Intersection	4	4
Total Volume Condition Met	Yes	Yes
Warrant Met for Approach	No	No
Warrant Met for Intersection	**No**	

Signal Warrants Report For Intersection 27: Van Fleet Street / B Street-West Project Driveway

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	S, N
Minor Approaches	E, W
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets	
	S	N	E	W
1	44	68	0	8
2	42	65	0	8
3	41	64	0	8
4	35	54	0	6
5	33	52	0	6
6	30	46	0	5
7	28	43	0	5
8	26	41	0	5
9	21	33	0	4
10	20	31	0	4
11	20	31	0	4
12	19	29	0	3
13	17	27	0	3
14	16	24	0	3
15	16	24	0	3
16	15	24	0	3
17	9	14	0	2
18	5	7	0	1
19	4	7	0	1
20	2	3	0	0
21	1	2	0	0
22	1	2	0	0
23	1	1	0	0
24	1	1	0	0

Warrant Analysis by Hour

Hour	Major Lanes		Minor Lanes		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	2	112	2	8	No	No	No	No	No	No	No	No	No	No
2	2	107	2	8	No	No	No	No	No	No	No	No	No	No
3	2	105	2	8	No	No	No	No	No	No	No	No	No	No
4	2	89	2	6	No	No	No	No	No	No	No	No	No	No
5	2	85	2	6	No	No	No	No	No	No	No	No	No	No
6	2	76	2	5	No	No	No	No	No	No	No	No	No	No
7	2	71	2	5	No	No	No	No	No	No	No	No	No	No
8	2	67	2	5	No	No	No	No	No	No	No	No	No	No
9	2	54	2	4	No	No	No	No	No	No	No	No	No	No
10	2	51	2	4	No	No	No	No	No	No	No	No	No	No
11	2	51	2	4	No	No	No	No	No	No	No	No	No	No
12	2	48	2	3	No	No	No	No	No	No	No	No	No	No
13	2	44	2	3	No	No	No	No	No	No	No	No	No	No
14	2	40	2	3	No	No	No	No	No	No	No	No	No	No
15	2	40	2	3	No	No	No	No	No	No	No	No	No	No
16	2	39	2	3	No	No	No	No	No	No	No	No	No	No
17	2	23	2	2	No	No	No	No	No	No	No	No	No	No
18	2	12	2	1	No	No	No	No	No	No	No	No	No	No
19	2	11	2	1	No	No	No	No	No	No	No	No	No	No
20	2	5	2	0	No	No	No	No	No	No	No	No	No	No
21	2	3	2	0	No	No	No	No	No	No	No	No	No	No
22	2	3	2	0	No	No	No	No	No	No	No	No	No	No
23	2	2	2	0	No	No	No	No	No	No	No	No	No	No
24	2	2	2	0	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	E	W
Total Stopped Delay Per Vehicle on Minor Approach (s)	9.3	9.1
Number of Lanes on Minor Street Approach	1	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:00	0:01
Delay Condition Met	No	No
Volume on Minor Street Approach During Same Hour	0	8
High Minor Volume Condition Met	No	No
Total Entering Volume on All Approaches During Same Hour	120	120
Number of Approaches on Intersection	4	4
Total Volume Condition Met	No	No
Warrant Met for Approach	No	No
Warrant Met for Intersection	**No**	

Signal Warrants Report For Intersection 28: Van Fleet Street / D Street

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	S, N
Minor Approaches	E, W
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets	
	S	N	E	W
1	36	53	5	10
2	35	51	5	10
3	34	50	5	9
4	29	42	4	8
5	27	40	4	8
6	24	36	3	7
7	23	33	3	6
8	22	32	3	6
9	17	25	2	5
10	16	24	2	5
11	16	24	2	5
12	15	23	2	4
13	14	21	2	4
14	13	19	2	4
15	13	19	2	4
16	13	19	2	4
17	7	11	1	2
18	4	6	1	1
19	4	5	1	1
20	1	2	0	0
21	1	2	0	0
22	1	2	0	0
23	1	1	0	0
24	1	1	0	0

Warrant Analysis by Hour

Hour	Major Lanes		Minor Lanes		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	2	89	2	15	No	No	No	No	No	No	No	No	No	No
2	2	86	2	15	No	No	No	No	No	No	No	No	No	No
3	2	84	2	14	No	No	No	No	No	No	No	No	No	No
4	2	71	2	12	No	No	No	No	No	No	No	No	No	No
5	2	67	2	12	No	No	No	No	No	No	No	No	No	No
6	2	60	2	10	No	No	No	No	No	No	No	No	No	No
7	2	56	2	9	No	No	No	No	No	No	No	No	No	No
8	2	54	2	9	No	No	No	No	No	No	No	No	No	No
9	2	42	2	7	No	No	No	No	No	No	No	No	No	No
10	2	40	2	7	No	No	No	No	No	No	No	No	No	No
11	2	40	2	7	No	No	No	No	No	No	No	No	No	No
12	2	38	2	6	No	No	No	No	No	No	No	No	No	No
13	2	35	2	6	No	No	No	No	No	No	No	No	No	No
14	2	32	2	6	No	No	No	No	No	No	No	No	No	No
15	2	32	2	6	No	No	No	No	No	No	No	No	No	No
16	2	32	2	6	No	No	No	No	No	No	No	No	No	No
17	2	18	2	3	No	No	No	No	No	No	No	No	No	No
18	2	10	2	2	No	No	No	No	No	No	No	No	No	No
19	2	9	2	2	No	No	No	No	No	No	No	No	No	No
20	2	3	2	0	No	No	No	No	No	No	No	No	No	No
21	2	3	2	0	No	No	No	No	No	No	No	No	No	No
22	2	3	2	0	No	No	No	No	No	No	No	No	No	No
23	2	2	2	0	No	No	No	No	No	No	No	No	No	No
24	2	2	2	0	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	E	W
Total Stopped Delay Per Vehicle on Minor Approach (s)	9	9.3
Number of Lanes on Minor Street Approach	1	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:00	0:01
Delay Condition Met	No	No
Volume on Minor Street Approach During Same Hour	5	10
High Minor Volume Condition Met	No	No
Total Entering Volume on All Approaches During Same Hour	104	104
Number of Approaches on Intersection	4	4
Total Volume Condition Met	No	No
Warrant Met for Approach	No	No
Warrant Met for Intersection	**No**	

Signal Warrants Report For Intersection 29: South Project Driveway / D Street

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	E, W
Minor Approaches	N
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets
	E	W	N
1	9	5	0
2	9	5	0
3	8	5	0
4	7	4	0
5	7	4	0
6	6	3	0
7	6	3	0
8	5	3	0
9	4	2	0
10	4	2	0
11	4	2	0
12	4	2	0
13	4	2	0
14	3	2	0
15	3	2	0
16	3	2	0
17	2	1	0
18	1	1	0
19	1	1	0
20	0	0	0
21	0	0	0
22	0	0	0
23	0	0	0
24	0	0	0

Warrant Analysis by Hour

Hour	Major Lanes		Minor Lanes		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	2	14	1	0	No	No	No	No	No	No	No	No	No	No
2	2	14	1	0	No	No	No	No	No	No	No	No	No	No
3	2	13	1	0	No	No	No	No	No	No	No	No	No	No
4	2	11	1	0	No	No	No	No	No	No	No	No	No	No
5	2	11	1	0	No	No	No	No	No	No	No	No	No	No
6	2	9	1	0	No	No	No	No	No	No	No	No	No	No
7	2	9	1	0	No	No	No	No	No	No	No	No	No	No
8	2	8	1	0	No	No	No	No	No	No	No	No	No	No
9	2	6	1	0	No	No	No	No	No	No	No	No	No	No
10	2	6	1	0	No	No	No	No	No	No	No	No	No	No
11	2	6	1	0	No	No	No	No	No	No	No	No	No	No
12	2	6	1	0	No	No	No	No	No	No	No	No	No	No
13	2	6	1	0	No	No	No	No	No	No	No	No	No	No
14	2	5	1	0	No	No	No	No	No	No	No	No	No	No
15	2	5	1	0	No	No	No	No	No	No	No	No	No	No
16	2	5	1	0	No	No	No	No	No	No	No	No	No	No
17	2	3	1	0	No	No	No	No	No	No	No	No	No	No
18	2	2	1	0	No	No	No	No	No	No	No	No	No	No
19	2	2	1	0	No	No	No	No	No	No	No	No	No	No
20	2	0	1	0	No	No	No	No	No	No	No	No	No	No
21	2	0	1	0	No	No	No	No	No	No	No	No	No	No
22	2	0	1	0	No	No	No	No	No	No	No	No	No	No
23	2	0	1	0	No	No	No	No	No	No	No	No	No	No
24	2	0	1	0	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	N
Total Stopped Delay Per Vehicle on Minor Approach (s)	8.5
Number of Lanes on Minor Street Approach	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:00
Delay Condition Met	No
Volume on Minor Street Approach During Same Hour	0
High Minor Volume Condition Met	No
Total Entering Volume on All Approaches During Same Hour	14
Number of Approaches on Intersection	3
Total Volume Condition Met	No
Warrant Met for Approach	No
Warrant Met for Intersection	**No**

Signal Warrants Report For Intersection 1: North Project Driveway 1 / Buddy Rogers Avenue

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	E, W
Minor Approaches	S, N
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets	
	E	W	S	N
1	127	68	138	0
2	122	65	132	0
3	119	64	130	0
4	102	54	110	0
5	97	52	105	0
6	86	46	94	0
7	80	43	87	0
8	76	41	83	0
9	61	33	66	0
10	57	31	62	0
11	57	31	62	0
12	55	29	59	0
13	50	27	54	0
14	46	24	50	0
15	46	24	50	0
16	44	24	48	0
17	25	14	28	0
18	14	7	15	0
19	13	7	14	0
20	5	3	6	0
21	4	2	4	0
22	4	2	4	0
23	3	1	3	0
24	3	1	3	0

Warrant Analysis by Hour

Hour	Major Lanes		Minor Lanes		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	2	195	3	138	No	No	No	No	No	No	No	No	No	No
2	2	187	3	132	No	No	No	No	No	No	No	No	No	No
3	2	183	3	130	No	No	No	No	No	No	No	No	No	No
4	2	156	3	110	No	No	No	No	No	No	No	No	No	No
5	2	149	3	105	No	No	No	No	No	No	No	No	No	No
6	2	132	3	94	No	No	No	No	No	No	No	No	No	No
7	2	123	3	87	No	No	No	No	No	No	No	No	No	No
8	2	117	3	83	No	No	No	No	No	No	No	No	No	No
9	2	94	3	66	No	No	No	No	No	No	No	No	No	No
10	2	88	3	62	No	No	No	No	No	No	No	No	No	No
11	2	88	3	62	No	No	No	No	No	No	No	No	No	No
12	2	84	3	59	No	No	No	No	No	No	No	No	No	No
13	2	77	3	54	No	No	No	No	No	No	No	No	No	No
14	2	70	3	50	No	No	No	No	No	No	No	No	No	No
15	2	70	3	50	No	No	No	No	No	No	No	No	No	No
16	2	68	3	48	No	No	No	No	No	No	No	No	No	No
17	2	39	3	28	No	No	No	No	No	No	No	No	No	No
18	2	21	3	15	No	No	No	No	No	No	No	No	No	No
19	2	20	3	14	No	No	No	No	No	No	No	No	No	No
20	2	8	3	6	No	No	No	No	No	No	No	No	No	No
21	2	6	3	4	No	No	No	No	No	No	No	No	No	No
22	2	6	3	4	No	No	No	No	No	No	No	No	No	No
23	2	4	3	3	No	No	No	No	No	No	No	No	No	No
24	2	4	3	3	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	S	N
Total Stopped Delay Per Vehicle on Minor Approach (s)	9.6	10.6
Number of Lanes on Minor Street Approach	2	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:22	0:00
Delay Condition Met	No	No
Volume on Minor Street Approach During Same Hour	138	0
High Minor Volume Condition Met	No	No
Total Entering Volume on All Approaches During Same Hour	333	333
Number of Approaches on Intersection	4	4
Total Volume Condition Met	No	No
Warrant Met for Approach	No	No
Warrant Met for Intersection	**No**	

Signal Warrants Report For Intersection 2: Date Palm Drive / Buddy Rogers Avenue

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	Yes
#2	Four Hour Vehicular Volume	Yes
#3	Peak Hour	Yes

Intersection Warrants Parameters

Major Approaches	S, N
Minor Approaches	W
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets
	S	N	W
1	793	766	138
2	761	735	132
3	745	720	130
4	634	613	110
5	603	582	105
6	539	521	94
7	500	483	87
8	476	460	83
9	381	368	66
10	357	345	62
11	357	345	62
12	341	329	59
13	309	299	54
14	285	276	50
15	285	276	50
16	278	268	48
17	159	153	28
18	87	84	15
19	79	77	14
20	32	31	6
21	24	23	4
22	24	23	4
23	16	15	3
24	16	15	3

Warrant Analysis by Hour

Hour	Major Lanes		Minor Lanes		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	5	1559	1	138	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
2	5	1496	1	132	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
3	5	1465	1	130	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
4	5	1247	1	110	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
5	5	1185	1	105	No	No	Yes	Yes	Yes	Yes	Yes	Yes	No	No
6	5	1060	1	94	No	No	No	Yes	Yes	Yes	Yes	Yes	No	No
7	5	983	1	87	No	No	No	Yes	Yes	Yes	Yes	Yes	No	No
8	5	936	1	83	No	No	No	No	Yes	Yes	Yes	Yes	No	No
9	5	749	1	66	No	No	No	No	No	Yes	Yes	Yes	No	No
10	5	702	1	62	No	No	No	No	No	No	Yes	Yes	No	No
11	5	702	1	62	No	No	No	No	No	No	Yes	Yes	No	No
12	5	670	1	59	No	No	No	No	No	No	Yes	Yes	No	No
13	5	608	1	54	No	No	No	No	No	No	No	Yes	No	No
14	5	561	1	50	No	No	No	No	No	No	No	Yes	No	No
15	5	561	1	50	No	No	No	No	No	No	No	Yes	No	No
16	5	546	1	48	No	No	No	No	No	No	No	Yes	No	No
17	5	312	1	28	No	No	No	No	No	No	No	No	No	No
18	5	171	1	15	No	No	No	No	No	No	No	No	No	No
19	5	156	1	14	No	No	No	No	No	No	No	No	No	No
20	5	63	1	6	No	No	No	No	No	No	No	No	No	No
21	5	47	1	4	No	No	No	No	No	No	No	No	No	No
22	5	47	1	4	No	No	No	No	No	No	No	No	No	No
23	5	31	1	3	No	No	No	No	No	No	No	No	No	No
24	5	31	1	3	No	No	No	No	No	No	No	No	No	No
Hours Met					0	3	5	7	8	9	12	16	4	1

Warrant 3 Condition A

Orientation	W
Total Stopped Delay Per Vehicle on Minor Approach (s)	52.9
Number of Lanes on Minor Street Approach	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	2:01
Delay Condition Met	No
Volume on Minor Street Approach During Same Hour	138
High Minor Volume Condition Met	Yes
Total Entering Volume on All Approaches During Same Hour	1697
Number of Approaches on Intersection	3
Total Volume Condition Met	Yes
Warrant Met for Approach	No
Warrant Met for Intersection	**No**

Signal Warrants Report For Intersection 8: Monty Hall Drive / Buddy Rogers Avenue

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	E, W
Minor Approaches	S, N
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets	
	E	W	S	N
1	64	42	62	36
2	61	40	60	35
3	60	39	58	34
4	51	34	50	29
5	49	32	47	27
6	44	29	42	24
7	40	26	39	23
8	38	25	37	22
9	31	20	30	17
10	29	19	28	16
11	29	19	28	16
12	28	18	27	15
13	25	16	24	14
14	23	15	22	13
15	23	15	22	13
16	22	15	22	13
17	13	8	12	7
18	7	5	7	4
19	6	4	6	4
20	3	2	2	1
21	2	1	2	1
22	2	1	2	1
23	1	1	1	1
24	1	1	1	1

Warrant Analysis by Hour

Hour	Major Lanes		Minor Lanes		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	2	106	2	98	No	No	No	No	No	No	No	No	No	No
2	2	101	2	95	No	No	No	No	No	No	No	No	No	No
3	2	99	2	92	No	No	No	No	No	No	No	No	No	No
4	2	85	2	79	No	No	No	No	No	No	No	No	No	No
5	2	81	2	74	No	No	No	No	No	No	No	No	No	No
6	2	73	2	66	No	No	No	No	No	No	No	No	No	No
7	2	66	2	62	No	No	No	No	No	No	No	No	No	No
8	2	63	2	59	No	No	No	No	No	No	No	No	No	No
9	2	51	2	47	No	No	No	No	No	No	No	No	No	No
10	2	48	2	44	No	No	No	No	No	No	No	No	No	No
11	2	48	2	44	No	No	No	No	No	No	No	No	No	No
12	2	46	2	42	No	No	No	No	No	No	No	No	No	No
13	2	41	2	38	No	No	No	No	No	No	No	No	No	No
14	2	38	2	35	No	No	No	No	No	No	No	No	No	No
15	2	38	2	35	No	No	No	No	No	No	No	No	No	No
16	2	37	2	35	No	No	No	No	No	No	No	No	No	No
17	2	21	2	19	No	No	No	No	No	No	No	No	No	No
18	2	12	2	11	No	No	No	No	No	No	No	No	No	No
19	2	10	2	10	No	No	No	No	No	No	No	No	No	No
20	2	5	2	3	No	No	No	No	No	No	No	No	No	No
21	2	3	2	3	No	No	No	No	No	No	No	No	No	No
22	2	3	2	3	No	No	No	No	No	No	No	No	No	No
23	2	2	2	2	No	No	No	No	No	No	No	No	No	No
24	2	2	2	2	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	S	N
Total Stopped Delay Per Vehicle on Minor Approach (s)	7.3	7.7
Number of Lanes on Minor Street Approach	1	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:07	0:04
Delay Condition Met	No	No
Volume on Minor Street Approach During Same Hour	62	36
High Minor Volume Condition Met	No	No
Total Entering Volume on All Approaches During Same Hour	204	204
Number of Approaches on Intersection	4	4
Total Volume Condition Met	No	No
Warrant Met for Approach	No	No
Warrant Met for Intersection	**No**	

Signal Warrants Report For Intersection 16: Cathedral Canyon Drive / Paseo Real

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	N, S
Minor Approaches	E, W
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets	
	N	S	E	W
1	674	866	23	24
2	647	831	22	23
3	634	814	22	23
4	539	693	18	19
5	512	658	17	18
6	458	589	16	16
7	425	546	14	15
8	404	520	14	14
9	324	416	11	12
10	303	390	10	11
11	303	390	10	11
12	290	372	10	10
13	263	338	9	9
14	243	312	8	9
15	243	312	8	9
16	236	303	8	8
17	135	173	5	5
18	74	95	3	3
19	67	87	2	2
20	27	35	1	1
21	20	26	1	1
22	20	26	1	1
23	13	17	0	0
24	13	17	0	0

Warrant Analysis by Hour

Hour	Major Lanes		Minor Lanes		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	6	1540	2	47	No	No	No	No	No	No	No	No	No	No
2	6	1478	2	45	No	No	No	No	No	No	No	No	No	No
3	6	1448	2	45	No	No	No	No	No	No	No	No	No	No
4	6	1232	2	37	No	No	No	No	No	No	No	No	No	No
5	6	1170	2	35	No	No	No	No	No	No	No	No	No	No
6	6	1047	2	32	No	No	No	No	No	No	No	No	No	No
7	6	971	2	29	No	No	No	No	No	No	No	No	No	No
8	6	924	2	28	No	No	No	No	No	No	No	No	No	No
9	6	740	2	23	No	No	No	No	No	No	No	No	No	No
10	6	693	2	21	No	No	No	No	No	No	No	No	No	No
11	6	693	2	21	No	No	No	No	No	No	No	No	No	No
12	6	662	2	20	No	No	No	No	No	No	No	No	No	No
13	6	601	2	18	No	No	No	No	No	No	No	No	No	No
14	6	555	2	17	No	No	No	No	No	No	No	No	No	No
15	6	555	2	17	No	No	No	No	No	No	No	No	No	No
16	6	539	2	16	No	No	No	No	No	No	No	No	No	No
17	6	308	2	10	No	No	No	No	No	No	No	No	No	No
18	6	169	2	6	No	No	No	No	No	No	No	No	No	No
19	6	154	2	4	No	No	No	No	No	No	No	No	No	No
20	6	62	2	2	No	No	No	No	No	No	No	No	No	No
21	6	46	2	2	No	No	No	No	No	No	No	No	No	No
22	6	46	2	2	No	No	No	No	No	No	No	No	No	No
23	6	30	2	0	No	No	No	No	No	No	No	No	No	No
24	6	30	2	0	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	E	W
Total Stopped Delay Per Vehicle on Minor Approach (s)	34.9	18.8
Number of Lanes on Minor Street Approach	1	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:13	0:07
Delay Condition Met	No	No
Volume on Minor Street Approach During Same Hour	23	24
High Minor Volume Condition Met	No	No
Total Entering Volume on All Approaches During Same Hour	1587	1587
Number of Approaches on Intersection	4	4
Total Volume Condition Met	Yes	Yes
Warrant Met for Approach	No	No
Warrant Met for Intersection	**No**	

Signal Warrants Report For Intersection 1: North Project Driveway 1 / Buddy Rogers Avenue

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	E, W
Minor Approaches	S, N
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets	
	E	W	S	N
1	105	63	115	0
2	101	60	110	0
3	99	59	108	0
4	84	50	92	0
5	80	48	87	0
6	71	43	78	0
7	66	40	72	0
8	63	38	69	0
9	50	30	55	0
10	47	28	52	0
11	47	28	52	0
12	45	27	49	0
13	41	25	45	0
14	38	23	41	0
15	38	23	41	0
16	37	22	40	0
17	21	13	23	0
18	12	7	13	0
19	11	6	12	0
20	4	3	5	0
21	3	2	3	0
22	3	2	3	0
23	2	1	2	0
24	2	1	2	0

Warrant Analysis by Hour

Hour	Major Lanes		Minor Lanes		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	2	168	3	115	No	No	No	No	No	No	No	No	No	No
2	2	161	3	110	No	No	No	No	No	No	No	No	No	No
3	2	158	3	108	No	No	No	No	No	No	No	No	No	No
4	2	134	3	92	No	No	No	No	No	No	No	No	No	No
5	2	128	3	87	No	No	No	No	No	No	No	No	No	No
6	2	114	3	78	No	No	No	No	No	No	No	No	No	No
7	2	106	3	72	No	No	No	No	No	No	No	No	No	No
8	2	101	3	69	No	No	No	No	No	No	No	No	No	No
9	2	80	3	55	No	No	No	No	No	No	No	No	No	No
10	2	75	3	52	No	No	No	No	No	No	No	No	No	No
11	2	75	3	52	No	No	No	No	No	No	No	No	No	No
12	2	72	3	49	No	No	No	No	No	No	No	No	No	No
13	2	66	3	45	No	No	No	No	No	No	No	No	No	No
14	2	61	3	41	No	No	No	No	No	No	No	No	No	No
15	2	61	3	41	No	No	No	No	No	No	No	No	No	No
16	2	59	3	40	No	No	No	No	No	No	No	No	No	No
17	2	34	3	23	No	No	No	No	No	No	No	No	No	No
18	2	19	3	13	No	No	No	No	No	No	No	No	No	No
19	2	17	3	12	No	No	No	No	No	No	No	No	No	No
20	2	7	3	5	No	No	No	No	No	No	No	No	No	No
21	2	5	3	3	No	No	No	No	No	No	No	No	No	No
22	2	5	3	3	No	No	No	No	No	No	No	No	No	No
23	2	3	3	2	No	No	No	No	No	No	No	No	No	No
24	2	3	3	2	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	S	N
Total Stopped Delay Per Vehicle on Minor Approach (s)	9.4	10.2
Number of Lanes on Minor Street Approach	2	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:18	0:00
Delay Condition Met	No	No
Volume on Minor Street Approach During Same Hour	115	0
High Minor Volume Condition Met	No	No
Total Entering Volume on All Approaches During Same Hour	283	283
Number of Approaches on Intersection	4	4
Total Volume Condition Met	No	No
Warrant Met for Approach	No	No
Warrant Met for Intersection	**No**	

Signal Warrants Report For Intersection 2: Date Palm Drive / Buddy Rogers Avenue

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	Yes
#2	Four Hour Vehicular Volume	Yes
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	S, N
Minor Approaches	W
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets
	S	N	W
1	777	742	129
2	746	712	124
3	730	697	121
4	622	594	103
5	591	564	98
6	528	505	88
7	490	467	81
8	466	445	77
9	373	356	62
10	350	334	58
11	350	334	58
12	334	319	55
13	303	289	50
14	280	267	46
15	280	267	46
16	272	260	45
17	155	148	26
18	85	82	14
19	78	74	13
20	31	30	5
21	23	22	4
22	23	22	4
23	16	15	3
24	16	15	3

Warrant Analysis by Hour

Hour	Major Lanes		Minor Lanes		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	5	1519	1	129	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
2	5	1458	1	124	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
3	5	1427	1	121	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
4	5	1216	1	103	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes	No
5	5	1155	1	98	No	No	No	Yes	Yes	Yes	Yes	Yes	No	No
6	5	1033	1	88	No	No	No	Yes	Yes	Yes	Yes	Yes	No	No
7	5	957	1	81	No	No	No	No	Yes	Yes	Yes	Yes	No	No
8	5	911	1	77	No	No	No	No	Yes	Yes	Yes	Yes	No	No
9	5	729	1	62	No	No	No	No	No	Yes	Yes	Yes	No	No
10	5	684	1	58	No	No	No	No	No	No	Yes	Yes	No	No
11	5	684	1	58	No	No	No	No	No	No	Yes	Yes	No	No
12	5	653	1	55	No	No	No	No	No	No	Yes	Yes	No	No
13	5	592	1	50	No	No	No	No	No	No	No	Yes	No	No
14	5	547	1	46	No	No	No	No	No	No	No	Yes	No	No
15	5	547	1	46	No	No	No	No	No	No	No	Yes	No	No
16	5	532	1	45	No	No	No	No	No	No	No	Yes	No	No
17	5	303	1	26	No	No	No	No	No	No	No	No	No	No
18	5	167	1	14	No	No	No	No	No	No	No	No	No	No
19	5	152	1	13	No	No	No	No	No	No	No	No	No	No
20	5	61	1	5	No	No	No	No	No	No	No	No	No	No
21	5	45	1	4	No	No	No	No	No	No	No	No	No	No
22	5	45	1	4	No	No	No	No	No	No	No	No	No	No
23	5	31	1	3	No	No	No	No	No	No	No	No	No	No
24	5	31	1	3	No	No	No	No	No	No	No	No	No	No
Hours Met					0	3	3	6	8	9	12	16	4	0

Warrant 3 Condition A

Orientation	W
Total Stopped Delay Per Vehicle on Minor Approach (s)	44
Number of Lanes on Minor Street Approach	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	1:34
Delay Condition Met	No
Volume on Minor Street Approach During Same Hour	129
High Minor Volume Condition Met	Yes
Total Entering Volume on All Approaches During Same Hour	1648
Number of Approaches on Intersection	3
Total Volume Condition Met	Yes
Warrant Met for Approach	No
Warrant Met for Intersection	**No**

Signal Warrants Report For Intersection 7: North Project Driveway 2 / Buddy Rogers Avenue

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	E, W
Minor Approaches	S
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets
	E	W	S
1	114	109	11
2	109	105	11
3	107	102	10
4	91	87	9
5	87	83	8
6	78	74	7
7	72	69	7
8	68	65	7
9	55	52	5
10	51	49	5
11	51	49	5
12	49	47	5
13	44	43	4
14	41	39	4
15	41	39	4
16	40	38	4
17	23	22	2
18	13	12	1
19	11	11	1
20	5	4	0
21	3	3	0
22	3	3	0
23	2	2	0
24	2	2	0

Warrant Analysis by Hour

Hour	Major Lanes		Minor Lanes		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	2	223	1	11	No	No	No	No	No	No	No	No	No	No
2	2	214	1	11	No	No	No	No	No	No	No	No	No	No
3	2	209	1	10	No	No	No	No	No	No	No	No	No	No
4	2	178	1	9	No	No	No	No	No	No	No	No	No	No
5	2	170	1	8	No	No	No	No	No	No	No	No	No	No
6	2	152	1	7	No	No	No	No	No	No	No	No	No	No
7	2	141	1	7	No	No	No	No	No	No	No	No	No	No
8	2	133	1	7	No	No	No	No	No	No	No	No	No	No
9	2	107	1	5	No	No	No	No	No	No	No	No	No	No
10	2	100	1	5	No	No	No	No	No	No	No	No	No	No
11	2	100	1	5	No	No	No	No	No	No	No	No	No	No
12	2	96	1	5	No	No	No	No	No	No	No	No	No	No
13	2	87	1	4	No	No	No	No	No	No	No	No	No	No
14	2	80	1	4	No	No	No	No	No	No	No	No	No	No
15	2	80	1	4	No	No	No	No	No	No	No	No	No	No
16	2	78	1	4	No	No	No	No	No	No	No	No	No	No
17	2	45	1	2	No	No	No	No	No	No	No	No	No	No
18	2	25	1	1	No	No	No	No	No	No	No	No	No	No
19	2	22	1	1	No	No	No	No	No	No	No	No	No	No
20	2	9	1	0	No	No	No	No	No	No	No	No	No	No
21	2	6	1	0	No	No	No	No	No	No	No	No	No	No
22	2	6	1	0	No	No	No	No	No	No	No	No	No	No
23	2	4	1	0	No	No	No	No	No	No	No	No	No	No
24	2	4	1	0	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	S
Total Stopped Delay Per Vehicle on Minor Approach (s)	8.9
Number of Lanes on Minor Street Approach	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:01
Delay Condition Met	No
Volume on Minor Street Approach During Same Hour	11
High Minor Volume Condition Met	No
Total Entering Volume on All Approaches During Same Hour	234
Number of Approaches on Intersection	3
Total Volume Condition Met	No
Warrant Met for Approach	No
Warrant Met for Intersection	**No**

Signal Warrants Report For Intersection 8: Monty Hall Drive / Buddy Rogers Avenue

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	E, W
Minor Approaches	S, N
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets	
	E	W	S	N
1	60	42	57	36
2	58	40	55	35
3	56	39	54	34
4	48	34	46	29
5	46	32	43	27
6	41	29	39	24
7	38	26	36	23
8	36	25	34	22
9	29	20	27	17
10	27	19	26	16
11	27	19	26	16
12	26	18	25	15
13	23	16	22	14
14	22	15	21	13
15	22	15	21	13
16	21	15	20	13
17	12	8	11	7
18	7	5	6	4
19	6	4	6	4
20	2	2	2	1
21	2	1	2	1
22	2	1	2	1
23	1	1	1	1
24	1	1	1	1

Warrant Analysis by Hour

Hour	Major Lanes		Minor Lanes		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	2	102	2	93	No	No	No	No	No	No	No	No	No	No
2	2	98	2	90	No	No	No	No	No	No	No	No	No	No
3	2	95	2	88	No	No	No	No	No	No	No	No	No	No
4	2	82	2	75	No	No	No	No	No	No	No	No	No	No
5	2	78	2	70	No	No	No	No	No	No	No	No	No	No
6	2	70	2	63	No	No	No	No	No	No	No	No	No	No
7	2	64	2	59	No	No	No	No	No	No	No	No	No	No
8	2	61	2	56	No	No	No	No	No	No	No	No	No	No
9	2	49	2	44	No	No	No	No	No	No	No	No	No	No
10	2	46	2	42	No	No	No	No	No	No	No	No	No	No
11	2	46	2	42	No	No	No	No	No	No	No	No	No	No
12	2	44	2	40	No	No	No	No	No	No	No	No	No	No
13	2	39	2	36	No	No	No	No	No	No	No	No	No	No
14	2	37	2	34	No	No	No	No	No	No	No	No	No	No
15	2	37	2	34	No	No	No	No	No	No	No	No	No	No
16	2	36	2	33	No	No	No	No	No	No	No	No	No	No
17	2	20	2	18	No	No	No	No	No	No	No	No	No	No
18	2	12	2	10	No	No	No	No	No	No	No	No	No	No
19	2	10	2	10	No	No	No	No	No	No	No	No	No	No
20	2	4	2	3	No	No	No	No	No	No	No	No	No	No
21	2	3	2	3	No	No	No	No	No	No	No	No	No	No
22	2	3	2	3	No	No	No	No	No	No	No	No	No	No
23	2	2	2	2	No	No	No	No	No	No	No	No	No	No
24	2	2	2	2	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	S	N
Total Stopped Delay Per Vehicle on Minor Approach (s)	7.3	7.7
Number of Lanes on Minor Street Approach	1	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:06	0:04
Delay Condition Met	No	No
Volume on Minor Street Approach During Same Hour	57	36
High Minor Volume Condition Met	No	No
Total Entering Volume on All Approaches During Same Hour	195	195
Number of Approaches on Intersection	4	4
Total Volume Condition Met	No	No
Warrant Met for Approach	No	No
Warrant Met for Intersection	**No**	

Signal Warrants Report For Intersection 16: Cathedral Canyon Drive / Paseo Real

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	N, S
Minor Approaches	E, W
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets	
	N	S	E	W
1	669	862	22	24
2	642	828	21	23
3	629	810	21	23
4	535	690	18	19
5	508	655	17	18
6	455	586	15	16
7	421	543	14	15
8	401	517	13	14
9	321	414	11	12
10	301	388	10	11
11	301	388	10	11
12	288	371	9	10
13	261	336	9	9
14	241	310	8	9
15	241	310	8	9
16	234	302	8	8
17	134	172	4	5
18	74	95	2	3
19	67	86	2	2
20	27	34	1	1
21	20	26	1	1
22	20	26	1	1
23	13	17	0	0
24	13	17	0	0

Warrant Analysis by Hour

Hour	Major Lanes		Minor Lanes		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	6	1531	2	46	No	No	No	No	No	No	No	No	No	No
2	6	1470	2	44	No	No	No	No	No	No	No	No	No	No
3	6	1439	2	44	No	No	No	No	No	No	No	No	No	No
4	6	1225	2	37	No	No	No	No	No	No	No	No	No	No
5	6	1163	2	35	No	No	No	No	No	No	No	No	No	No
6	6	1041	2	31	No	No	No	No	No	No	No	No	No	No
7	6	964	2	29	No	No	No	No	No	No	No	No	No	No
8	6	918	2	27	No	No	No	No	No	No	No	No	No	No
9	6	735	2	23	No	No	No	No	No	No	No	No	No	No
10	6	689	2	21	No	No	No	No	No	No	No	No	No	No
11	6	689	2	21	No	No	No	No	No	No	No	No	No	No
12	6	659	2	19	No	No	No	No	No	No	No	No	No	No
13	6	597	2	18	No	No	No	No	No	No	No	No	No	No
14	6	551	2	17	No	No	No	No	No	No	No	No	No	No
15	6	551	2	17	No	No	No	No	No	No	No	No	No	No
16	6	536	2	16	No	No	No	No	No	No	No	No	No	No
17	6	306	2	9	No	No	No	No	No	No	No	No	No	No
18	6	169	2	5	No	No	No	No	No	No	No	No	No	No
19	6	153	2	4	No	No	No	No	No	No	No	No	No	No
20	6	61	2	2	No	No	No	No	No	No	No	No	No	No
21	6	46	2	2	No	No	No	No	No	No	No	No	No	No
22	6	46	2	2	No	No	No	No	No	No	No	No	No	No
23	6	30	2	0	No	No	No	No	No	No	No	No	No	No
24	6	30	2	0	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	E	W
Total Stopped Delay Per Vehicle on Minor Approach (s)	33.7	18.7
Number of Lanes on Minor Street Approach	1	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:12	0:07
Delay Condition Met	No	No
Volume on Minor Street Approach During Same Hour	22	24
High Minor Volume Condition Met	No	No
Total Entering Volume on All Approaches During Same Hour	1577	1577
Number of Approaches on Intersection	4	4
Total Volume Condition Met	Yes	Yes
Warrant Met for Approach	No	No
Warrant Met for Intersection	**No**	

Signal Warrants Report For Intersection 1: North Project Driveway 1 / Buddy Rogers Avenue

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	E, W
Minor Approaches	S, N
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets	
	E	W	S	N
1	136	93	117	0
2	131	89	112	0
3	128	87	110	0
4	109	74	94	0
5	103	71	89	0
6	92	63	80	0
7	86	59	74	0
8	82	56	70	0
9	65	45	56	0
10	61	42	53	0
11	61	42	53	0
12	58	40	50	0
13	53	36	46	0
14	49	33	42	0
15	49	33	42	0
16	48	33	41	0
17	27	19	23	0
18	15	10	13	0
19	14	9	12	0
20	5	4	5	0
21	4	3	4	0
22	4	3	4	0
23	3	2	2	0
24	3	2	2	0

Warrant Analysis by Hour

Hour	Major Lanes		Minor Lanes		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	2	229	3	117	No	No	No	No	No	No	No	No	No	No
2	2	220	3	112	No	No	No	No	No	No	No	No	No	No
3	2	215	3	110	No	No	No	No	No	No	No	No	No	No
4	2	183	3	94	No	No	No	No	No	No	No	No	No	No
5	2	174	3	89	No	No	No	No	No	No	No	No	No	No
6	2	155	3	80	No	No	No	No	No	No	No	No	No	No
7	2	145	3	74	No	No	No	No	No	No	No	No	No	No
8	2	138	3	70	No	No	No	No	No	No	No	No	No	No
9	2	110	3	56	No	No	No	No	No	No	No	No	No	No
10	2	103	3	53	No	No	No	No	No	No	No	No	No	No
11	2	103	3	53	No	No	No	No	No	No	No	No	No	No
12	2	98	3	50	No	No	No	No	No	No	No	No	No	No
13	2	89	3	46	No	No	No	No	No	No	No	No	No	No
14	2	82	3	42	No	No	No	No	No	No	No	No	No	No
15	2	82	3	42	No	No	No	No	No	No	No	No	No	No
16	2	81	3	41	No	No	No	No	No	No	No	No	No	No
17	2	46	3	23	No	No	No	No	No	No	No	No	No	No
18	2	25	3	13	No	No	No	No	No	No	No	No	No	No
19	2	23	3	12	No	No	No	No	No	No	No	No	No	No
20	2	9	3	5	No	No	No	No	No	No	No	No	No	No
21	2	7	3	4	No	No	No	No	No	No	No	No	No	No
22	2	7	3	4	No	No	No	No	No	No	No	No	No	No
23	2	5	3	2	No	No	No	No	No	No	No	No	No	No
24	2	5	3	2	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	S	N
Total Stopped Delay Per Vehicle on Minor Approach (s)	10	10.8
Number of Lanes on Minor Street Approach	2	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:19	0:00
Delay Condition Met	No	No
Volume on Minor Street Approach During Same Hour	117	0
High Minor Volume Condition Met	No	No
Total Entering Volume on All Approaches During Same Hour	346	346
Number of Approaches on Intersection	4	4
Total Volume Condition Met	No	No
Warrant Met for Approach	No	No
Warrant Met for Intersection	**No**	

Signal Warrants Report For Intersection 2: Date Palm Drive / Buddy Rogers Avenue

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	S, N
Minor Approaches	W
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets
	S	N	W
1	765	752	116
2	734	722	111
3	719	707	109
4	612	602	93
5	581	572	88
6	520	511	79
7	482	474	73
8	459	451	70
9	367	361	56
10	344	338	52
11	344	338	52
12	329	323	50
13	298	293	45
14	275	271	42
15	275	271	42
16	268	263	41
17	153	150	23
18	84	83	13
19	77	75	12
20	31	30	5
21	23	23	3
22	23	23	3
23	15	15	2
24	15	15	2

Warrant Analysis by Hour

Hour	Major Lanes		Minor Lanes		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	5	1517	1	116	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
2	5	1456	1	111	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
3	5	1426	1	109	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
4	5	1214	1	93	No	No	No	Yes	Yes	Yes	Yes	Yes	No	No
5	5	1153	1	88	No	No	No	Yes	Yes	Yes	Yes	Yes	No	No
6	5	1031	1	79	No	No	No	No	Yes	Yes	Yes	Yes	No	No
7	5	956	1	73	No	No	No	No	No	Yes	Yes	Yes	No	No
8	5	910	1	70	No	No	No	No	No	Yes	Yes	Yes	No	No
9	5	728	1	56	No	No	No	No	No	No	Yes	Yes	No	No
10	5	682	1	52	No	No	No	No	No	No	Yes	Yes	No	No
11	5	682	1	52	No	No	No	No	No	No	Yes	Yes	No	No
12	5	652	1	50	No	No	No	No	No	No	No	Yes	No	No
13	5	591	1	45	No	No	No	No	No	No	No	Yes	No	No
14	5	546	1	42	No	No	No	No	No	No	No	Yes	No	No
15	5	546	1	42	No	No	No	No	No	No	No	Yes	No	No
16	5	531	1	41	No	No	No	No	No	No	No	No	No	No
17	5	303	1	23	No	No	No	No	No	No	No	No	No	No
18	5	167	1	13	No	No	No	No	No	No	No	No	No	No
19	5	152	1	12	No	No	No	No	No	No	No	No	No	No
20	5	61	1	5	No	No	No	No	No	No	No	No	No	No
21	5	46	1	3	No	No	No	No	No	No	No	No	No	No
22	5	46	1	3	No	No	No	No	No	No	No	No	No	No
23	5	30	1	2	No	No	No	No	No	No	No	No	No	No
24	5	30	1	2	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	3	5	6	8	11	15	3	0

Warrant 3 Condition A

Orientation	W
Total Stopped Delay Per Vehicle on Minor Approach (s)	43.3
Number of Lanes on Minor Street Approach	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	1:23
Delay Condition Met	No
Volume on Minor Street Approach During Same Hour	116
High Minor Volume Condition Met	Yes
Total Entering Volume on All Approaches During Same Hour	1633
Number of Approaches on Intersection	3
Total Volume Condition Met	Yes
Warrant Met for Approach	No
Warrant Met for Intersection	**No**

Signal Warrants Report For Intersection 6: Date Palm Drive / East Palm Drive

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	N, S
Minor Approaches	W
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets
	N	S	W
1	627	71	26
2	602	68	25
3	589	67	24
4	502	57	21
5	477	54	20
6	426	48	18
7	395	45	16
8	376	43	16
9	301	34	12
10	282	32	12
11	282	32	12
12	270	31	11
13	245	28	10
14	226	26	9
15	226	26	9
16	219	25	9
17	125	14	5
18	69	8	3
19	63	7	3
20	25	3	1
21	19	2	1
22	19	2	1
23	13	1	1
24	13	1	1

Warrant Analysis by Hour

Hour	Major Lanes		Minor Lanes		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	4	698	1	26	No	No	No	No	No	No	No	No	No	No
2	4	670	1	25	No	No	No	No	No	No	No	No	No	No
3	4	656	1	24	No	No	No	No	No	No	No	No	No	No
4	4	559	1	21	No	No	No	No	No	No	No	No	No	No
5	4	531	1	20	No	No	No	No	No	No	No	No	No	No
6	4	474	1	18	No	No	No	No	No	No	No	No	No	No
7	4	440	1	16	No	No	No	No	No	No	No	No	No	No
8	4	419	1	16	No	No	No	No	No	No	No	No	No	No
9	4	335	1	12	No	No	No	No	No	No	No	No	No	No
10	4	314	1	12	No	No	No	No	No	No	No	No	No	No
11	4	314	1	12	No	No	No	No	No	No	No	No	No	No
12	4	301	1	11	No	No	No	No	No	No	No	No	No	No
13	4	273	1	10	No	No	No	No	No	No	No	No	No	No
14	4	252	1	9	No	No	No	No	No	No	No	No	No	No
15	4	252	1	9	No	No	No	No	No	No	No	No	No	No
16	4	244	1	9	No	No	No	No	No	No	No	No	No	No
17	4	139	1	5	No	No	No	No	No	No	No	No	No	No
18	4	77	1	3	No	No	No	No	No	No	No	No	No	No
19	4	70	1	3	No	No	No	No	No	No	No	No	No	No
20	4	28	1	1	No	No	No	No	No	No	No	No	No	No
21	4	21	1	1	No	No	No	No	No	No	No	No	No	No
22	4	21	1	1	No	No	No	No	No	No	No	No	No	No
23	4	14	1	1	No	No	No	No	No	No	No	No	No	No
24	4	14	1	1	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	W
Total Stopped Delay Per Vehicle on Minor Approach (s)	10.7
Number of Lanes on Minor Street Approach	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:04
Delay Condition Met	No
Volume on Minor Street Approach During Same Hour	26
High Minor Volume Condition Met	No
Total Entering Volume on All Approaches During Same Hour	724
Number of Approaches on Intersection	3
Total Volume Condition Met	Yes
Warrant Met for Approach	No
Warrant Met for Intersection	**No**

Signal Warrants Report For Intersection 7: North Project Driveway 2 / Buddy Rogers Avenue

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	E, W
Minor Approaches	S
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets
	E	W	S
1	155	103	13
2	149	99	12
3	146	97	12
4	124	82	10
5	118	78	10
6	105	70	9
7	98	65	8
8	93	62	8
9	74	49	6
10	70	46	6
11	70	46	6
12	67	44	6
13	60	40	5
14	56	37	5
15	56	37	5
16	54	36	5
17	31	21	3
18	17	11	1
19	16	10	1
20	6	4	1
21	5	3	0
22	5	3	0
23	3	2	0
24	3	2	0

Warrant Analysis by Hour

Hour	Major Lanes		Minor Lanes		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	2	258	1	13	No	No	No	No	No	No	No	No	No	No
2	2	248	1	12	No	No	No	No	No	No	No	No	No	No
3	2	243	1	12	No	No	No	No	No	No	No	No	No	No
4	2	206	1	10	No	No	No	No	No	No	No	No	No	No
5	2	196	1	10	No	No	No	No	No	No	No	No	No	No
6	2	175	1	9	No	No	No	No	No	No	No	No	No	No
7	2	163	1	8	No	No	No	No	No	No	No	No	No	No
8	2	155	1	8	No	No	No	No	No	No	No	No	No	No
9	2	123	1	6	No	No	No	No	No	No	No	No	No	No
10	2	116	1	6	No	No	No	No	No	No	No	No	No	No
11	2	116	1	6	No	No	No	No	No	No	No	No	No	No
12	2	111	1	6	No	No	No	No	No	No	No	No	No	No
13	2	100	1	5	No	No	No	No	No	No	No	No	No	No
14	2	93	1	5	No	No	No	No	No	No	No	No	No	No
15	2	93	1	5	No	No	No	No	No	No	No	No	No	No
16	2	90	1	5	No	No	No	No	No	No	No	No	No	No
17	2	52	1	3	No	No	No	No	No	No	No	No	No	No
18	2	28	1	1	No	No	No	No	No	No	No	No	No	No
19	2	26	1	1	No	No	No	No	No	No	No	No	No	No
20	2	10	1	1	No	No	No	No	No	No	No	No	No	No
21	2	8	1	0	No	No	No	No	No	No	No	No	No	No
22	2	8	1	0	No	No	No	No	No	No	No	No	No	No
23	2	5	1	0	No	No	No	No	No	No	No	No	No	No
24	2	5	1	0	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	S
Total Stopped Delay Per Vehicle on Minor Approach (s)	8.9
Number of Lanes on Minor Street Approach	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:01
Delay Condition Met	No
Volume on Minor Street Approach During Same Hour	13
High Minor Volume Condition Met	No
Total Entering Volume on All Approaches During Same Hour	271
Number of Approaches on Intersection	3
Total Volume Condition Met	No
Warrant Met for Approach	No
Warrant Met for Intersection	**No**

Signal Warrants Report For Intersection 8: Monty Hall Drive / Buddy Rogers Avenue

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	E, W
Minor Approaches	S, N
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets	
	E	W	S	N
1	69	42	87	36
2	66	40	84	35
3	65	39	82	34
4	55	34	70	29
5	52	32	66	27
6	47	29	59	24
7	43	26	55	23
8	41	25	52	22
9	33	20	42	17
10	31	19	39	16
11	31	19	39	16
12	30	18	37	15
13	27	16	34	14
14	25	15	31	13
15	25	15	31	13
16	24	15	30	13
17	14	8	17	7
18	8	5	10	4
19	7	4	9	4
20	3	2	3	1
21	2	1	3	1
22	2	1	3	1
23	1	1	2	1
24	1	1	2	1

Warrant Analysis by Hour

Hour	Major Lanes		Minor Lanes		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	2	111	2	123	No	No	No	No	No	No	No	No	No	No
2	2	106	2	119	No	No	No	No	No	No	No	No	No	No
3	2	104	2	116	No	No	No	No	No	No	No	No	No	No
4	2	89	2	99	No	No	No	No	No	No	No	No	No	No
5	2	84	2	93	No	No	No	No	No	No	No	No	No	No
6	2	76	2	83	No	No	No	No	No	No	No	No	No	No
7	2	69	2	78	No	No	No	No	No	No	No	No	No	No
8	2	66	2	74	No	No	No	No	No	No	No	No	No	No
9	2	53	2	59	No	No	No	No	No	No	No	No	No	No
10	2	50	2	55	No	No	No	No	No	No	No	No	No	No
11	2	50	2	55	No	No	No	No	No	No	No	No	No	No
12	2	48	2	52	No	No	No	No	No	No	No	No	No	No
13	2	43	2	48	No	No	No	No	No	No	No	No	No	No
14	2	40	2	44	No	No	No	No	No	No	No	No	No	No
15	2	40	2	44	No	No	No	No	No	No	No	No	No	No
16	2	39	2	43	No	No	No	No	No	No	No	No	No	No
17	2	22	2	24	No	No	No	No	No	No	No	No	No	No
18	2	13	2	14	No	No	No	No	No	No	No	No	No	No
19	2	11	2	13	No	No	No	No	No	No	No	No	No	No
20	2	5	2	4	No	No	No	No	No	No	No	No	No	No
21	2	3	2	4	No	No	No	No	No	No	No	No	No	No
22	2	3	2	4	No	No	No	No	No	No	No	No	No	No
23	2	2	2	3	No	No	No	No	No	No	No	No	No	No
24	2	2	2	3	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	S	N
Total Stopped Delay Per Vehicle on Minor Approach (s)	7.5	7.8
Number of Lanes on Minor Street Approach	1	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:10	0:04
Delay Condition Met	No	No
Volume on Minor Street Approach During Same Hour	87	36
High Minor Volume Condition Met	No	No
Total Entering Volume on All Approaches During Same Hour	234	234
Number of Approaches on Intersection	4	4
Total Volume Condition Met	No	No
Warrant Met for Approach	No	No
Warrant Met for Intersection	**No**	

Signal Warrants Report For Intersection 16: Cathedral Canyon Drive / Paseo Real

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	N, S
Minor Approaches	E, W
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets	
	N	S	E	W
1	699	872	27	24
2	671	837	26	23
3	657	820	25	23
4	559	698	22	19
5	531	663	21	18
6	475	593	18	16
7	440	549	17	15
8	419	523	16	14
9	336	419	13	12
10	315	392	12	11
11	315	392	12	11
12	301	375	12	10
13	273	340	11	9
14	252	314	10	9
15	252	314	10	9
16	245	305	9	8
17	140	174	5	5
18	77	96	3	3
19	70	87	3	2
20	28	35	1	1
21	21	26	1	1
22	21	26	1	1
23	14	17	1	0
24	14	17	1	0

Warrant Analysis by Hour

Hour	Major Lanes		Minor Lanes		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	6	1571	2	51	No	No	No	No	No	No	No	No	No	No
2	6	1508	2	49	No	No	No	No	No	No	No	No	No	No
3	6	1477	2	48	No	No	No	No	No	No	No	No	No	No
4	6	1257	2	41	No	No	No	No	No	No	No	No	No	No
5	6	1194	2	39	No	No	No	No	No	No	No	No	No	No
6	6	1068	2	34	No	No	No	No	No	No	No	No	No	No
7	6	989	2	32	No	No	No	No	No	No	No	No	No	No
8	6	942	2	30	No	No	No	No	No	No	No	No	No	No
9	6	755	2	25	No	No	No	No	No	No	No	No	No	No
10	6	707	2	23	No	No	No	No	No	No	No	No	No	No
11	6	707	2	23	No	No	No	No	No	No	No	No	No	No
12	6	676	2	22	No	No	No	No	No	No	No	No	No	No
13	6	613	2	20	No	No	No	No	No	No	No	No	No	No
14	6	566	2	19	No	No	No	No	No	No	No	No	No	No
15	6	566	2	19	No	No	No	No	No	No	No	No	No	No
16	6	550	2	17	No	No	No	No	No	No	No	No	No	No
17	6	314	2	10	No	No	No	No	No	No	No	No	No	No
18	6	173	2	6	No	No	No	No	No	No	No	No	No	No
19	6	157	2	5	No	No	No	No	No	No	No	No	No	No
20	6	63	2	2	No	No	No	No	No	No	No	No	No	No
21	6	47	2	2	No	No	No	No	No	No	No	No	No	No
22	6	47	2	2	No	No	No	No	No	No	No	No	No	No
23	6	31	2	1	No	No	No	No	No	No	No	No	No	No
24	6	31	2	1	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	E	W
Total Stopped Delay Per Vehicle on Minor Approach (s)	39.3	19.5
Number of Lanes on Minor Street Approach	1	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:17	0:07
Delay Condition Met	No	No
Volume on Minor Street Approach During Same Hour	27	24
High Minor Volume Condition Met	No	No
Total Entering Volume on All Approaches During Same Hour	1622	1622
Number of Approaches on Intersection	4	4
Total Volume Condition Met	Yes	Yes
Warrant Met for Approach	No	No
Warrant Met for Intersection	**No**	

Signal Warrants Report For Intersection 2: Date Palm Drive / Buddy Rogers Avenue

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	S, N
Minor Approaches	W
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets
	S	N	W
1	821	751	39
2	788	721	37
3	772	706	37
4	657	601	31
5	624	571	30
6	558	511	27
7	517	473	25
8	493	451	23
9	394	360	19
10	369	338	18
11	369	338	18
12	353	323	17
13	320	293	15
14	296	270	14
15	296	270	14
16	287	263	14
17	164	150	8
18	90	83	4
19	82	75	4
20	33	30	2
21	25	23	1
22	25	23	1
23	16	15	1
24	16	15	1

Warrant Analysis by Hour

Hour	Major Lanes		Minor Lanes		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	5	1572	1	39	No	No	No	No	No	No	No	No	No	No
2	5	1509	1	37	No	No	No	No	No	No	No	No	No	No
3	5	1478	1	37	No	No	No	No	No	No	No	No	No	No
4	5	1258	1	31	No	No	No	No	No	No	No	No	No	No
5	5	1195	1	30	No	No	No	No	No	No	No	No	No	No
6	5	1069	1	27	No	No	No	No	No	No	No	No	No	No
7	5	990	1	25	No	No	No	No	No	No	No	No	No	No
8	5	944	1	23	No	No	No	No	No	No	No	No	No	No
9	5	754	1	19	No	No	No	No	No	No	No	No	No	No
10	5	707	1	18	No	No	No	No	No	No	No	No	No	No
11	5	707	1	18	No	No	No	No	No	No	No	No	No	No
12	5	676	1	17	No	No	No	No	No	No	No	No	No	No
13	5	613	1	15	No	No	No	No	No	No	No	No	No	No
14	5	566	1	14	No	No	No	No	No	No	No	No	No	No
15	5	566	1	14	No	No	No	No	No	No	No	No	No	No
16	5	550	1	14	No	No	No	No	No	No	No	No	No	No
17	5	314	1	8	No	No	No	No	No	No	No	No	No	No
18	5	173	1	4	No	No	No	No	No	No	No	No	No	No
19	5	157	1	4	No	No	No	No	No	No	No	No	No	No
20	5	63	1	2	No	No	No	No	No	No	No	No	No	No
21	5	48	1	1	No	No	No	No	No	No	No	No	No	No
22	5	48	1	1	No	No	No	No	No	No	No	No	No	No
23	5	31	1	1	No	No	No	No	No	No	No	No	No	No
24	5	31	1	1	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	W
Total Stopped Delay Per Vehicle on Minor Approach (s)	26.5
Number of Lanes on Minor Street Approach	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:17
Delay Condition Met	No
Volume on Minor Street Approach During Same Hour	39
High Minor Volume Condition Met	No
Total Entering Volume on All Approaches During Same Hour	1611
Number of Approaches on Intersection	3
Total Volume Condition Met	Yes
Warrant Met for Approach	No
Warrant Met for Intersection	**No**

Signal Warrants Report For Intersection 16: Cathedral Canyon Drive / Paseo Real

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	N, S
Minor Approaches	E, W
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets	
	N	S	E	W
1	674	866	23	24
2	647	831	22	23
3	634	814	22	23
4	539	693	18	19
5	512	658	17	18
6	458	589	16	16
7	425	546	14	15
8	404	520	14	14
9	324	416	11	12
10	303	390	10	11
11	303	390	10	11
12	290	372	10	10
13	263	338	9	9
14	243	312	8	9
15	243	312	8	9
16	236	303	8	8
17	135	173	5	5
18	74	95	3	3
19	67	87	2	2
20	27	35	1	1
21	20	26	1	1
22	20	26	1	1
23	13	17	0	0
24	13	17	0	0

Warrant Analysis by Hour

Hour	Major Lanes		Minor Lanes		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	6	1540	2	47	No	No	No	No	No	No	No	No	No	No
2	6	1478	2	45	No	No	No	No	No	No	No	No	No	No
3	6	1448	2	45	No	No	No	No	No	No	No	No	No	No
4	6	1232	2	37	No	No	No	No	No	No	No	No	No	No
5	6	1170	2	35	No	No	No	No	No	No	No	No	No	No
6	6	1047	2	32	No	No	No	No	No	No	No	No	No	No
7	6	971	2	29	No	No	No	No	No	No	No	No	No	No
8	6	924	2	28	No	No	No	No	No	No	No	No	No	No
9	6	740	2	23	No	No	No	No	No	No	No	No	No	No
10	6	693	2	21	No	No	No	No	No	No	No	No	No	No
11	6	693	2	21	No	No	No	No	No	No	No	No	No	No
12	6	662	2	20	No	No	No	No	No	No	No	No	No	No
13	6	601	2	18	No	No	No	No	No	No	No	No	No	No
14	6	555	2	17	No	No	No	No	No	No	No	No	No	No
15	6	555	2	17	No	No	No	No	No	No	No	No	No	No
16	6	539	2	16	No	No	No	No	No	No	No	No	No	No
17	6	308	2	10	No	No	No	No	No	No	No	No	No	No
18	6	169	2	6	No	No	No	No	No	No	No	No	No	No
19	6	154	2	4	No	No	No	No	No	No	No	No	No	No
20	6	62	2	2	No	No	No	No	No	No	No	No	No	No
21	6	46	2	2	No	No	No	No	No	No	No	No	No	No
22	6	46	2	2	No	No	No	No	No	No	No	No	No	No
23	6	30	2	0	No	No	No	No	No	No	No	No	No	No
24	6	30	2	0	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	E	W
Total Stopped Delay Per Vehicle on Minor Approach (s)	34.9	18.8
Number of Lanes on Minor Street Approach	1	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:13	0:07
Delay Condition Met	No	No
Volume on Minor Street Approach During Same Hour	23	24
High Minor Volume Condition Met	No	No
Total Entering Volume on All Approaches During Same Hour	1587	1587
Number of Approaches on Intersection	4	4
Total Volume Condition Met	Yes	Yes
Warrant Met for Approach	No	No
Warrant Met for Intersection	**No**	

Signal Warrants Report For Intersection 27: Van Fleet Street / B Street-West Project Driveway

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	S, N
Minor Approaches	E, W
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets	
	S	N	E	W
1	108	154	72	23
2	104	148	69	22
3	102	145	68	22
4	86	123	58	18
5	82	117	55	17
6	73	105	49	16
7	68	97	45	14
8	65	92	43	14
9	52	74	35	11
10	49	69	32	10
11	49	69	32	10
12	46	66	31	10
13	42	60	28	9
14	39	55	26	8
15	39	55	26	8
16	38	54	25	8
17	22	31	14	5
18	12	17	8	3
19	11	15	7	2
20	4	6	3	1
21	3	5	2	1
22	3	5	2	1
23	2	3	1	0
24	2	3	1	0

Warrant Analysis by Hour

Hour	Major Lanes		Minor Lanes		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	2	262	2	95	No	No	No	No	No	No	No	No	No	No
2	2	252	2	91	No	No	No	No	No	No	No	No	No	No
3	2	247	2	90	No	No	No	No	No	No	No	No	No	No
4	2	209	2	76	No	No	No	No	No	No	No	No	No	No
5	2	199	2	72	No	No	No	No	No	No	No	No	No	No
6	2	178	2	65	No	No	No	No	No	No	No	No	No	No
7	2	165	2	59	No	No	No	No	No	No	No	No	No	No
8	2	157	2	57	No	No	No	No	No	No	No	No	No	No
9	2	126	2	46	No	No	No	No	No	No	No	No	No	No
10	2	118	2	42	No	No	No	No	No	No	No	No	No	No
11	2	118	2	42	No	No	No	No	No	No	No	No	No	No
12	2	112	2	41	No	No	No	No	No	No	No	No	No	No
13	2	102	2	37	No	No	No	No	No	No	No	No	No	No
14	2	94	2	34	No	No	No	No	No	No	No	No	No	No
15	2	94	2	34	No	No	No	No	No	No	No	No	No	No
16	2	92	2	33	No	No	No	No	No	No	No	No	No	No
17	2	53	2	19	No	No	No	No	No	No	No	No	No	No
18	2	29	2	11	No	No	No	No	No	No	No	No	No	No
19	2	26	2	9	No	No	No	No	No	No	No	No	No	No
20	2	10	2	4	No	No	No	No	No	No	No	No	No	No
21	2	8	2	3	No	No	No	No	No	No	No	No	No	No
22	2	8	2	3	No	No	No	No	No	No	No	No	No	No
23	2	5	2	1	No	No	No	No	No	No	No	No	No	No
24	2	5	2	1	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	E	W
Total Stopped Delay Per Vehicle on Minor Approach (s)	9.9	11.5
Number of Lanes on Minor Street Approach	1	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:11	0:04
Delay Condition Met	No	No
Volume on Minor Street Approach During Same Hour	72	23
High Minor Volume Condition Met	No	No
Total Entering Volume on All Approaches During Same Hour	357	357
Number of Approaches on Intersection	4	4
Total Volume Condition Met	No	No
Warrant Met for Approach	No	No
Warrant Met for Intersection	**No**	

Signal Warrants Report For Intersection 28: Van Fleet Street / D Street

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	S, N
Minor Approaches	E, W
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets	
	S	N	E	W
1	78	83	46	20
2	75	80	44	19
3	73	78	43	19
4	62	66	37	16
5	59	63	35	15
6	53	56	31	14
7	49	52	29	13
8	47	50	28	12
9	37	40	22	10
10	35	37	21	9
11	35	37	21	9
12	34	36	20	9
13	30	32	18	8
14	28	30	17	7
15	28	30	17	7
16	27	29	16	7
17	16	17	9	4
18	9	9	5	2
19	8	8	5	2
20	3	3	2	1
21	2	2	1	1
22	2	2	1	1
23	2	2	1	0
24	2	2	1	0

Warrant Analysis by Hour

Hour	Major Lanes		Minor Lanes		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	2	161	2	66	No	No	No	No	No	No	No	No	No	No
2	2	155	2	63	No	No	No	No	No	No	No	No	No	No
3	2	151	2	62	No	No	No	No	No	No	No	No	No	No
4	2	128	2	53	No	No	No	No	No	No	No	No	No	No
5	2	122	2	50	No	No	No	No	No	No	No	No	No	No
6	2	109	2	45	No	No	No	No	No	No	No	No	No	No
7	2	101	2	42	No	No	No	No	No	No	No	No	No	No
8	2	97	2	40	No	No	No	No	No	No	No	No	No	No
9	2	77	2	32	No	No	No	No	No	No	No	No	No	No
10	2	72	2	30	No	No	No	No	No	No	No	No	No	No
11	2	72	2	30	No	No	No	No	No	No	No	No	No	No
12	2	70	2	29	No	No	No	No	No	No	No	No	No	No
13	2	62	2	26	No	No	No	No	No	No	No	No	No	No
14	2	58	2	24	No	No	No	No	No	No	No	No	No	No
15	2	58	2	24	No	No	No	No	No	No	No	No	No	No
16	2	56	2	23	No	No	No	No	No	No	No	No	No	No
17	2	33	2	13	No	No	No	No	No	No	No	No	No	No
18	2	18	2	7	No	No	No	No	No	No	No	No	No	No
19	2	16	2	7	No	No	No	No	No	No	No	No	No	No
20	2	6	2	3	No	No	No	No	No	No	No	No	No	No
21	2	4	2	2	No	No	No	No	No	No	No	No	No	No
22	2	4	2	2	No	No	No	No	No	No	No	No	No	No
23	2	4	2	1	No	No	No	No	No	No	No	No	No	No
24	2	4	2	1	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	E	W
Total Stopped Delay Per Vehicle on Minor Approach (s)	9.4	10.2
Number of Lanes on Minor Street Approach	1	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:07	0:03
Delay Condition Met	No	No
Volume on Minor Street Approach During Same Hour	46	20
High Minor Volume Condition Met	No	No
Total Entering Volume on All Approaches During Same Hour	227	227
Number of Approaches on Intersection	4	4
Total Volume Condition Met	No	No
Warrant Met for Approach	No	No
Warrant Met for Intersection	**No**	

Signal Warrants Report For Intersection 29: South Project Driveway / D Street

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	E, W
Minor Approaches	N
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets
	E	W	N
1	9	19	37
2	9	18	36
3	8	18	35
4	7	15	30
5	7	14	28
6	6	13	25
7	6	12	23
8	5	11	22
9	4	9	18
10	4	9	17
11	4	9	17
12	4	8	16
13	4	7	14
14	3	7	13
15	3	7	13
16	3	7	13
17	2	4	7
18	1	2	4
19	1	2	4
20	0	1	1
21	0	1	1
22	0	1	1
23	0	0	1
24	0	0	1

Warrant Analysis by Hour

Hour	Major Lanes		Minor Lanes		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	2	28	1	37	No	No	No	No	No	No	No	No	No	No
2	2	27	1	36	No	No	No	No	No	No	No	No	No	No
3	2	26	1	35	No	No	No	No	No	No	No	No	No	No
4	2	22	1	30	No	No	No	No	No	No	No	No	No	No
5	2	21	1	28	No	No	No	No	No	No	No	No	No	No
6	2	19	1	25	No	No	No	No	No	No	No	No	No	No
7	2	18	1	23	No	No	No	No	No	No	No	No	No	No
8	2	16	1	22	No	No	No	No	No	No	No	No	No	No
9	2	13	1	18	No	No	No	No	No	No	No	No	No	No
10	2	13	1	17	No	No	No	No	No	No	No	No	No	No
11	2	13	1	17	No	No	No	No	No	No	No	No	No	No
12	2	12	1	16	No	No	No	No	No	No	No	No	No	No
13	2	11	1	14	No	No	No	No	No	No	No	No	No	No
14	2	10	1	13	No	No	No	No	No	No	No	No	No	No
15	2	10	1	13	No	No	No	No	No	No	No	No	No	No
16	2	10	1	13	No	No	No	No	No	No	No	No	No	No
17	2	6	1	7	No	No	No	No	No	No	No	No	No	No
18	2	3	1	4	No	No	No	No	No	No	No	No	No	No
19	2	3	1	4	No	No	No	No	No	No	No	No	No	No
20	2	1	1	1	No	No	No	No	No	No	No	No	No	No
21	2	1	1	1	No	No	No	No	No	No	No	No	No	No
22	2	1	1	1	No	No	No	No	No	No	No	No	No	No
23	2	0	1	1	No	No	No	No	No	No	No	No	No	No
24	2	0	1	1	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	N
Total Stopped Delay Per Vehicle on Minor Approach (s)	8.5
Number of Lanes on Minor Street Approach	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:05
Delay Condition Met	No
Volume on Minor Street Approach During Same Hour	37
High Minor Volume Condition Met	No
Total Entering Volume on All Approaches During Same Hour	65
Number of Approaches on Intersection	3
Total Volume Condition Met	No
Warrant Met for Approach	No
Warrant Met for Intersection	**No**

Signal Warrants Report For Intersection 1: North Project Driveway 1 / Buddy Rogers Avenue

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	E, W
Minor Approaches	S, N
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets	
	E	W	S	N
1	177	97	143	0
2	170	93	137	0
3	166	91	134	0
4	142	78	114	0
5	135	74	109	0
6	120	66	97	0
7	112	61	90	0
8	106	58	86	0
9	85	47	69	0
10	80	44	64	0
11	80	44	64	0
12	76	42	61	0
13	69	38	56	0
14	64	35	51	0
15	64	35	51	0
16	62	34	50	0
17	35	19	29	0
18	19	11	16	0
19	18	10	14	0
20	7	4	6	0
21	5	3	4	0
22	5	3	4	0
23	4	2	3	0
24	4	2	3	0

Warrant Analysis by Hour

Hour	Major Lanes		Minor Lanes		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	2	274	3	143	No	No	No	No	No	No	No	No	No	No
2	2	263	3	137	No	No	No	No	No	No	No	No	No	No
3	2	257	3	134	No	No	No	No	No	No	No	No	No	No
4	2	220	3	114	No	No	No	No	No	No	No	No	No	No
5	2	209	3	109	No	No	No	No	No	No	No	No	No	No
6	2	186	3	97	No	No	No	No	No	No	No	No	No	No
7	2	173	3	90	No	No	No	No	No	No	No	No	No	No
8	2	164	3	86	No	No	No	No	No	No	No	No	No	No
9	2	132	3	69	No	No	No	No	No	No	No	No	No	No
10	2	124	3	64	No	No	No	No	No	No	No	No	No	No
11	2	124	3	64	No	No	No	No	No	No	No	No	No	No
12	2	118	3	61	No	No	No	No	No	No	No	No	No	No
13	2	107	3	56	No	No	No	No	No	No	No	No	No	No
14	2	99	3	51	No	No	No	No	No	No	No	No	No	No
15	2	99	3	51	No	No	No	No	No	No	No	No	No	No
16	2	96	3	50	No	No	No	No	No	No	No	No	No	No
17	2	54	3	29	No	No	No	No	No	No	No	No	No	No
18	2	30	3	16	No	No	No	No	No	No	No	No	No	No
19	2	28	3	14	No	No	No	No	No	No	No	No	No	No
20	2	11	3	6	No	No	No	No	No	No	No	No	No	No
21	2	8	3	4	No	No	No	No	No	No	No	No	No	No
22	2	8	3	4	No	No	No	No	No	No	No	No	No	No
23	2	6	3	3	No	No	No	No	No	No	No	No	No	No
24	2	6	3	3	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	S	N
Total Stopped Delay Per Vehicle on Minor Approach (s)	10.1	11.7
Number of Lanes on Minor Street Approach	2	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:24	0:00
Delay Condition Met	No	No
Volume on Minor Street Approach During Same Hour	143	0
High Minor Volume Condition Met	No	No
Total Entering Volume on All Approaches During Same Hour	417	417
Number of Approaches on Intersection	4	4
Total Volume Condition Met	No	No
Warrant Met for Approach	No	No
Warrant Met for Intersection	**No**	

Signal Warrants Report For Intersection 2: Date Palm Drive / Buddy Rogers Avenue

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	Yes
#3	Peak Hour	Yes

Intersection Warrants Parameters

Major Approaches	S, N
Minor Approaches	W
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets
	S	N	W
1	651	797	161
2	625	765	155
3	612	749	151
4	521	638	129
5	495	606	122
6	443	542	109
7	410	502	101
8	391	478	97
9	312	383	77
10	293	359	72
11	293	359	72
12	280	343	69
13	254	311	63
14	234	287	58
15	234	287	58
16	228	279	56
17	130	159	32
18	72	88	18
19	65	80	16
20	26	32	6
21	20	24	5
22	20	24	5
23	13	16	3
24	13	16	3

Warrant Analysis by Hour

Hour	Major Lanes		Minor Lanes		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	5	1448	1	161	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
2	5	1390	1	155	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
3	5	1361	1	151	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
4	5	1159	1	129	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
5	5	1101	1	122	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
6	5	985	1	109	No	No	Yes	Yes	Yes	Yes	Yes	Yes	No	No
7	5	912	1	101	No	No	No	Yes	Yes	Yes	Yes	Yes	No	No
8	5	869	1	97	No	No	No	Yes	No	Yes	Yes	Yes	No	No
9	5	695	1	77	No	No	No	No	No	No	Yes	Yes	No	No
10	5	652	1	72	No	No	No	No	No	No	Yes	Yes	No	No
11	5	652	1	72	No	No	No	No	No	No	Yes	Yes	No	No
12	5	623	1	69	No	No	No	No	No	No	No	Yes	No	No
13	5	565	1	63	No	No	No	No	No	No	No	Yes	No	No
14	5	521	1	58	No	No	No	No	No	No	No	Yes	No	No
15	5	521	1	58	No	No	No	No	No	No	No	Yes	No	No
16	5	507	1	56	No	No	No	No	No	No	No	Yes	No	No
17	5	289	1	32	No	No	No	No	No	No	No	No	No	No
18	5	160	1	18	No	No	No	No	No	No	No	No	No	No
19	5	145	1	16	No	No	No	No	No	No	No	No	No	No
20	5	58	1	6	No	No	No	No	No	No	No	No	No	No
21	5	44	1	5	No	No	No	No	No	No	No	No	No	No
22	5	44	1	5	No	No	No	No	No	No	No	No	No	No
23	5	29	1	3	No	No	No	No	No	No	No	No	No	No
24	5	29	1	3	No	No	No	No	No	No	No	No	No	No
Hours Met					3	5	6	8	7	8	11	16	5	1

Warrant 3 Condition A

Orientation	W
Total Stopped Delay Per Vehicle on Minor Approach (s)	65
Number of Lanes on Minor Street Approach	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	2:54
Delay Condition Met	No
Volume on Minor Street Approach During Same Hour	161
High Minor Volume Condition Met	Yes
Total Entering Volume on All Approaches During Same Hour	1609
Number of Approaches on Intersection	3
Total Volume Condition Met	Yes
Warrant Met for Approach	No
Warrant Met for Intersection	**No**

Signal Warrants Report For Intersection 8: Monty Hall Drive / Buddy Rogers Avenue

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	E, W
Minor Approaches	S, N
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets	
	E	W	S	N
1	97	21	97	24
2	93	20	93	23
3	91	20	91	23
4	78	17	78	19
5	74	16	74	18
6	66	14	66	16
7	61	13	61	15
8	58	13	58	14
9	47	10	47	12
10	44	9	44	11
11	44	9	44	11
12	42	9	42	10
13	38	8	38	9
14	35	8	35	9
15	35	8	35	9
16	34	7	34	8
17	19	4	19	5
18	11	2	11	3
19	10	2	10	2
20	4	1	4	1
21	3	1	3	1
22	3	1	3	1
23	2	0	2	0
24	2	0	2	0

Warrant Analysis by Hour

Hour	Major Lanes		Minor Lanes		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	2	118	2	121	No	No	No	No	No	No	No	No	No	No
2	2	113	2	116	No	No	No	No	No	No	No	No	No	No
3	2	111	2	114	No	No	No	No	No	No	No	No	No	No
4	2	95	2	97	No	No	No	No	No	No	No	No	No	No
5	2	90	2	92	No	No	No	No	No	No	No	No	No	No
6	2	80	2	82	No	No	No	No	No	No	No	No	No	No
7	2	74	2	76	No	No	No	No	No	No	No	No	No	No
8	2	71	2	72	No	No	No	No	No	No	No	No	No	No
9	2	57	2	59	No	No	No	No	No	No	No	No	No	No
10	2	53	2	55	No	No	No	No	No	No	No	No	No	No
11	2	53	2	55	No	No	No	No	No	No	No	No	No	No
12	2	51	2	52	No	No	No	No	No	No	No	No	No	No
13	2	46	2	47	No	No	No	No	No	No	No	No	No	No
14	2	43	2	44	No	No	No	No	No	No	No	No	No	No
15	2	43	2	44	No	No	No	No	No	No	No	No	No	No
16	2	41	2	42	No	No	No	No	No	No	No	No	No	No
17	2	23	2	24	No	No	No	No	No	No	No	No	No	No
18	2	13	2	14	No	No	No	No	No	No	No	No	No	No
19	2	12	2	12	No	No	No	No	No	No	No	No	No	No
20	2	5	2	5	No	No	No	No	No	No	No	No	No	No
21	2	4	2	4	No	No	No	No	No	No	No	No	No	No
22	2	4	2	4	No	No	No	No	No	No	No	No	No	No
23	2	2	2	2	No	No	No	No	No	No	No	No	No	No
24	2	2	2	2	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	S	N
Total Stopped Delay Per Vehicle on Minor Approach (s)	7.4	7.7
Number of Lanes on Minor Street Approach	1	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:12	0:03
Delay Condition Met	No	No
Volume on Minor Street Approach During Same Hour	97	24
High Minor Volume Condition Met	No	No
Total Entering Volume on All Approaches During Same Hour	239	239
Number of Approaches on Intersection	4	4
Total Volume Condition Met	No	No
Warrant Met for Approach	No	No
Warrant Met for Intersection	**No**	

Signal Warrants Report For Intersection 16: Cathedral Canyon Drive / Paseo Real

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	N, S
Minor Approaches	E, W
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets	
	N	S	E	W
1	633	580	39	33
2	608	557	37	32
3	595	545	37	31
4	506	464	31	26
5	481	441	30	25
6	430	394	27	22
7	399	365	25	21
8	380	348	23	20
9	304	278	19	16
10	285	261	18	15
11	285	261	18	15
12	272	249	17	14
13	247	226	15	13
14	228	209	14	12
15	228	209	14	12
16	222	203	14	12
17	127	116	8	7
18	70	64	4	4
19	63	58	4	3
20	25	23	2	1
21	19	17	1	1
22	19	17	1	1
23	13	12	1	1
24	13	12	1	1

Warrant Analysis by Hour

Hour	Major Lanes		Minor Lanes		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	6	1213	2	72	No	No	No	No	No	No	No	No	No	No
2	6	1165	2	69	No	No	No	No	No	No	No	No	No	No
3	6	1140	2	68	No	No	No	No	No	No	No	No	No	No
4	6	970	2	57	No	No	No	No	No	No	No	No	No	No
5	6	922	2	55	No	No	No	No	No	No	No	No	No	No
6	6	824	2	49	No	No	No	No	No	No	No	No	No	No
7	6	764	2	46	No	No	No	No	No	No	No	No	No	No
8	6	728	2	43	No	No	No	No	No	No	No	No	No	No
9	6	582	2	35	No	No	No	No	No	No	No	No	No	No
10	6	546	2	33	No	No	No	No	No	No	No	No	No	No
11	6	546	2	33	No	No	No	No	No	No	No	No	No	No
12	6	521	2	31	No	No	No	No	No	No	No	No	No	No
13	6	473	2	28	No	No	No	No	No	No	No	No	No	No
14	6	437	2	26	No	No	No	No	No	No	No	No	No	No
15	6	437	2	26	No	No	No	No	No	No	No	No	No	No
16	6	425	2	26	No	No	No	No	No	No	No	No	No	No
17	6	243	2	15	No	No	No	No	No	No	No	No	No	No
18	6	134	2	8	No	No	No	No	No	No	No	No	No	No
19	6	121	2	7	No	No	No	No	No	No	No	No	No	No
20	6	48	2	3	No	No	No	No	No	No	No	No	No	No
21	6	36	2	2	No	No	No	No	No	No	No	No	No	No
22	6	36	2	2	No	No	No	No	No	No	No	No	No	No
23	6	25	2	2	No	No	No	No	No	No	No	No	No	No
24	6	25	2	2	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	E	W
Total Stopped Delay Per Vehicle on Minor Approach (s)	21.3	18.7
Number of Lanes on Minor Street Approach	1	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:13	0:10
Delay Condition Met	No	No
Volume on Minor Street Approach During Same Hour	39	33
High Minor Volume Condition Met	No	No
Total Entering Volume on All Approaches During Same Hour	1285	1285
Number of Approaches on Intersection	4	4
Total Volume Condition Met	Yes	Yes
Warrant Met for Approach	No	No
Warrant Met for Intersection	**No**	

Signal Warrants Report For Intersection 1: North Project Driveway 1 / Buddy Rogers Avenue

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	E, W
Minor Approaches	S, N
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets	
	E	W	S	N
1	142	87	115	0
2	136	84	110	0
3	133	82	108	0
4	114	70	92	0
5	108	66	87	0
6	97	59	78	0
7	89	55	72	0
8	85	52	69	0
9	68	42	55	0
10	64	39	52	0
11	64	39	52	0
12	61	37	49	0
13	55	34	45	0
14	51	31	41	0
15	51	31	41	0
16	50	30	40	0
17	28	17	23	0
18	16	10	13	0
19	14	9	12	0
20	6	3	5	0
21	4	3	3	0
22	4	3	3	0
23	3	2	2	0
24	3	2	2	0

Warrant Analysis by Hour

Hour	Major Lanes		Minor Lanes		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	2	229	3	115	No	No	No	No	No	No	No	No	No	No
2	2	220	3	110	No	No	No	No	No	No	No	No	No	No
3	2	215	3	108	No	No	No	No	No	No	No	No	No	No
4	2	184	3	92	No	No	No	No	No	No	No	No	No	No
5	2	174	3	87	No	No	No	No	No	No	No	No	No	No
6	2	156	3	78	No	No	No	No	No	No	No	No	No	No
7	2	144	3	72	No	No	No	No	No	No	No	No	No	No
8	2	137	3	69	No	No	No	No	No	No	No	No	No	No
9	2	110	3	55	No	No	No	No	No	No	No	No	No	No
10	2	103	3	52	No	No	No	No	No	No	No	No	No	No
11	2	103	3	52	No	No	No	No	No	No	No	No	No	No
12	2	98	3	49	No	No	No	No	No	No	No	No	No	No
13	2	89	3	45	No	No	No	No	No	No	No	No	No	No
14	2	82	3	41	No	No	No	No	No	No	No	No	No	No
15	2	82	3	41	No	No	No	No	No	No	No	No	No	No
16	2	80	3	40	No	No	No	No	No	No	No	No	No	No
17	2	45	3	23	No	No	No	No	No	No	No	No	No	No
18	2	26	3	13	No	No	No	No	No	No	No	No	No	No
19	2	23	3	12	No	No	No	No	No	No	No	No	No	No
20	2	9	3	5	No	No	No	No	No	No	No	No	No	No
21	2	7	3	3	No	No	No	No	No	No	No	No	No	No
22	2	7	3	3	No	No	No	No	No	No	No	No	No	No
23	2	5	3	2	No	No	No	No	No	No	No	No	No	No
24	2	5	3	2	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	S	N
Total Stopped Delay Per Vehicle on Minor Approach (s)	9.8	10.9
Number of Lanes on Minor Street Approach	2	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:18	0:00
Delay Condition Met	No	No
Volume on Minor Street Approach During Same Hour	115	0
High Minor Volume Condition Met	No	No
Total Entering Volume on All Approaches During Same Hour	344	344
Number of Approaches on Intersection	4	4
Total Volume Condition Met	No	No
Warrant Met for Approach	No	No
Warrant Met for Intersection	**No**	

Signal Warrants Report For Intersection 2: Date Palm Drive / Buddy Rogers Avenue

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	S, N
Minor Approaches	W
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets
	S	N	W
1	628	762	148
2	603	732	142
3	590	716	139
4	502	610	118
5	477	579	112
6	427	518	101
7	396	480	93
8	377	457	89
9	301	366	71
10	283	343	67
11	283	343	67
12	270	328	64
13	245	297	58
14	226	274	53
15	226	274	53
16	220	267	52
17	126	152	30
18	69	84	16
19	63	76	15
20	25	30	6
21	19	23	4
22	19	23	4
23	13	15	3
24	13	15	3

Warrant Analysis by Hour

Hour	Major Lanes		Minor Lanes		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	5	1390	1	148	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
2	5	1335	1	142	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
3	5	1306	1	139	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
4	5	1112	1	118	No	No	Yes	Yes	Yes	Yes	Yes	Yes	No	No
5	5	1056	1	112	No	No	Yes	Yes	Yes	Yes	Yes	Yes	No	No
6	5	945	1	101	No	No	No	Yes	Yes	Yes	Yes	Yes	No	No
7	5	876	1	93	No	No	No	Yes	No	Yes	Yes	Yes	No	No
8	5	834	1	89	No	No	No	Yes	No	Yes	Yes	Yes	No	No
9	5	667	1	71	No	No	No	No	No	No	Yes	Yes	No	No
10	5	626	1	67	No	No	No	No	No	No	No	Yes	No	No
11	5	626	1	67	No	No	No	No	No	No	No	Yes	No	No
12	5	598	1	64	No	No	No	No	No	No	No	Yes	No	No
13	5	542	1	58	No	No	No	No	No	No	No	Yes	No	No
14	5	500	1	53	No	No	No	No	No	No	No	No	No	No
15	5	500	1	53	No	No	No	No	No	No	No	No	No	No
16	5	487	1	52	No	No	No	No	No	No	No	No	No	No
17	5	278	1	30	No	No	No	No	No	No	No	No	No	No
18	5	153	1	16	No	No	No	No	No	No	No	No	No	No
19	5	139	1	15	No	No	No	No	No	No	No	No	No	No
20	5	55	1	6	No	No	No	No	No	No	No	No	No	No
21	5	42	1	4	No	No	No	No	No	No	No	No	No	No
22	5	42	1	4	No	No	No	No	No	No	No	No	No	No
23	5	28	1	3	No	No	No	No	No	No	No	No	No	No
24	5	28	1	3	No	No	No	No	No	No	No	No	No	No
Hours Met					0	3	5	8	6	8	9	13	3	0

Warrant 3 Condition A

Orientation	W
Total Stopped Delay Per Vehicle on Minor Approach (s)	46.8
Number of Lanes on Minor Street Approach	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	1:55
Delay Condition Met	No
Volume on Minor Street Approach During Same Hour	148
High Minor Volume Condition Met	Yes
Total Entering Volume on All Approaches During Same Hour	1538
Number of Approaches on Intersection	3
Total Volume Condition Met	Yes
Warrant Met for Approach	No
Warrant Met for Intersection	**No**

Signal Warrants Report For Intersection 7: North Project Driveway 2 / Buddy Rogers Avenue

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	E, W
Minor Approaches	S
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets
	E	W	S
1	143	122	22
2	137	117	21
3	134	115	21
4	114	98	18
5	109	93	17
6	97	83	15
7	90	77	14
8	86	73	13
9	69	59	11
10	64	55	10
11	64	55	10
12	61	52	9
13	56	48	9
14	51	44	8
15	51	44	8
16	50	43	8
17	29	24	4
18	16	13	2
19	14	12	2
20	6	5	1
21	4	4	1
22	4	4	1
23	3	2	0
24	3	2	0

Warrant Analysis by Hour

Hour	Major Lanes		Minor Lanes		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	2	265	1	22	No	No	No	No	No	No	No	No	No	No
2	2	254	1	21	No	No	No	No	No	No	No	No	No	No
3	2	249	1	21	No	No	No	No	No	No	No	No	No	No
4	2	212	1	18	No	No	No	No	No	No	No	No	No	No
5	2	202	1	17	No	No	No	No	No	No	No	No	No	No
6	2	180	1	15	No	No	No	No	No	No	No	No	No	No
7	2	167	1	14	No	No	No	No	No	No	No	No	No	No
8	2	159	1	13	No	No	No	No	No	No	No	No	No	No
9	2	128	1	11	No	No	No	No	No	No	No	No	No	No
10	2	119	1	10	No	No	No	No	No	No	No	No	No	No
11	2	119	1	10	No	No	No	No	No	No	No	No	No	No
12	2	113	1	9	No	No	No	No	No	No	No	No	No	No
13	2	104	1	9	No	No	No	No	No	No	No	No	No	No
14	2	95	1	8	No	No	No	No	No	No	No	No	No	No
15	2	95	1	8	No	No	No	No	No	No	No	No	No	No
16	2	93	1	8	No	No	No	No	No	No	No	No	No	No
17	2	53	1	4	No	No	No	No	No	No	No	No	No	No
18	2	29	1	2	No	No	No	No	No	No	No	No	No	No
19	2	26	1	2	No	No	No	No	No	No	No	No	No	No
20	2	11	1	1	No	No	No	No	No	No	No	No	No	No
21	2	8	1	1	No	No	No	No	No	No	No	No	No	No
22	2	8	1	1	No	No	No	No	No	No	No	No	No	No
23	2	5	1	0	No	No	No	No	No	No	No	No	No	No
24	2	5	1	0	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	S
Total Stopped Delay Per Vehicle on Minor Approach (s)	9.7
Number of Lanes on Minor Street Approach	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:03
Delay Condition Met	No
Volume on Minor Street Approach During Same Hour	22
High Minor Volume Condition Met	No
Total Entering Volume on All Approaches During Same Hour	287
Number of Approaches on Intersection	3
Total Volume Condition Met	No
Warrant Met for Approach	No
Warrant Met for Intersection	**No**

Signal Warrants Report For Intersection 8: Monty Hall Drive / Buddy Rogers Avenue

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	E, W
Minor Approaches	S, N
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets	
	E	W	S	N
1	91	21	87	24
2	87	20	84	23
3	86	20	82	23
4	73	17	70	19
5	69	16	66	18
6	62	14	59	16
7	57	13	55	15
8	55	13	52	14
9	44	10	42	12
10	41	9	39	11
11	41	9	39	11
12	39	9	37	10
13	35	8	34	9
14	33	8	31	9
15	33	8	31	9
16	32	7	30	8
17	18	4	17	5
18	10	2	10	3
19	9	2	9	2
20	4	1	3	1
21	3	1	3	1
22	3	1	3	1
23	2	0	2	0
24	2	0	2	0

Warrant Analysis by Hour

Hour	Major Lanes		Minor Lanes		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	2	112	2	111	No	No	No	No	No	No	No	No	No	No
2	2	107	2	107	No	No	No	No	No	No	No	No	No	No
3	2	106	2	105	No	No	No	No	No	No	No	No	No	No
4	2	90	2	89	No	No	No	No	No	No	No	No	No	No
5	2	85	2	84	No	No	No	No	No	No	No	No	No	No
6	2	76	2	75	No	No	No	No	No	No	No	No	No	No
7	2	70	2	70	No	No	No	No	No	No	No	No	No	No
8	2	68	2	66	No	No	No	No	No	No	No	No	No	No
9	2	54	2	54	No	No	No	No	No	No	No	No	No	No
10	2	50	2	50	No	No	No	No	No	No	No	No	No	No
11	2	50	2	50	No	No	No	No	No	No	No	No	No	No
12	2	48	2	47	No	No	No	No	No	No	No	No	No	No
13	2	43	2	43	No	No	No	No	No	No	No	No	No	No
14	2	41	2	40	No	No	No	No	No	No	No	No	No	No
15	2	41	2	40	No	No	No	No	No	No	No	No	No	No
16	2	39	2	38	No	No	No	No	No	No	No	No	No	No
17	2	22	2	22	No	No	No	No	No	No	No	No	No	No
18	2	12	2	13	No	No	No	No	No	No	No	No	No	No
19	2	11	2	11	No	No	No	No	No	No	No	No	No	No
20	2	5	2	4	No	No	No	No	No	No	No	No	No	No
21	2	4	2	4	No	No	No	No	No	No	No	No	No	No
22	2	4	2	4	No	No	No	No	No	No	No	No	No	No
23	2	2	2	2	No	No	No	No	No	No	No	No	No	No
24	2	2	2	2	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	S	N
Total Stopped Delay Per Vehicle on Minor Approach (s)	7.4	7.7
Number of Lanes on Minor Street Approach	1	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:10	0:03
Delay Condition Met	No	No
Volume on Minor Street Approach During Same Hour	87	24
High Minor Volume Condition Met	No	No
Total Entering Volume on All Approaches During Same Hour	223	223
Number of Approaches on Intersection	4	4
Total Volume Condition Met	No	No
Warrant Met for Approach	No	No
Warrant Met for Intersection	**No**	

Signal Warrants Report For Intersection 16: Cathedral Canyon Drive / Paseo Real

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	N, S
Minor Approaches	E, W
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets	
	N	S	E	W
1	625	575	38	33
2	600	552	36	32
3	588	541	36	31
4	500	460	30	26
5	475	437	29	25
6	425	391	26	22
7	394	362	24	21
8	375	345	23	20
9	300	276	18	16
10	281	259	17	15
11	281	259	17	15
12	269	247	16	14
13	244	224	15	13
14	225	207	14	12
15	225	207	14	12
16	219	201	13	12
17	125	115	8	7
18	69	63	4	4
19	63	58	4	3
20	25	23	2	1
21	19	17	1	1
22	19	17	1	1
23	13	12	1	1
24	13	12	1	1

Warrant Analysis by Hour

Hour	Major Lanes		Minor Lanes		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	6	1200	2	71	No	No	No	No	No	No	No	No	No	No
2	6	1152	2	68	No	No	No	No	No	No	No	No	No	No
3	6	1129	2	67	No	No	No	No	No	No	No	No	No	No
4	6	960	2	56	No	No	No	No	No	No	No	No	No	No
5	6	912	2	54	No	No	No	No	No	No	No	No	No	No
6	6	816	2	48	No	No	No	No	No	No	No	No	No	No
7	6	756	2	45	No	No	No	No	No	No	No	No	No	No
8	6	720	2	43	No	No	No	No	No	No	No	No	No	No
9	6	576	2	34	No	No	No	No	No	No	No	No	No	No
10	6	540	2	32	No	No	No	No	No	No	No	No	No	No
11	6	540	2	32	No	No	No	No	No	No	No	No	No	No
12	6	516	2	30	No	No	No	No	No	No	No	No	No	No
13	6	468	2	28	No	No	No	No	No	No	No	No	No	No
14	6	432	2	26	No	No	No	No	No	No	No	No	No	No
15	6	432	2	26	No	No	No	No	No	No	No	No	No	No
16	6	420	2	25	No	No	No	No	No	No	No	No	No	No
17	6	240	2	15	No	No	No	No	No	No	No	No	No	No
18	6	132	2	8	No	No	No	No	No	No	No	No	No	No
19	6	121	2	7	No	No	No	No	No	No	No	No	No	No
20	6	48	2	3	No	No	No	No	No	No	No	No	No	No
21	6	36	2	2	No	No	No	No	No	No	No	No	No	No
22	6	36	2	2	No	No	No	No	No	No	No	No	No	No
23	6	25	2	2	No	No	No	No	No	No	No	No	No	No
24	6	25	2	2	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	E	W
Total Stopped Delay Per Vehicle on Minor Approach (s)	20.8	18.5
Number of Lanes on Minor Street Approach	1	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:13	0:10
Delay Condition Met	No	No
Volume on Minor Street Approach During Same Hour	38	33
High Minor Volume Condition Met	No	No
Total Entering Volume on All Approaches During Same Hour	1271	1271
Number of Approaches on Intersection	4	4
Total Volume Condition Met	Yes	Yes
Warrant Met for Approach	No	No
Warrant Met for Intersection	**No**	

Signal Warrants Report For Intersection 1: North Project Driveway 1 / Buddy Rogers Avenue

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	E, W
Minor Approaches	S, N
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets	
	E	W	S	N
1	192	115	160	0
2	184	110	154	0
3	180	108	150	0
4	154	92	128	0
5	146	87	122	0
6	131	78	109	0
7	121	72	101	0
8	115	69	96	0
9	92	55	77	0
10	86	52	72	0
11	86	52	72	0
12	83	49	69	0
13	75	45	62	0
14	69	41	58	0
15	69	41	58	0
16	67	40	56	0
17	38	23	32	0
18	21	13	18	0
19	19	12	16	0
20	8	5	6	0
21	6	3	5	0
22	6	3	5	0
23	4	2	3	0
24	4	2	3	0

Warrant Analysis by Hour

Hour	Major Lanes		Minor Lanes		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	2	307	3	160	No	No	No	No	No	No	No	No	No	No
2	2	294	3	154	No	No	No	No	No	No	No	No	No	No
3	2	288	3	150	No	No	No	No	No	No	No	No	No	No
4	2	246	3	128	No	No	No	No	No	No	No	No	No	No
5	2	233	3	122	No	No	No	No	No	No	No	No	No	No
6	2	209	3	109	No	No	No	No	No	No	No	No	No	No
7	2	193	3	101	No	No	No	No	No	No	No	No	No	No
8	2	184	3	96	No	No	No	No	No	No	No	No	No	No
9	2	147	3	77	No	No	No	No	No	No	No	No	No	No
10	2	138	3	72	No	No	No	No	No	No	No	No	No	No
11	2	138	3	72	No	No	No	No	No	No	No	No	No	No
12	2	132	3	69	No	No	No	No	No	No	No	No	No	No
13	2	120	3	62	No	No	No	No	No	No	No	No	No	No
14	2	110	3	58	No	No	No	No	No	No	No	No	No	No
15	2	110	3	58	No	No	No	No	No	No	No	No	No	No
16	2	107	3	56	No	No	No	No	No	No	No	No	No	No
17	2	61	3	32	No	No	No	No	No	No	No	No	No	No
18	2	34	3	18	No	No	No	No	No	No	No	No	No	No
19	2	31	3	16	No	No	No	No	No	No	No	No	No	No
20	2	13	3	6	No	No	No	No	No	No	No	No	No	No
21	2	9	3	5	No	No	No	No	No	No	No	No	No	No
22	2	9	3	5	No	No	No	No	No	No	No	No	No	No
23	2	6	3	3	No	No	No	No	No	No	No	No	No	No
24	2	6	3	3	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	S	N
Total Stopped Delay Per Vehicle on Minor Approach (s)	10.5	12.2
Number of Lanes on Minor Street Approach	2	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:28	0:00
Delay Condition Met	No	No
Volume on Minor Street Approach During Same Hour	160	0
High Minor Volume Condition Met	Yes	No
Total Entering Volume on All Approaches During Same Hour	467	467
Number of Approaches on Intersection	4	4
Total Volume Condition Met	No	No
Warrant Met for Approach	No	No
Warrant Met for Intersection	**No**	

Signal Warrants Report For Intersection 2: Date Palm Drive / Buddy Rogers Avenue

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	Yes
#3	Peak Hour	Yes

Intersection Warrants Parameters

Major Approaches	S, N
Minor Approaches	W
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets
	S	N	W
1	608	833	190
2	584	800	182
3	572	783	179
4	486	666	152
5	462	633	144
6	413	566	129
7	383	525	120
8	365	500	114
9	292	400	91
10	274	375	86
11	274	375	86
12	261	358	82
13	237	325	74
14	219	300	68
15	219	300	68
16	213	292	67
17	122	167	38
18	67	92	21
19	61	83	19
20	24	33	8
21	18	25	6
22	18	25	6
23	12	17	4
24	12	17	4

Warrant Analysis by Hour

Hour	Major Lanes		Minor Lanes		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	5	1441	1	190	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
2	5	1384	1	182	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
3	5	1355	1	179	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
4	5	1152	1	152	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
5	5	1095	1	144	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
6	5	979	1	129	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No
7	5	908	1	120	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No
8	5	865	1	114	No	No	Yes	Yes	No	Yes	Yes	Yes	No	No
9	5	692	1	91	No	No	No	Yes	No	No	Yes	Yes	No	No
10	5	649	1	86	No	No	No	Yes	No	No	Yes	Yes	No	No
11	5	649	1	86	No	No	No	Yes	No	No	Yes	Yes	No	No
12	5	619	1	82	No	No	No	No	No	No	No	Yes	No	No
13	5	562	1	74	No	No	No	No	No	No	No	Yes	No	No
14	5	519	1	68	No	No	No	No	No	No	No	Yes	No	No
15	5	519	1	68	No	No	No	No	No	No	No	Yes	No	No
16	5	505	1	67	No	No	No	No	No	No	No	Yes	No	No
17	5	289	1	38	No	No	No	No	No	No	No	No	No	No
18	5	159	1	21	No	No	No	No	No	No	No	No	No	No
19	5	144	1	19	No	No	No	No	No	No	No	No	No	No
20	5	57	1	8	No	No	No	No	No	No	No	No	No	No
21	5	43	1	6	No	No	No	No	No	No	No	No	No	No
22	5	43	1	6	No	No	No	No	No	No	No	No	No	No
23	5	29	1	4	No	No	No	No	No	No	No	No	No	No
24	5	29	1	4	No	No	No	No	No	No	No	No	No	No
Hours Met					4	7	8	11	7	8	11	16	5	3

Warrant 3 Condition A

Orientation	W
Total Stopped Delay Per Vehicle on Minor Approach (s)	97.1
Number of Lanes on Minor Street Approach	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	5:07
Delay Condition Met	Yes
Volume on Minor Street Approach During Same Hour	190
High Minor Volume Condition Met	Yes
Total Entering Volume on All Approaches During Same Hour	1631
Number of Approaches on Intersection	3
Total Volume Condition Met	Yes
Warrant Met for Approach	Yes
Warrant Met for Intersection	**Yes**

Signal Warrants Report For Intersection 6: Date Palm Drive / East Palm Drive

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	N, S
Minor Approaches	W
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets
	N	S	W
1	648	92	44
2	622	88	42
3	609	86	41
4	518	74	35
5	492	70	33
6	441	63	30
7	408	58	28
8	389	55	26
9	311	44	21
10	292	41	20
11	292	41	20
12	279	40	19
13	253	36	17
14	233	33	16
15	233	33	16
16	227	32	15
17	130	18	9
18	71	10	5
19	65	9	4
20	26	4	2
21	19	3	1
22	19	3	1
23	13	2	1
24	13	2	1

Warrant Analysis by Hour

Hour	Major Lanes		Minor Lanes		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	4	740	1	44	No	No	No	No	No	No	No	Yes	No	No
2	4	710	1	42	No	No	No	No	No	No	No	Yes	No	No
3	4	695	1	41	No	No	No	No	No	No	No	No	No	No
4	4	592	1	35	No	No	No	No	No	No	No	No	No	No
5	4	562	1	33	No	No	No	No	No	No	No	No	No	No
6	4	504	1	30	No	No	No	No	No	No	No	No	No	No
7	4	466	1	28	No	No	No	No	No	No	No	No	No	No
8	4	444	1	26	No	No	No	No	No	No	No	No	No	No
9	4	355	1	21	No	No	No	No	No	No	No	No	No	No
10	4	333	1	20	No	No	No	No	No	No	No	No	No	No
11	4	333	1	20	No	No	No	No	No	No	No	No	No	No
12	4	319	1	19	No	No	No	No	No	No	No	No	No	No
13	4	289	1	17	No	No	No	No	No	No	No	No	No	No
14	4	266	1	16	No	No	No	No	No	No	No	No	No	No
15	4	266	1	16	No	No	No	No	No	No	No	No	No	No
16	4	259	1	15	No	No	No	No	No	No	No	No	No	No
17	4	148	1	9	No	No	No	No	No	No	No	No	No	No
18	4	81	1	5	No	No	No	No	No	No	No	No	No	No
19	4	74	1	4	No	No	No	No	No	No	No	No	No	No
20	4	30	1	2	No	No	No	No	No	No	No	No	No	No
21	4	22	1	1	No	No	No	No	No	No	No	No	No	No
22	4	22	1	1	No	No	No	No	No	No	No	No	No	No
23	4	15	1	1	No	No	No	No	No	No	No	No	No	No
24	4	15	1	1	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	2	0	0

Warrant 3 Condition A

Orientation	W
Total Stopped Delay Per Vehicle on Minor Approach (s)	11
Number of Lanes on Minor Street Approach	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:08
Delay Condition Met	No
Volume on Minor Street Approach During Same Hour	44
High Minor Volume Condition Met	No
Total Entering Volume on All Approaches During Same Hour	784
Number of Approaches on Intersection	3
Total Volume Condition Met	Yes
Warrant Met for Approach	No
Warrant Met for Intersection	**No**

Signal Warrants Report For Intersection 7: North Project Driveway 2 / Buddy Rogers Avenue

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	E, W
Minor Approaches	S
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets
	E	W	S
1	196	166	40
2	188	159	38
3	184	156	38
4	157	133	32
5	149	126	30
6	133	113	27
7	123	105	25
8	118	100	24
9	94	80	19
10	88	75	18
11	88	75	18
12	84	71	17
13	76	65	16
14	71	60	14
15	71	60	14
16	69	58	14
17	39	33	8
18	22	18	4
19	20	17	4
20	8	7	2
21	6	5	1
22	6	5	1
23	4	3	1
24	4	3	1

Warrant Analysis by Hour

Hour	Major Lanes		Minor Lanes		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	2	362	1	40	No	No	No	No	No	No	No	No	No	No
2	2	347	1	38	No	No	No	No	No	No	No	No	No	No
3	2	340	1	38	No	No	No	No	No	No	No	No	No	No
4	2	290	1	32	No	No	No	No	No	No	No	No	No	No
5	2	275	1	30	No	No	No	No	No	No	No	No	No	No
6	2	246	1	27	No	No	No	No	No	No	No	No	No	No
7	2	228	1	25	No	No	No	No	No	No	No	No	No	No
8	2	218	1	24	No	No	No	No	No	No	No	No	No	No
9	2	174	1	19	No	No	No	No	No	No	No	No	No	No
10	2	163	1	18	No	No	No	No	No	No	No	No	No	No
11	2	163	1	18	No	No	No	No	No	No	No	No	No	No
12	2	155	1	17	No	No	No	No	No	No	No	No	No	No
13	2	141	1	16	No	No	No	No	No	No	No	No	No	No
14	2	131	1	14	No	No	No	No	No	No	No	No	No	No
15	2	131	1	14	No	No	No	No	No	No	No	No	No	No
16	2	127	1	14	No	No	No	No	No	No	No	No	No	No
17	2	72	1	8	No	No	No	No	No	No	No	No	No	No
18	2	40	1	4	No	No	No	No	No	No	No	No	No	No
19	2	37	1	4	No	No	No	No	No	No	No	No	No	No
20	2	15	1	2	No	No	No	No	No	No	No	No	No	No
21	2	11	1	1	No	No	No	No	No	No	No	No	No	No
22	2	11	1	1	No	No	No	No	No	No	No	No	No	No
23	2	7	1	1	No	No	No	No	No	No	No	No	No	No
24	2	7	1	1	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	S
Total Stopped Delay Per Vehicle on Minor Approach (s)	10.5
Number of Lanes on Minor Street Approach	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:06
Delay Condition Met	No
Volume on Minor Street Approach During Same Hour	40
High Minor Volume Condition Met	No
Total Entering Volume on All Approaches During Same Hour	402
Number of Approaches on Intersection	3
Total Volume Condition Met	No
Warrant Met for Approach	No
Warrant Met for Intersection	**No**

Signal Warrants Report For Intersection 8: Monty Hall Drive / Buddy Rogers Avenue

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	E, W
Minor Approaches	S, N
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets	
	E	W	S	N
1	113	21	115	24
2	108	20	110	23
3	106	20	108	23
4	90	17	92	19
5	86	16	87	18
6	77	14	78	16
7	71	13	72	15
8	68	13	69	14
9	54	10	55	12
10	51	9	52	11
11	51	9	52	11
12	49	9	49	10
13	44	8	45	9
14	41	8	41	9
15	41	8	41	9
16	40	7	40	8
17	23	4	23	5
18	12	2	13	3
19	11	2	12	2
20	5	1	5	1
21	3	1	3	1
22	3	1	3	1
23	2	0	2	0
24	2	0	2	0

Warrant Analysis by Hour

Hour	Major Lanes		Minor Lanes		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	2	134	2	139	No	No	No	No	No	No	No	No	No	No
2	2	128	2	133	No	No	No	No	No	No	No	No	No	No
3	2	126	2	131	No	No	No	No	No	No	No	No	No	No
4	2	107	2	111	No	No	No	No	No	No	No	No	No	No
5	2	102	2	105	No	No	No	No	No	No	No	No	No	No
6	2	91	2	94	No	No	No	No	No	No	No	No	No	No
7	2	84	2	87	No	No	No	No	No	No	No	No	No	No
8	2	81	2	83	No	No	No	No	No	No	No	No	No	No
9	2	64	2	67	No	No	No	No	No	No	No	No	No	No
10	2	60	2	63	No	No	No	No	No	No	No	No	No	No
11	2	60	2	63	No	No	No	No	No	No	No	No	No	No
12	2	58	2	59	No	No	No	No	No	No	No	No	No	No
13	2	52	2	54	No	No	No	No	No	No	No	No	No	No
14	2	49	2	50	No	No	No	No	No	No	No	No	No	No
15	2	49	2	50	No	No	No	No	No	No	No	No	No	No
16	2	47	2	48	No	No	No	No	No	No	No	No	No	No
17	2	27	2	28	No	No	No	No	No	No	No	No	No	No
18	2	14	2	16	No	No	No	No	No	No	No	No	No	No
19	2	13	2	14	No	No	No	No	No	No	No	No	No	No
20	2	6	2	6	No	No	No	No	No	No	No	No	No	No
21	2	4	2	4	No	No	No	No	No	No	No	No	No	No
22	2	4	2	4	No	No	No	No	No	No	No	No	No	No
23	2	2	2	2	No	No	No	No	No	No	No	No	No	No
24	2	2	2	2	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	S	N
Total Stopped Delay Per Vehicle on Minor Approach (s)	7.6	7.8
Number of Lanes on Minor Street Approach	1	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:14	0:03
Delay Condition Met	No	No
Volume on Minor Street Approach During Same Hour	115	24
High Minor Volume Condition Met	Yes	No
Total Entering Volume on All Approaches During Same Hour	273	273
Number of Approaches on Intersection	4	4
Total Volume Condition Met	No	No
Warrant Met for Approach	No	No
Warrant Met for Intersection	**No**	

Signal Warrants Report For Intersection 16: Cathedral Canyon Drive / Paseo Real

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	N, S
Minor Approaches	E, W
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets	
	N	S	E	W
1	655	604	45	33
2	629	580	43	32
3	616	568	42	31
4	524	483	36	26
5	498	459	34	25
6	445	411	31	22
7	413	381	28	21
8	393	362	27	20
9	314	290	22	16
10	295	272	20	15
11	295	272	20	15
12	282	260	19	14
13	255	236	18	13
14	236	217	16	12
15	236	217	16	12
16	229	211	16	12
17	131	121	9	7
18	72	66	5	4
19	66	60	5	3
20	26	24	2	1
21	20	18	1	1
22	20	18	1	1
23	13	12	1	1
24	13	12	1	1

Warrant Analysis by Hour

Hour	Major Lanes		Minor Lanes		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	6	1259	2	78	No	No	No	No	No	No	No	Yes	No	No
2	6	1209	2	75	No	No	No	No	No	No	No	Yes	No	No
3	6	1184	2	73	No	No	No	No	No	No	No	Yes	No	No
4	6	1007	2	62	No	No	No	No	No	No	No	No	No	No
5	6	957	2	59	No	No	No	No	No	No	No	No	No	No
6	6	856	2	53	No	No	No	No	No	No	No	No	No	No
7	6	794	2	49	No	No	No	No	No	No	No	No	No	No
8	6	755	2	47	No	No	No	No	No	No	No	No	No	No
9	6	604	2	38	No	No	No	No	No	No	No	No	No	No
10	6	567	2	35	No	No	No	No	No	No	No	No	No	No
11	6	567	2	35	No	No	No	No	No	No	No	No	No	No
12	6	542	2	33	No	No	No	No	No	No	No	No	No	No
13	6	491	2	31	No	No	No	No	No	No	No	No	No	No
14	6	453	2	28	No	No	No	No	No	No	No	No	No	No
15	6	453	2	28	No	No	No	No	No	No	No	No	No	No
16	6	440	2	28	No	No	No	No	No	No	No	No	No	No
17	6	252	2	16	No	No	No	No	No	No	No	No	No	No
18	6	138	2	9	No	No	No	No	No	No	No	No	No	No
19	6	126	2	8	No	No	No	No	No	No	No	No	No	No
20	6	50	2	3	No	No	No	No	No	No	No	No	No	No
21	6	38	2	2	No	No	No	No	No	No	No	No	No	No
22	6	38	2	2	No	No	No	No	No	No	No	No	No	No
23	6	25	2	2	No	No	No	No	No	No	No	No	No	No
24	6	25	2	2	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	3	0	0

Warrant 3 Condition A

Orientation	E	W
Total Stopped Delay Per Vehicle on Minor Approach (s)	23.8	19.5
Number of Lanes on Minor Street Approach	1	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:17	0:10
Delay Condition Met	No	No
Volume on Minor Street Approach During Same Hour	45	33
High Minor Volume Condition Met	No	No
Total Entering Volume on All Approaches During Same Hour	1337	1337
Number of Approaches on Intersection	4	4
Total Volume Condition Met	Yes	Yes
Warrant Met for Approach	No	No
Warrant Met for Intersection	**No**	

Signal Warrants Report For Intersection 2: Date Palm Drive / Buddy Rogers Avenue

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	S, N
Minor Approaches	W
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets
	S	N	W
1	638	777	58
2	612	746	56
3	600	730	55
4	510	622	46
5	485	591	44
6	434	528	39
7	402	490	37
8	383	466	35
9	306	373	28
10	287	350	26
11	287	350	26
12	274	334	25
13	249	303	23
14	230	280	21
15	230	280	21
16	223	272	20
17	128	155	12
18	70	85	6
19	64	78	6
20	26	31	2
21	19	23	2
22	19	23	2
23	13	16	1
24	13	16	1

Warrant Analysis by Hour

Hour	Major Lanes		Minor Lanes		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	5	1415	1	58	No	No	No	No	No	No	Yes	Yes	No	No
2	5	1358	1	56	No	No	No	No	No	No	Yes	Yes	No	No
3	5	1330	1	55	No	No	No	No	No	No	Yes	Yes	No	No
4	5	1132	1	46	No	No	No	No	No	No	No	Yes	No	No
5	5	1076	1	44	No	No	No	No	No	No	No	Yes	No	No
6	5	962	1	39	No	No	No	No	No	No	No	No	No	No
7	5	892	1	37	No	No	No	No	No	No	No	No	No	No
8	5	849	1	35	No	No	No	No	No	No	No	No	No	No
9	5	679	1	28	No	No	No	No	No	No	No	No	No	No
10	5	637	1	26	No	No	No	No	No	No	No	No	No	No
11	5	637	1	26	No	No	No	No	No	No	No	No	No	No
12	5	608	1	25	No	No	No	No	No	No	No	No	No	No
13	5	552	1	23	No	No	No	No	No	No	No	No	No	No
14	5	510	1	21	No	No	No	No	No	No	No	No	No	No
15	5	510	1	21	No	No	No	No	No	No	No	No	No	No
16	5	495	1	20	No	No	No	No	No	No	No	No	No	No
17	5	283	1	12	No	No	No	No	No	No	No	No	No	No
18	5	155	1	6	No	No	No	No	No	No	No	No	No	No
19	5	142	1	6	No	No	No	No	No	No	No	No	No	No
20	5	57	1	2	No	No	No	No	No	No	No	No	No	No
21	5	42	1	2	No	No	No	No	No	No	No	No	No	No
22	5	42	1	2	No	No	No	No	No	No	No	No	No	No
23	5	29	1	1	No	No	No	No	No	No	No	No	No	No
24	5	29	1	1	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	3	5	0	0

Warrant 3 Condition A

Orientation	W
Total Stopped Delay Per Vehicle on Minor Approach (s)	24.6
Number of Lanes on Minor Street Approach	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:23
Delay Condition Met	No
Volume on Minor Street Approach During Same Hour	58
High Minor Volume Condition Met	No
Total Entering Volume on All Approaches During Same Hour	1473
Number of Approaches on Intersection	3
Total Volume Condition Met	Yes
Warrant Met for Approach	No
Warrant Met for Intersection	**No**

Signal Warrants Report For Intersection 16: Cathedral Canyon Drive / Paseo Real

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	N, S
Minor Approaches	E, W
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets	
	N	S	E	W
1	633	580	39	33
2	608	557	37	32
3	595	545	37	31
4	506	464	31	26
5	481	441	30	25
6	430	394	27	22
7	399	365	25	21
8	380	348	23	20
9	304	278	19	16
10	285	261	18	15
11	285	261	18	15
12	272	249	17	14
13	247	226	15	13
14	228	209	14	12
15	228	209	14	12
16	222	203	14	12
17	127	116	8	7
18	70	64	4	4
19	63	58	4	3
20	25	23	2	1
21	19	17	1	1
22	19	17	1	1
23	13	12	1	1
24	13	12	1	1

Warrant Analysis by Hour

Hour	Major Lanes		Minor Lanes		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	6	1213	2	72	No	No	No	No	No	No	No	No	No	No
2	6	1165	2	69	No	No	No	No	No	No	No	No	No	No
3	6	1140	2	68	No	No	No	No	No	No	No	No	No	No
4	6	970	2	57	No	No	No	No	No	No	No	No	No	No
5	6	922	2	55	No	No	No	No	No	No	No	No	No	No
6	6	824	2	49	No	No	No	No	No	No	No	No	No	No
7	6	764	2	46	No	No	No	No	No	No	No	No	No	No
8	6	728	2	43	No	No	No	No	No	No	No	No	No	No
9	6	582	2	35	No	No	No	No	No	No	No	No	No	No
10	6	546	2	33	No	No	No	No	No	No	No	No	No	No
11	6	546	2	33	No	No	No	No	No	No	No	No	No	No
12	6	521	2	31	No	No	No	No	No	No	No	No	No	No
13	6	473	2	28	No	No	No	No	No	No	No	No	No	No
14	6	437	2	26	No	No	No	No	No	No	No	No	No	No
15	6	437	2	26	No	No	No	No	No	No	No	No	No	No
16	6	425	2	26	No	No	No	No	No	No	No	No	No	No
17	6	243	2	15	No	No	No	No	No	No	No	No	No	No
18	6	134	2	8	No	No	No	No	No	No	No	No	No	No
19	6	121	2	7	No	No	No	No	No	No	No	No	No	No
20	6	48	2	3	No	No	No	No	No	No	No	No	No	No
21	6	36	2	2	No	No	No	No	No	No	No	No	No	No
22	6	36	2	2	No	No	No	No	No	No	No	No	No	No
23	6	25	2	2	No	No	No	No	No	No	No	No	No	No
24	6	25	2	2	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	E	W
Total Stopped Delay Per Vehicle on Minor Approach (s)	21.3	18.7
Number of Lanes on Minor Street Approach	1	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:13	0:10
Delay Condition Met	No	No
Volume on Minor Street Approach During Same Hour	39	33
High Minor Volume Condition Met	No	No
Total Entering Volume on All Approaches During Same Hour	1285	1285
Number of Approaches on Intersection	4	4
Total Volume Condition Met	Yes	Yes
Warrant Met for Approach	No	No
Warrant Met for Intersection	**No**	

Signal Warrants Report For Intersection 27: Van Fleet Street / B Street-West Project Driveway

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	S, N
Minor Approaches	E, W
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets	
	S	N	E	W
1	68	144	73	27
2	65	138	70	26
3	64	135	69	25
4	54	115	58	22
5	52	109	55	21
6	46	98	50	18
7	43	91	46	17
8	41	86	44	16
9	33	69	35	13
10	31	65	33	12
11	31	65	33	12
12	29	62	31	12
13	27	56	28	11
14	24	52	26	10
15	24	52	26	10
16	24	50	26	9
17	14	29	15	5
18	7	16	8	3
19	7	14	7	3
20	3	6	3	1
21	2	4	2	1
22	2	4	2	1
23	1	3	1	1
24	1	3	1	1

Warrant Analysis by Hour

Hour	Major Lanes		Minor Lanes		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	2	212	2	100	No	No	No	No	No	No	No	No	No	No
2	2	203	2	96	No	No	No	No	No	No	No	No	No	No
3	2	199	2	94	No	No	No	No	No	No	No	No	No	No
4	2	169	2	80	No	No	No	No	No	No	No	No	No	No
5	2	161	2	76	No	No	No	No	No	No	No	No	No	No
6	2	144	2	68	No	No	No	No	No	No	No	No	No	No
7	2	134	2	63	No	No	No	No	No	No	No	No	No	No
8	2	127	2	60	No	No	No	No	No	No	No	No	No	No
9	2	102	2	48	No	No	No	No	No	No	No	No	No	No
10	2	96	2	45	No	No	No	No	No	No	No	No	No	No
11	2	96	2	45	No	No	No	No	No	No	No	No	No	No
12	2	91	2	43	No	No	No	No	No	No	No	No	No	No
13	2	83	2	39	No	No	No	No	No	No	No	No	No	No
14	2	76	2	36	No	No	No	No	No	No	No	No	No	No
15	2	76	2	36	No	No	No	No	No	No	No	No	No	No
16	2	74	2	35	No	No	No	No	No	No	No	No	No	No
17	2	43	2	20	No	No	No	No	No	No	No	No	No	No
18	2	23	2	11	No	No	No	No	No	No	No	No	No	No
19	2	21	2	10	No	No	No	No	No	No	No	No	No	No
20	2	9	2	4	No	No	No	No	No	No	No	No	No	No
21	2	6	2	3	No	No	No	No	No	No	No	No	No	No
22	2	6	2	3	No	No	No	No	No	No	No	No	No	No
23	2	4	2	2	No	No	No	No	No	No	No	No	No	No
24	2	4	2	2	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	E	W
Total Stopped Delay Per Vehicle on Minor Approach (s)	9.9	12.1
Number of Lanes on Minor Street Approach	1	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:12	0:05
Delay Condition Met	No	No
Volume on Minor Street Approach During Same Hour	73	27
High Minor Volume Condition Met	No	No
Total Entering Volume on All Approaches During Same Hour	312	312
Number of Approaches on Intersection	4	4
Total Volume Condition Met	No	No
Warrant Met for Approach	No	No
Warrant Met for Intersection	**No**	

Signal Warrants Report For Intersection 28: Van Fleet Street / D Street

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	S, N
Minor Approaches	E, W
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets	
	S	N	E	W
1	45	53	43	19
2	43	51	41	18
3	42	50	40	18
4	36	42	34	15
5	34	40	33	14
6	31	36	29	13
7	28	33	27	12
8	27	32	26	11
9	22	25	21	9
10	20	24	19	9
11	20	24	19	9
12	19	23	18	8
13	18	21	17	7
14	16	19	15	7
15	16	19	15	7
16	16	19	15	7
17	9	11	9	4
18	5	6	5	2
19	5	5	4	2
20	2	2	2	1
21	1	2	1	1
22	1	2	1	1
23	1	1	1	0
24	1	1	1	0

Warrant Analysis by Hour

Hour	Major Lanes		Minor Lanes		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	2	98	2	62	No	No	No	No	No	No	No	No	No	No
2	2	94	2	59	No	No	No	No	No	No	No	No	No	No
3	2	92	2	58	No	No	No	No	No	No	No	No	No	No
4	2	78	2	49	No	No	No	No	No	No	No	No	No	No
5	2	74	2	47	No	No	No	No	No	No	No	No	No	No
6	2	67	2	42	No	No	No	No	No	No	No	No	No	No
7	2	61	2	39	No	No	No	No	No	No	No	No	No	No
8	2	59	2	37	No	No	No	No	No	No	No	No	No	No
9	2	47	2	30	No	No	No	No	No	No	No	No	No	No
10	2	44	2	28	No	No	No	No	No	No	No	No	No	No
11	2	44	2	28	No	No	No	No	No	No	No	No	No	No
12	2	42	2	26	No	No	No	No	No	No	No	No	No	No
13	2	39	2	24	No	No	No	No	No	No	No	No	No	No
14	2	35	2	22	No	No	No	No	No	No	No	No	No	No
15	2	35	2	22	No	No	No	No	No	No	No	No	No	No
16	2	35	2	22	No	No	No	No	No	No	No	No	No	No
17	2	20	2	13	No	No	No	No	No	No	No	No	No	No
18	2	11	2	7	No	No	No	No	No	No	No	No	No	No
19	2	10	2	6	No	No	No	No	No	No	No	No	No	No
20	2	4	2	3	No	No	No	No	No	No	No	No	No	No
21	2	3	2	2	No	No	No	No	No	No	No	No	No	No
22	2	3	2	2	No	No	No	No	No	No	No	No	No	No
23	2	2	2	1	No	No	No	No	No	No	No	No	No	No
24	2	2	2	1	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	E	W
Total Stopped Delay Per Vehicle on Minor Approach (s)	9.1	9.7
Number of Lanes on Minor Street Approach	1	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:06	0:03
Delay Condition Met	No	No
Volume on Minor Street Approach During Same Hour	43	19
High Minor Volume Condition Met	No	No
Total Entering Volume on All Approaches During Same Hour	160	160
Number of Approaches on Intersection	4	4
Total Volume Condition Met	No	No
Warrant Met for Approach	No	No
Warrant Met for Intersection	**No**	

Signal Warrants Report For Intersection 29: South Project Driveway / D Street

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	E, W
Minor Approaches	N
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets
	E	W	N
1	9	23	38
2	9	22	36
3	8	22	36
4	7	18	30
5	7	17	29
6	6	16	26
7	6	14	24
8	5	14	23
9	4	11	18
10	4	10	17
11	4	10	17
12	4	10	16
13	4	9	15
14	3	8	14
15	3	8	14
16	3	8	13
17	2	5	8
18	1	3	4
19	1	2	4
20	0	1	2
21	0	1	1
22	0	1	1
23	0	0	1
24	0	0	1

Warrant Analysis by Hour

Hour	Major Lanes		Minor Lanes		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	2	32	1	38	No	No	No	No	No	No	No	No	No	No
2	2	31	1	36	No	No	No	No	No	No	No	No	No	No
3	2	30	1	36	No	No	No	No	No	No	No	No	No	No
4	2	25	1	30	No	No	No	No	No	No	No	No	No	No
5	2	24	1	29	No	No	No	No	No	No	No	No	No	No
6	2	22	1	26	No	No	No	No	No	No	No	No	No	No
7	2	20	1	24	No	No	No	No	No	No	No	No	No	No
8	2	19	1	23	No	No	No	No	No	No	No	No	No	No
9	2	15	1	18	No	No	No	No	No	No	No	No	No	No
10	2	14	1	17	No	No	No	No	No	No	No	No	No	No
11	2	14	1	17	No	No	No	No	No	No	No	No	No	No
12	2	14	1	16	No	No	No	No	No	No	No	No	No	No
13	2	13	1	15	No	No	No	No	No	No	No	No	No	No
14	2	11	1	14	No	No	No	No	No	No	No	No	No	No
15	2	11	1	14	No	No	No	No	No	No	No	No	No	No
16	2	11	1	13	No	No	No	No	No	No	No	No	No	No
17	2	7	1	8	No	No	No	No	No	No	No	No	No	No
18	2	4	1	4	No	No	No	No	No	No	No	No	No	No
19	2	3	1	4	No	No	No	No	No	No	No	No	No	No
20	2	1	1	2	No	No	No	No	No	No	No	No	No	No
21	2	1	1	1	No	No	No	No	No	No	No	No	No	No
22	2	1	1	1	No	No	No	No	No	No	No	No	No	No
23	2	0	1	1	No	No	No	No	No	No	No	No	No	No
24	2	0	1	1	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	N
Total Stopped Delay Per Vehicle on Minor Approach (s)	8.5
Number of Lanes on Minor Street Approach	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:05
Delay Condition Met	No
Volume on Minor Street Approach During Same Hour	38
High Minor Volume Condition Met	No
Total Entering Volume on All Approaches During Same Hour	70
Number of Approaches on Intersection	3
Total Volume Condition Met	No
Warrant Met for Approach	No
Warrant Met for Intersection	**No**

Signal Warrants Report For Intersection 1: North Project Driveway 1 / Buddy Rogers Avenue

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	E, W
Minor Approaches	S, N
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets	
	E	W	S	N
1	127	68	138	0
2	122	65	132	0
3	119	64	130	0
4	102	54	110	0
5	97	52	105	0
6	86	46	94	0
7	80	43	87	0
8	76	41	83	0
9	61	33	66	0
10	57	31	62	0
11	57	31	62	0
12	55	29	59	0
13	50	27	54	0
14	46	24	50	0
15	46	24	50	0
16	44	24	48	0
17	25	14	28	0
18	14	7	15	0
19	13	7	14	0
20	5	3	6	0
21	4	2	4	0
22	4	2	4	0
23	3	1	3	0
24	3	1	3	0

Warrant Analysis by Hour

Hour	Major Lanes		Minor Lanes		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	2	195	3	138	No	No	No	No	No	No	No	No	No	No
2	2	187	3	132	No	No	No	No	No	No	No	No	No	No
3	2	183	3	130	No	No	No	No	No	No	No	No	No	No
4	2	156	3	110	No	No	No	No	No	No	No	No	No	No
5	2	149	3	105	No	No	No	No	No	No	No	No	No	No
6	2	132	3	94	No	No	No	No	No	No	No	No	No	No
7	2	123	3	87	No	No	No	No	No	No	No	No	No	No
8	2	117	3	83	No	No	No	No	No	No	No	No	No	No
9	2	94	3	66	No	No	No	No	No	No	No	No	No	No
10	2	88	3	62	No	No	No	No	No	No	No	No	No	No
11	2	88	3	62	No	No	No	No	No	No	No	No	No	No
12	2	84	3	59	No	No	No	No	No	No	No	No	No	No
13	2	77	3	54	No	No	No	No	No	No	No	No	No	No
14	2	70	3	50	No	No	No	No	No	No	No	No	No	No
15	2	70	3	50	No	No	No	No	No	No	No	No	No	No
16	2	68	3	48	No	No	No	No	No	No	No	No	No	No
17	2	39	3	28	No	No	No	No	No	No	No	No	No	No
18	2	21	3	15	No	No	No	No	No	No	No	No	No	No
19	2	20	3	14	No	No	No	No	No	No	No	No	No	No
20	2	8	3	6	No	No	No	No	No	No	No	No	No	No
21	2	6	3	4	No	No	No	No	No	No	No	No	No	No
22	2	6	3	4	No	No	No	No	No	No	No	No	No	No
23	2	4	3	3	No	No	No	No	No	No	No	No	No	No
24	2	4	3	3	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	S	N
Total Stopped Delay Per Vehicle on Minor Approach (s)	9.6	10.6
Number of Lanes on Minor Street Approach	2	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:22	0:00
Delay Condition Met	No	No
Volume on Minor Street Approach During Same Hour	138	0
High Minor Volume Condition Met	No	No
Total Entering Volume on All Approaches During Same Hour	333	333
Number of Approaches on Intersection	4	4
Total Volume Condition Met	No	No
Warrant Met for Approach	No	No
Warrant Met for Intersection	**No**	

Signal Warrants Report For Intersection 2: Date Palm Drive / Buddy Rogers Avenue

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	Yes
#2	Four Hour Vehicular Volume	Yes
#3	Peak Hour	Yes

Intersection Warrants Parameters

Major Approaches	S, N
Minor Approaches	W
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets
	S	N	W
1	793	766	138
2	761	735	132
3	745	720	130
4	634	613	110
5	603	582	105
6	539	521	94
7	500	483	87
8	476	460	83
9	381	368	66
10	357	345	62
11	357	345	62
12	341	329	59
13	309	299	54
14	285	276	50
15	285	276	50
16	278	268	48
17	159	153	28
18	87	84	15
19	79	77	14
20	32	31	6
21	24	23	4
22	24	23	4
23	16	15	3
24	16	15	3

Warrant Analysis by Hour

Hour	Major Lanes		Minor Lanes		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	5	1559	1	138	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
2	5	1496	1	132	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
3	5	1465	1	130	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
4	5	1247	1	110	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
5	5	1185	1	105	No	No	Yes	Yes	Yes	Yes	Yes	Yes	No	No
6	5	1060	1	94	No	No	No	Yes	Yes	Yes	Yes	Yes	No	No
7	5	983	1	87	No	No	No	Yes	Yes	Yes	Yes	Yes	No	No
8	5	936	1	83	No	No	No	No	Yes	Yes	Yes	Yes	No	No
9	5	749	1	66	No	No	No	No	No	Yes	Yes	Yes	No	No
10	5	702	1	62	No	No	No	No	No	No	Yes	Yes	No	No
11	5	702	1	62	No	No	No	No	No	No	Yes	Yes	No	No
12	5	670	1	59	No	No	No	No	No	No	Yes	Yes	No	No
13	5	608	1	54	No	No	No	No	No	No	No	Yes	No	No
14	5	561	1	50	No	No	No	No	No	No	No	Yes	No	No
15	5	561	1	50	No	No	No	No	No	No	No	Yes	No	No
16	5	546	1	48	No	No	No	No	No	No	No	Yes	No	No
17	5	312	1	28	No	No	No	No	No	No	No	No	No	No
18	5	171	1	15	No	No	No	No	No	No	No	No	No	No
19	5	156	1	14	No	No	No	No	No	No	No	No	No	No
20	5	63	1	6	No	No	No	No	No	No	No	No	No	No
21	5	47	1	4	No	No	No	No	No	No	No	No	No	No
22	5	47	1	4	No	No	No	No	No	No	No	No	No	No
23	5	31	1	3	No	No	No	No	No	No	No	No	No	No
24	5	31	1	3	No	No	No	No	No	No	No	No	No	No
Hours Met					0	3	5	7	8	9	12	16	4	1

Warrant 3 Condition A

Orientation	W
Total Stopped Delay Per Vehicle on Minor Approach (s)	52.9
Number of Lanes on Minor Street Approach	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	2:01
Delay Condition Met	No
Volume on Minor Street Approach During Same Hour	138
High Minor Volume Condition Met	Yes
Total Entering Volume on All Approaches During Same Hour	1697
Number of Approaches on Intersection	3
Total Volume Condition Met	Yes
Warrant Met for Approach	No
Warrant Met for Intersection	**No**

Signal Warrants Report For Intersection 8: Monty Hall Drive / Buddy Rogers Avenue

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	E, W
Minor Approaches	S, N
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets	
	E	W	S	N
1	64	42	62	36
2	61	40	60	35
3	60	39	58	34
4	51	34	50	29
5	49	32	47	27
6	44	29	42	24
7	40	26	39	23
8	38	25	37	22
9	31	20	30	17
10	29	19	28	16
11	29	19	28	16
12	28	18	27	15
13	25	16	24	14
14	23	15	22	13
15	23	15	22	13
16	22	15	22	13
17	13	8	12	7
18	7	5	7	4
19	6	4	6	4
20	3	2	2	1
21	2	1	2	1
22	2	1	2	1
23	1	1	1	1
24	1	1	1	1

Warrant Analysis by Hour

Hour	Major Lanes		Minor Lanes		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	2	106	2	98	No	No	No	No	No	No	No	No	No	No
2	2	101	2	95	No	No	No	No	No	No	No	No	No	No
3	2	99	2	92	No	No	No	No	No	No	No	No	No	No
4	2	85	2	79	No	No	No	No	No	No	No	No	No	No
5	2	81	2	74	No	No	No	No	No	No	No	No	No	No
6	2	73	2	66	No	No	No	No	No	No	No	No	No	No
7	2	66	2	62	No	No	No	No	No	No	No	No	No	No
8	2	63	2	59	No	No	No	No	No	No	No	No	No	No
9	2	51	2	47	No	No	No	No	No	No	No	No	No	No
10	2	48	2	44	No	No	No	No	No	No	No	No	No	No
11	2	48	2	44	No	No	No	No	No	No	No	No	No	No
12	2	46	2	42	No	No	No	No	No	No	No	No	No	No
13	2	41	2	38	No	No	No	No	No	No	No	No	No	No
14	2	38	2	35	No	No	No	No	No	No	No	No	No	No
15	2	38	2	35	No	No	No	No	No	No	No	No	No	No
16	2	37	2	35	No	No	No	No	No	No	No	No	No	No
17	2	21	2	19	No	No	No	No	No	No	No	No	No	No
18	2	12	2	11	No	No	No	No	No	No	No	No	No	No
19	2	10	2	10	No	No	No	No	No	No	No	No	No	No
20	2	5	2	3	No	No	No	No	No	No	No	No	No	No
21	2	3	2	3	No	No	No	No	No	No	No	No	No	No
22	2	3	2	3	No	No	No	No	No	No	No	No	No	No
23	2	2	2	2	No	No	No	No	No	No	No	No	No	No
24	2	2	2	2	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	S	N
Total Stopped Delay Per Vehicle on Minor Approach (s)	7.3	7.7
Number of Lanes on Minor Street Approach	1	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:07	0:04
Delay Condition Met	No	No
Volume on Minor Street Approach During Same Hour	62	36
High Minor Volume Condition Met	No	No
Total Entering Volume on All Approaches During Same Hour	204	204
Number of Approaches on Intersection	4	4
Total Volume Condition Met	No	No
Warrant Met for Approach	No	No
Warrant Met for Intersection	**No**	

Signal Warrants Report For Intersection 16: Cathedral Canyon Drive / Paseo Real

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	N, S
Minor Approaches	E, W
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets	
	N	S	E	W
1	674	866	23	24
2	647	831	22	23
3	634	814	22	23
4	539	693	18	19
5	512	658	17	18
6	458	589	16	16
7	425	546	14	15
8	404	520	14	14
9	324	416	11	12
10	303	390	10	11
11	303	390	10	11
12	290	372	10	10
13	263	338	9	9
14	243	312	8	9
15	243	312	8	9
16	236	303	8	8
17	135	173	5	5
18	74	95	3	3
19	67	87	2	2
20	27	35	1	1
21	20	26	1	1
22	20	26	1	1
23	13	17	0	0
24	13	17	0	0

Warrant Analysis by Hour

Hour	Major Lanes		Minor Lanes		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	6	1540	2	47	No	No	No	No	No	No	No	No	No	No
2	6	1478	2	45	No	No	No	No	No	No	No	No	No	No
3	6	1448	2	45	No	No	No	No	No	No	No	No	No	No
4	6	1232	2	37	No	No	No	No	No	No	No	No	No	No
5	6	1170	2	35	No	No	No	No	No	No	No	No	No	No
6	6	1047	2	32	No	No	No	No	No	No	No	No	No	No
7	6	971	2	29	No	No	No	No	No	No	No	No	No	No
8	6	924	2	28	No	No	No	No	No	No	No	No	No	No
9	6	740	2	23	No	No	No	No	No	No	No	No	No	No
10	6	693	2	21	No	No	No	No	No	No	No	No	No	No
11	6	693	2	21	No	No	No	No	No	No	No	No	No	No
12	6	662	2	20	No	No	No	No	No	No	No	No	No	No
13	6	601	2	18	No	No	No	No	No	No	No	No	No	No
14	6	555	2	17	No	No	No	No	No	No	No	No	No	No
15	6	555	2	17	No	No	No	No	No	No	No	No	No	No
16	6	539	2	16	No	No	No	No	No	No	No	No	No	No
17	6	308	2	10	No	No	No	No	No	No	No	No	No	No
18	6	169	2	6	No	No	No	No	No	No	No	No	No	No
19	6	154	2	4	No	No	No	No	No	No	No	No	No	No
20	6	62	2	2	No	No	No	No	No	No	No	No	No	No
21	6	46	2	2	No	No	No	No	No	No	No	No	No	No
22	6	46	2	2	No	No	No	No	No	No	No	No	No	No
23	6	30	2	0	No	No	No	No	No	No	No	No	No	No
24	6	30	2	0	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	E	W
Total Stopped Delay Per Vehicle on Minor Approach (s)	34.9	18.8
Number of Lanes on Minor Street Approach	1	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:13	0:07
Delay Condition Met	No	No
Volume on Minor Street Approach During Same Hour	23	24
High Minor Volume Condition Met	No	No
Total Entering Volume on All Approaches During Same Hour	1587	1587
Number of Approaches on Intersection	4	4
Total Volume Condition Met	Yes	Yes
Warrant Met for Approach	No	No
Warrant Met for Intersection	**No**	

Signal Warrants Report For Intersection 1: North Project Driveway 1 / Buddy Rogers Avenue

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	E, W
Minor Approaches	S, N
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets	
	E	W	S	N
1	105	63	115	0
2	101	60	110	0
3	99	59	108	0
4	84	50	92	0
5	80	48	87	0
6	71	43	78	0
7	66	40	72	0
8	63	38	69	0
9	50	30	55	0
10	47	28	52	0
11	47	28	52	0
12	45	27	49	0
13	41	25	45	0
14	38	23	41	0
15	38	23	41	0
16	37	22	40	0
17	21	13	23	0
18	12	7	13	0
19	11	6	12	0
20	4	3	5	0
21	3	2	3	0
22	3	2	3	0
23	2	1	2	0
24	2	1	2	0

Warrant Analysis by Hour

Hour	Major Lanes		Minor Lanes		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	2	168	3	115	No	No	No	No	No	No	No	No	No	No
2	2	161	3	110	No	No	No	No	No	No	No	No	No	No
3	2	158	3	108	No	No	No	No	No	No	No	No	No	No
4	2	134	3	92	No	No	No	No	No	No	No	No	No	No
5	2	128	3	87	No	No	No	No	No	No	No	No	No	No
6	2	114	3	78	No	No	No	No	No	No	No	No	No	No
7	2	106	3	72	No	No	No	No	No	No	No	No	No	No
8	2	101	3	69	No	No	No	No	No	No	No	No	No	No
9	2	80	3	55	No	No	No	No	No	No	No	No	No	No
10	2	75	3	52	No	No	No	No	No	No	No	No	No	No
11	2	75	3	52	No	No	No	No	No	No	No	No	No	No
12	2	72	3	49	No	No	No	No	No	No	No	No	No	No
13	2	66	3	45	No	No	No	No	No	No	No	No	No	No
14	2	61	3	41	No	No	No	No	No	No	No	No	No	No
15	2	61	3	41	No	No	No	No	No	No	No	No	No	No
16	2	59	3	40	No	No	No	No	No	No	No	No	No	No
17	2	34	3	23	No	No	No	No	No	No	No	No	No	No
18	2	19	3	13	No	No	No	No	No	No	No	No	No	No
19	2	17	3	12	No	No	No	No	No	No	No	No	No	No
20	2	7	3	5	No	No	No	No	No	No	No	No	No	No
21	2	5	3	3	No	No	No	No	No	No	No	No	No	No
22	2	5	3	3	No	No	No	No	No	No	No	No	No	No
23	2	3	3	2	No	No	No	No	No	No	No	No	No	No
24	2	3	3	2	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	S	N
Total Stopped Delay Per Vehicle on Minor Approach (s)	9.4	10.2
Number of Lanes on Minor Street Approach	2	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:18	0:00
Delay Condition Met	No	No
Volume on Minor Street Approach During Same Hour	115	0
High Minor Volume Condition Met	No	No
Total Entering Volume on All Approaches During Same Hour	283	283
Number of Approaches on Intersection	4	4
Total Volume Condition Met	No	No
Warrant Met for Approach	No	No
Warrant Met for Intersection	**No**	

Signal Warrants Report For Intersection 2: Date Palm Drive / Buddy Rogers Avenue

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	Yes
#2	Four Hour Vehicular Volume	Yes
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	S, N
Minor Approaches	W
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets
	S	N	W
1	777	742	129
2	746	712	124
3	730	697	121
4	622	594	103
5	591	564	98
6	528	505	88
7	490	467	81
8	466	445	77
9	373	356	62
10	350	334	58
11	350	334	58
12	334	319	55
13	303	289	50
14	280	267	46
15	280	267	46
16	272	260	45
17	155	148	26
18	85	82	14
19	78	74	13
20	31	30	5
21	23	22	4
22	23	22	4
23	16	15	3
24	16	15	3

Warrant Analysis by Hour

Hour	Major Lanes		Minor Lanes		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	5	1519	1	129	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
2	5	1458	1	124	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
3	5	1427	1	121	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
4	5	1216	1	103	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes	No
5	5	1155	1	98	No	No	No	Yes	Yes	Yes	Yes	Yes	No	No
6	5	1033	1	88	No	No	No	Yes	Yes	Yes	Yes	Yes	No	No
7	5	957	1	81	No	No	No	No	Yes	Yes	Yes	Yes	No	No
8	5	911	1	77	No	No	No	No	Yes	Yes	Yes	Yes	No	No
9	5	729	1	62	No	No	No	No	No	Yes	Yes	Yes	No	No
10	5	684	1	58	No	No	No	No	No	No	Yes	Yes	No	No
11	5	684	1	58	No	No	No	No	No	No	Yes	Yes	No	No
12	5	653	1	55	No	No	No	No	No	No	Yes	Yes	No	No
13	5	592	1	50	No	No	No	No	No	No	No	Yes	No	No
14	5	547	1	46	No	No	No	No	No	No	No	Yes	No	No
15	5	547	1	46	No	No	No	No	No	No	No	Yes	No	No
16	5	532	1	45	No	No	No	No	No	No	No	Yes	No	No
17	5	303	1	26	No	No	No	No	No	No	No	No	No	No
18	5	167	1	14	No	No	No	No	No	No	No	No	No	No
19	5	152	1	13	No	No	No	No	No	No	No	No	No	No
20	5	61	1	5	No	No	No	No	No	No	No	No	No	No
21	5	45	1	4	No	No	No	No	No	No	No	No	No	No
22	5	45	1	4	No	No	No	No	No	No	No	No	No	No
23	5	31	1	3	No	No	No	No	No	No	No	No	No	No
24	5	31	1	3	No	No	No	No	No	No	No	No	No	No
Hours Met					0	3	3	6	8	9	12	16	4	0

Warrant 3 Condition A

Orientation	W
Total Stopped Delay Per Vehicle on Minor Approach (s)	44
Number of Lanes on Minor Street Approach	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	1:34
Delay Condition Met	No
Volume on Minor Street Approach During Same Hour	129
High Minor Volume Condition Met	Yes
Total Entering Volume on All Approaches During Same Hour	1648
Number of Approaches on Intersection	3
Total Volume Condition Met	Yes
Warrant Met for Approach	No
Warrant Met for Intersection	**No**

Signal Warrants Report For Intersection 7: North Project Driveway 2 / Buddy Rogers Avenue

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	E, W
Minor Approaches	S
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets
	E	W	S
1	114	109	11
2	109	105	11
3	107	102	10
4	91	87	9
5	87	83	8
6	78	74	7
7	72	69	7
8	68	65	7
9	55	52	5
10	51	49	5
11	51	49	5
12	49	47	5
13	44	43	4
14	41	39	4
15	41	39	4
16	40	38	4
17	23	22	2
18	13	12	1
19	11	11	1
20	5	4	0
21	3	3	0
22	3	3	0
23	2	2	0
24	2	2	0

Warrant Analysis by Hour

Hour	Major Lanes		Minor Lanes		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	2	223	1	11	No	No	No	No	No	No	No	No	No	No
2	2	214	1	11	No	No	No	No	No	No	No	No	No	No
3	2	209	1	10	No	No	No	No	No	No	No	No	No	No
4	2	178	1	9	No	No	No	No	No	No	No	No	No	No
5	2	170	1	8	No	No	No	No	No	No	No	No	No	No
6	2	152	1	7	No	No	No	No	No	No	No	No	No	No
7	2	141	1	7	No	No	No	No	No	No	No	No	No	No
8	2	133	1	7	No	No	No	No	No	No	No	No	No	No
9	2	107	1	5	No	No	No	No	No	No	No	No	No	No
10	2	100	1	5	No	No	No	No	No	No	No	No	No	No
11	2	100	1	5	No	No	No	No	No	No	No	No	No	No
12	2	96	1	5	No	No	No	No	No	No	No	No	No	No
13	2	87	1	4	No	No	No	No	No	No	No	No	No	No
14	2	80	1	4	No	No	No	No	No	No	No	No	No	No
15	2	80	1	4	No	No	No	No	No	No	No	No	No	No
16	2	78	1	4	No	No	No	No	No	No	No	No	No	No
17	2	45	1	2	No	No	No	No	No	No	No	No	No	No
18	2	25	1	1	No	No	No	No	No	No	No	No	No	No
19	2	22	1	1	No	No	No	No	No	No	No	No	No	No
20	2	9	1	0	No	No	No	No	No	No	No	No	No	No
21	2	6	1	0	No	No	No	No	No	No	No	No	No	No
22	2	6	1	0	No	No	No	No	No	No	No	No	No	No
23	2	4	1	0	No	No	No	No	No	No	No	No	No	No
24	2	4	1	0	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	S
Total Stopped Delay Per Vehicle on Minor Approach (s)	8.9
Number of Lanes on Minor Street Approach	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:01
Delay Condition Met	No
Volume on Minor Street Approach During Same Hour	11
High Minor Volume Condition Met	No
Total Entering Volume on All Approaches During Same Hour	234
Number of Approaches on Intersection	3
Total Volume Condition Met	No
Warrant Met for Approach	No
Warrant Met for Intersection	**No**

Signal Warrants Report For Intersection 8: Monty Hall Drive / Buddy Rogers Avenue

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	E, W
Minor Approaches	S, N
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets	
	E	W	S	N
1	60	42	57	36
2	58	40	55	35
3	56	39	54	34
4	48	34	46	29
5	46	32	43	27
6	41	29	39	24
7	38	26	36	23
8	36	25	34	22
9	29	20	27	17
10	27	19	26	16
11	27	19	26	16
12	26	18	25	15
13	23	16	22	14
14	22	15	21	13
15	22	15	21	13
16	21	15	20	13
17	12	8	11	7
18	7	5	6	4
19	6	4	6	4
20	2	2	2	1
21	2	1	2	1
22	2	1	2	1
23	1	1	1	1
24	1	1	1	1

Warrant Analysis by Hour

Hour	Major Lanes		Minor Lanes		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	2	102	2	93	No	No	No	No	No	No	No	No	No	No
2	2	98	2	90	No	No	No	No	No	No	No	No	No	No
3	2	95	2	88	No	No	No	No	No	No	No	No	No	No
4	2	82	2	75	No	No	No	No	No	No	No	No	No	No
5	2	78	2	70	No	No	No	No	No	No	No	No	No	No
6	2	70	2	63	No	No	No	No	No	No	No	No	No	No
7	2	64	2	59	No	No	No	No	No	No	No	No	No	No
8	2	61	2	56	No	No	No	No	No	No	No	No	No	No
9	2	49	2	44	No	No	No	No	No	No	No	No	No	No
10	2	46	2	42	No	No	No	No	No	No	No	No	No	No
11	2	46	2	42	No	No	No	No	No	No	No	No	No	No
12	2	44	2	40	No	No	No	No	No	No	No	No	No	No
13	2	39	2	36	No	No	No	No	No	No	No	No	No	No
14	2	37	2	34	No	No	No	No	No	No	No	No	No	No
15	2	37	2	34	No	No	No	No	No	No	No	No	No	No
16	2	36	2	33	No	No	No	No	No	No	No	No	No	No
17	2	20	2	18	No	No	No	No	No	No	No	No	No	No
18	2	12	2	10	No	No	No	No	No	No	No	No	No	No
19	2	10	2	10	No	No	No	No	No	No	No	No	No	No
20	2	4	2	3	No	No	No	No	No	No	No	No	No	No
21	2	3	2	3	No	No	No	No	No	No	No	No	No	No
22	2	3	2	3	No	No	No	No	No	No	No	No	No	No
23	2	2	2	2	No	No	No	No	No	No	No	No	No	No
24	2	2	2	2	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	S	N
Total Stopped Delay Per Vehicle on Minor Approach (s)	7.3	7.7
Number of Lanes on Minor Street Approach	1	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:06	0:04
Delay Condition Met	No	No
Volume on Minor Street Approach During Same Hour	57	36
High Minor Volume Condition Met	No	No
Total Entering Volume on All Approaches During Same Hour	195	195
Number of Approaches on Intersection	4	4
Total Volume Condition Met	No	No
Warrant Met for Approach	No	No
Warrant Met for Intersection	**No**	

Signal Warrants Report For Intersection 16: Cathedral Canyon Drive / Paseo Real

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	N, S
Minor Approaches	E, W
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets	
	N	S	E	W
1	669	862	22	24
2	642	828	21	23
3	629	810	21	23
4	535	690	18	19
5	508	655	17	18
6	455	586	15	16
7	421	543	14	15
8	401	517	13	14
9	321	414	11	12
10	301	388	10	11
11	301	388	10	11
12	288	371	9	10
13	261	336	9	9
14	241	310	8	9
15	241	310	8	9
16	234	302	8	8
17	134	172	4	5
18	74	95	2	3
19	67	86	2	2
20	27	34	1	1
21	20	26	1	1
22	20	26	1	1
23	13	17	0	0
24	13	17	0	0

Warrant Analysis by Hour

Hour	Major Lanes		Minor Lanes		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	6	1531	2	46	No	No	No	No	No	No	No	No	No	No
2	6	1470	2	44	No	No	No	No	No	No	No	No	No	No
3	6	1439	2	44	No	No	No	No	No	No	No	No	No	No
4	6	1225	2	37	No	No	No	No	No	No	No	No	No	No
5	6	1163	2	35	No	No	No	No	No	No	No	No	No	No
6	6	1041	2	31	No	No	No	No	No	No	No	No	No	No
7	6	964	2	29	No	No	No	No	No	No	No	No	No	No
8	6	918	2	27	No	No	No	No	No	No	No	No	No	No
9	6	735	2	23	No	No	No	No	No	No	No	No	No	No
10	6	689	2	21	No	No	No	No	No	No	No	No	No	No
11	6	689	2	21	No	No	No	No	No	No	No	No	No	No
12	6	659	2	19	No	No	No	No	No	No	No	No	No	No
13	6	597	2	18	No	No	No	No	No	No	No	No	No	No
14	6	551	2	17	No	No	No	No	No	No	No	No	No	No
15	6	551	2	17	No	No	No	No	No	No	No	No	No	No
16	6	536	2	16	No	No	No	No	No	No	No	No	No	No
17	6	306	2	9	No	No	No	No	No	No	No	No	No	No
18	6	169	2	5	No	No	No	No	No	No	No	No	No	No
19	6	153	2	4	No	No	No	No	No	No	No	No	No	No
20	6	61	2	2	No	No	No	No	No	No	No	No	No	No
21	6	46	2	2	No	No	No	No	No	No	No	No	No	No
22	6	46	2	2	No	No	No	No	No	No	No	No	No	No
23	6	30	2	0	No	No	No	No	No	No	No	No	No	No
24	6	30	2	0	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	E	W
Total Stopped Delay Per Vehicle on Minor Approach (s)	33.7	18.7
Number of Lanes on Minor Street Approach	1	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:12	0:07
Delay Condition Met	No	No
Volume on Minor Street Approach During Same Hour	22	24
High Minor Volume Condition Met	No	No
Total Entering Volume on All Approaches During Same Hour	1577	1577
Number of Approaches on Intersection	4	4
Total Volume Condition Met	Yes	Yes
Warrant Met for Approach	No	No
Warrant Met for Intersection	**No**	

Signal Warrants Report For Intersection 1: North Project Driveway 1 / Buddy Rogers Avenue

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	E, W
Minor Approaches	S, N
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets	
	E	W	S	N
1	136	93	117	0
2	131	89	112	0
3	128	87	110	0
4	109	74	94	0
5	103	71	89	0
6	92	63	80	0
7	86	59	74	0
8	82	56	70	0
9	65	45	56	0
10	61	42	53	0
11	61	42	53	0
12	58	40	50	0
13	53	36	46	0
14	49	33	42	0
15	49	33	42	0
16	48	33	41	0
17	27	19	23	0
18	15	10	13	0
19	14	9	12	0
20	5	4	5	0
21	4	3	4	0
22	4	3	4	0
23	3	2	2	0
24	3	2	2	0

Warrant Analysis by Hour

Hour	Major Lanes		Minor Lanes		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	2	229	3	117	No	No	No	No	No	No	No	No	No	No
2	2	220	3	112	No	No	No	No	No	No	No	No	No	No
3	2	215	3	110	No	No	No	No	No	No	No	No	No	No
4	2	183	3	94	No	No	No	No	No	No	No	No	No	No
5	2	174	3	89	No	No	No	No	No	No	No	No	No	No
6	2	155	3	80	No	No	No	No	No	No	No	No	No	No
7	2	145	3	74	No	No	No	No	No	No	No	No	No	No
8	2	138	3	70	No	No	No	No	No	No	No	No	No	No
9	2	110	3	56	No	No	No	No	No	No	No	No	No	No
10	2	103	3	53	No	No	No	No	No	No	No	No	No	No
11	2	103	3	53	No	No	No	No	No	No	No	No	No	No
12	2	98	3	50	No	No	No	No	No	No	No	No	No	No
13	2	89	3	46	No	No	No	No	No	No	No	No	No	No
14	2	82	3	42	No	No	No	No	No	No	No	No	No	No
15	2	82	3	42	No	No	No	No	No	No	No	No	No	No
16	2	81	3	41	No	No	No	No	No	No	No	No	No	No
17	2	46	3	23	No	No	No	No	No	No	No	No	No	No
18	2	25	3	13	No	No	No	No	No	No	No	No	No	No
19	2	23	3	12	No	No	No	No	No	No	No	No	No	No
20	2	9	3	5	No	No	No	No	No	No	No	No	No	No
21	2	7	3	4	No	No	No	No	No	No	No	No	No	No
22	2	7	3	4	No	No	No	No	No	No	No	No	No	No
23	2	5	3	2	No	No	No	No	No	No	No	No	No	No
24	2	5	3	2	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	S	N
Total Stopped Delay Per Vehicle on Minor Approach (s)	10	10.8
Number of Lanes on Minor Street Approach	2	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:19	0:00
Delay Condition Met	No	No
Volume on Minor Street Approach During Same Hour	117	0
High Minor Volume Condition Met	No	No
Total Entering Volume on All Approaches During Same Hour	346	346
Number of Approaches on Intersection	4	4
Total Volume Condition Met	No	No
Warrant Met for Approach	No	No
Warrant Met for Intersection	**No**	

Signal Warrants Report For Intersection 2: Date Palm Drive / Buddy Rogers Avenue

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	S, N
Minor Approaches	W
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets
	S	N	W
1	765	752	116
2	734	722	111
3	719	707	109
4	612	602	93
5	581	572	88
6	520	511	79
7	482	474	73
8	459	451	70
9	367	361	56
10	344	338	52
11	344	338	52
12	329	323	50
13	298	293	45
14	275	271	42
15	275	271	42
16	268	263	41
17	153	150	23
18	84	83	13
19	77	75	12
20	31	30	5
21	23	23	3
22	23	23	3
23	15	15	2
24	15	15	2

Warrant Analysis by Hour

Hour	Major Lanes		Minor Lanes		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	5	1517	1	116	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
2	5	1456	1	111	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
3	5	1426	1	109	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
4	5	1214	1	93	No	No	No	Yes	Yes	Yes	Yes	Yes	No	No
5	5	1153	1	88	No	No	No	Yes	Yes	Yes	Yes	Yes	No	No
6	5	1031	1	79	No	No	No	No	Yes	Yes	Yes	Yes	No	No
7	5	956	1	73	No	No	No	No	No	Yes	Yes	Yes	No	No
8	5	910	1	70	No	No	No	No	No	Yes	Yes	Yes	No	No
9	5	728	1	56	No	No	No	No	No	No	Yes	Yes	No	No
10	5	682	1	52	No	No	No	No	No	No	Yes	Yes	No	No
11	5	682	1	52	No	No	No	No	No	No	Yes	Yes	No	No
12	5	652	1	50	No	No	No	No	No	No	No	Yes	No	No
13	5	591	1	45	No	No	No	No	No	No	No	Yes	No	No
14	5	546	1	42	No	No	No	No	No	No	No	Yes	No	No
15	5	546	1	42	No	No	No	No	No	No	No	Yes	No	No
16	5	531	1	41	No	No	No	No	No	No	No	No	No	No
17	5	303	1	23	No	No	No	No	No	No	No	No	No	No
18	5	167	1	13	No	No	No	No	No	No	No	No	No	No
19	5	152	1	12	No	No	No	No	No	No	No	No	No	No
20	5	61	1	5	No	No	No	No	No	No	No	No	No	No
21	5	46	1	3	No	No	No	No	No	No	No	No	No	No
22	5	46	1	3	No	No	No	No	No	No	No	No	No	No
23	5	30	1	2	No	No	No	No	No	No	No	No	No	No
24	5	30	1	2	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	3	5	6	8	11	15	3	0

Warrant 3 Condition A

Orientation	W
Total Stopped Delay Per Vehicle on Minor Approach (s)	43.3
Number of Lanes on Minor Street Approach	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	1:23
Delay Condition Met	No
Volume on Minor Street Approach During Same Hour	116
High Minor Volume Condition Met	Yes
Total Entering Volume on All Approaches During Same Hour	1633
Number of Approaches on Intersection	3
Total Volume Condition Met	Yes
Warrant Met for Approach	No
Warrant Met for Intersection	**No**

Signal Warrants Report For Intersection 6: Date Palm Drive / East Palm Drive

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	N, S
Minor Approaches	W
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets
	N	S	W
1	627	71	26
2	602	68	25
3	589	67	24
4	502	57	21
5	477	54	20
6	426	48	18
7	395	45	16
8	376	43	16
9	301	34	12
10	282	32	12
11	282	32	12
12	270	31	11
13	245	28	10
14	226	26	9
15	226	26	9
16	219	25	9
17	125	14	5
18	69	8	3
19	63	7	3
20	25	3	1
21	19	2	1
22	19	2	1
23	13	1	1
24	13	1	1

Warrant Analysis by Hour

Hour	Major Lanes		Minor Lanes		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	4	698	1	26	No	No	No	No	No	No	No	No	No	No
2	4	670	1	25	No	No	No	No	No	No	No	No	No	No
3	4	656	1	24	No	No	No	No	No	No	No	No	No	No
4	4	559	1	21	No	No	No	No	No	No	No	No	No	No
5	4	531	1	20	No	No	No	No	No	No	No	No	No	No
6	4	474	1	18	No	No	No	No	No	No	No	No	No	No
7	4	440	1	16	No	No	No	No	No	No	No	No	No	No
8	4	419	1	16	No	No	No	No	No	No	No	No	No	No
9	4	335	1	12	No	No	No	No	No	No	No	No	No	No
10	4	314	1	12	No	No	No	No	No	No	No	No	No	No
11	4	314	1	12	No	No	No	No	No	No	No	No	No	No
12	4	301	1	11	No	No	No	No	No	No	No	No	No	No
13	4	273	1	10	No	No	No	No	No	No	No	No	No	No
14	4	252	1	9	No	No	No	No	No	No	No	No	No	No
15	4	252	1	9	No	No	No	No	No	No	No	No	No	No
16	4	244	1	9	No	No	No	No	No	No	No	No	No	No
17	4	139	1	5	No	No	No	No	No	No	No	No	No	No
18	4	77	1	3	No	No	No	No	No	No	No	No	No	No
19	4	70	1	3	No	No	No	No	No	No	No	No	No	No
20	4	28	1	1	No	No	No	No	No	No	No	No	No	No
21	4	21	1	1	No	No	No	No	No	No	No	No	No	No
22	4	21	1	1	No	No	No	No	No	No	No	No	No	No
23	4	14	1	1	No	No	No	No	No	No	No	No	No	No
24	4	14	1	1	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	W
Total Stopped Delay Per Vehicle on Minor Approach (s)	10.7
Number of Lanes on Minor Street Approach	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:04
Delay Condition Met	No
Volume on Minor Street Approach During Same Hour	26
High Minor Volume Condition Met	No
Total Entering Volume on All Approaches During Same Hour	724
Number of Approaches on Intersection	3
Total Volume Condition Met	Yes
Warrant Met for Approach	No
Warrant Met for Intersection	**No**

Signal Warrants Report For Intersection 7: North Project Driveway 2 / Buddy Rogers Avenue

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	E, W
Minor Approaches	S
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets
	E	W	S
1	155	103	13
2	149	99	12
3	146	97	12
4	124	82	10
5	118	78	10
6	105	70	9
7	98	65	8
8	93	62	8
9	74	49	6
10	70	46	6
11	70	46	6
12	67	44	6
13	60	40	5
14	56	37	5
15	56	37	5
16	54	36	5
17	31	21	3
18	17	11	1
19	16	10	1
20	6	4	1
21	5	3	0
22	5	3	0
23	3	2	0
24	3	2	0

Warrant Analysis by Hour

Hour	Major Lanes		Minor Lanes		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	2	258	1	13	No	No	No	No	No	No	No	No	No	No
2	2	248	1	12	No	No	No	No	No	No	No	No	No	No
3	2	243	1	12	No	No	No	No	No	No	No	No	No	No
4	2	206	1	10	No	No	No	No	No	No	No	No	No	No
5	2	196	1	10	No	No	No	No	No	No	No	No	No	No
6	2	175	1	9	No	No	No	No	No	No	No	No	No	No
7	2	163	1	8	No	No	No	No	No	No	No	No	No	No
8	2	155	1	8	No	No	No	No	No	No	No	No	No	No
9	2	123	1	6	No	No	No	No	No	No	No	No	No	No
10	2	116	1	6	No	No	No	No	No	No	No	No	No	No
11	2	116	1	6	No	No	No	No	No	No	No	No	No	No
12	2	111	1	6	No	No	No	No	No	No	No	No	No	No
13	2	100	1	5	No	No	No	No	No	No	No	No	No	No
14	2	93	1	5	No	No	No	No	No	No	No	No	No	No
15	2	93	1	5	No	No	No	No	No	No	No	No	No	No
16	2	90	1	5	No	No	No	No	No	No	No	No	No	No
17	2	52	1	3	No	No	No	No	No	No	No	No	No	No
18	2	28	1	1	No	No	No	No	No	No	No	No	No	No
19	2	26	1	1	No	No	No	No	No	No	No	No	No	No
20	2	10	1	1	No	No	No	No	No	No	No	No	No	No
21	2	8	1	0	No	No	No	No	No	No	No	No	No	No
22	2	8	1	0	No	No	No	No	No	No	No	No	No	No
23	2	5	1	0	No	No	No	No	No	No	No	No	No	No
24	2	5	1	0	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	S
Total Stopped Delay Per Vehicle on Minor Approach (s)	8.9
Number of Lanes on Minor Street Approach	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:01
Delay Condition Met	No
Volume on Minor Street Approach During Same Hour	13
High Minor Volume Condition Met	No
Total Entering Volume on All Approaches During Same Hour	271
Number of Approaches on Intersection	3
Total Volume Condition Met	No
Warrant Met for Approach	No
Warrant Met for Intersection	**No**

Signal Warrants Report For Intersection 8: Monty Hall Drive / Buddy Rogers Avenue

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	E, W
Minor Approaches	S, N
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets	
	E	W	S	N
1	69	42	87	36
2	66	40	84	35
3	65	39	82	34
4	55	34	70	29
5	52	32	66	27
6	47	29	59	24
7	43	26	55	23
8	41	25	52	22
9	33	20	42	17
10	31	19	39	16
11	31	19	39	16
12	30	18	37	15
13	27	16	34	14
14	25	15	31	13
15	25	15	31	13
16	24	15	30	13
17	14	8	17	7
18	8	5	10	4
19	7	4	9	4
20	3	2	3	1
21	2	1	3	1
22	2	1	3	1
23	1	1	2	1
24	1	1	2	1

Warrant Analysis by Hour

Hour	Major Lanes		Minor Lanes		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	2	111	2	123	No	No	No	No	No	No	No	No	No	No
2	2	106	2	119	No	No	No	No	No	No	No	No	No	No
3	2	104	2	116	No	No	No	No	No	No	No	No	No	No
4	2	89	2	99	No	No	No	No	No	No	No	No	No	No
5	2	84	2	93	No	No	No	No	No	No	No	No	No	No
6	2	76	2	83	No	No	No	No	No	No	No	No	No	No
7	2	69	2	78	No	No	No	No	No	No	No	No	No	No
8	2	66	2	74	No	No	No	No	No	No	No	No	No	No
9	2	53	2	59	No	No	No	No	No	No	No	No	No	No
10	2	50	2	55	No	No	No	No	No	No	No	No	No	No
11	2	50	2	55	No	No	No	No	No	No	No	No	No	No
12	2	48	2	52	No	No	No	No	No	No	No	No	No	No
13	2	43	2	48	No	No	No	No	No	No	No	No	No	No
14	2	40	2	44	No	No	No	No	No	No	No	No	No	No
15	2	40	2	44	No	No	No	No	No	No	No	No	No	No
16	2	39	2	43	No	No	No	No	No	No	No	No	No	No
17	2	22	2	24	No	No	No	No	No	No	No	No	No	No
18	2	13	2	14	No	No	No	No	No	No	No	No	No	No
19	2	11	2	13	No	No	No	No	No	No	No	No	No	No
20	2	5	2	4	No	No	No	No	No	No	No	No	No	No
21	2	3	2	4	No	No	No	No	No	No	No	No	No	No
22	2	3	2	4	No	No	No	No	No	No	No	No	No	No
23	2	2	2	3	No	No	No	No	No	No	No	No	No	No
24	2	2	2	3	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	S	N
Total Stopped Delay Per Vehicle on Minor Approach (s)	7.5	7.8
Number of Lanes on Minor Street Approach	1	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:10	0:04
Delay Condition Met	No	No
Volume on Minor Street Approach During Same Hour	87	36
High Minor Volume Condition Met	No	No
Total Entering Volume on All Approaches During Same Hour	234	234
Number of Approaches on Intersection	4	4
Total Volume Condition Met	No	No
Warrant Met for Approach	No	No
Warrant Met for Intersection	**No**	

Signal Warrants Report For Intersection 16: Cathedral Canyon Drive / Paseo Real

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	N, S
Minor Approaches	E, W
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets	
	N	S	E	W
1	699	872	27	24
2	671	837	26	23
3	657	820	25	23
4	559	698	22	19
5	531	663	21	18
6	475	593	18	16
7	440	549	17	15
8	419	523	16	14
9	336	419	13	12
10	315	392	12	11
11	315	392	12	11
12	301	375	12	10
13	273	340	11	9
14	252	314	10	9
15	252	314	10	9
16	245	305	9	8
17	140	174	5	5
18	77	96	3	3
19	70	87	3	2
20	28	35	1	1
21	21	26	1	1
22	21	26	1	1
23	14	17	1	0
24	14	17	1	0

Warrant Analysis by Hour

Hour	Major Lanes		Minor Lanes		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	6	1571	2	51	No	No	No	No	No	No	No	No	No	No
2	6	1508	2	49	No	No	No	No	No	No	No	No	No	No
3	6	1477	2	48	No	No	No	No	No	No	No	No	No	No
4	6	1257	2	41	No	No	No	No	No	No	No	No	No	No
5	6	1194	2	39	No	No	No	No	No	No	No	No	No	No
6	6	1068	2	34	No	No	No	No	No	No	No	No	No	No
7	6	989	2	32	No	No	No	No	No	No	No	No	No	No
8	6	942	2	30	No	No	No	No	No	No	No	No	No	No
9	6	755	2	25	No	No	No	No	No	No	No	No	No	No
10	6	707	2	23	No	No	No	No	No	No	No	No	No	No
11	6	707	2	23	No	No	No	No	No	No	No	No	No	No
12	6	676	2	22	No	No	No	No	No	No	No	No	No	No
13	6	613	2	20	No	No	No	No	No	No	No	No	No	No
14	6	566	2	19	No	No	No	No	No	No	No	No	No	No
15	6	566	2	19	No	No	No	No	No	No	No	No	No	No
16	6	550	2	17	No	No	No	No	No	No	No	No	No	No
17	6	314	2	10	No	No	No	No	No	No	No	No	No	No
18	6	173	2	6	No	No	No	No	No	No	No	No	No	No
19	6	157	2	5	No	No	No	No	No	No	No	No	No	No
20	6	63	2	2	No	No	No	No	No	No	No	No	No	No
21	6	47	2	2	No	No	No	No	No	No	No	No	No	No
22	6	47	2	2	No	No	No	No	No	No	No	No	No	No
23	6	31	2	1	No	No	No	No	No	No	No	No	No	No
24	6	31	2	1	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	E	W
Total Stopped Delay Per Vehicle on Minor Approach (s)	39.3	19.5
Number of Lanes on Minor Street Approach	1	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:17	0:07
Delay Condition Met	No	No
Volume on Minor Street Approach During Same Hour	27	24
High Minor Volume Condition Met	No	No
Total Entering Volume on All Approaches During Same Hour	1622	1622
Number of Approaches on Intersection	4	4
Total Volume Condition Met	Yes	Yes
Warrant Met for Approach	No	No
Warrant Met for Intersection	**No**	

Signal Warrants Report For Intersection 6: Date Palm Drive / East Palm Drive

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	N, S
Minor Approaches	W
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets
	N	S	W
1	678	119	0
2	651	114	0
3	637	112	0
4	542	95	0
5	515	90	0
6	461	81	0
7	427	75	0
8	407	71	0
9	325	57	0
10	305	54	0
11	305	54	0
12	292	51	0
13	264	46	0
14	244	43	0
15	244	43	0
16	237	42	0
17	136	24	0
18	75	13	0
19	68	12	0
20	27	5	0
21	20	4	0
22	20	4	0
23	14	2	0
24	14	2	0

Warrant Analysis by Hour

Hour	Major Lanes		Minor Lanes		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	4	797	1	0	No	No	No	No	No	No	No	No	No	No
2	4	765	1	0	No	No	No	No	No	No	No	No	No	No
3	4	749	1	0	No	No	No	No	No	No	No	No	No	No
4	4	637	1	0	No	No	No	No	No	No	No	No	No	No
5	4	605	1	0	No	No	No	No	No	No	No	No	No	No
6	4	542	1	0	No	No	No	No	No	No	No	No	No	No
7	4	502	1	0	No	No	No	No	No	No	No	No	No	No
8	4	478	1	0	No	No	No	No	No	No	No	No	No	No
9	4	382	1	0	No	No	No	No	No	No	No	No	No	No
10	4	359	1	0	No	No	No	No	No	No	No	No	No	No
11	4	359	1	0	No	No	No	No	No	No	No	No	No	No
12	4	343	1	0	No	No	No	No	No	No	No	No	No	No
13	4	310	1	0	No	No	No	No	No	No	No	No	No	No
14	4	287	1	0	No	No	No	No	No	No	No	No	No	No
15	4	287	1	0	No	No	No	No	No	No	No	No	No	No
16	4	279	1	0	No	No	No	No	No	No	No	No	No	No
17	4	160	1	0	No	No	No	No	No	No	No	No	No	No
18	4	88	1	0	No	No	No	No	No	No	No	No	No	No
19	4	80	1	0	No	No	No	No	No	No	No	No	No	No
20	4	32	1	0	No	No	No	No	No	No	No	No	No	No
21	4	24	1	0	No	No	No	No	No	No	No	No	No	No
22	4	24	1	0	No	No	No	No	No	No	No	No	No	No
23	4	16	1	0	No	No	No	No	No	No	No	No	No	No
24	4	16	1	0	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	W
Total Stopped Delay Per Vehicle on Minor Approach (s)	10.7
Number of Lanes on Minor Street Approach	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:00
Delay Condition Met	No
Volume on Minor Street Approach During Same Hour	0
High Minor Volume Condition Met	No
Total Entering Volume on All Approaches During Same Hour	797
Number of Approaches on Intersection	3
Total Volume Condition Met	Yes
Warrant Met for Approach	No
Warrant Met for Intersection	**No**

Signal Warrants Report For Intersection 16: Cathedral Canyon Drive / Paseo Real

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	N, S
Minor Approaches	E, W
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets	
	N	S	E	W
1	674	866	23	24
2	647	831	22	23
3	634	814	22	23
4	539	693	18	19
5	512	658	17	18
6	458	589	16	16
7	425	546	14	15
8	404	520	14	14
9	324	416	11	12
10	303	390	10	11
11	303	390	10	11
12	290	372	10	10
13	263	338	9	9
14	243	312	8	9
15	243	312	8	9
16	236	303	8	8
17	135	173	5	5
18	74	95	3	3
19	67	87	2	2
20	27	35	1	1
21	20	26	1	1
22	20	26	1	1
23	13	17	0	0
24	13	17	0	0

Warrant Analysis by Hour

Hour	Major Lanes		Minor Lanes		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	6	1540	2	47	No	No	No	No	No	No	No	No	No	No
2	6	1478	2	45	No	No	No	No	No	No	No	No	No	No
3	6	1448	2	45	No	No	No	No	No	No	No	No	No	No
4	6	1232	2	37	No	No	No	No	No	No	No	No	No	No
5	6	1170	2	35	No	No	No	No	No	No	No	No	No	No
6	6	1047	2	32	No	No	No	No	No	No	No	No	No	No
7	6	971	2	29	No	No	No	No	No	No	No	No	No	No
8	6	924	2	28	No	No	No	No	No	No	No	No	No	No
9	6	740	2	23	No	No	No	No	No	No	No	No	No	No
10	6	693	2	21	No	No	No	No	No	No	No	No	No	No
11	6	693	2	21	No	No	No	No	No	No	No	No	No	No
12	6	662	2	20	No	No	No	No	No	No	No	No	No	No
13	6	601	2	18	No	No	No	No	No	No	No	No	No	No
14	6	555	2	17	No	No	No	No	No	No	No	No	No	No
15	6	555	2	17	No	No	No	No	No	No	No	No	No	No
16	6	539	2	16	No	No	No	No	No	No	No	No	No	No
17	6	308	2	10	No	No	No	No	No	No	No	No	No	No
18	6	169	2	6	No	No	No	No	No	No	No	No	No	No
19	6	154	2	4	No	No	No	No	No	No	No	No	No	No
20	6	62	2	2	No	No	No	No	No	No	No	No	No	No
21	6	46	2	2	No	No	No	No	No	No	No	No	No	No
22	6	46	2	2	No	No	No	No	No	No	No	No	No	No
23	6	30	2	0	No	No	No	No	No	No	No	No	No	No
24	6	30	2	0	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	E	W
Total Stopped Delay Per Vehicle on Minor Approach (s)	34.9	18.8
Number of Lanes on Minor Street Approach	1	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:13	0:07
Delay Condition Met	No	No
Volume on Minor Street Approach During Same Hour	23	24
High Minor Volume Condition Met	No	No
Total Entering Volume on All Approaches During Same Hour	1587	1587
Number of Approaches on Intersection	4	4
Total Volume Condition Met	Yes	Yes
Warrant Met for Approach	No	No
Warrant Met for Intersection	**No**	

Signal Warrants Report For Intersection 27: Van Fleet Street / B Street-West Project Driveway

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	S, N
Minor Approaches	E, W
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets	
	S	N	E	W
1	108	154	72	23
2	104	148	69	22
3	102	145	68	22
4	86	123	58	18
5	82	117	55	17
6	73	105	49	16
7	68	97	45	14
8	65	92	43	14
9	52	74	35	11
10	49	69	32	10
11	49	69	32	10
12	46	66	31	10
13	42	60	28	9
14	39	55	26	8
15	39	55	26	8
16	38	54	25	8
17	22	31	14	5
18	12	17	8	3
19	11	15	7	2
20	4	6	3	1
21	3	5	2	1
22	3	5	2	1
23	2	3	1	0
24	2	3	1	0

Warrant Analysis by Hour

Hour	Major Lanes		Minor Lanes		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	2	262	2	95	No	No	No	No	No	No	No	No	No	No
2	2	252	2	91	No	No	No	No	No	No	No	No	No	No
3	2	247	2	90	No	No	No	No	No	No	No	No	No	No
4	2	209	2	76	No	No	No	No	No	No	No	No	No	No
5	2	199	2	72	No	No	No	No	No	No	No	No	No	No
6	2	178	2	65	No	No	No	No	No	No	No	No	No	No
7	2	165	2	59	No	No	No	No	No	No	No	No	No	No
8	2	157	2	57	No	No	No	No	No	No	No	No	No	No
9	2	126	2	46	No	No	No	No	No	No	No	No	No	No
10	2	118	2	42	No	No	No	No	No	No	No	No	No	No
11	2	118	2	42	No	No	No	No	No	No	No	No	No	No
12	2	112	2	41	No	No	No	No	No	No	No	No	No	No
13	2	102	2	37	No	No	No	No	No	No	No	No	No	No
14	2	94	2	34	No	No	No	No	No	No	No	No	No	No
15	2	94	2	34	No	No	No	No	No	No	No	No	No	No
16	2	92	2	33	No	No	No	No	No	No	No	No	No	No
17	2	53	2	19	No	No	No	No	No	No	No	No	No	No
18	2	29	2	11	No	No	No	No	No	No	No	No	No	No
19	2	26	2	9	No	No	No	No	No	No	No	No	No	No
20	2	10	2	4	No	No	No	No	No	No	No	No	No	No
21	2	8	2	3	No	No	No	No	No	No	No	No	No	No
22	2	8	2	3	No	No	No	No	No	No	No	No	No	No
23	2	5	2	1	No	No	No	No	No	No	No	No	No	No
24	2	5	2	1	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	E	W
Total Stopped Delay Per Vehicle on Minor Approach (s)	9.9	11.5
Number of Lanes on Minor Street Approach	1	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:11	0:04
Delay Condition Met	No	No
Volume on Minor Street Approach During Same Hour	72	23
High Minor Volume Condition Met	No	No
Total Entering Volume on All Approaches During Same Hour	357	357
Number of Approaches on Intersection	4	4
Total Volume Condition Met	No	No
Warrant Met for Approach	No	No
Warrant Met for Intersection	**No**	

Signal Warrants Report For Intersection 28: Van Fleet Street / D Street

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	S, N
Minor Approaches	E, W
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets	
	S	N	E	W
1	78	83	46	20
2	75	80	44	19
3	73	78	43	19
4	62	66	37	16
5	59	63	35	15
6	53	56	31	14
7	49	52	29	13
8	47	50	28	12
9	37	40	22	10
10	35	37	21	9
11	35	37	21	9
12	34	36	20	9
13	30	32	18	8
14	28	30	17	7
15	28	30	17	7
16	27	29	16	7
17	16	17	9	4
18	9	9	5	2
19	8	8	5	2
20	3	3	2	1
21	2	2	1	1
22	2	2	1	1
23	2	2	1	0
24	2	2	1	0

Warrant Analysis by Hour

Hour	Major Lanes		Minor Lanes		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	2	161	2	66	No	No	No	No	No	No	No	No	No	No
2	2	155	2	63	No	No	No	No	No	No	No	No	No	No
3	2	151	2	62	No	No	No	No	No	No	No	No	No	No
4	2	128	2	53	No	No	No	No	No	No	No	No	No	No
5	2	122	2	50	No	No	No	No	No	No	No	No	No	No
6	2	109	2	45	No	No	No	No	No	No	No	No	No	No
7	2	101	2	42	No	No	No	No	No	No	No	No	No	No
8	2	97	2	40	No	No	No	No	No	No	No	No	No	No
9	2	77	2	32	No	No	No	No	No	No	No	No	No	No
10	2	72	2	30	No	No	No	No	No	No	No	No	No	No
11	2	72	2	30	No	No	No	No	No	No	No	No	No	No
12	2	70	2	29	No	No	No	No	No	No	No	No	No	No
13	2	62	2	26	No	No	No	No	No	No	No	No	No	No
14	2	58	2	24	No	No	No	No	No	No	No	No	No	No
15	2	58	2	24	No	No	No	No	No	No	No	No	No	No
16	2	56	2	23	No	No	No	No	No	No	No	No	No	No
17	2	33	2	13	No	No	No	No	No	No	No	No	No	No
18	2	18	2	7	No	No	No	No	No	No	No	No	No	No
19	2	16	2	7	No	No	No	No	No	No	No	No	No	No
20	2	6	2	3	No	No	No	No	No	No	No	No	No	No
21	2	4	2	2	No	No	No	No	No	No	No	No	No	No
22	2	4	2	2	No	No	No	No	No	No	No	No	No	No
23	2	4	2	1	No	No	No	No	No	No	No	No	No	No
24	2	4	2	1	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	E	W
Total Stopped Delay Per Vehicle on Minor Approach (s)	9.4	10.2
Number of Lanes on Minor Street Approach	1	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:07	0:03
Delay Condition Met	No	No
Volume on Minor Street Approach During Same Hour	46	20
High Minor Volume Condition Met	No	No
Total Entering Volume on All Approaches During Same Hour	227	227
Number of Approaches on Intersection	4	4
Total Volume Condition Met	No	No
Warrant Met for Approach	No	No
Warrant Met for Intersection	**No**	

Signal Warrants Report For Intersection 29: South Project Driveway / D Street

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	E, W
Minor Approaches	N
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets
	E	W	N
1	9	19	37
2	9	18	36
3	8	18	35
4	7	15	30
5	7	14	28
6	6	13	25
7	6	12	23
8	5	11	22
9	4	9	18
10	4	9	17
11	4	9	17
12	4	8	16
13	4	7	14
14	3	7	13
15	3	7	13
16	3	7	13
17	2	4	7
18	1	2	4
19	1	2	4
20	0	1	1
21	0	1	1
22	0	1	1
23	0	0	1
24	0	0	1

Warrant Analysis by Hour

Hour	Major Lanes		Minor Lanes		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	2	28	1	37	No	No	No	No	No	No	No	No	No	No
2	2	27	1	36	No	No	No	No	No	No	No	No	No	No
3	2	26	1	35	No	No	No	No	No	No	No	No	No	No
4	2	22	1	30	No	No	No	No	No	No	No	No	No	No
5	2	21	1	28	No	No	No	No	No	No	No	No	No	No
6	2	19	1	25	No	No	No	No	No	No	No	No	No	No
7	2	18	1	23	No	No	No	No	No	No	No	No	No	No
8	2	16	1	22	No	No	No	No	No	No	No	No	No	No
9	2	13	1	18	No	No	No	No	No	No	No	No	No	No
10	2	13	1	17	No	No	No	No	No	No	No	No	No	No
11	2	13	1	17	No	No	No	No	No	No	No	No	No	No
12	2	12	1	16	No	No	No	No	No	No	No	No	No	No
13	2	11	1	14	No	No	No	No	No	No	No	No	No	No
14	2	10	1	13	No	No	No	No	No	No	No	No	No	No
15	2	10	1	13	No	No	No	No	No	No	No	No	No	No
16	2	10	1	13	No	No	No	No	No	No	No	No	No	No
17	2	6	1	7	No	No	No	No	No	No	No	No	No	No
18	2	3	1	4	No	No	No	No	No	No	No	No	No	No
19	2	3	1	4	No	No	No	No	No	No	No	No	No	No
20	2	1	1	1	No	No	No	No	No	No	No	No	No	No
21	2	1	1	1	No	No	No	No	No	No	No	No	No	No
22	2	1	1	1	No	No	No	No	No	No	No	No	No	No
23	2	0	1	1	No	No	No	No	No	No	No	No	No	No
24	2	0	1	1	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	N
Total Stopped Delay Per Vehicle on Minor Approach (s)	8.5
Number of Lanes on Minor Street Approach	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:05
Delay Condition Met	No
Volume on Minor Street Approach During Same Hour	37
High Minor Volume Condition Met	No
Total Entering Volume on All Approaches During Same Hour	65
Number of Approaches on Intersection	3
Total Volume Condition Met	No
Warrant Met for Approach	No
Warrant Met for Intersection	**No**

Year 2040 Conditions

Signal Warrants Report For Intersection 1: North Project Driveway 1 / Buddy Rogers Avenue

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	E, W
Minor Approaches	S, N
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets	
	E	W	S	N
1	41	39	0	0
2	39	37	0	0
3	39	37	0	0
4	33	31	0	0
5	31	30	0	0
6	28	27	0	0
7	26	25	0	0
8	25	23	0	0
9	20	19	0	0
10	18	18	0	0
11	18	18	0	0
12	18	17	0	0
13	16	15	0	0
14	15	14	0	0
15	15	14	0	0
16	14	14	0	0
17	8	8	0	0
18	5	4	0	0
19	4	4	0	0
20	2	2	0	0
21	1	1	0	0
22	1	1	0	0
23	1	1	0	0
24	1	1	0	0

Warrant Analysis by Hour

Hour	Major Lanes		Minor Lanes		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	2	80	3	0	No	No	No	No	No	No	No	No	No	No
2	2	76	3	0	No	No	No	No	No	No	No	No	No	No
3	2	76	3	0	No	No	No	No	No	No	No	No	No	No
4	2	64	3	0	No	No	No	No	No	No	No	No	No	No
5	2	61	3	0	No	No	No	No	No	No	No	No	No	No
6	2	55	3	0	No	No	No	No	No	No	No	No	No	No
7	2	51	3	0	No	No	No	No	No	No	No	No	No	No
8	2	48	3	0	No	No	No	No	No	No	No	No	No	No
9	2	39	3	0	No	No	No	No	No	No	No	No	No	No
10	2	36	3	0	No	No	No	No	No	No	No	No	No	No
11	2	36	3	0	No	No	No	No	No	No	No	No	No	No
12	2	35	3	0	No	No	No	No	No	No	No	No	No	No
13	2	31	3	0	No	No	No	No	No	No	No	No	No	No
14	2	29	3	0	No	No	No	No	No	No	No	No	No	No
15	2	29	3	0	No	No	No	No	No	No	No	No	No	No
16	2	28	3	0	No	No	No	No	No	No	No	No	No	No
17	2	16	3	0	No	No	No	No	No	No	No	No	No	No
18	2	9	3	0	No	No	No	No	No	No	No	No	No	No
19	2	8	3	0	No	No	No	No	No	No	No	No	No	No
20	2	4	3	0	No	No	No	No	No	No	No	No	No	No
21	2	2	3	0	No	No	No	No	No	No	No	No	No	No
22	2	2	3	0	No	No	No	No	No	No	No	No	No	No
23	2	2	3	0	No	No	No	No	No	No	No	No	No	No
24	2	2	3	0	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	S	N
Total Stopped Delay Per Vehicle on Minor Approach (s)	9	9
Number of Lanes on Minor Street Approach	2	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:00	0:00
Delay Condition Met	No	No
Volume on Minor Street Approach During Same Hour	0	0
High Minor Volume Condition Met	No	No
Total Entering Volume on All Approaches During Same Hour	80	80
Number of Approaches on Intersection	4	4
Total Volume Condition Met	No	No
Warrant Met for Approach	No	No
Warrant Met for Intersection	**No**	

Signal Warrants Report For Intersection 2: Date Palm Drive / Buddy Rogers Avenue

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	S, N
Minor Approaches	W
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets
	S	N	W
1	2005	1663	39
2	1925	1596	37
3	1885	1563	37
4	1604	1330	31
5	1524	1264	30
6	1363	1131	27
7	1263	1048	25
8	1203	998	23
9	962	798	19
10	902	748	18
11	902	748	18
12	862	715	17
13	782	649	15
14	722	599	14
15	722	599	14
16	702	582	14
17	401	333	8
18	221	183	4
19	201	166	4
20	80	67	2
21	60	50	1
22	60	50	1
23	40	33	1
24	40	33	1

Warrant Analysis by Hour

Hour	Major Lanes		Minor Lanes		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	5	3668	1	39	No	No	No	No	No	No	No	No	No	No
2	5	3521	1	37	No	No	No	No	No	No	No	No	No	No
3	5	3448	1	37	No	No	No	No	No	No	No	No	No	No
4	5	2934	1	31	No	No	No	No	No	No	No	No	No	No
5	5	2788	1	30	No	No	No	No	No	No	No	No	No	No
6	5	2494	1	27	No	No	No	No	No	No	No	No	No	No
7	5	2311	1	25	No	No	No	No	No	No	No	No	No	No
8	5	2201	1	23	No	No	No	No	No	No	No	No	No	No
9	5	1760	1	19	No	No	No	No	No	No	No	No	No	No
10	5	1650	1	18	No	No	No	No	No	No	No	No	No	No
11	5	1650	1	18	No	No	No	No	No	No	No	No	No	No
12	5	1577	1	17	No	No	No	No	No	No	No	No	No	No
13	5	1431	1	15	No	No	No	No	No	No	No	No	No	No
14	5	1321	1	14	No	No	No	No	No	No	No	No	No	No
15	5	1321	1	14	No	No	No	No	No	No	No	No	No	No
16	5	1284	1	14	No	No	No	No	No	No	No	No	No	No
17	5	734	1	8	No	No	No	No	No	No	No	No	No	No
18	5	404	1	4	No	No	No	No	No	No	No	No	No	No
19	5	367	1	4	No	No	No	No	No	No	No	No	No	No
20	5	147	1	2	No	No	No	No	No	No	No	No	No	No
21	5	110	1	1	No	No	No	No	No	No	No	No	No	No
22	5	110	1	1	No	No	No	No	No	No	No	No	No	No
23	5	73	1	1	No	No	No	No	No	No	No	No	No	No
24	5	73	1	1	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	W
Total Stopped Delay Per Vehicle on Minor Approach (s)	963.2
Number of Lanes on Minor Street Approach	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	10:26
Delay Condition Met	Yes
Volume on Minor Street Approach During Same Hour	39
High Minor Volume Condition Met	No
Total Entering Volume on All Approaches During Same Hour	3707
Number of Approaches on Intersection	3
Total Volume Condition Met	Yes
Warrant Met for Approach	No
Warrant Met for Intersection	**No**

Signal Warrants Report For Intersection 6: Date Palm Drive / East Palm Drive

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	N, S
Minor Approaches	W
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets
	N	S	W
1	1601	24	0
2	1537	23	0
3	1505	23	0
4	1281	19	0
5	1217	18	0
6	1089	16	0
7	1009	15	0
8	961	14	0
9	768	12	0
10	720	11	0
11	720	11	0
12	688	10	0
13	624	9	0
14	576	9	0
15	576	9	0
16	560	8	0
17	320	5	0
18	176	3	0
19	160	2	0
20	64	1	0
21	48	1	0
22	48	1	0
23	32	0	0
24	32	0	0

Warrant Analysis by Hour

Hour	Major Lanes		Minor Lanes		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	4	1625	1	0	No	No	No	No	No	No	No	No	No	No
2	4	1560	1	0	No	No	No	No	No	No	No	No	No	No
3	4	1528	1	0	No	No	No	No	No	No	No	No	No	No
4	4	1300	1	0	No	No	No	No	No	No	No	No	No	No
5	4	1235	1	0	No	No	No	No	No	No	No	No	No	No
6	4	1105	1	0	No	No	No	No	No	No	No	No	No	No
7	4	1024	1	0	No	No	No	No	No	No	No	No	No	No
8	4	975	1	0	No	No	No	No	No	No	No	No	No	No
9	4	780	1	0	No	No	No	No	No	No	No	No	No	No
10	4	731	1	0	No	No	No	No	No	No	No	No	No	No
11	4	731	1	0	No	No	No	No	No	No	No	No	No	No
12	4	698	1	0	No	No	No	No	No	No	No	No	No	No
13	4	633	1	0	No	No	No	No	No	No	No	No	No	No
14	4	585	1	0	No	No	No	No	No	No	No	No	No	No
15	4	585	1	0	No	No	No	No	No	No	No	No	No	No
16	4	568	1	0	No	No	No	No	No	No	No	No	No	No
17	4	325	1	0	No	No	No	No	No	No	No	No	No	No
18	4	179	1	0	No	No	No	No	No	No	No	No	No	No
19	4	162	1	0	No	No	No	No	No	No	No	No	No	No
20	4	65	1	0	No	No	No	No	No	No	No	No	No	No
21	4	49	1	0	No	No	No	No	No	No	No	No	No	No
22	4	49	1	0	No	No	No	No	No	No	No	No	No	No
23	4	32	1	0	No	No	No	No	No	No	No	No	No	No
24	4	32	1	0	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	W
Total Stopped Delay Per Vehicle on Minor Approach (s)	17.2
Number of Lanes on Minor Street Approach	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:00
Delay Condition Met	No
Volume on Minor Street Approach During Same Hour	0
High Minor Volume Condition Met	No
Total Entering Volume on All Approaches During Same Hour	1625
Number of Approaches on Intersection	3
Total Volume Condition Met	Yes
Warrant Met for Approach	No
Warrant Met for Intersection	**No**

Signal Warrants Report For Intersection 7: North Project Driveway 2 / Buddy Rogers Avenue

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	E, W
Minor Approaches	S
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets
	E	W	S
1	31	29	0
2	30	28	0
3	29	27	0
4	25	23	0
5	24	22	0
6	21	20	0
7	20	18	0
8	19	17	0
9	15	14	0
10	14	13	0
11	14	13	0
12	13	12	0
13	12	11	0
14	11	10	0
15	11	10	0
16	11	10	0
17	6	6	0
18	3	3	0
19	3	3	0
20	1	1	0
21	1	1	0
22	1	1	0
23	1	1	0
24	1	1	0

Warrant Analysis by Hour

Hour	Major Lanes		Minor Lanes		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	2	60	1	0	No	No	No	No	No	No	No	No	No	No
2	2	58	1	0	No	No	No	No	No	No	No	No	No	No
3	2	56	1	0	No	No	No	No	No	No	No	No	No	No
4	2	48	1	0	No	No	No	No	No	No	No	No	No	No
5	2	46	1	0	No	No	No	No	No	No	No	No	No	No
6	2	41	1	0	No	No	No	No	No	No	No	No	No	No
7	2	38	1	0	No	No	No	No	No	No	No	No	No	No
8	2	36	1	0	No	No	No	No	No	No	No	No	No	No
9	2	29	1	0	No	No	No	No	No	No	No	No	No	No
10	2	27	1	0	No	No	No	No	No	No	No	No	No	No
11	2	27	1	0	No	No	No	No	No	No	No	No	No	No
12	2	25	1	0	No	No	No	No	No	No	No	No	No	No
13	2	23	1	0	No	No	No	No	No	No	No	No	No	No
14	2	21	1	0	No	No	No	No	No	No	No	No	No	No
15	2	21	1	0	No	No	No	No	No	No	No	No	No	No
16	2	21	1	0	No	No	No	No	No	No	No	No	No	No
17	2	12	1	0	No	No	No	No	No	No	No	No	No	No
18	2	6	1	0	No	No	No	No	No	No	No	No	No	No
19	2	6	1	0	No	No	No	No	No	No	No	No	No	No
20	2	2	1	0	No	No	No	No	No	No	No	No	No	No
21	2	2	1	0	No	No	No	No	No	No	No	No	No	No
22	2	2	1	0	No	No	No	No	No	No	No	No	No	No
23	2	2	1	0	No	No	No	No	No	No	No	No	No	No
24	2	2	1	0	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	S
Total Stopped Delay Per Vehicle on Minor Approach (s)	8.6
Number of Lanes on Minor Street Approach	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:00
Delay Condition Met	No
Volume on Minor Street Approach During Same Hour	0
High Minor Volume Condition Met	No
Total Entering Volume on All Approaches During Same Hour	60
Number of Approaches on Intersection	3
Total Volume Condition Met	No
Warrant Met for Approach	No
Warrant Met for Intersection	**No**

Signal Warrants Report For Intersection 8: Monty Hall Drive / Buddy Rogers Avenue

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	E, W
Minor Approaches	S, N
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets	
	E	W	S	N
1	34	53	30	47
2	33	51	29	45
3	32	50	28	44
4	27	42	24	38
5	26	40	23	36
6	23	36	20	32
7	21	33	19	30
8	20	32	18	28
9	16	25	14	23
10	15	24	14	21
11	15	24	14	21
12	15	23	13	20
13	13	21	12	18
14	12	19	11	17
15	12	19	11	17
16	12	19	11	16
17	7	11	6	9
18	4	6	3	5
19	3	5	3	5
20	1	2	1	2
21	1	2	1	1
22	1	2	1	1
23	1	1	1	1
24	1	1	1	1

Warrant Analysis by Hour

Hour	Major Lanes		Minor Lanes		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	2	87	2	77	No	No	No	No	No	No	No	No	No	No
2	2	84	2	74	No	No	No	No	No	No	No	No	No	No
3	2	82	2	72	No	No	No	No	No	No	No	No	No	No
4	2	69	2	62	No	No	No	No	No	No	No	No	No	No
5	2	66	2	59	No	No	No	No	No	No	No	No	No	No
6	2	59	2	52	No	No	No	No	No	No	No	No	No	No
7	2	54	2	49	No	No	No	No	No	No	No	No	No	No
8	2	52	2	46	No	No	No	No	No	No	No	No	No	No
9	2	41	2	37	No	No	No	No	No	No	No	No	No	No
10	2	39	2	35	No	No	No	No	No	No	No	No	No	No
11	2	39	2	35	No	No	No	No	No	No	No	No	No	No
12	2	38	2	33	No	No	No	No	No	No	No	No	No	No
13	2	34	2	30	No	No	No	No	No	No	No	No	No	No
14	2	31	2	28	No	No	No	No	No	No	No	No	No	No
15	2	31	2	28	No	No	No	No	No	No	No	No	No	No
16	2	31	2	27	No	No	No	No	No	No	No	No	No	No
17	2	18	2	15	No	No	No	No	No	No	No	No	No	No
18	2	10	2	8	No	No	No	No	No	No	No	No	No	No
19	2	8	2	8	No	No	No	No	No	No	No	No	No	No
20	2	3	2	3	No	No	No	No	No	No	No	No	No	No
21	2	3	2	2	No	No	No	No	No	No	No	No	No	No
22	2	3	2	2	No	No	No	No	No	No	No	No	No	No
23	2	2	2	2	No	No	No	No	No	No	No	No	No	No
24	2	2	2	2	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	S	N
Total Stopped Delay Per Vehicle on Minor Approach (s)	7.5	7.7
Number of Lanes on Minor Street Approach	1	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:03	0:06
Delay Condition Met	No	No
Volume on Minor Street Approach During Same Hour	30	47
High Minor Volume Condition Met	No	No
Total Entering Volume on All Approaches During Same Hour	164	164
Number of Approaches on Intersection	4	4
Total Volume Condition Met	No	No
Warrant Met for Approach	No	No
Warrant Met for Intersection	**No**	

Signal Warrants Report For Intersection 16: Cathedral Canyon Drive / Paseo Real

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	N, S
Minor Approaches	E, W
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets	
	N	S	E	W
1	796	1037	22	30
2	764	996	21	29
3	748	975	21	28
4	637	830	18	24
5	605	788	17	23
6	541	705	15	20
7	501	653	14	19
8	478	622	13	18
9	382	498	11	14
10	358	467	10	14
11	358	467	10	14
12	342	446	9	13
13	310	404	9	12
14	287	373	8	11
15	287	373	8	11
16	279	363	8	11
17	159	207	4	6
18	88	114	2	3
19	80	104	2	3
20	32	41	1	1
21	24	31	1	1
22	24	31	1	1
23	16	21	0	1
24	16	21	0	1

Warrant Analysis by Hour

Hour	Major Lanes		Minor Lanes		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	6	1833	2	52	No	No	No	No	No	No	No	No	No	No
2	6	1760	2	50	No	No	No	No	No	No	No	No	No	No
3	6	1723	2	49	No	No	No	No	No	No	No	No	No	No
4	6	1467	2	42	No	No	No	No	No	No	No	No	No	No
5	6	1393	2	40	No	No	No	No	No	No	No	No	No	No
6	6	1246	2	35	No	No	No	No	No	No	No	No	No	No
7	6	1154	2	33	No	No	No	No	No	No	No	No	No	No
8	6	1100	2	31	No	No	No	No	No	No	No	No	No	No
9	6	880	2	25	No	No	No	No	No	No	No	No	No	No
10	6	825	2	24	No	No	No	No	No	No	No	No	No	No
11	6	825	2	24	No	No	No	No	No	No	No	No	No	No
12	6	788	2	22	No	No	No	No	No	No	No	No	No	No
13	6	714	2	21	No	No	No	No	No	No	No	No	No	No
14	6	660	2	19	No	No	No	No	No	No	No	No	No	No
15	6	660	2	19	No	No	No	No	No	No	No	No	No	No
16	6	642	2	19	No	No	No	No	No	No	No	No	No	No
17	6	366	2	10	No	No	No	No	No	No	No	No	No	No
18	6	202	2	5	No	No	No	No	No	No	No	No	No	No
19	6	184	2	5	No	No	No	No	No	No	No	No	No	No
20	6	73	2	2	No	No	No	No	No	No	No	No	No	No
21	6	55	2	2	No	No	No	No	No	No	No	No	No	No
22	6	55	2	2	No	No	No	No	No	No	No	No	No	No
23	6	37	2	1	No	No	No	No	No	No	No	No	No	No
24	6	37	2	1	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	E	W
Total Stopped Delay Per Vehicle on Minor Approach (s)	45	28.2
Number of Lanes on Minor Street Approach	1	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:16	0:14
Delay Condition Met	No	No
Volume on Minor Street Approach During Same Hour	22	30
High Minor Volume Condition Met	No	No
Total Entering Volume on All Approaches During Same Hour	1885	1885
Number of Approaches on Intersection	4	4
Total Volume Condition Met	Yes	Yes
Warrant Met for Approach	No	No
Warrant Met for Intersection	**No**	

Signal Warrants Report For Intersection 27: Van Fleet Street / B Street-West Project Driveway

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	S, N
Minor Approaches	E, W
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets	
	S	N	E	W
1	109	125	0	13
2	105	120	0	12
3	102	118	0	12
4	87	100	0	10
5	83	95	0	10
6	74	85	0	9
7	69	79	0	8
8	65	75	0	8
9	52	60	0	6
10	49	56	0	6
11	49	56	0	6
12	47	54	0	6
13	43	49	0	5
14	39	45	0	5
15	39	45	0	5
16	38	44	0	5
17	22	25	0	3
18	12	14	0	1
19	11	13	0	1
20	4	5	0	1
21	3	4	0	0
22	3	4	0	0
23	2	3	0	0
24	2	3	0	0

Warrant Analysis by Hour

Hour	Major Lanes		Minor Lanes		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	2	234	2	13	No	No	No	No	No	No	No	No	No	No
2	2	225	2	12	No	No	No	No	No	No	No	No	No	No
3	2	220	2	12	No	No	No	No	No	No	No	No	No	No
4	2	187	2	10	No	No	No	No	No	No	No	No	No	No
5	2	178	2	10	No	No	No	No	No	No	No	No	No	No
6	2	159	2	9	No	No	No	No	No	No	No	No	No	No
7	2	148	2	8	No	No	No	No	No	No	No	No	No	No
8	2	140	2	8	No	No	No	No	No	No	No	No	No	No
9	2	112	2	6	No	No	No	No	No	No	No	No	No	No
10	2	105	2	6	No	No	No	No	No	No	No	No	No	No
11	2	105	2	6	No	No	No	No	No	No	No	No	No	No
12	2	101	2	6	No	No	No	No	No	No	No	No	No	No
13	2	92	2	5	No	No	No	No	No	No	No	No	No	No
14	2	84	2	5	No	No	No	No	No	No	No	No	No	No
15	2	84	2	5	No	No	No	No	No	No	No	No	No	No
16	2	82	2	5	No	No	No	No	No	No	No	No	No	No
17	2	47	2	3	No	No	No	No	No	No	No	No	No	No
18	2	26	2	1	No	No	No	No	No	No	No	No	No	No
19	2	24	2	1	No	No	No	No	No	No	No	No	No	No
20	2	9	2	1	No	No	No	No	No	No	No	No	No	No
21	2	7	2	0	No	No	No	No	No	No	No	No	No	No
22	2	7	2	0	No	No	No	No	No	No	No	No	No	No
23	2	5	2	0	No	No	No	No	No	No	No	No	No	No
24	2	5	2	0	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	E	W
Total Stopped Delay Per Vehicle on Minor Approach (s)	9.9	9.8
Number of Lanes on Minor Street Approach	1	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:00	0:02
Delay Condition Met	No	No
Volume on Minor Street Approach During Same Hour	0	13
High Minor Volume Condition Met	No	No
Total Entering Volume on All Approaches During Same Hour	247	247
Number of Approaches on Intersection	4	4
Total Volume Condition Met	No	No
Warrant Met for Approach	No	No
Warrant Met for Intersection	**No**	

Signal Warrants Report For Intersection 28: Van Fleet Street / D Street

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	S, N
Minor Approaches	E, W
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets	
	S	N	E	W
1	90	106	12	17
2	86	102	12	16
3	85	100	11	16
4	72	85	10	14
5	68	81	9	13
6	61	72	8	12
7	57	67	8	11
8	54	64	7	10
9	43	51	6	8
10	41	48	5	8
11	41	48	5	8
12	39	46	5	7
13	35	41	5	7
14	32	38	4	6
15	32	38	4	6
16	31	37	4	6
17	18	21	2	3
18	10	12	1	2
19	9	11	1	2
20	4	4	0	1
21	3	3	0	1
22	3	3	0	1
23	2	2	0	0
24	2	2	0	0

Warrant Analysis by Hour

Hour	Major Lanes		Minor Lanes		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	2	196	2	29	No	No	No	No	No	No	No	No	No	No
2	2	188	2	28	No	No	No	No	No	No	No	No	No	No
3	2	185	2	27	No	No	No	No	No	No	No	No	No	No
4	2	157	2	24	No	No	No	No	No	No	No	No	No	No
5	2	149	2	22	No	No	No	No	No	No	No	No	No	No
6	2	133	2	20	No	No	No	No	No	No	No	No	No	No
7	2	124	2	19	No	No	No	No	No	No	No	No	No	No
8	2	118	2	17	No	No	No	No	No	No	No	No	No	No
9	2	94	2	14	No	No	No	No	No	No	No	No	No	No
10	2	89	2	13	No	No	No	No	No	No	No	No	No	No
11	2	89	2	13	No	No	No	No	No	No	No	No	No	No
12	2	85	2	12	No	No	No	No	No	No	No	No	No	No
13	2	76	2	12	No	No	No	No	No	No	No	No	No	No
14	2	70	2	10	No	No	No	No	No	No	No	No	No	No
15	2	70	2	10	No	No	No	No	No	No	No	No	No	No
16	2	68	2	10	No	No	No	No	No	No	No	No	No	No
17	2	39	2	5	No	No	No	No	No	No	No	No	No	No
18	2	22	2	3	No	No	No	No	No	No	No	No	No	No
19	2	20	2	3	No	No	No	No	No	No	No	No	No	No
20	2	8	2	1	No	No	No	No	No	No	No	No	No	No
21	2	6	2	1	No	No	No	No	No	No	No	No	No	No
22	2	6	2	1	No	No	No	No	No	No	No	No	No	No
23	2	4	2	0	No	No	No	No	No	No	No	No	No	No
24	2	4	2	0	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	E	W
Total Stopped Delay Per Vehicle on Minor Approach (s)	9.3	10
Number of Lanes on Minor Street Approach	1	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:01	0:02
Delay Condition Met	No	No
Volume on Minor Street Approach During Same Hour	12	17
High Minor Volume Condition Met	No	No
Total Entering Volume on All Approaches During Same Hour	225	225
Number of Approaches on Intersection	4	4
Total Volume Condition Met	No	No
Warrant Met for Approach	No	No
Warrant Met for Intersection	**No**	

Signal Warrants Report For Intersection 29: South Project Driveway / D Street

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	E, W
Minor Approaches	N
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets
	E	W	N
1	12	7	0
2	12	7	0
3	11	7	0
4	10	6	0
5	9	5	0
6	8	5	0
7	8	4	0
8	7	4	0
9	6	3	0
10	5	3	0
11	5	3	0
12	5	3	0
13	5	3	0
14	4	3	0
15	4	3	0
16	4	2	0
17	2	1	0
18	1	1	0
19	1	1	0
20	0	0	0
21	0	0	0
22	0	0	0
23	0	0	0
24	0	0	0

Warrant Analysis by Hour

Hour	Major Lanes		Minor Lanes		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	2	19	1	0	No	No	No	No	No	No	No	No	No	No
2	2	19	1	0	No	No	No	No	No	No	No	No	No	No
3	2	18	1	0	No	No	No	No	No	No	No	No	No	No
4	2	16	1	0	No	No	No	No	No	No	No	No	No	No
5	2	14	1	0	No	No	No	No	No	No	No	No	No	No
6	2	13	1	0	No	No	No	No	No	No	No	No	No	No
7	2	12	1	0	No	No	No	No	No	No	No	No	No	No
8	2	11	1	0	No	No	No	No	No	No	No	No	No	No
9	2	9	1	0	No	No	No	No	No	No	No	No	No	No
10	2	8	1	0	No	No	No	No	No	No	No	No	No	No
11	2	8	1	0	No	No	No	No	No	No	No	No	No	No
12	2	8	1	0	No	No	No	No	No	No	No	No	No	No
13	2	8	1	0	No	No	No	No	No	No	No	No	No	No
14	2	7	1	0	No	No	No	No	No	No	No	No	No	No
15	2	7	1	0	No	No	No	No	No	No	No	No	No	No
16	2	6	1	0	No	No	No	No	No	No	No	No	No	No
17	2	3	1	0	No	No	No	No	No	No	No	No	No	No
18	2	2	1	0	No	No	No	No	No	No	No	No	No	No
19	2	2	1	0	No	No	No	No	No	No	No	No	No	No
20	2	0	1	0	No	No	No	No	No	No	No	No	No	No
21	2	0	1	0	No	No	No	No	No	No	No	No	No	No
22	2	0	1	0	No	No	No	No	No	No	No	No	No	No
23	2	0	1	0	No	No	No	No	No	No	No	No	No	No
24	2	0	1	0	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	N
Total Stopped Delay Per Vehicle on Minor Approach (s)	8.5
Number of Lanes on Minor Street Approach	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:00
Delay Condition Met	No
Volume on Minor Street Approach During Same Hour	0
High Minor Volume Condition Met	No
Total Entering Volume on All Approaches During Same Hour	19
Number of Approaches on Intersection	3
Total Volume Condition Met	No
Warrant Met for Approach	No
Warrant Met for Intersection	**No**

Signal Warrants Report For Intersection 1: North Project Driveway 1 / Buddy Rogers Avenue

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	E, W
Minor Approaches	S, N
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets	
	E	W	S	N
1	41	39	0	0
2	39	37	0	0
3	39	37	0	0
4	33	31	0	0
5	31	30	0	0
6	28	27	0	0
7	26	25	0	0
8	25	23	0	0
9	20	19	0	0
10	18	18	0	0
11	18	18	0	0
12	18	17	0	0
13	16	15	0	0
14	15	14	0	0
15	15	14	0	0
16	14	14	0	0
17	8	8	0	0
18	5	4	0	0
19	4	4	0	0
20	2	2	0	0
21	1	1	0	0
22	1	1	0	0
23	1	1	0	0
24	1	1	0	0

Warrant Analysis by Hour

Hour	Major Lanes		Minor Lanes		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	2	80	3	0	No	No	No	No	No	No	No	No	No	No
2	2	76	3	0	No	No	No	No	No	No	No	No	No	No
3	2	76	3	0	No	No	No	No	No	No	No	No	No	No
4	2	64	3	0	No	No	No	No	No	No	No	No	No	No
5	2	61	3	0	No	No	No	No	No	No	No	No	No	No
6	2	55	3	0	No	No	No	No	No	No	No	No	No	No
7	2	51	3	0	No	No	No	No	No	No	No	No	No	No
8	2	48	3	0	No	No	No	No	No	No	No	No	No	No
9	2	39	3	0	No	No	No	No	No	No	No	No	No	No
10	2	36	3	0	No	No	No	No	No	No	No	No	No	No
11	2	36	3	0	No	No	No	No	No	No	No	No	No	No
12	2	35	3	0	No	No	No	No	No	No	No	No	No	No
13	2	31	3	0	No	No	No	No	No	No	No	No	No	No
14	2	29	3	0	No	No	No	No	No	No	No	No	No	No
15	2	29	3	0	No	No	No	No	No	No	No	No	No	No
16	2	28	3	0	No	No	No	No	No	No	No	No	No	No
17	2	16	3	0	No	No	No	No	No	No	No	No	No	No
18	2	9	3	0	No	No	No	No	No	No	No	No	No	No
19	2	8	3	0	No	No	No	No	No	No	No	No	No	No
20	2	4	3	0	No	No	No	No	No	No	No	No	No	No
21	2	2	3	0	No	No	No	No	No	No	No	No	No	No
22	2	2	3	0	No	No	No	No	No	No	No	No	No	No
23	2	2	3	0	No	No	No	No	No	No	No	No	No	No
24	2	2	3	0	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	S	N
Total Stopped Delay Per Vehicle on Minor Approach (s)	9	9
Number of Lanes on Minor Street Approach	2	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:00	0:00
Delay Condition Met	No	No
Volume on Minor Street Approach During Same Hour	0	0
High Minor Volume Condition Met	No	No
Total Entering Volume on All Approaches During Same Hour	80	80
Number of Approaches on Intersection	4	4
Total Volume Condition Met	No	No
Warrant Met for Approach	No	No
Warrant Met for Intersection	**No**	

Signal Warrants Report For Intersection 2: Date Palm Drive / Buddy Rogers Avenue

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	S, N
Minor Approaches	W
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets
	S	N	W
1	1473	1598	58
2	1414	1534	56
3	1385	1502	55
4	1178	1278	46
5	1119	1214	44
6	1002	1087	39
7	928	1007	37
8	884	959	35
9	707	767	28
10	663	719	26
11	663	719	26
12	633	687	25
13	574	623	23
14	530	575	21
15	530	575	21
16	516	559	20
17	295	320	12
18	162	176	6
19	147	160	6
20	59	64	2
21	44	48	2
22	44	48	2
23	29	32	1
24	29	32	1

Warrant Analysis by Hour

Hour	Major Lanes		Minor Lanes		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	5	3071	1	58	No	No	No	No	No	No	Yes	Yes	No	No
2	5	2948	1	56	No	No	No	No	No	No	Yes	Yes	No	No
3	5	2887	1	55	No	No	No	No	No	No	Yes	Yes	No	No
4	5	2456	1	46	No	No	No	No	No	No	No	Yes	No	No
5	5	2333	1	44	No	No	No	No	No	No	No	Yes	No	No
6	5	2089	1	39	No	No	No	No	No	No	No	No	No	No
7	5	1935	1	37	No	No	No	No	No	No	No	No	No	No
8	5	1843	1	35	No	No	No	No	No	No	No	No	No	No
9	5	1474	1	28	No	No	No	No	No	No	No	No	No	No
10	5	1382	1	26	No	No	No	No	No	No	No	No	No	No
11	5	1382	1	26	No	No	No	No	No	No	No	No	No	No
12	5	1320	1	25	No	No	No	No	No	No	No	No	No	No
13	5	1197	1	23	No	No	No	No	No	No	No	No	No	No
14	5	1105	1	21	No	No	No	No	No	No	No	No	No	No
15	5	1105	1	21	No	No	No	No	No	No	No	No	No	No
16	5	1075	1	20	No	No	No	No	No	No	No	No	No	No
17	5	615	1	12	No	No	No	No	No	No	No	No	No	No
18	5	338	1	6	No	No	No	No	No	No	No	No	No	No
19	5	307	1	6	No	No	No	No	No	No	No	No	No	No
20	5	123	1	2	No	No	No	No	No	No	No	No	No	No
21	5	92	1	2	No	No	No	No	No	No	No	No	No	No
22	5	92	1	2	No	No	No	No	No	No	No	No	No	No
23	5	61	1	1	No	No	No	No	No	No	No	No	No	No
24	5	61	1	1	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	3	5	0	0

Warrant 3 Condition A

Orientation	W
Total Stopped Delay Per Vehicle on Minor Approach (s)	610.8
Number of Lanes on Minor Street Approach	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	9:50
Delay Condition Met	Yes
Volume on Minor Street Approach During Same Hour	58
High Minor Volume Condition Met	No
Total Entering Volume on All Approaches During Same Hour	3129
Number of Approaches on Intersection	3
Total Volume Condition Met	Yes
Warrant Met for Approach	No
Warrant Met for Intersection	**No**

Signal Warrants Report For Intersection 6: Date Palm Drive / East Palm Drive

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	N, S
Minor Approaches	W
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets
	N	S	W
1	1601	24	0
2	1537	23	0
3	1505	23	0
4	1281	19	0
5	1217	18	0
6	1089	16	0
7	1009	15	0
8	961	14	0
9	768	12	0
10	720	11	0
11	720	11	0
12	688	10	0
13	624	9	0
14	576	9	0
15	576	9	0
16	560	8	0
17	320	5	0
18	176	3	0
19	160	2	0
20	64	1	0
21	48	1	0
22	48	1	0
23	32	0	0
24	32	0	0

Warrant Analysis by Hour

Hour	Major Lanes		Minor Lanes		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	4	1625	1	0	No	No	No	No	No	No	No	No	No	No
2	4	1560	1	0	No	No	No	No	No	No	No	No	No	No
3	4	1528	1	0	No	No	No	No	No	No	No	No	No	No
4	4	1300	1	0	No	No	No	No	No	No	No	No	No	No
5	4	1235	1	0	No	No	No	No	No	No	No	No	No	No
6	4	1105	1	0	No	No	No	No	No	No	No	No	No	No
7	4	1024	1	0	No	No	No	No	No	No	No	No	No	No
8	4	975	1	0	No	No	No	No	No	No	No	No	No	No
9	4	780	1	0	No	No	No	No	No	No	No	No	No	No
10	4	731	1	0	No	No	No	No	No	No	No	No	No	No
11	4	731	1	0	No	No	No	No	No	No	No	No	No	No
12	4	698	1	0	No	No	No	No	No	No	No	No	No	No
13	4	633	1	0	No	No	No	No	No	No	No	No	No	No
14	4	585	1	0	No	No	No	No	No	No	No	No	No	No
15	4	585	1	0	No	No	No	No	No	No	No	No	No	No
16	4	568	1	0	No	No	No	No	No	No	No	No	No	No
17	4	325	1	0	No	No	No	No	No	No	No	No	No	No
18	4	179	1	0	No	No	No	No	No	No	No	No	No	No
19	4	162	1	0	No	No	No	No	No	No	No	No	No	No
20	4	65	1	0	No	No	No	No	No	No	No	No	No	No
21	4	49	1	0	No	No	No	No	No	No	No	No	No	No
22	4	49	1	0	No	No	No	No	No	No	No	No	No	No
23	4	32	1	0	No	No	No	No	No	No	No	No	No	No
24	4	32	1	0	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	W
Total Stopped Delay Per Vehicle on Minor Approach (s)	17.2
Number of Lanes on Minor Street Approach	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:00
Delay Condition Met	No
Volume on Minor Street Approach During Same Hour	0
High Minor Volume Condition Met	No
Total Entering Volume on All Approaches During Same Hour	1625
Number of Approaches on Intersection	3
Total Volume Condition Met	Yes
Warrant Met for Approach	No
Warrant Met for Intersection	**No**

Signal Warrants Report For Intersection 7: North Project Driveway 2 / Buddy Rogers Avenue

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	E, W
Minor Approaches	S
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets
	E	W	S
1	31	29	0
2	30	28	0
3	29	27	0
4	25	23	0
5	24	22	0
6	21	20	0
7	20	18	0
8	19	17	0
9	15	14	0
10	14	13	0
11	14	13	0
12	13	12	0
13	12	11	0
14	11	10	0
15	11	10	0
16	11	10	0
17	6	6	0
18	3	3	0
19	3	3	0
20	1	1	0
21	1	1	0
22	1	1	0
23	1	1	0
24	1	1	0

Warrant Analysis by Hour

Hour	Major Lanes		Minor Lanes		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	2	60	1	0	No	No	No	No	No	No	No	No	No	No
2	2	58	1	0	No	No	No	No	No	No	No	No	No	No
3	2	56	1	0	No	No	No	No	No	No	No	No	No	No
4	2	48	1	0	No	No	No	No	No	No	No	No	No	No
5	2	46	1	0	No	No	No	No	No	No	No	No	No	No
6	2	41	1	0	No	No	No	No	No	No	No	No	No	No
7	2	38	1	0	No	No	No	No	No	No	No	No	No	No
8	2	36	1	0	No	No	No	No	No	No	No	No	No	No
9	2	29	1	0	No	No	No	No	No	No	No	No	No	No
10	2	27	1	0	No	No	No	No	No	No	No	No	No	No
11	2	27	1	0	No	No	No	No	No	No	No	No	No	No
12	2	25	1	0	No	No	No	No	No	No	No	No	No	No
13	2	23	1	0	No	No	No	No	No	No	No	No	No	No
14	2	21	1	0	No	No	No	No	No	No	No	No	No	No
15	2	21	1	0	No	No	No	No	No	No	No	No	No	No
16	2	21	1	0	No	No	No	No	No	No	No	No	No	No
17	2	12	1	0	No	No	No	No	No	No	No	No	No	No
18	2	6	1	0	No	No	No	No	No	No	No	No	No	No
19	2	6	1	0	No	No	No	No	No	No	No	No	No	No
20	2	2	1	0	No	No	No	No	No	No	No	No	No	No
21	2	2	1	0	No	No	No	No	No	No	No	No	No	No
22	2	2	1	0	No	No	No	No	No	No	No	No	No	No
23	2	2	1	0	No	No	No	No	No	No	No	No	No	No
24	2	2	1	0	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	S
Total Stopped Delay Per Vehicle on Minor Approach (s)	8.6
Number of Lanes on Minor Street Approach	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:00
Delay Condition Met	No
Volume on Minor Street Approach During Same Hour	0
High Minor Volume Condition Met	No
Total Entering Volume on All Approaches During Same Hour	60
Number of Approaches on Intersection	3
Total Volume Condition Met	No
Warrant Met for Approach	No
Warrant Met for Intersection	**No**

Signal Warrants Report For Intersection 8: Monty Hall Drive / Buddy Rogers Avenue

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	E, W
Minor Approaches	S, N
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets	
	E	W	S	N
1	58	26	39	31
2	56	25	37	30
3	55	24	37	29
4	46	21	31	25
5	44	20	30	24
6	39	18	27	21
7	37	16	25	20
8	35	16	23	19
9	28	12	19	15
10	26	12	18	14
11	26	12	18	14
12	25	11	17	13
13	23	10	15	12
14	21	9	14	11
15	21	9	14	11
16	20	9	14	11
17	12	5	8	6
18	6	3	4	3
19	6	3	4	3
20	2	1	2	1
21	2	1	1	1
22	2	1	1	1
23	1	1	1	1
24	1	1	1	1

Warrant Analysis by Hour

Hour	Major Lanes		Minor Lanes		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	2	84	2	70	No	No	No	No	No	No	No	No	No	No
2	2	81	2	67	No	No	No	No	No	No	No	No	No	No
3	2	79	2	66	No	No	No	No	No	No	No	No	No	No
4	2	67	2	56	No	No	No	No	No	No	No	No	No	No
5	2	64	2	54	No	No	No	No	No	No	No	No	No	No
6	2	57	2	48	No	No	No	No	No	No	No	No	No	No
7	2	53	2	45	No	No	No	No	No	No	No	No	No	No
8	2	51	2	42	No	No	No	No	No	No	No	No	No	No
9	2	40	2	34	No	No	No	No	No	No	No	No	No	No
10	2	38	2	32	No	No	No	No	No	No	No	No	No	No
11	2	38	2	32	No	No	No	No	No	No	No	No	No	No
12	2	36	2	30	No	No	No	No	No	No	No	No	No	No
13	2	33	2	27	No	No	No	No	No	No	No	No	No	No
14	2	30	2	25	No	No	No	No	No	No	No	No	No	No
15	2	30	2	25	No	No	No	No	No	No	No	No	No	No
16	2	29	2	25	No	No	No	No	No	No	No	No	No	No
17	2	17	2	14	No	No	No	No	No	No	No	No	No	No
18	2	9	2	7	No	No	No	No	No	No	No	No	No	No
19	2	9	2	7	No	No	No	No	No	No	No	No	No	No
20	2	3	2	3	No	No	No	No	No	No	No	No	No	No
21	2	3	2	2	No	No	No	No	No	No	No	No	No	No
22	2	3	2	2	No	No	No	No	No	No	No	No	No	No
23	2	2	2	2	No	No	No	No	No	No	No	No	No	No
24	2	2	2	2	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	S	N
Total Stopped Delay Per Vehicle on Minor Approach (s)	7.5	7.6
Number of Lanes on Minor Street Approach	1	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:04	0:03
Delay Condition Met	No	No
Volume on Minor Street Approach During Same Hour	39	31
High Minor Volume Condition Met	No	No
Total Entering Volume on All Approaches During Same Hour	154	154
Number of Approaches on Intersection	4	4
Total Volume Condition Met	No	No
Warrant Met for Approach	No	No
Warrant Met for Intersection	**No**	

Signal Warrants Report For Intersection 16: Cathedral Canyon Drive / Paseo Real

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	N, S
Minor Approaches	E, W
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets	
	N	S	E	W
1	723	668	39	43
2	694	641	37	41
3	680	628	37	40
4	578	534	31	34
5	549	508	30	33
6	492	454	27	29
7	455	421	25	27
8	434	401	23	26
9	347	321	19	21
10	325	301	18	19
11	325	301	18	19
12	311	287	17	18
13	282	261	15	17
14	260	240	14	15
15	260	240	14	15
16	253	234	14	15
17	145	134	8	9
18	80	73	4	5
19	72	67	4	4
20	29	27	2	2
21	22	20	1	1
22	22	20	1	1
23	14	13	1	1
24	14	13	1	1

Warrant Analysis by Hour

Hour	Major Lanes		Minor Lanes		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	6	1391	2	82	No	No	No	No	No	No	No	Yes	No	No
2	6	1335	2	78	No	No	No	No	No	No	No	No	No	No
3	6	1308	2	77	No	No	No	No	No	No	No	No	No	No
4	6	1112	2	65	No	No	No	No	No	No	No	No	No	No
5	6	1057	2	63	No	No	No	No	No	No	No	No	No	No
6	6	946	2	56	No	No	No	No	No	No	No	No	No	No
7	6	876	2	52	No	No	No	No	No	No	No	No	No	No
8	6	835	2	49	No	No	No	No	No	No	No	No	No	No
9	6	668	2	40	No	No	No	No	No	No	No	No	No	No
10	6	626	2	37	No	No	No	No	No	No	No	No	No	No
11	6	626	2	37	No	No	No	No	No	No	No	No	No	No
12	6	598	2	35	No	No	No	No	No	No	No	No	No	No
13	6	543	2	32	No	No	No	No	No	No	No	No	No	No
14	6	500	2	29	No	No	No	No	No	No	No	No	No	No
15	6	500	2	29	No	No	No	No	No	No	No	No	No	No
16	6	487	2	29	No	No	No	No	No	No	No	No	No	No
17	6	279	2	17	No	No	No	No	No	No	No	No	No	No
18	6	153	2	9	No	No	No	No	No	No	No	No	No	No
19	6	139	2	8	No	No	No	No	No	No	No	No	No	No
20	6	56	2	4	No	No	No	No	No	No	No	No	No	No
21	6	42	2	2	No	No	No	No	No	No	No	No	No	No
22	6	42	2	2	No	No	No	No	No	No	No	No	No	No
23	6	27	2	2	No	No	No	No	No	No	No	No	No	No
24	6	27	2	2	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	1	0	0

Warrant 3 Condition A

Orientation	E	W
Total Stopped Delay Per Vehicle on Minor Approach (s)	24.2	24.9
Number of Lanes on Minor Street Approach	1	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:15	0:17
Delay Condition Met	No	No
Volume on Minor Street Approach During Same Hour	39	43
High Minor Volume Condition Met	No	No
Total Entering Volume on All Approaches During Same Hour	1473	1473
Number of Approaches on Intersection	4	4
Total Volume Condition Met	Yes	Yes
Warrant Met for Approach	No	No
Warrant Met for Intersection	**No**	

Signal Warrants Report For Intersection 27: Van Fleet Street / B Street-West Project Driveway

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	S, N
Minor Approaches	E, W
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets	
	S	N	E	W
1	56	87	0	11
2	54	84	0	11
3	53	82	0	10
4	45	70	0	9
5	43	66	0	8
6	38	59	0	7
7	35	55	0	7
8	34	52	0	7
9	27	42	0	5
10	25	39	0	5
11	25	39	0	5
12	24	37	0	5
13	22	34	0	4
14	20	31	0	4
15	20	31	0	4
16	20	30	0	4
17	11	17	0	2
18	6	10	0	1
19	6	9	0	1
20	2	3	0	0
21	2	3	0	0
22	2	3	0	0
23	1	2	0	0
24	1	2	0	0

Warrant Analysis by Hour

Hour	Major Lanes		Minor Lanes		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	2	143	2	11	No	No	No	No	No	No	No	No	No	No
2	2	138	2	11	No	No	No	No	No	No	No	No	No	No
3	2	135	2	10	No	No	No	No	No	No	No	No	No	No
4	2	115	2	9	No	No	No	No	No	No	No	No	No	No
5	2	109	2	8	No	No	No	No	No	No	No	No	No	No
6	2	97	2	7	No	No	No	No	No	No	No	No	No	No
7	2	90	2	7	No	No	No	No	No	No	No	No	No	No
8	2	86	2	7	No	No	No	No	No	No	No	No	No	No
9	2	69	2	5	No	No	No	No	No	No	No	No	No	No
10	2	64	2	5	No	No	No	No	No	No	No	No	No	No
11	2	64	2	5	No	No	No	No	No	No	No	No	No	No
12	2	61	2	5	No	No	No	No	No	No	No	No	No	No
13	2	56	2	4	No	No	No	No	No	No	No	No	No	No
14	2	51	2	4	No	No	No	No	No	No	No	No	No	No
15	2	51	2	4	No	No	No	No	No	No	No	No	No	No
16	2	50	2	4	No	No	No	No	No	No	No	No	No	No
17	2	28	2	2	No	No	No	No	No	No	No	No	No	No
18	2	16	2	1	No	No	No	No	No	No	No	No	No	No
19	2	15	2	1	No	No	No	No	No	No	No	No	No	No
20	2	5	2	0	No	No	No	No	No	No	No	No	No	No
21	2	5	2	0	No	No	No	No	No	No	No	No	No	No
22	2	5	2	0	No	No	No	No	No	No	No	No	No	No
23	2	3	2	0	No	No	No	No	No	No	No	No	No	No
24	2	3	2	0	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	E	W
Total Stopped Delay Per Vehicle on Minor Approach (s)	9.5	9.4
Number of Lanes on Minor Street Approach	1	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:00	0:01
Delay Condition Met	No	No
Volume on Minor Street Approach During Same Hour	0	11
High Minor Volume Condition Met	No	No
Total Entering Volume on All Approaches During Same Hour	154	154
Number of Approaches on Intersection	4	4
Total Volume Condition Met	No	No
Warrant Met for Approach	No	No
Warrant Met for Intersection	**No**	

Signal Warrants Report For Intersection 28: Van Fleet Street / D Street

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	S, N
Minor Approaches	E, W
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets	
	S	N	E	W
1	47	68	7	14
2	45	65	7	13
3	44	64	7	13
4	38	54	6	11
5	36	52	5	11
6	32	46	5	10
7	30	43	4	9
8	28	41	4	8
9	23	33	3	7
10	21	31	3	6
11	21	31	3	6
12	20	29	3	6
13	18	27	3	5
14	17	24	3	5
15	17	24	3	5
16	16	24	2	5
17	9	14	1	3
18	5	7	1	2
19	5	7	1	1
20	2	3	0	1
21	1	2	0	0
22	1	2	0	0
23	1	1	0	0
24	1	1	0	0

Warrant Analysis by Hour

Hour	Major Lanes		Minor Lanes		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	2	115	2	21	No	No	No	No	No	No	No	No	No	No
2	2	110	2	20	No	No	No	No	No	No	No	No	No	No
3	2	108	2	20	No	No	No	No	No	No	No	No	No	No
4	2	92	2	17	No	No	No	No	No	No	No	No	No	No
5	2	88	2	16	No	No	No	No	No	No	No	No	No	No
6	2	78	2	15	No	No	No	No	No	No	No	No	No	No
7	2	73	2	13	No	No	No	No	No	No	No	No	No	No
8	2	69	2	12	No	No	No	No	No	No	No	No	No	No
9	2	56	2	10	No	No	No	No	No	No	No	No	No	No
10	2	52	2	9	No	No	No	No	No	No	No	No	No	No
11	2	52	2	9	No	No	No	No	No	No	No	No	No	No
12	2	49	2	9	No	No	No	No	No	No	No	No	No	No
13	2	45	2	8	No	No	No	No	No	No	No	No	No	No
14	2	41	2	8	No	No	No	No	No	No	No	No	No	No
15	2	41	2	8	No	No	No	No	No	No	No	No	No	No
16	2	40	2	7	No	No	No	No	No	No	No	No	No	No
17	2	23	2	4	No	No	No	No	No	No	No	No	No	No
18	2	12	2	3	No	No	No	No	No	No	No	No	No	No
19	2	12	2	2	No	No	No	No	No	No	No	No	No	No
20	2	5	2	1	No	No	No	No	No	No	No	No	No	No
21	2	3	2	0	No	No	No	No	No	No	No	No	No	No
22	2	3	2	0	No	No	No	No	No	No	No	No	No	No
23	2	2	2	0	No	No	No	No	No	No	No	No	No	No
24	2	2	2	0	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	E	W
Total Stopped Delay Per Vehicle on Minor Approach (s)	9.1	9.5
Number of Lanes on Minor Street Approach	1	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:01	0:02
Delay Condition Met	No	No
Volume on Minor Street Approach During Same Hour	7	14
High Minor Volume Condition Met	No	No
Total Entering Volume on All Approaches During Same Hour	136	136
Number of Approaches on Intersection	4	4
Total Volume Condition Met	No	No
Warrant Met for Approach	No	No
Warrant Met for Intersection	**No**	

Signal Warrants Report For Intersection 29: South Project Driveway / D Street

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	E, W
Minor Approaches	N
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets
	E	W	N
1	12	7	0
2	12	7	0
3	11	7	0
4	10	6	0
5	9	5	0
6	8	5	0
7	8	4	0
8	7	4	0
9	6	3	0
10	5	3	0
11	5	3	0
12	5	3	0
13	5	3	0
14	4	3	0
15	4	3	0
16	4	2	0
17	2	1	0
18	1	1	0
19	1	1	0
20	0	0	0
21	0	0	0
22	0	0	0
23	0	0	0
24	0	0	0

Warrant Analysis by Hour

Hour	Major Lanes		Minor Lanes		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	2	19	1	0	No	No	No	No	No	No	No	No	No	No
2	2	19	1	0	No	No	No	No	No	No	No	No	No	No
3	2	18	1	0	No	No	No	No	No	No	No	No	No	No
4	2	16	1	0	No	No	No	No	No	No	No	No	No	No
5	2	14	1	0	No	No	No	No	No	No	No	No	No	No
6	2	13	1	0	No	No	No	No	No	No	No	No	No	No
7	2	12	1	0	No	No	No	No	No	No	No	No	No	No
8	2	11	1	0	No	No	No	No	No	No	No	No	No	No
9	2	9	1	0	No	No	No	No	No	No	No	No	No	No
10	2	8	1	0	No	No	No	No	No	No	No	No	No	No
11	2	8	1	0	No	No	No	No	No	No	No	No	No	No
12	2	8	1	0	No	No	No	No	No	No	No	No	No	No
13	2	8	1	0	No	No	No	No	No	No	No	No	No	No
14	2	7	1	0	No	No	No	No	No	No	No	No	No	No
15	2	7	1	0	No	No	No	No	No	No	No	No	No	No
16	2	6	1	0	No	No	No	No	No	No	No	No	No	No
17	2	3	1	0	No	No	No	No	No	No	No	No	No	No
18	2	2	1	0	No	No	No	No	No	No	No	No	No	No
19	2	2	1	0	No	No	No	No	No	No	No	No	No	No
20	2	0	1	0	No	No	No	No	No	No	No	No	No	No
21	2	0	1	0	No	No	No	No	No	No	No	No	No	No
22	2	0	1	0	No	No	No	No	No	No	No	No	No	No
23	2	0	1	0	No	No	No	No	No	No	No	No	No	No
24	2	0	1	0	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	N
Total Stopped Delay Per Vehicle on Minor Approach (s)	8.5
Number of Lanes on Minor Street Approach	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:00
Delay Condition Met	No
Volume on Minor Street Approach During Same Hour	0
High Minor Volume Condition Met	No
Total Entering Volume on All Approaches During Same Hour	19
Number of Approaches on Intersection	3
Total Volume Condition Met	No
Warrant Met for Approach	No
Warrant Met for Intersection	**No**

Signal Warrants Report For Intersection 1: North Project Driveway 1 / Buddy Rogers Avenue

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	E, W
Minor Approaches	S, N
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets	
	E	W	S	N
1	136	77	138	0
2	131	74	132	0
3	128	72	130	0
4	109	62	110	0
5	103	59	105	0
6	92	52	94	0
7	86	49	87	0
8	82	46	83	0
9	65	37	66	0
10	61	35	62	0
11	61	35	62	0
12	58	33	59	0
13	53	30	54	0
14	49	28	50	0
15	49	28	50	0
16	48	27	48	0
17	27	15	28	0
18	15	8	15	0
19	14	8	14	0
20	5	3	6	0
21	4	2	4	0
22	4	2	4	0
23	3	2	3	0
24	3	2	3	0

Warrant Analysis by Hour

Hour	Major Lanes		Minor Lanes		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	2	213	3	138	No	No	No	No	No	No	No	No	No	No
2	2	205	3	132	No	No	No	No	No	No	No	No	No	No
3	2	200	3	130	No	No	No	No	No	No	No	No	No	No
4	2	171	3	110	No	No	No	No	No	No	No	No	No	No
5	2	162	3	105	No	No	No	No	No	No	No	No	No	No
6	2	144	3	94	No	No	No	No	No	No	No	No	No	No
7	2	135	3	87	No	No	No	No	No	No	No	No	No	No
8	2	128	3	83	No	No	No	No	No	No	No	No	No	No
9	2	102	3	66	No	No	No	No	No	No	No	No	No	No
10	2	96	3	62	No	No	No	No	No	No	No	No	No	No
11	2	96	3	62	No	No	No	No	No	No	No	No	No	No
12	2	91	3	59	No	No	No	No	No	No	No	No	No	No
13	2	83	3	54	No	No	No	No	No	No	No	No	No	No
14	2	77	3	50	No	No	No	No	No	No	No	No	No	No
15	2	77	3	50	No	No	No	No	No	No	No	No	No	No
16	2	75	3	48	No	No	No	No	No	No	No	No	No	No
17	2	42	3	28	No	No	No	No	No	No	No	No	No	No
18	2	23	3	15	No	No	No	No	No	No	No	No	No	No
19	2	22	3	14	No	No	No	No	No	No	No	No	No	No
20	2	8	3	6	No	No	No	No	No	No	No	No	No	No
21	2	6	3	4	No	No	No	No	No	No	No	No	No	No
22	2	6	3	4	No	No	No	No	No	No	No	No	No	No
23	2	5	3	3	No	No	No	No	No	No	No	No	No	No
24	2	5	3	3	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	S	N
Total Stopped Delay Per Vehicle on Minor Approach (s)	9.7	10.8
Number of Lanes on Minor Street Approach	2	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:22	0:00
Delay Condition Met	No	No
Volume on Minor Street Approach During Same Hour	138	0
High Minor Volume Condition Met	No	No
Total Entering Volume on All Approaches During Same Hour	351	351
Number of Approaches on Intersection	4	4
Total Volume Condition Met	No	No
Warrant Met for Approach	No	No
Warrant Met for Intersection	**No**	

Signal Warrants Report For Intersection 2: Date Palm Drive / Buddy Rogers Avenue

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	Yes
#2	Four Hour Vehicular Volume	Yes
#3	Peak Hour	Yes

Intersection Warrants Parameters

Major Approaches	S, N
Minor Approaches	W
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets
	S	N	W
1	2034	1729	138
2	1953	1660	132
3	1912	1625	130
4	1627	1383	110
5	1546	1314	105
6	1383	1176	94
7	1281	1089	87
8	1220	1037	83
9	976	830	66
10	915	778	62
11	915	778	62
12	875	743	59
13	793	674	54
14	732	622	50
15	732	622	50
16	712	605	48
17	407	346	28
18	224	190	15
19	203	173	14
20	81	69	6
21	61	52	4
22	61	52	4
23	41	35	3
24	41	35	3

Warrant Analysis by Hour

Hour	Major Lanes		Minor Lanes		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	5	3763	1	138	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
2	5	3613	1	132	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
3	5	3537	1	130	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
4	5	3010	1	110	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
5	5	2860	1	105	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
6	5	2559	1	94	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes	No
7	5	2370	1	87	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes	No
8	5	2257	1	83	No	No	No	No	Yes	Yes	Yes	Yes	Yes	No
9	5	1806	1	66	No	No	No	No	No	Yes	Yes	Yes	No	No
10	5	1693	1	62	No	No	No	No	No	Yes	Yes	Yes	No	No
11	5	1693	1	62	No	No	No	No	No	Yes	Yes	Yes	No	No
12	5	1618	1	59	No	No	No	No	No	No	Yes	Yes	No	No
13	5	1467	1	54	No	No	No	No	No	No	Yes	Yes	No	No
14	5	1354	1	50	No	No	No	No	No	No	No	Yes	No	No
15	5	1354	1	50	No	No	No	No	No	No	No	Yes	No	No
16	5	1317	1	48	No	No	No	No	No	No	No	Yes	No	No
17	5	753	1	28	No	No	No	No	No	No	No	No	No	No
18	5	414	1	15	No	No	No	No	No	No	No	No	No	No
19	5	376	1	14	No	No	No	No	No	No	No	No	No	No
20	5	150	1	6	No	No	No	No	No	No	No	No	No	No
21	5	113	1	4	No	No	No	No	No	No	No	No	No	No
22	5	113	1	4	No	No	No	No	No	No	No	No	No	No
23	5	76	1	3	No	No	No	No	No	No	No	No	No	No
24	5	76	1	3	No	No	No	No	No	No	No	No	No	No
Hours Met					0	3	5	7	8	11	13	16	8	5

Warrant 3 Condition A

Orientation	W
Total Stopped Delay Per Vehicle on Minor Approach (s)	4080.2
Number of Lanes on Minor Street Approach	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	156:24
Delay Condition Met	Yes
Volume on Minor Street Approach During Same Hour	138
High Minor Volume Condition Met	Yes
Total Entering Volume on All Approaches During Same Hour	3901
Number of Approaches on Intersection	3
Total Volume Condition Met	Yes
Warrant Met for Approach	Yes
Warrant Met for Intersection	**Yes**

Signal Warrants Report For Intersection 8: Monty Hall Drive / Buddy Rogers Avenue

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	E, W
Minor Approaches	S, N
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets	
	E	W	S	N
1	73	53	68	47
2	70	51	65	45
3	69	50	64	44
4	58	42	54	38
5	55	40	52	36
6	50	36	46	32
7	46	33	43	30
8	44	32	41	28
9	35	25	33	23
10	33	24	31	21
11	33	24	31	21
12	31	23	29	20
13	28	21	27	18
14	26	19	24	17
15	26	19	24	17
16	26	19	24	16
17	15	11	14	9
18	8	6	7	5
19	7	5	7	5
20	3	2	3	2
21	2	2	2	1
22	2	2	2	1
23	1	1	1	1
24	1	1	1	1

Warrant Analysis by Hour

Hour	Major Lanes		Minor Lanes		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	2	126	2	115	No	No	No	No	No	No	No	No	No	No
2	2	121	2	110	No	No	No	No	No	No	No	No	No	No
3	2	119	2	108	No	No	No	No	No	No	No	No	No	No
4	2	100	2	92	No	No	No	No	No	No	No	No	No	No
5	2	95	2	88	No	No	No	No	No	No	No	No	No	No
6	2	86	2	78	No	No	No	No	No	No	No	No	No	No
7	2	79	2	73	No	No	No	No	No	No	No	No	No	No
8	2	76	2	69	No	No	No	No	No	No	No	No	No	No
9	2	60	2	56	No	No	No	No	No	No	No	No	No	No
10	2	57	2	52	No	No	No	No	No	No	No	No	No	No
11	2	57	2	52	No	No	No	No	No	No	No	No	No	No
12	2	54	2	49	No	No	No	No	No	No	No	No	No	No
13	2	49	2	45	No	No	No	No	No	No	No	No	No	No
14	2	45	2	41	No	No	No	No	No	No	No	No	No	No
15	2	45	2	41	No	No	No	No	No	No	No	No	No	No
16	2	45	2	40	No	No	No	No	No	No	No	No	No	No
17	2	26	2	23	No	No	No	No	No	No	No	No	No	No
18	2	14	2	12	No	No	No	No	No	No	No	No	No	No
19	2	12	2	12	No	No	No	No	No	No	No	No	No	No
20	2	5	2	5	No	No	No	No	No	No	No	No	No	No
21	2	4	2	3	No	No	No	No	No	No	No	No	No	No
22	2	4	2	3	No	No	No	No	No	No	No	No	No	No
23	2	2	2	2	No	No	No	No	No	No	No	No	No	No
24	2	2	2	2	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	S	N
Total Stopped Delay Per Vehicle on Minor Approach (s)	7.5	7.9
Number of Lanes on Minor Street Approach	1	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:08	0:06
Delay Condition Met	No	No
Volume on Minor Street Approach During Same Hour	68	47
High Minor Volume Condition Met	No	No
Total Entering Volume on All Approaches During Same Hour	241	241
Number of Approaches on Intersection	4	4
Total Volume Condition Met	No	No
Warrant Met for Approach	No	No
Warrant Met for Intersection	**No**	

Signal Warrants Report For Intersection 16: Cathedral Canyon Drive / Paseo Real

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	N, S
Minor Approaches	E, W
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets	
	N	S	E	W
1	834	1083	29	30
2	801	1040	28	29
3	784	1018	27	28
4	667	866	23	24
5	634	823	22	23
6	567	736	20	20
7	525	682	18	19
8	500	650	17	18
9	400	520	14	14
10	375	487	13	14
11	375	487	13	14
12	359	466	12	13
13	325	422	11	12
14	300	390	10	11
15	300	390	10	11
16	292	379	10	11
17	167	217	6	6
18	92	119	3	3
19	83	108	3	3
20	33	43	1	1
21	25	32	1	1
22	25	32	1	1
23	17	22	1	1
24	17	22	1	1

Warrant Analysis by Hour

Hour	Major Lanes		Minor Lanes		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	6	1917	2	59	No	No	No	No	No	No	No	No	No	No
2	6	1841	2	57	No	No	No	No	No	No	No	No	No	No
3	6	1802	2	55	No	No	No	No	No	No	No	No	No	No
4	6	1533	2	47	No	No	No	No	No	No	No	No	No	No
5	6	1457	2	45	No	No	No	No	No	No	No	No	No	No
6	6	1303	2	40	No	No	No	No	No	No	No	No	No	No
7	6	1207	2	37	No	No	No	No	No	No	No	No	No	No
8	6	1150	2	35	No	No	No	No	No	No	No	No	No	No
9	6	920	2	28	No	No	No	No	No	No	No	No	No	No
10	6	862	2	27	No	No	No	No	No	No	No	No	No	No
11	6	862	2	27	No	No	No	No	No	No	No	No	No	No
12	6	825	2	25	No	No	No	No	No	No	No	No	No	No
13	6	747	2	23	No	No	No	No	No	No	No	No	No	No
14	6	690	2	21	No	No	No	No	No	No	No	No	No	No
15	6	690	2	21	No	No	No	No	No	No	No	No	No	No
16	6	671	2	21	No	No	No	No	No	No	No	No	No	No
17	6	384	2	12	No	No	No	No	No	No	No	No	No	No
18	6	211	2	6	No	No	No	No	No	No	No	No	No	No
19	6	191	2	6	No	No	No	No	No	No	No	No	No	No
20	6	76	2	2	No	No	No	No	No	No	No	No	No	No
21	6	57	2	2	No	No	No	No	No	No	No	No	No	No
22	6	57	2	2	No	No	No	No	No	No	No	No	No	No
23	6	39	2	2	No	No	No	No	No	No	No	No	No	No
24	6	39	2	2	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	E	W
Total Stopped Delay Per Vehicle on Minor Approach (s)	70.1	31.1
Number of Lanes on Minor Street Approach	1	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:33	0:15
Delay Condition Met	No	No
Volume on Minor Street Approach During Same Hour	29	30
High Minor Volume Condition Met	No	No
Total Entering Volume on All Approaches During Same Hour	1976	1976
Number of Approaches on Intersection	4	4
Total Volume Condition Met	Yes	Yes
Warrant Met for Approach	No	No
Warrant Met for Intersection	**No**	

Intersection Level Of Service Report
Intersection 1: North Project Driveway 1 / Buddy Rogers Avenue

Control Type:	Two-way stop	Delay (sec / veh):	14.1
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			No			No		

Volumes

Name												
Base Volume Input [veh/h]	0	0	0	0	0	0	0	29	0	0	31	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	40	0	103	0	0	0	0	15	52	133	12	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	40	0	103	0	0	0	0	54	52	133	53	0
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	11	0	28	0	0	0	0	15	14	36	14	0
Total Analysis Volume [veh/h]	43	0	112	0	0	0	0	59	57	145	58	0
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	No	No		
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	No	No		
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.09	0.00	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.00	0.00
d_M, Delay for Movement [s/veh]	13.06	13.28	9.19	14.05	13.09	8.57	7.33	0.00	0.00	7.71	0.00	0.00
Movement LOS	B	B	A	B	B	A	A	A	A	A	A	A
95th-Percentile Queue Length [veh]	0.29	0.39	0.39	0.00	0.00	0.00	0.00	0.00	0.00	0.48	0.48	0.48
95th-Percentile Queue Length [ft]	7.18	9.74	9.74	0.00	0.00	0.00	0.00	0.00	0.00	11.96	11.96	11.96
d_A, Approach Delay [s/veh]	10.26			11.90			0.00			5.51		
Approach LOS	B			B			A			A		
d_I, Intersection Delay [s/veh]	5.72											
Intersection LOS	B											

Intersection Level Of Service Report
Intersection 2: Date Palm Drive / Buddy Rogers Avenue

Control Type:	Two-way stop	Delay (sec / veh):	3,128.1
Analysis Method:	HCM 2010	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	6.918

Intersection Setup

Name						
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	0	0	0
Pocket Length [ft]	150.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00		40.00		40.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

Volumes

Name						
Base Volume Input [veh/h]	4	492	513	25	29	14
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	2.97	2.97	2.97	2.97	1.33	1.33
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	40	0	0	93	72	31
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	52	1461	1524	167	111	50
Peak Hour Factor	0.9410	0.9410	0.9410	0.9410	0.9410	0.9410
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	14	388	405	44	29	13
Total Analysis Volume [veh/h]	55	1553	1620	177	118	53
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.16	0.02	0.02	0.00	6.92	0.19
d_M, Delay for Movement [s/veh]	17.63	0.00	0.00	0.00	3128.12	2929.81
Movement LOS	C	A	A	A	F	F
95th-Percentile Queue Length [veh]	0.57	0.00	0.00	0.00	21.37	21.37
95th-Percentile Queue Length [ft]	14.26	0.00	0.00	0.00	534.20	534.20
d_A, Approach Delay [s/veh]	0.60		0.00		3066.65	
Approach LOS	A		A		F	
d_I, Intersection Delay [s/veh]	146.91					
Intersection LOS	F					

Intersection Level Of Service Report
Intersection 3: Date Palm Drive / East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	45.2
Analysis Method:	HCM 2010	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.027

Intersection Setup

Name						
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	1	2	0	0	0
Pocket Length [ft]	230.00	230.00	195.00	100.00	100.00	100.00
Speed [mph]	40.00		40.00		40.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		Yes		No	

Volumes

Name						
Base Volume Input [veh/h]	339	121	149	1198	1174	347
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.46	1.46	1.16	1.16	1.76	1.76
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	31	0	0	21	31	40
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	526	177	173	1411	2097	651
Peak Hour Factor	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	141	48	47	379	564	175
Total Analysis Volume [veh/h]	566	190	186	1517	2255	700
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	1 - E Palm Canyon Drive
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Split	Split	Protected	Permissive	Permissive	Overlap
Signal group	1	0	3	8	4	4
Auxiliary Signal Groups						3,4
Lead / Lag	Lead	-	Lead	-	-	-
Minimum Green [s]	7	0	7	7	7	7
Maximum Green [s]	30	0	30	30	30	30
Amber [s]	3.0	0.0	3.0	3.0	3.0	3.0
All red [s]	1.0	0.0	1.0	1.0	1.0	1.0
Split [s]	22	0	11	38	27	27
Vehicle Extension [s]	3.0	0.0	3.0	3.0	3.0	3.0
Walk [s]	5	0	0	5	5	5
Pedestrian Clearance [s]	10	0	0	10	10	10
Rest In Walk	No			No	No	
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0
Minimum Recall	No		No	No	No	No
Maximum Recall	No		No	No	No	No
Pedestrian Recall	No		No	No	No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	R	L	C	C	R
C, Cycle Length [s]	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	2.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	0.00
g_i, Effective Green Time [s]	11	11	14	42	23	42
g / C, Green / Cycle	0.18	0.18	0.24	0.69	0.38	0.69
(v / s)_i Volume / Saturation Flow Rate	0.11	0.12	0.07	0.30	0.44	0.44
s, saturation flow rate [veh/h]	5168	1583	2741	5074	5074	1583
c, Capacity [veh/h]	906	277	675	3509	1956	1095
d1, Uniform Delay [s]	22.92	23.20	20.47	4.07	18.44	5.12
k, delay calibration	0.11	0.11	0.11	0.50	0.50	0.37
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.71	2.98	0.22	0.39	75.08	2.11
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

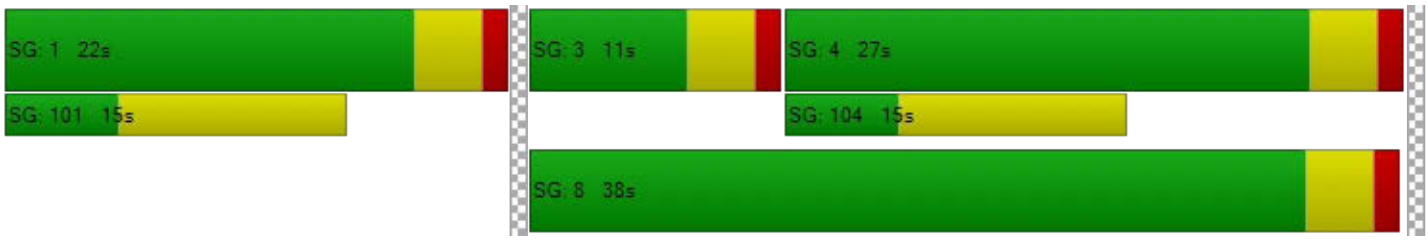
X, volume / capacity	0.63	0.68	0.28	0.43	1.15	0.64
d, Delay for Lane Group [s/veh]	23.64	26.18	20.69	4.47	93.52	7.23
Lane Group LOS	C	C	C	A	F	A
Critical Lane Group	No	Yes	No	No	Yes	Yes
50th-Percentile Queue Length [veh]	2.27	2.48	1.01	1.43	20.94	2.90
50th-Percentile Queue Length [ft]	56.65	61.95	25.30	35.70	523.62	72.60
95th-Percentile Queue Length [veh]	4.08	4.46	1.82	2.57	31.17	5.23
95th-Percentile Queue Length [ft]	101.97	111.51	45.54	64.25	779.19	130.68

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	23.64	26.18	20.69	4.47	93.52	7.23
Movement LOS	C	C	C	A	F	A
d_A, Approach Delay [s/veh]	24.28		6.24		73.08	
Approach LOS	C		A		E	
d_I, Intersection Delay [s/veh]	45.24					
Intersection LOS	D					
Intersection V/C	1.027					

Sequence

Ring 1	1	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 4: South Project Driveway-Allen Avenue / East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	4.2
Analysis Method:	HCM 2010	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.568

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	1	0	1	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	95.00	100.00	185.00	135.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	0	0	0	2	0	3	8	1365	0	0	1343	20
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	21	0	59	76	0	0	0	0	31
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	23	0	62	85	1583	0	0	1558	54
Peak Hour Factor	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	6	0	16	22	417	0	0	410	14
Total Analysis Volume [veh/h]	0	0	0	24	0	65	90	1668	0	0	1642	57
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	1 - E Palm Canyon Drive
Cycle Length [s]	80
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	0	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	7	0	0	7	0	0	7	0	0	7	0
Maximum Green [s]	0	30	0	0	30	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	19	0	0	19	0	0	61	0	0	61	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No			No			No			No	
Maximum Recall		No			No			No			No	
Pedestrian Recall		No			No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	L	C	L	C	R	L	C	R
C, Cycle Length [s]	80	80	80	80	80	80	80	80	80
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	2.00	0.00	2.00	0.00	0.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	6	6	6	66	66	66	66	66	66
g / C, Green / Cycle	0.08	0.08	0.08	0.82	0.82	0.82	0.82	0.82	0.82
(v / s)_i Volume / Saturation Flow Rate	0.00	0.02	0.04	0.30	0.47	0.00	0.00	0.46	0.04
s, saturation flow rate [veh/h]	1646	1412	1583	304	3547	1583	296	3547	1583
c, Capacity [veh/h]	171	168	121	283	2920	1304	277	2920	1304
d1, Uniform Delay [s]	0.00	36.31	35.55	7.61	2.35	0.00	0.00	2.32	1.29
k, delay calibration	0.11	0.11	0.11	0.50	0.50	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.00	0.39	3.65	2.95	0.82	0.00	0.00	0.79	0.06
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

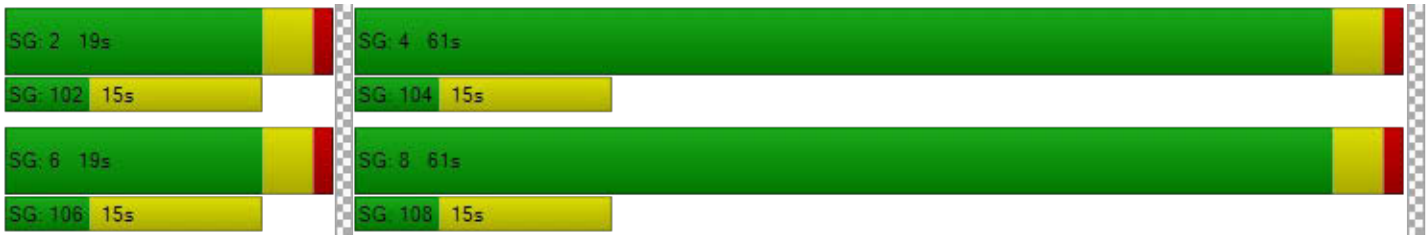
X, volume / capacity	0.00	0.14	0.54	0.32	0.57	0.00	0.00	0.56	0.04
d, Delay for Lane Group [s/veh]	0.00	36.70	39.21	10.55	3.17	0.00	0.00	3.11	1.36
Lane Group LOS	A	D	D	B	A	A	A	A	A
Critical Lane Group	No	No	Yes	No	Yes	No	No	No	No
50th-Percentile Queue Length [veh]	0.00	0.45	1.29	0.84	1.23	0.00	0.00	1.19	0.06
50th-Percentile Queue Length [ft]	0.00	11.23	32.20	21.06	30.79	0.00	0.00	29.84	1.42
95th-Percentile Queue Length [veh]	0.00	0.81	2.32	1.52	2.22	0.00	0.00	2.15	0.10
95th-Percentile Queue Length [ft]	0.00	20.22	57.97	37.91	55.42	0.00	0.00	53.72	2.55

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	36.70	39.21	39.21	10.55	3.17	0.00	0.00	3.11	1.36
Movement LOS	A	A	A	D	D	D	B	A	A	A	A	A
d_A, Approach Delay [s/veh]	0.00			38.53			3.55			3.05		
Approach LOS	A			D			A			A		
d_I, Intersection Delay [s/veh]	4.19											
Intersection LOS	A											
Intersection V/C	0.568											

Sequence

Ring 1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 5: Monty Hall Drive-Van Fleet Avenue / East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	13.5
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.649

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	1	0	1	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	45.00	100.00	100.00	105.00	100.00	130.00	125.00	100.00	180.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	11	1	44	10	9	12	13	1322	16	55	1290	10
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	18	0	0	52	67	58	0	14	45	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	13	1	69	12	10	66	82	1592	19	78	1541	12
Peak Hour Factor	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	0	18	3	3	17	21	415	5	20	402	3
Total Analysis Volume [veh/h]	14	1	72	13	10	69	86	1660	20	81	1607	13
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	1 - E Palm Canyon Drive
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	0	7	7	0	7	7	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	19	0	0	19	0	14	60	0	11	57	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	R	L	C	L	C	R	L	C	R
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	11	11	11	11	6	61	61	6	61	61
g / C, Green / Cycle	0.12	0.12	0.12	0.12	0.07	0.68	0.68	0.07	0.67	0.67
(v / s)_i Volume / Saturation Flow Rate	0.02	0.05	0.01	0.05	0.05	0.47	0.01	0.05	0.45	0.01
s, saturation flow rate [veh/h]	606	1583	1410	1614	1774	3547	1583	1774	3547	1583
c, Capacity [veh/h]	152	196	106	200	122	2396	1069	120	2391	1068
d1, Uniform Delay [s]	39.36	36.20	43.75	36.33	41.02	8.91	4.80	41.00	8.73	4.81
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.28	1.15	0.51	1.27	7.24	1.68	0.03	6.49	1.53	0.02
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

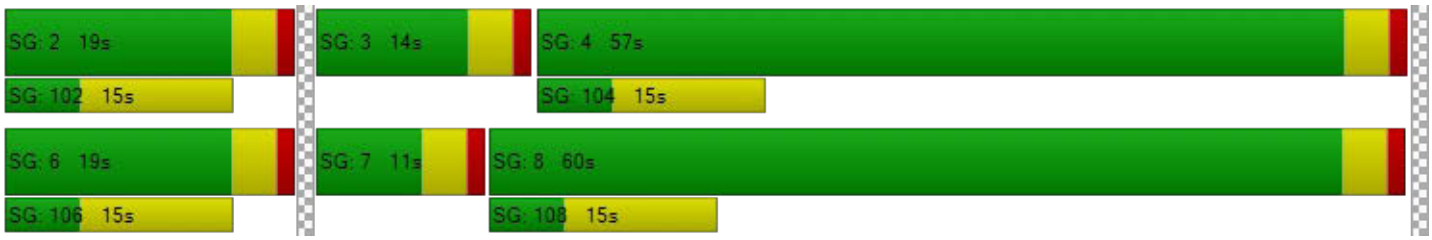
X, volume / capacity	0.10	0.37	0.12	0.40	0.71	0.69	0.02	0.68	0.67	0.01
d, Delay for Lane Group [s/veh]	39.64	37.35	44.26	37.60	48.26	10.59	4.83	47.49	10.26	4.84
Lane Group LOS	D	D	D	D	D	B	A	D	B	A
Critical Lane Group	No	No	No	Yes	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh]	0.32	1.46	0.29	1.61	2.05	8.00	0.11	1.91	7.56	0.07
50th-Percentile Queue Length [ft]	7.98	36.59	7.33	40.34	51.20	200.01	2.65	47.78	188.99	1.73
95th-Percentile Queue Length [veh]	0.57	2.63	0.53	2.90	3.69	12.64	0.19	3.44	12.07	0.12
95th-Percentile Queue Length [ft]	14.37	65.87	13.20	72.60	92.15	315.98	4.78	86.01	301.72	3.11

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	39.64	39.64	37.35	44.26	37.60	37.60	48.26	10.59	4.83	47.49	10.26	4.84
Movement LOS	D	D	D	D	D	D	D	B	A	D	B	A
d_A, Approach Delay [s/veh]	37.74			38.54			12.36			11.99		
Approach LOS	D			D			B			B		
d_I, Intersection Delay [s/veh]	13.45											
Intersection LOS	B											
Intersection V/C	0.649											

Sequence

Ring 1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 8: Monty Hall Drive / Buddy Rogers Avenue

Control Type:	All-way stop	Delay (sec / veh):	7.9
Analysis Method:	HCM 2010	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.161

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			No			No		

Volumes

Name												
Base Volume Input [veh/h]	20	5	4	17	6	0	1	13	6	7	25	12
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	67	0	0	0	0	0	0	52	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	27	7	72	23	8	0	1	17	8	61	33	16
Peak Hour Factor	0.8290	0.8290	0.8290	0.8290	0.8290	0.8290	0.8290	0.8290	0.8290	0.8290	0.8290	0.8290
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	8	2	22	7	2	0	0	5	2	18	10	5
Total Analysis Volume [veh/h]	33	8	87	28	10	0	1	21	10	74	40	19
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	899	784	844	826
Degree of Utilization, x	0.14	0.05	0.04	0.16

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.50	0.15	0.12	0.57
95th-Percentile Queue Length [ft]	12.38	3.82	2.95	14.30
Approach Delay [s/veh]	7.66	7.83	7.43	8.19
Approach LOS	A	A	A	A
Intersection Delay [s/veh]	7.87			
Intersection LOS	A			

Intersection Level Of Service Report

Intersection 9: Buddy Rogers Avenue/ East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	4.3
Analysis Method:	HCM 2010	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.599

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	10	1	39	19	2	28	16	1309	2	16	1255	17
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	125	0	0	97	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	12	1	45	22	2	32	19	1643	2	19	1553	20
Peak Hour Factor	0.9360	0.9360	0.9360	0.9360	0.9360	0.9360	0.9360	0.9360	0.9360	0.9360	0.9360	0.9360
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	0	12	6	1	9	5	439	1	5	415	5
Total Analysis Volume [veh/h]	13	1	48	24	2	34	20	1755	2	20	1659	21
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	1 - E Palm Canyon Drive
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	7	0	0	7	0	0	7	0	0	7	0
Maximum Green [s]	0	30	0	0	30	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	19	0	0	19	0	0	101	0	0	101	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No			No			No			No	
Maximum Recall		No			No			No			No	
Pedestrian Recall		No			No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	C	L	C	R	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	2.00	2.00	0.00	0.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	6	6	106	106	106	106	106	106
g / C, Green / Cycle	0.05	0.05	0.88	0.88	0.88	0.88	0.88	0.88
(v / s)_i Volume / Saturation Flow Rate	0.04	0.04	0.07	0.49	0.00	0.07	0.47	0.01
s, saturation flow rate [veh/h]	1636	1360	299	3547	1583	272	3547	1583
c, Capacity [veh/h]	121	113	284	3126	1395	261	3126	1395
d1, Uniform Delay [s]	55.96	56.21	4.05	1.67	0.85	4.49	1.59	0.86
k, delay calibration	0.11	0.11	0.50	0.50	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	3.30	3.86	0.48	0.73	0.00	0.57	0.65	0.02
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.51	0.53	0.07	0.56	0.00	0.08	0.53	0.02
d, Delay for Lane Group [s/veh]	59.26	60.07	4.52	2.41	0.85	5.06	2.24	0.88
Lane Group LOS	E	E	A	A	A	A	A	A
Critical Lane Group	No	Yes	No	Yes	No	No	No	No
50th-Percentile Queue Length [veh]	1.93	1.89	0.15	1.40	0.00	0.16	1.25	0.02
50th-Percentile Queue Length [ft]	48.26	47.30	3.64	35.00	0.05	3.97	31.30	0.52
95th-Percentile Queue Length [veh]	3.47	3.41	0.26	2.52	0.00	0.29	2.25	0.04
95th-Percentile Queue Length [ft]	86.86	85.15	6.55	63.00	0.09	7.15	56.34	0.94

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	59.26	59.26	59.26	60.07	60.07	60.07	4.52	2.41	0.85	5.06	2.24	0.88
Movement LOS	E	E	E	E	E	E	A	A	A	A	A	A
d_A, Approach Delay [s/veh]	59.26			60.07			2.43			2.25		
Approach LOS	E			E			A			A		
d_I, Intersection Delay [s/veh]	4.28											
Intersection LOS	A											
Intersection V/C	0.599											

Sequence

Ring 1	2	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 10: Cathedral Canyon Drive / East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	27.7
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.774

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	0	1	0	0	1	0	1
Pocket Length [ft]	100.00	100.00	70.00	90.00	100.00	100.00	238.00	100.00	100.00	190.00	100.00	270.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	71	113	50	127	131	92	110	1151	77	61	1111	120
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.33	1.33	1.33	1.33	1.33	1.33	1.31	1.31	1.31	1.16	1.16	1.16
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	18	61	0	0	0	46	0	14	36	47
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	94	150	85	230	174	122	144	1554	101	85	1325	186
Peak Hour Factor	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	24	39	22	59	45	32	37	402	26	22	343	48
Total Analysis Volume [veh/h]	97	155	88	238	180	126	149	1607	104	88	1370	192
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	1 - E Palm Canyon Drive
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Overlap	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	6	3	8	0	7	4	0
Auxiliary Signal Groups						3,6						
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	7	7	7	0	7	7	0
Maximum Green [s]	0	30	0	0	30	30	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	1.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	37	0	0	37	37	40	71	0	12	43	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	5	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	10	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No	No	No	No		No	No	
Maximum Recall		No			No	No	No	No		No	No	
Pedestrian Recall		No			No	No	No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	0.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	33	33	33	33	33	49	12	67	67	7	63	63
g / C, Green / Cycle	0.28	0.28	0.28	0.28	0.28	0.41	0.10	0.56	0.56	0.06	0.52	0.52
(v / s)_i Volume / Saturation Flow Rate	0.08	0.08	0.06	0.19	0.10	0.08	0.08	0.45	0.07	0.05	0.27	0.12
s, saturation flow rate [veh/h]	1199	1863	1583	1227	1863	1583	1774	3547	1583	1774	5074	1583
c, Capacity [veh/h]	277	512	435	296	512	652	184	1995	890	111	2646	826
d1, Uniform Delay [s]	43.79	34.38	33.37	48.52	34.89	22.54	52.62	21.00	12.29	55.45	18.81	15.63
k, delay calibration	0.11	0.11	0.11	0.24	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.76	0.33	0.23	10.54	0.41	0.14	8.32	3.59	0.27	11.96	0.73	0.66
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

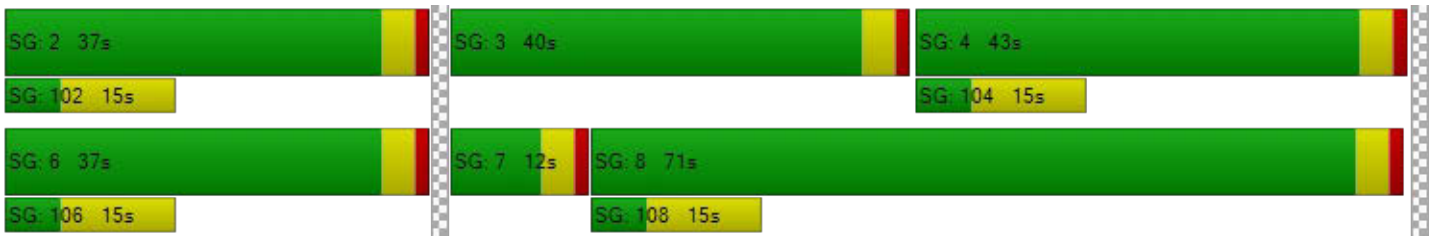
X, volume / capacity	0.35	0.30	0.20	0.80	0.35	0.19	0.81	0.81	0.12	0.79	0.52	0.23
d, Delay for Lane Group [s/veh]	44.54	34.71	33.60	59.06	35.30	22.68	60.94	24.59	12.56	67.41	19.54	16.29
Lane Group LOS	D	C	C	E	D	C	E	C	B	E	B	B
Critical Lane Group	No	No	No	Yes	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh]	2.59	3.57	1.97	7.83	4.21	2.25	4.74	17.50	1.32	2.95	8.06	2.91
50th-Percentile Queue Length [ft]	64.68	89.18	49.19	195.70	105.18	56.31	118.53	437.58	32.92	73.81	201.62	72.64
95th-Percentile Queue Length [veh]	4.66	6.42	3.54	12.42	7.57	4.05	8.31	24.36	2.37	5.31	12.72	5.23
95th-Percentile Queue Length [ft]	116.42	160.52	88.53	310.41	189.28	101.35	207.81	609.11	59.25	132.86	318.05	130.76

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	44.54	34.71	33.60	59.06	35.30	22.68	60.94	24.59	12.56	67.41	19.54	16.29
Movement LOS	D	C	C	E	D	C	E	C	B	E	B	B
d_A, Approach Delay [s/veh]	37.23			42.77			26.83			21.71		
Approach LOS	D			D			C			C		
d_I, Intersection Delay [s/veh]	27.69											
Intersection LOS	C											
Intersection V/C	0.774											

Sequence

Ring 1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 11: Perez Road / East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	24.6
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.830

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	150.00	100.00	100.00	170.00	100.00	45.00
Speed [mph]		40.00			40.00			40.00			40.00	
Grade [%]		0.00			0.00			0.00			0.00	
Crosswalk		Yes			Yes			Yes			Yes	

Volumes

Name												
Base Volume Input [veh/h]	9	9	4	17	10	257	212	1274	4	4	1270	21
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.33	1.33	1.33	1.33	1.33	1.33	1.64	1.64	1.64	1.31	1.31	1.31
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	46	0	0	36	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	12	12	5	23	13	342	348	2135	7	5	1700	28
Peak Hour Factor	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	3	1	6	3	88	89	548	2	1	436	7
Total Analysis Volume [veh/h]	12	12	5	24	13	351	357	2192	7	5	1745	29
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]		0			0			0			0	
Bicycle Volume [bicycles/h]		0			0			0			0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	0	7	7	0	7	7	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	19	0	0	19	0	13	40	0	42	69	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	R	L	C	C	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	4	4	16	16	16	15	82	82	1	69	69
g / C, Green / Cycle	0.04	0.04	0.13	0.13	0.13	0.12	0.69	0.69	0.01	0.57	0.57
(v / s)_i Volume / Saturation Flow Rate	0.01	0.01	0.01	0.11	0.11	0.10	0.41	0.41	0.00	0.49	0.02
s, saturation flow rate [veh/h]	1774	1771	1774	1600	1583	3445	3547	1860	1774	3547	1583
c, Capacity [veh/h]	66	66	239	216	213	418	2430	1274	18	2035	908
d1, Uniform Delay [s]	56.05	56.21	45.56	50.74	50.75	51.71	10.04	10.04	59.01	21.48	11.11
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.32	2.06	0.18	8.92	9.02	5.07	1.08	2.05	8.54	4.95	0.07
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

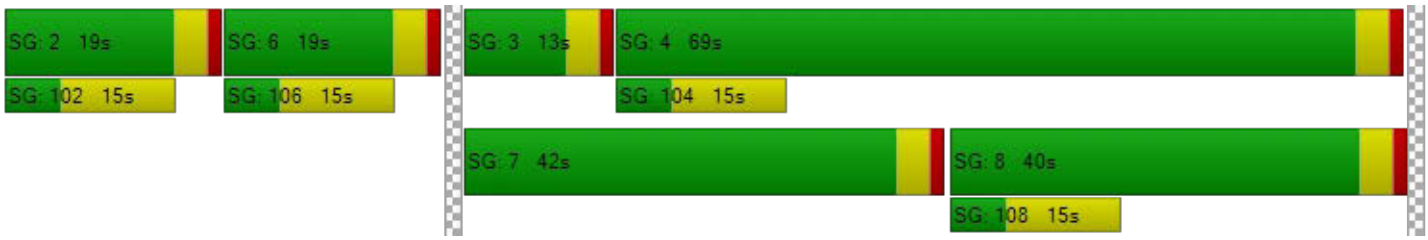
X, volume / capacity	0.18	0.26	0.10	0.85	0.85	0.85	0.59	0.59	0.28	0.86	0.03
d, Delay for Lane Group [s/veh]	57.36	58.27	45.74	59.66	59.77	56.78	11.11	12.09	67.55	26.43	11.18
Lane Group LOS	E	E	D	E	E	E	B	B	E	C	B
Critical Lane Group	No	Yes	No	No	Yes	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh]	0.37	0.53	0.63	5.80	5.75	5.46	9.04	9.83	0.19	20.08	0.34
50th-Percentile Queue Length [ft]	9.30	13.29	15.82	145.08	143.75	136.55	225.88	245.82	4.77	501.95	8.44
95th-Percentile Queue Length [veh]	0.67	0.96	1.14	9.75	9.68	9.29	13.96	14.98	0.34	27.43	0.61
95th-Percentile Queue Length [ft]	16.73	23.92	28.47	243.85	242.06	232.37	349.12	374.38	8.58	685.66	15.20

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	57.36	58.27	58.27	45.74	59.66	59.72	56.78	11.45	12.09	67.55	26.43	11.18
Movement LOS	E	E	E	D	E	E	E	B	B	E	C	B
d_A, Approach Delay [s/veh]	57.89			58.85			17.78			26.29		
Approach LOS	E			E			B			C		
d_I, Intersection Delay [s/veh]	24.57											
Intersection LOS	C											
Intersection V/C	0.830											

Sequence

Ring 1	2	6	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 12: Canyon Plaza Drive / East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	21.7
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.890

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	1	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	95.00	90.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	55	2	83	6	3	14	10	1457	39	56	1457	11
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.33	1.33	1.33	1.33	1.33	1.33	1.55	1.55	1.55	1.64	1.64	1.64
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	15	0	0	0	31	0	0	24	12
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	73	3	110	23	4	19	16	2289	60	92	2413	30
Peak Hour Factor	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	19	1	29	6	1	5	4	597	16	24	629	8
Total Analysis Volume [veh/h]	76	3	115	24	4	20	17	2387	63	96	2516	31
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	0	7	7	0	7	7	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	19	0	0	19	0	11	90	0	11	90	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	L	C	R	L	C	C
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	12	12	12	12	3	88	88	8	93	93
g / C, Green / Cycle	0.10	0.10	0.10	0.10	0.03	0.73	0.73	0.07	0.77	0.77
(v / s)_i Volume / Saturation Flow Rate	0.06	0.07	0.02	0.01	0.01	0.67	0.04	0.05	0.68	0.69
s, saturation flow rate [veh/h]	1381	1589	1269	1624	1774	3547	1583	1774	1863	1855
c, Capacity [veh/h]	158	162	75	166	45	2591	1157	119	1439	1433
d1, Uniform Delay [s]	54.83	52.23	59.54	49.08	57.55	13.33	4.54	55.18	9.82	9.91
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.28	6.05	2.40	0.40	5.18	6.82	0.09	11.80	8.30	8.58
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.48	0.73	0.32	0.14	0.38	0.92	0.05	0.80	0.89	0.89
d, Delay for Lane Group [s/veh]	57.11	58.29	61.94	49.48	62.73	20.15	4.63	66.98	18.12	18.49
Lane Group LOS	E	E	E	D	E	C	A	E	B	B
Critical Lane Group	No	Yes	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh]	2.32	3.66	0.77	0.67	0.57	23.12	0.40	3.21	20.47	20.73
50th-Percentile Queue Length [ft]	58.03	91.50	19.25	16.64	14.13	578.03	10.01	80.20	511.75	518.17
95th-Percentile Queue Length [veh]	4.18	6.59	1.39	1.20	1.02	31.01	0.72	5.77	27.89	28.19
95th-Percentile Queue Length [ft]	104.46	164.70	34.65	29.95	25.43	775.18	18.01	144.35	697.25	704.83

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	57.11	58.29	58.29	61.94	49.48	49.48	62.73	20.15	4.63	66.98	18.30	18.49
Movement LOS	E	E	E	E	D	D	E	C	A	E	B	B
d_A, Approach Delay [s/veh]	57.82			55.71			20.05			20.07		
Approach LOS	E			E			C			C		
d_I, Intersection Delay [s/veh]	21.75											
Intersection LOS	C											
Intersection V/C	0.890											

Sequence

Ring 1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 14: Cathedral Canyon Drive / Officer David Vasquez Road

Control Type:	Signalized	Delay (sec / veh):	4.3
Analysis Method:	HCM 2010	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.261

Intersection Setup

Name						
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	1	0	1	1
Pocket Length [ft]	100.00	100.00	205.00	100.00	120.00	120.00
Speed [mph]	40.00		40.00		40.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		Yes		Yes	

Volumes

Name						
Base Volume Input [veh/h]	344	7	17	370	7	32
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.33	1.33	1.33	1.33	1.33	1.33
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	47	0	0	61	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	505	9	23	553	9	43
Peak Hour Factor	0.8670	0.8670	0.8670	0.8670	0.8670	0.8670
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	146	3	7	159	3	12
Total Analysis Volume [veh/h]	582	10	27	638	10	50
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	2 - N. Cathedral Canyon Drive
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permissive	Permissive	Protected	Permissive	Split	Overlap
Signal group	2	0	1	6	7	7
Auxiliary Signal Groups						1,7
Lead / Lag	-	-	Lead	-	Lead	-
Minimum Green [s]	7	0	7	7	7	7
Maximum Green [s]	30	0	30	30	30	30
Amber [s]	3.0	0.0	3.0	3.0	3.0	3.0
All red [s]	1.0	0.0	1.0	1.0	1.0	1.0
Split [s]	30	0	11	41	19	19
Vehicle Extension [s]	3.0	0.0	3.0	3.0	3.0	3.0
Walk [s]	5	0	0	5	5	5
Pedestrian Clearance [s]	10	0	0	10	10	10
Rest In Walk	No			No	No	
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0
Minimum Recall	No		No	No	No	No
Maximum Recall	No		No	No	No	No
Pedestrian Recall	No		No	No	No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	C	L	C	L	R
C, Cycle Length [s]	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	0.00
g_i, Effective Green Time [s]	41	41	3	48	5	11
g / C, Green / Cycle	0.68	0.68	0.04	0.79	0.07	0.18
(v / s)_i Volume / Saturation Flow Rate	0.16	0.16	0.02	0.18	0.00	0.03
s, saturation flow rate [veh/h]	1863	1852	1774	3547	3445	1583
c, Capacity [veh/h]	1267	1259	79	2806	262	296
d1, Uniform Delay [s]	3.66	3.67	27.88	1.60	25.76	20.53
k, delay calibration	0.50	0.50	0.11	0.50	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.43	0.44	2.53	0.19	0.06	0.27
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

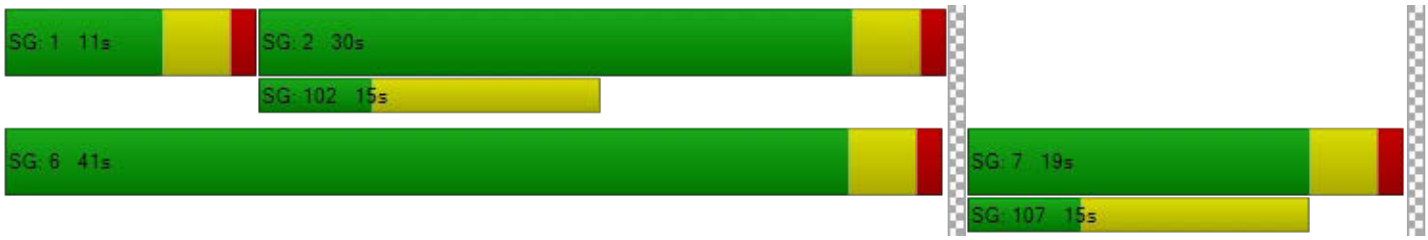
X, volume / capacity	0.23	0.24	0.34	0.23	0.04	0.17
d, Delay for Lane Group [s/veh]	4.10	4.11	30.41	1.79	25.82	20.80
Lane Group LOS	A	A	C	A	C	C
Critical Lane Group	No	No	No	Yes	No	Yes
50th-Percentile Queue Length [veh]	0.85	0.85	0.40	0.13	0.06	0.55
50th-Percentile Queue Length [ft]	21.15	21.20	10.04	3.15	1.57	13.80
95th-Percentile Queue Length [veh]	1.52	1.53	0.72	0.23	0.11	0.99
95th-Percentile Queue Length [ft]	38.08	38.16	18.08	5.67	2.83	24.84

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	4.10	4.11	30.41	1.79	25.82	20.80
Movement LOS	A	A	C	A	C	C
d_A, Approach Delay [s/veh]	4.10		2.95		21.63	
Approach LOS	A		A		C	
d_I, Intersection Delay [s/veh]	4.32					
Intersection LOS	A					
Intersection V/C	0.261					

Sequence

Ring 1	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 15: Cathedral Canyon Drive / Perez Road

Control Type:	Signalized	Delay (sec / veh):	23.4
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.588

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	1	1	0	0
Pocket Length [ft]	95.00	100.00	100.00	205.00	100.00	100.00	100.00	100.00	100.00	150.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	26	297	52	109	282	127	114	192	51	48	207	88
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	47	0	0	61	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	35	442	69	145	436	169	152	255	68	64	275	117
Peak Hour Factor	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	9	113	18	37	112	43	39	65	17	16	71	30
Total Analysis Volume [veh/h]	36	454	71	149	448	174	156	262	70	66	282	120
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	2 - N. Cathedral Canyon Drive
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	19	0	11	19	0	11	19	0	11	19	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	L	C	R	L	C	C
C, Cycle Length [s]	60	60	60	60	60	60	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	3	11	11	7	14	14	7	22	22	5	20	20
g / C, Green / Cycle	0.05	0.18	0.18	0.11	0.24	0.24	0.11	0.36	0.36	0.08	0.33	0.33
(v / s)_i Volume / Saturation Flow Rate	0.02	0.14	0.14	0.08	0.17	0.18	0.09	0.07	0.04	0.04	0.11	0.12
s, saturation flow rate [veh/h]	1774	1863	1776	1774	1863	1688	1774	3547	1583	1774	1863	1679
c, Capacity [veh/h]	98	342	326	194	442	400	202	1286	574	141	612	551
d1, Uniform Delay [s]	27.46	23.47	23.50	26.12	21.26	21.27	25.97	13.22	12.81	26.54	15.32	15.37
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.27	3.95	4.28	6.32	2.42	2.70	6.22	0.36	0.43	2.41	1.52	1.75
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.37	0.78	0.79	0.77	0.74	0.74	0.77	0.20	0.12	0.47	0.34	0.35
d, Delay for Lane Group [s/veh]	29.73	27.42	27.79	32.45	23.67	23.98	32.19	13.58	13.25	28.95	16.83	17.12
Lane Group LOS	C	C	C	C	C	C	C	B	B	C	B	B
Critical Lane Group	No	No	Yes	Yes	No	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh]	0.52	3.60	3.49	2.22	4.01	3.68	2.31	1.10	0.60	0.92	2.11	1.99
50th-Percentile Queue Length [ft]	13.00	89.89	87.24	55.53	100.21	92.01	57.81	27.38	15.08	23.02	52.66	49.65
95th-Percentile Queue Length [veh]	0.94	6.47	6.28	4.00	7.22	6.62	4.16	1.97	1.09	1.66	3.79	3.57
95th-Percentile Queue Length [ft]	23.40	161.81	157.03	99.95	180.38	165.61	104.06	49.29	27.15	41.43	94.78	89.36

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	29.73	27.57	27.79	32.45	23.75	23.98	32.19	13.58	13.25	28.95	16.91	17.12
Movement LOS	C	C	C	C	C	C	C	B	B	C	B	B
d_A, Approach Delay [s/veh]	27.74			25.48			19.48			18.66		
Approach LOS	C			C			B			B		
d_I, Intersection Delay [s/veh]	23.36											
Intersection LOS	C											
Intersection V/C	0.588											

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 16: Cathedral Canyon Drive / Paseo Real

Control Type:	Two-way stop	Delay (sec / veh):	46.5
Analysis Method:	HCM 2010	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.076

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	0	0	0	0	0	0
Pocket Length [ft]	55.00	100.00	100.00	55.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name												
Base Volume Input [veh/h]	11	482	9	16	509	19	11	5	16	9	6	14
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	40	7	0	52	0	0	0	0	9	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	15	681	19	21	729	25	15	7	21	21	8	19
Peak Hour Factor	0.9680	0.9680	0.9680	0.9680	0.9680	0.9680	0.9680	0.9680	0.9680	0.9680	0.9680	0.9680
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	176	5	5	188	6	4	2	5	5	2	5
Total Analysis Volume [veh/h]	15	704	20	22	753	26	15	7	22	22	8	20
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.02	0.01	0.00	0.03	0.01	0.00	0.12	0.07	0.04	0.17	0.08	0.03
d_M, Delay for Movement [s/veh]	9.40	0.00	0.00	9.22	0.00	0.00	38.90	44.14	16.03	39.68	46.49	17.99
Movement LOS	A	A	A	A	A	A	E	E	C	E	E	C
95th-Percentile Queue Length [veh]	0.05	0.00	0.00	0.08	0.00	0.00	0.82	0.82	0.82	1.07	1.07	1.07
95th-Percentile Queue Length [ft]	1.37	0.00	0.00	1.93	0.00	0.00	20.55	20.55	20.55	26.67	26.67	26.67
d_A, Approach Delay [s/veh]	0.19			0.25			28.30			32.10		
Approach LOS	A			A			D			D		
d_I, Intersection Delay [s/veh]	1.95											
Intersection LOS	E											

Intersection Level Of Service Report
Intersection 17: Cathedral Canyon Drive / Dinah Shore Drive

Control Type:	Signalized	Delay (sec / veh):	29.2
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.810

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	130.00	100.00	100.00	75.00	100.00	100.00	100.00	100.00	100.00	150.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	156	237	102	119	230	28	31	587	198	102	575	71
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	12	19	9	0	25	0	0	0	15	12	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	219	334	145	158	331	37	41	781	278	148	765	94
Peak Hour Factor	0.9700	0.9700	0.9700	0.9700	0.9700	0.9700	0.9700	0.9700	0.9700	0.9700	0.9700	0.9700
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	56	86	37	41	85	10	11	201	72	38	197	24
Total Analysis Volume [veh/h]	226	344	149	163	341	38	42	805	287	153	789	97
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	2 - N. Cathedral Canyon Drive
Cycle Length [s]	70
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	16	23	0	12	19	0	12	24	0	11	23	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	L	C	C	L	C	C
C, Cycle Length [s]	70	70	70	70	70	70	70	70	70	70	70	70
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	11	12	12	8	10	10	4	26	26	8	30	30
g / C, Green / Cycle	0.15	0.18	0.18	0.11	0.14	0.14	0.06	0.37	0.37	0.11	0.43	0.43
(v / s)_i Volume / Saturation Flow Rate	0.13	0.14	0.14	0.09	0.10	0.10	0.02	0.31	0.31	0.09	0.24	0.24
s, saturation flow rate [veh/h]	1774	1863	1675	1774	1863	1798	1774	1863	1698	1774	1863	1792
c, Capacity [veh/h]	273	328	295	204	256	247	101	692	630	195	790	760
d1, Uniform Delay [s]	28.83	27.68	27.71	30.31	29.15	29.17	31.98	20.01	20.04	30.47	15.39	15.39
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	6.36	4.21	4.80	7.08	4.41	4.68	2.68	10.79	11.84	6.84	3.00	3.11
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.83	0.79	0.79	0.80	0.75	0.76	0.41	0.82	0.83	0.79	0.57	0.57
d, Delay for Lane Group [s/veh]	35.19	31.89	32.51	37.39	33.55	33.85	34.67	30.80	31.88	37.31	18.39	18.50
Lane Group LOS	D	C	C	D	C	C	C	C	C	D	B	B
Critical Lane Group	No	No	Yes	Yes	No	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh]	3.89	4.21	3.86	2.90	3.20	3.13	0.72	9.38	8.76	2.72	5.34	5.16
50th-Percentile Queue Length [ft]	97.30	105.19	96.48	72.47	80.03	78.25	18.07	234.47	218.92	67.90	133.43	129.01
95th-Percentile Queue Length [veh]	7.01	7.57	6.95	5.22	5.76	5.63	1.30	14.40	13.61	4.89	9.13	8.89
95th-Percentile Queue Length [ft]	175.14	189.29	173.67	130.45	144.05	140.85	32.52	360.04	340.25	122.22	228.14	222.15

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	35.19	32.04	32.51	37.39	33.68	33.85	34.67	31.12	31.88	37.31	18.44	18.50
Movement LOS	D	C	C	D	C	C	C	C	C	D	B	B
d_A, Approach Delay [s/veh]	33.13			34.81			31.44			21.22		
Approach LOS	C			C			C			C		
d_I, Intersection Delay [s/veh]	29.23											
Intersection LOS	C											
Intersection V/C	0.810											

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 18: Date Palm Drive / Gerald Ford Drive

Control Type:	Signalized	Delay (sec / veh):	36.8
Analysis Method:	HCM 2010	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.888

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	85.00	100.00	85.00	160.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			Yes			Yes			No		

Volumes

Name												
Base Volume Input [veh/h]	22	418	198	120	415	61	36	46	46	196	44	127
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	2.97	2.97	2.97	1.83	1.83	1.83	1.83	1.83	1.83	1.97	1.97	1.97
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	24	48	0	31	0	0	0	0	62	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	65	1265	636	220	790	112	66	84	84	448	87	250
Peak Hour Factor	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	17	330	166	57	206	29	17	22	22	117	23	65
Total Analysis Volume [veh/h]	68	1320	664	230	825	117	69	88	88	468	91	261
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	6 - N/S
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Split	Split	Split	Split	Split	Split
Signal group	5	2	0	1	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	7	7	0	7	7	0	0	7	0	0	7	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	17	59	0	22	64	0	0	11	0	0	28	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No	No		No	No			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	C	L	C	C	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	6	56	56	17	67	67	9	9	9	22	22	22
g / C, Green / Cycle	0.05	0.47	0.47	0.14	0.56	0.56	0.07	0.07	0.07	0.18	0.18	0.18
(v / s)_i Volume / Saturation Flow Rate	0.04	0.26	0.42	0.13	0.18	0.18	0.04	0.05	0.06	0.16	0.16	0.16
s, saturation flow rate [veh/h]	1774	5074	1583	1774	3547	1747	1774	1863	1583	1774	1802	1583
c, Capacity [veh/h]	96	2367	739	258	1978	974	125	132	112	327	332	292
d1, Uniform Delay [s]	55.91	23.11	29.44	50.42	14.28	14.29	53.98	54.45	54.93	47.38	47.32	47.83
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.18	0.17	0.20
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	9.37	0.95	16.03	10.36	0.43	0.86	3.74	5.75	11.47	9.71	9.07	15.67
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.71	0.56	0.90	0.89	0.32	0.32	0.55	0.67	0.79	0.85	0.84	0.89
d, Delay for Lane Group [s/veh]	65.28	24.06	45.48	60.79	14.71	15.16	57.71	60.20	66.40	57.09	56.39	63.50
Lane Group LOS	E	C	D	E	B	B	E	E	E	E	E	E
Critical Lane Group	No	No	Yes	Yes	No	No	No	No	Yes	No	No	Yes
50th-Percentile Queue Length [veh]	2.25	8.80	19.81	7.40	4.49	4.55	2.11	2.76	2.93	8.76	8.77	8.73
50th-Percentile Queue Length [ft]	56.14	220.06	495.33	184.91	112.13	113.75	52.86	69.08	73.30	219.07	219.34	218.29
95th-Percentile Queue Length [veh]	4.04	13.67	27.11	11.86	7.96	8.05	3.81	4.97	5.28	13.62	13.63	13.58
95th-Percentile Queue Length [ft]	101.06	341.70	677.83	296.42	198.96	201.20	95.15	124.35	131.94	340.44	340.79	339.44

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	65.28	24.06	45.48	60.79	14.81	15.16	57.71	60.20	66.40	56.81	56.39	63.50
Movement LOS	E	C	D	E	B	B	E	E	E	E	E	E
d_A, Approach Delay [s/veh]	32.36			23.87			61.73			58.89		
Approach LOS	C			C			E			E		
d_I, Intersection Delay [s/veh]	36.79											
Intersection LOS	D											
Intersection V/C	0.888											

Sequence

Ring 1	1	2	4	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 19: Date Palm Drive / Dinah Shore Drive

Control Type:	Signalized	Delay (sec / veh):	31.3
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.775

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	2	0	1	2	0	1	1	0	0	1	0	1
Pocket Length [ft]	225.00	100.00	125.00	170.00	100.00	50.00	150.00	100.00	100.00	130.00	100.00	180.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			No		

Volumes

Name												
Base Volume Input [veh/h]	185	483	58	114	538	75	103	483	173	59	427	115
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.83	1.83	1.83	1.44	1.44	1.44	1.67	1.67	1.67	1.67	1.67	1.67
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	24	0	0	31	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	339	908	106	164	806	108	172	807	289	99	713	192
Peak Hour Factor	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	90	240	28	43	213	29	46	214	77	26	189	51
Total Analysis Volume [veh/h]	359	962	112	174	854	114	182	855	306	105	755	203
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	1 - E Palm Canyon Drive
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Overlap
Signal group	5	2	0	1	6	0	3	8	0	7	4	4
Auxiliary Signal Groups												1,4
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	7
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	30
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	1.0
Split [s]	17	25	0	11	19	0	20	41	0	13	34	34
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	5
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	10
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0
Minimum Recall	No	No		No	No		No	No		No	No	No
Maximum Recall	No	No		No	No		No	No		No	No	No
Pedestrian Recall	No	No		No	No		No	No		No	No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	0.00
g_i, Effective Green Time [s]	11	33	33	7	29	29	11	27	27	7	23	34
g / C, Green / Cycle	0.13	0.37	0.37	0.08	0.32	0.32	0.12	0.30	0.30	0.08	0.25	0.37
(v / s)_i Volume / Saturation Flow Rate	0.10	0.27	0.07	0.05	0.17	0.07	0.10	0.24	0.19	0.06	0.21	0.13
s, saturation flow rate [veh/h]	3445	3547	1583	3445	5074	1583	1774	3547	1583	1774	3547	1583
c, Capacity [veh/h]	437	1310	585	269	1628	508	219	1061	474	134	890	592
d1, Uniform Delay [s]	38.33	24.57	19.27	40.31	24.99	22.39	38.55	29.16	27.43	40.91	32.10	20.27
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	3.89	3.68	0.73	2.59	1.21	1.02	7.83	1.50	1.49	9.53	2.35	0.34
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

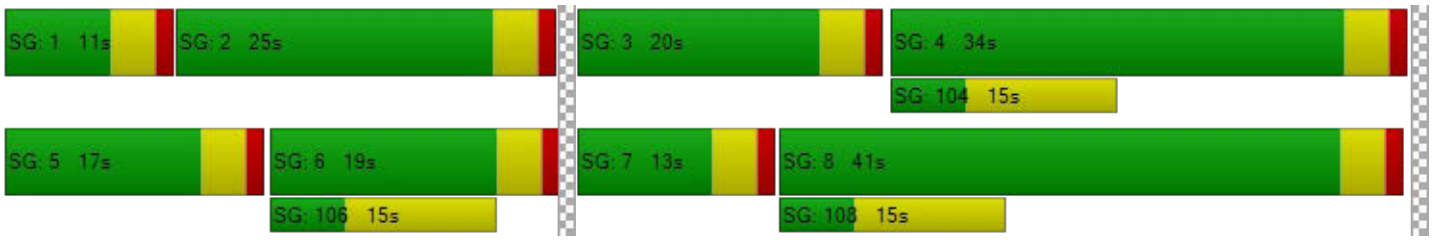
X, volume / capacity	0.82	0.73	0.19	0.65	0.52	0.22	0.83	0.81	0.65	0.78	0.85	0.34
d, Delay for Lane Group [s/veh]	42.22	28.25	20.00	42.90	26.20	23.42	46.38	30.65	28.91	50.44	34.45	20.61
Lane Group LOS	D	C	B	D	C	C	D	C	C	D	C	C
Critical Lane Group	No	Yes	No	Yes	No	No	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh]	3.94	8.86	1.61	1.90	4.85	1.82	4.25	8.22	5.58	2.56	7.68	2.93
50th-Percentile Queue Length [ft]	98.62	221.61	40.36	47.61	121.22	45.47	106.19	205.47	139.53	64.10	191.94	73.24
95th-Percentile Queue Length [veh]	7.10	13.75	2.91	3.43	8.46	3.27	7.63	12.92	9.46	4.62	12.22	5.27
95th-Percentile Queue Length [ft]	177.52	343.67	72.65	85.69	211.50	81.85	190.69	323.01	236.39	115.38	305.54	131.84

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	42.22	28.25	20.00	42.90	26.20	23.42	46.38	30.65	28.91	50.44	34.45	20.61
Movement LOS	D	C	B	D	C	C	D	C	C	D	C	C
d_A, Approach Delay [s/veh]	31.11			28.47			32.39			33.39		
Approach LOS	C			C			C			C		
d_I, Intersection Delay [s/veh]	31.33											
Intersection LOS	C											
Intersection V/C	0.775											

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	



Intersection Level Of Service Report

Intersection 23: East Palm Canyon Drive / Frank Sinatra Drive

Control Type:	Signalized	Delay (sec / veh):	49.0
Analysis Method:	HCM 2010	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.015

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	1	1	0	0	2	0	1
Pocket Length [ft]	160.00	100.00	45.00	325.00	100.00	250.00	100.00	100.00	100.00	120.00	100.00	1200.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			No			Yes		

Volumes

Name												
Base Volume Input [veh/h]	47	1301	147	214	1244	33	34	18	13	141	24	199
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.95	1.95	1.95	1.76	1.76	1.76	1.15	1.15	1.15	1.15	1.15	1.15
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	40	0	24	28	0	0	0	0	0	0	31
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	92	2577	287	401	2217	58	39	21	15	162	28	260
Peak Hour Factor	0.9210	0.9210	0.9210	0.9210	0.9210	0.9210	0.9210	0.9210	0.9210	0.9210	0.9210	0.9210
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	25	700	78	109	602	16	11	6	4	44	8	71
Total Analysis Volume [veh/h]	100	2798	312	435	2407	63	42	23	16	176	30	282
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	6 - N/S
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Overlap	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Overlap
Signal group	5	2	2	1	6	0	3	8	0	7	4	4
Auxiliary Signal Groups			2									4
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	7	7	7	0	7	7	0	7	7	7
Maximum Green [s]	30	30	30	30	30	0	30	30	0	30	30	30
Amber [s]	3.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0
All red [s]	1.0	1.0	1.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	1.0
Split [s]	11	66	66	19	74	0	11	19	0	16	24	24
Vehicle Extension [s]	3.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0
Walk [s]	0	5	5	0	5	0	0	5	0	0	5	5
Pedestrian Clearance [s]	0	10	10	0	10	0	0	10	0	0	10	10
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0
Minimum Recall	No	No	No	No	No		No	No		No	No	No
Maximum Recall	No	No	No	No	No		No	No		No	No	No
Pedestrian Recall	No	No	No	No	No		No	No		No	No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	7	62	62	15	70	70	5	19	8	22	22
g / C, Green / Cycle	0.06	0.52	0.52	0.13	0.58	0.58	0.04	0.16	0.07	0.18	0.18
(v / s)_i Volume / Saturation Flow Rate	0.06	0.55	0.20	0.13	0.47	0.04	0.02	0.02	0.05	0.02	0.18
s, saturation flow rate [veh/h]	1774	5074	1583	3445	5074	1583	1774	1737	3445	1863	1583
c, Capacity [veh/h]	104	2629	820	431	2967	926	78	270	234	334	284
d1, Uniform Delay [s]	56.38	28.91	17.35	52.50	19.68	10.77	56.17	43.77	54.93	41.05	49.15
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.24
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	33.38	37.64	1.34	22.60	2.53	0.14	5.65	0.24	4.81	0.11	35.08
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.97	1.06	0.38	1.01	0.81	0.07	0.54	0.14	0.75	0.09	0.99
d, Delay for Lane Group [s/veh]	89.76	66.55	18.69	75.10	22.21	10.92	61.82	44.01	59.74	41.17	84.23
Lane Group LOS	F	F	B	F	C	B	E	D	E	D	F
Critical Lane Group	No	Yes	No	Yes	No	No	Yes	No	No	No	Yes
50th-Percentile Queue Length [veh]	3.93	32.35	5.26	7.71	16.76	0.73	1.35	1.01	2.73	0.74	11.00
50th-Percentile Queue Length [ft]	98.33	808.66	131.48	192.75	419.08	18.18	33.75	25.18	68.21	18.55	275.00
95th-Percentile Queue Length [veh]	7.08	43.80	9.02	12.32	23.48	1.31	2.43	1.81	4.91	1.34	16.44
95th-Percentile Queue Length [ft]	176.99	1094.88	225.50	307.88	586.95	32.72	60.74	45.32	122.77	33.39	410.99

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	89.76	66.55	18.69	75.10	22.21	10.92	61.82	44.01	44.01	59.74	41.17	84.23
Movement LOS	F	F	B	F	C	B	E	D	D	E	D	F
d_A, Approach Delay [s/veh]	62.63			29.89			53.24			72.75		
Approach LOS	E			C			D			E		
d_I, Intersection Delay [s/veh]	49.02											
Intersection LOS	D											
Intersection V/C	1.015											

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 24: East Palm Canyon Drive / Mirage Cove Drive

Control Type:	Signalized	Delay (sec / veh):	12.4
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.705

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	1	1	0	0
Pocket Length [ft]	150.00	100.00	100.00	110.00	100.00	100.00	75.00	100.00	75.00	75.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	40	1394	6	23	1334	43	39	0	21	4	0	23
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.95	1.95	1.95	1.95	1.95	1.95	1.33	1.33	1.33	1.95	1.95	1.95
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	40	0	0	28	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	78	2758	12	45	2629	84	52	0	28	8	0	45
Peak Hour Factor	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	20	723	3	12	689	22	14	0	7	2	0	12
Total Analysis Volume [veh/h]	82	2891	13	47	2756	88	55	0	29	8	0	47
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	6 - N/S
Cycle Length [s]	100
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	5	2	0	1	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	7	7	0	7	7	0	0	7	0	0	7	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	11	70	0	11	70	0	0	19	0	0	19	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No	No		No	No			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	L	C	R	L	C
C, Cycle Length [s]	100	100	100	100	100	100	100	100	100	100	100
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.00	0.00	2.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	6	73	73	5	72	72	10	10	10	10	10
g / C, Green / Cycle	0.06	0.73	0.73	0.05	0.72	0.72	0.10	0.10	0.10	0.10	0.10
(v / s)_i Volume / Saturation Flow Rate	0.05	0.54	0.54	0.03	0.53	0.53	0.04	0.00	0.02	0.01	0.03
s, saturation flow rate [veh/h]	1774	3547	1858	1774	3547	1834	1353	1863	1583	1412	1583
c, Capacity [veh/h]	112	2589	1357	91	2547	1317	139	184	156	181	156
d1, Uniform Delay [s]	46.03	7.87	7.89	46.24	8.37	8.52	47.11	0.00	41.37	42.84	41.85
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	8.96	1.90	3.61	4.51	1.90	3.83	1.83	0.00	0.56	0.10	1.06
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.73	0.74	0.74	0.52	0.73	0.74	0.40	0.00	0.19	0.04	0.30
d, Delay for Lane Group [s/veh]	54.99	9.77	11.50	50.75	10.27	12.35	48.94	0.00	41.93	42.94	42.91
Lane Group LOS	D	A	B	D	B	B	D	A	D	D	D
Critical Lane Group	Yes	No	No	No	No	Yes	Yes	No	No	No	No
50th-Percentile Queue Length [veh]	2.23	9.26	10.39	1.23	9.52	10.85	1.39	0.00	0.67	0.18	1.10
50th-Percentile Queue Length [ft]	55.72	231.38	259.69	30.63	237.97	271.19	34.82	0.00	16.63	4.61	27.42
95th-Percentile Queue Length [veh]	4.01	14.24	15.67	2.21	14.58	16.25	2.51	0.00	1.20	0.33	1.97
95th-Percentile Queue Length [ft]	100.30	356.11	391.84	55.13	364.46	406.22	62.67	0.00	29.93	8.30	49.35

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	54.99	10.36	11.50	50.75	10.94	12.35	48.94	0.00	41.93	42.94	42.91	42.91
Movement LOS	D	B	B	D	B	B	D	A	D	D	D	D
d_A, Approach Delay [s/veh]	11.59			11.63			46.52			42.92		
Approach LOS	B			B			D			D		
d_I, Intersection Delay [s/veh]	12.38											
Intersection LOS	B											
Intersection V/C	0.705											

Sequence

Ring 1	1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Signal Warrants Report For Intersection 1: North Project Driveway 1 / Buddy Rogers Avenue

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	E, W
Minor Approaches	S, N
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets	
	E	W	S	N
1	114	72	115	0
2	109	69	110	0
3	107	68	108	0
4	91	58	92	0
5	87	55	87	0
6	78	49	78	0
7	72	45	72	0
8	68	43	69	0
9	55	35	55	0
10	51	32	52	0
11	51	32	52	0
12	49	31	49	0
13	44	28	45	0
14	41	26	41	0
15	41	26	41	0
16	40	25	40	0
17	23	14	23	0
18	13	8	13	0
19	11	7	12	0
20	5	3	5	0
21	3	2	3	0
22	3	2	3	0
23	2	1	2	0
24	2	1	2	0

Warrant Analysis by Hour

Hour	Major Lanes		Minor Lanes		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	2	186	3	115	No	No	No	No	No	No	No	No	No	No
2	2	178	3	110	No	No	No	No	No	No	No	No	No	No
3	2	175	3	108	No	No	No	No	No	No	No	No	No	No
4	2	149	3	92	No	No	No	No	No	No	No	No	No	No
5	2	142	3	87	No	No	No	No	No	No	No	No	No	No
6	2	127	3	78	No	No	No	No	No	No	No	No	No	No
7	2	117	3	72	No	No	No	No	No	No	No	No	No	No
8	2	111	3	69	No	No	No	No	No	No	No	No	No	No
9	2	90	3	55	No	No	No	No	No	No	No	No	No	No
10	2	83	3	52	No	No	No	No	No	No	No	No	No	No
11	2	83	3	52	No	No	No	No	No	No	No	No	No	No
12	2	80	3	49	No	No	No	No	No	No	No	No	No	No
13	2	72	3	45	No	No	No	No	No	No	No	No	No	No
14	2	67	3	41	No	No	No	No	No	No	No	No	No	No
15	2	67	3	41	No	No	No	No	No	No	No	No	No	No
16	2	65	3	40	No	No	No	No	No	No	No	No	No	No
17	2	37	3	23	No	No	No	No	No	No	No	No	No	No
18	2	21	3	13	No	No	No	No	No	No	No	No	No	No
19	2	18	3	12	No	No	No	No	No	No	No	No	No	No
20	2	8	3	5	No	No	No	No	No	No	No	No	No	No
21	2	5	3	3	No	No	No	No	No	No	No	No	No	No
22	2	5	3	3	No	No	No	No	No	No	No	No	No	No
23	2	3	3	2	No	No	No	No	No	No	No	No	No	No
24	2	3	3	2	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	S	N
Total Stopped Delay Per Vehicle on Minor Approach (s)	9.5	10.3
Number of Lanes on Minor Street Approach	2	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:18	0:00
Delay Condition Met	No	No
Volume on Minor Street Approach During Same Hour	115	0
High Minor Volume Condition Met	No	No
Total Entering Volume on All Approaches During Same Hour	301	301
Number of Approaches on Intersection	4	4
Total Volume Condition Met	No	No
Warrant Met for Approach	No	No
Warrant Met for Intersection	**No**	

Signal Warrants Report For Intersection 2: Date Palm Drive / Buddy Rogers Avenue

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	Yes
#2	Four Hour Vehicular Volume	Yes
#3	Peak Hour	Yes

Intersection Warrants Parameters

Major Approaches	S, N
Minor Approaches	W
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets
	S	N	W
1	2030	1720	129
2	1949	1651	124
3	1908	1617	121
4	1624	1376	103
5	1543	1307	98
6	1380	1170	88
7	1279	1084	81
8	1218	1032	77
9	974	826	62
10	914	774	58
11	914	774	58
12	873	740	55
13	792	671	50
14	731	619	46
15	731	619	46
16	711	602	45
17	406	344	26
18	223	189	14
19	203	172	13
20	81	69	5
21	61	52	4
22	61	52	4
23	41	34	3
24	41	34	3

Warrant Analysis by Hour

Hour	Major Lanes		Minor Lanes		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	5	3750	1	129	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
2	5	3600	1	124	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
3	5	3525	1	121	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
4	5	3000	1	103	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
5	5	2850	1	98	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes	No
6	5	2550	1	88	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes	No
7	5	2363	1	81	No	No	No	No	Yes	Yes	Yes	Yes	Yes	No
8	5	2250	1	77	No	No	No	No	Yes	Yes	Yes	Yes	No	No
9	5	1800	1	62	No	No	No	No	No	Yes	Yes	Yes	No	No
10	5	1688	1	58	No	No	No	No	No	No	Yes	Yes	No	No
11	5	1688	1	58	No	No	No	No	No	No	Yes	Yes	No	No
12	5	1613	1	55	No	No	No	No	No	No	Yes	Yes	No	No
13	5	1463	1	50	No	No	No	No	No	No	No	Yes	No	No
14	5	1350	1	46	No	No	No	No	No	No	No	Yes	No	No
15	5	1350	1	46	No	No	No	No	No	No	No	Yes	No	No
16	5	1313	1	45	No	No	No	No	No	No	No	Yes	No	No
17	5	750	1	26	No	No	No	No	No	No	No	No	No	No
18	5	412	1	14	No	No	No	No	No	No	No	No	No	No
19	5	375	1	13	No	No	No	No	No	No	No	No	No	No
20	5	150	1	5	No	No	No	No	No	No	No	No	No	No
21	5	113	1	4	No	No	No	No	No	No	No	No	No	No
22	5	113	1	4	No	No	No	No	No	No	No	No	No	No
23	5	75	1	3	No	No	No	No	No	No	No	No	No	No
24	5	75	1	3	No	No	No	No	No	No	No	No	No	No
Hours Met					0	3	3	6	8	9	12	16	7	4

Warrant 3 Condition A

Orientation	W
Total Stopped Delay Per Vehicle on Minor Approach (s)	3703.7
Number of Lanes on Minor Street Approach	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	132:43
Delay Condition Met	Yes
Volume on Minor Street Approach During Same Hour	129
High Minor Volume Condition Met	Yes
Total Entering Volume on All Approaches During Same Hour	3879
Number of Approaches on Intersection	3
Total Volume Condition Met	Yes
Warrant Met for Approach	Yes
Warrant Met for Intersection	**Yes**

Signal Warrants Report For Intersection 7: North Project Driveway 2 / Buddy Rogers Avenue

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	E, W
Minor Approaches	S
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets
	E	W	S
1	114	109	11
2	109	105	11
3	107	102	10
4	91	87	9
5	87	83	8
6	78	74	7
7	72	69	7
8	68	65	7
9	55	52	5
10	51	49	5
11	51	49	5
12	49	47	5
13	44	43	4
14	41	39	4
15	41	39	4
16	40	38	4
17	23	22	2
18	13	12	1
19	11	11	1
20	5	4	0
21	3	3	0
22	3	3	0
23	2	2	0
24	2	2	0

Warrant Analysis by Hour

Hour	Major Lanes		Minor Lanes		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	2	223	1	11	No	No	No	No	No	No	No	No	No	No
2	2	214	1	11	No	No	No	No	No	No	No	No	No	No
3	2	209	1	10	No	No	No	No	No	No	No	No	No	No
4	2	178	1	9	No	No	No	No	No	No	No	No	No	No
5	2	170	1	8	No	No	No	No	No	No	No	No	No	No
6	2	152	1	7	No	No	No	No	No	No	No	No	No	No
7	2	141	1	7	No	No	No	No	No	No	No	No	No	No
8	2	133	1	7	No	No	No	No	No	No	No	No	No	No
9	2	107	1	5	No	No	No	No	No	No	No	No	No	No
10	2	100	1	5	No	No	No	No	No	No	No	No	No	No
11	2	100	1	5	No	No	No	No	No	No	No	No	No	No
12	2	96	1	5	No	No	No	No	No	No	No	No	No	No
13	2	87	1	4	No	No	No	No	No	No	No	No	No	No
14	2	80	1	4	No	No	No	No	No	No	No	No	No	No
15	2	80	1	4	No	No	No	No	No	No	No	No	No	No
16	2	78	1	4	No	No	No	No	No	No	No	No	No	No
17	2	45	1	2	No	No	No	No	No	No	No	No	No	No
18	2	25	1	1	No	No	No	No	No	No	No	No	No	No
19	2	22	1	1	No	No	No	No	No	No	No	No	No	No
20	2	9	1	0	No	No	No	No	No	No	No	No	No	No
21	2	6	1	0	No	No	No	No	No	No	No	No	No	No
22	2	6	1	0	No	No	No	No	No	No	No	No	No	No
23	2	4	1	0	No	No	No	No	No	No	No	No	No	No
24	2	4	1	0	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	S
Total Stopped Delay Per Vehicle on Minor Approach (s)	8.9
Number of Lanes on Minor Street Approach	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:01
Delay Condition Met	No
Volume on Minor Street Approach During Same Hour	11
High Minor Volume Condition Met	No
Total Entering Volume on All Approaches During Same Hour	234
Number of Approaches on Intersection	3
Total Volume Condition Met	No
Warrant Met for Approach	No
Warrant Met for Intersection	**No**

Signal Warrants Report For Intersection 8: Monty Hall Drive / Buddy Rogers Avenue

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	E, W
Minor Approaches	S, N
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets	
	E	W	S	N
1	69	53	63	47
2	66	51	60	45
3	65	50	59	44
4	55	42	50	38
5	52	40	48	36
6	47	36	43	32
7	43	33	40	30
8	41	32	38	28
9	33	25	30	23
10	31	24	28	21
11	31	24	28	21
12	30	23	27	20
13	27	21	25	18
14	25	19	23	17
15	25	19	23	17
16	24	19	22	16
17	14	11	13	9
18	8	6	7	5
19	7	5	6	5
20	3	2	3	2
21	2	2	2	1
22	2	2	2	1
23	1	1	1	1
24	1	1	1	1

Warrant Analysis by Hour

Hour	Major Lanes		Minor Lanes		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	2	122	2	110	No	No	No	No	No	No	No	No	No	No
2	2	117	2	105	No	No	No	No	No	No	No	No	No	No
3	2	115	2	103	No	No	No	No	No	No	No	No	No	No
4	2	97	2	88	No	No	No	No	No	No	No	No	No	No
5	2	92	2	84	No	No	No	No	No	No	No	No	No	No
6	2	83	2	75	No	No	No	No	No	No	No	No	No	No
7	2	76	2	70	No	No	No	No	No	No	No	No	No	No
8	2	73	2	66	No	No	No	No	No	No	No	No	No	No
9	2	58	2	53	No	No	No	No	No	No	No	No	No	No
10	2	55	2	49	No	No	No	No	No	No	No	No	No	No
11	2	55	2	49	No	No	No	No	No	No	No	No	No	No
12	2	53	2	47	No	No	No	No	No	No	No	No	No	No
13	2	48	2	43	No	No	No	No	No	No	No	No	No	No
14	2	44	2	40	No	No	No	No	No	No	No	No	No	No
15	2	44	2	40	No	No	No	No	No	No	No	No	No	No
16	2	43	2	38	No	No	No	No	No	No	No	No	No	No
17	2	25	2	22	No	No	No	No	No	No	No	No	No	No
18	2	14	2	12	No	No	No	No	No	No	No	No	No	No
19	2	12	2	11	No	No	No	No	No	No	No	No	No	No
20	2	5	2	5	No	No	No	No	No	No	No	No	No	No
21	2	4	2	3	No	No	No	No	No	No	No	No	No	No
22	2	4	2	3	No	No	No	No	No	No	No	No	No	No
23	2	2	2	2	No	No	No	No	No	No	No	No	No	No
24	2	2	2	2	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	S	N
Total Stopped Delay Per Vehicle on Minor Approach (s)	7.5	7.9
Number of Lanes on Minor Street Approach	1	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:07	0:06
Delay Condition Met	No	No
Volume on Minor Street Approach During Same Hour	63	47
High Minor Volume Condition Met	No	No
Total Entering Volume on All Approaches During Same Hour	232	232
Number of Approaches on Intersection	4	4
Total Volume Condition Met	No	No
Warrant Met for Approach	No	No
Warrant Met for Intersection	**No**	

Signal Warrants Report For Intersection 16: Cathedral Canyon Drive / Paseo Real

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	N, S
Minor Approaches	E, W
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets	
	N	S	E	W
1	829	1079	28	30
2	796	1036	27	29
3	779	1014	26	28
4	663	863	22	24
5	630	820	21	23
6	564	734	19	20
7	522	680	18	19
8	497	647	17	18
9	398	518	13	14
10	373	486	13	14
11	373	486	13	14
12	356	464	12	13
13	323	421	11	12
14	298	388	10	11
15	298	388	10	11
16	290	378	10	11
17	166	216	6	6
18	91	119	3	3
19	83	108	3	3
20	33	43	1	1
21	25	32	1	1
22	25	32	1	1
23	17	22	1	1
24	17	22	1	1

Warrant Analysis by Hour

Hour	Major Lanes		Minor Lanes		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	6	1908	2	58	No	No	No	No	No	No	No	No	No	No
2	6	1832	2	56	No	No	No	No	No	No	No	No	No	No
3	6	1793	2	54	No	No	No	No	No	No	No	No	No	No
4	6	1526	2	46	No	No	No	No	No	No	No	No	No	No
5	6	1450	2	44	No	No	No	No	No	No	No	No	No	No
6	6	1298	2	39	No	No	No	No	No	No	No	No	No	No
7	6	1202	2	37	No	No	No	No	No	No	No	No	No	No
8	6	1144	2	35	No	No	No	No	No	No	No	No	No	No
9	6	916	2	27	No	No	No	No	No	No	No	No	No	No
10	6	859	2	27	No	No	No	No	No	No	No	No	No	No
11	6	859	2	27	No	No	No	No	No	No	No	No	No	No
12	6	820	2	25	No	No	No	No	No	No	No	No	No	No
13	6	744	2	23	No	No	No	No	No	No	No	No	No	No
14	6	686	2	21	No	No	No	No	No	No	No	No	No	No
15	6	686	2	21	No	No	No	No	No	No	No	No	No	No
16	6	668	2	21	No	No	No	No	No	No	No	No	No	No
17	6	382	2	12	No	No	No	No	No	No	No	No	No	No
18	6	210	2	6	No	No	No	No	No	No	No	No	No	No
19	6	191	2	6	No	No	No	No	No	No	No	No	No	No
20	6	76	2	2	No	No	No	No	No	No	No	No	No	No
21	6	57	2	2	No	No	No	No	No	No	No	No	No	No
22	6	57	2	2	No	No	No	No	No	No	No	No	No	No
23	6	39	2	2	No	No	No	No	No	No	No	No	No	No
24	6	39	2	2	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	E	W
Total Stopped Delay Per Vehicle on Minor Approach (s)	66.6	30.8
Number of Lanes on Minor Street Approach	1	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:31	0:15
Delay Condition Met	No	No
Volume on Minor Street Approach During Same Hour	28	30
High Minor Volume Condition Met	No	No
Total Entering Volume on All Approaches During Same Hour	1966	1966
Number of Approaches on Intersection	4	4
Total Volume Condition Met	Yes	Yes
Warrant Met for Approach	No	No
Warrant Met for Intersection	**No**	

Signal Warrants Report For Intersection 1: North Project Driveway 1 / Buddy Rogers Avenue

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	E, W
Minor Approaches	S, N
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets	
	E	W	S	N
1	151	96	115	0
2	145	92	110	0
3	142	90	108	0
4	121	77	92	0
5	115	73	87	0
6	103	65	78	0
7	95	60	72	0
8	91	58	69	0
9	72	46	55	0
10	68	43	52	0
11	68	43	52	0
12	65	41	49	0
13	59	37	45	0
14	54	35	41	0
15	54	35	41	0
16	53	34	40	0
17	30	19	23	0
18	17	11	13	0
19	15	10	12	0
20	6	4	5	0
21	5	3	3	0
22	5	3	3	0
23	3	2	2	0
24	3	2	2	0

Warrant Analysis by Hour

Hour	Major Lanes		Minor Lanes		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	2	247	3	115	No	No	No	No	No	No	No	No	No	No
2	2	237	3	110	No	No	No	No	No	No	No	No	No	No
3	2	232	3	108	No	No	No	No	No	No	No	No	No	No
4	2	198	3	92	No	No	No	No	No	No	No	No	No	No
5	2	188	3	87	No	No	No	No	No	No	No	No	No	No
6	2	168	3	78	No	No	No	No	No	No	No	No	No	No
7	2	155	3	72	No	No	No	No	No	No	No	No	No	No
8	2	149	3	69	No	No	No	No	No	No	No	No	No	No
9	2	118	3	55	No	No	No	No	No	No	No	No	No	No
10	2	111	3	52	No	No	No	No	No	No	No	No	No	No
11	2	111	3	52	No	No	No	No	No	No	No	No	No	No
12	2	106	3	49	No	No	No	No	No	No	No	No	No	No
13	2	96	3	45	No	No	No	No	No	No	No	No	No	No
14	2	89	3	41	No	No	No	No	No	No	No	No	No	No
15	2	89	3	41	No	No	No	No	No	No	No	No	No	No
16	2	87	3	40	No	No	No	No	No	No	No	No	No	No
17	2	49	3	23	No	No	No	No	No	No	No	No	No	No
18	2	28	3	13	No	No	No	No	No	No	No	No	No	No
19	2	25	3	12	No	No	No	No	No	No	No	No	No	No
20	2	10	3	5	No	No	No	No	No	No	No	No	No	No
21	2	8	3	3	No	No	No	No	No	No	No	No	No	No
22	2	8	3	3	No	No	No	No	No	No	No	No	No	No
23	2	5	3	2	No	No	No	No	No	No	No	No	No	No
24	2	5	3	2	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	S	N
Total Stopped Delay Per Vehicle on Minor Approach (s)	9.9	11
Number of Lanes on Minor Street Approach	2	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:18	0:00
Delay Condition Met	No	No
Volume on Minor Street Approach During Same Hour	115	0
High Minor Volume Condition Met	No	No
Total Entering Volume on All Approaches During Same Hour	362	362
Number of Approaches on Intersection	4	4
Total Volume Condition Met	No	No
Warrant Met for Approach	No	No
Warrant Met for Intersection	**No**	

Signal Warrants Report For Intersection 2: Date Palm Drive / Buddy Rogers Avenue

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	Yes
#2	Four Hour Vehicular Volume	Yes
#3	Peak Hour	Yes

Intersection Warrants Parameters

Major Approaches	S, N
Minor Approaches	W
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets
	S	N	W
1	1507	1676	148
2	1447	1609	142
3	1417	1575	139
4	1206	1341	118
5	1145	1274	112
6	1025	1140	101
7	949	1056	93
8	904	1006	89
9	723	804	71
10	678	754	67
11	678	754	67
12	648	721	64
13	588	654	58
14	543	603	53
15	543	603	53
16	527	587	52
17	301	335	30
18	166	184	16
19	151	168	15
20	60	67	6
21	45	50	4
22	45	50	4
23	30	34	3
24	30	34	3

Warrant Analysis by Hour

Hour	Major Lanes		Minor Lanes		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	5	3183	1	148	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
2	5	3056	1	142	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
3	5	2992	1	139	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
4	5	2547	1	118	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
5	5	2419	1	112	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
6	5	2165	1	101	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
7	5	2005	1	93	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes	No
8	5	1910	1	89	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes	No
9	5	1527	1	71	No	No	No	No	No	Yes	Yes	Yes	No	No
10	5	1432	1	67	No	No	No	No	No	Yes	Yes	Yes	No	No
11	5	1432	1	67	No	No	No	No	No	Yes	Yes	Yes	No	No
12	5	1369	1	64	No	No	No	No	No	Yes	Yes	Yes	No	No
13	5	1242	1	58	No	No	No	No	No	No	Yes	Yes	No	No
14	5	1146	1	53	No	No	No	No	No	No	Yes	Yes	No	No
15	5	1146	1	53	No	No	No	No	No	No	Yes	Yes	No	No
16	5	1114	1	52	No	No	No	No	No	No	Yes	Yes	No	No
17	5	636	1	30	No	No	No	No	No	No	No	No	No	No
18	5	350	1	16	No	No	No	No	No	No	No	No	No	No
19	5	319	1	15	No	No	No	No	No	No	No	No	No	No
20	5	127	1	6	No	No	No	No	No	No	No	No	No	No
21	5	95	1	4	No	No	No	No	No	No	No	No	No	No
22	5	95	1	4	No	No	No	No	No	No	No	No	No	No
23	5	64	1	3	No	No	No	No	No	No	No	No	No	No
24	5	64	1	3	No	No	No	No	No	No	No	No	No	No
Hours Met					0	3	5	8	8	12	16	16	8	6

Warrant 3 Condition A

Orientation	W
Total Stopped Delay Per Vehicle on Minor Approach (s)	2630.7
Number of Lanes on Minor Street Approach	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	108:08
Delay Condition Met	Yes
Volume on Minor Street Approach During Same Hour	148
High Minor Volume Condition Met	Yes
Total Entering Volume on All Approaches During Same Hour	3331
Number of Approaches on Intersection	3
Total Volume Condition Met	Yes
Warrant Met for Approach	Yes
Warrant Met for Intersection	**Yes**

Signal Warrants Report For Intersection 7: North Project Driveway 2 / Buddy Rogers Avenue

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	E, W
Minor Approaches	S
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets
	E	W	S
1	143	122	22
2	137	117	21
3	134	115	21
4	114	98	18
5	109	93	17
6	97	83	15
7	90	77	14
8	86	73	13
9	69	59	11
10	64	55	10
11	64	55	10
12	61	52	9
13	56	48	9
14	51	44	8
15	51	44	8
16	50	43	8
17	29	24	4
18	16	13	2
19	14	12	2
20	6	5	1
21	4	4	1
22	4	4	1
23	3	2	0
24	3	2	0

Warrant Analysis by Hour

Hour	Major Lanes		Minor Lanes		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	2	265	1	22	No	No	No	No	No	No	No	No	No	No
2	2	254	1	21	No	No	No	No	No	No	No	No	No	No
3	2	249	1	21	No	No	No	No	No	No	No	No	No	No
4	2	212	1	18	No	No	No	No	No	No	No	No	No	No
5	2	202	1	17	No	No	No	No	No	No	No	No	No	No
6	2	180	1	15	No	No	No	No	No	No	No	No	No	No
7	2	167	1	14	No	No	No	No	No	No	No	No	No	No
8	2	159	1	13	No	No	No	No	No	No	No	No	No	No
9	2	128	1	11	No	No	No	No	No	No	No	No	No	No
10	2	119	1	10	No	No	No	No	No	No	No	No	No	No
11	2	119	1	10	No	No	No	No	No	No	No	No	No	No
12	2	113	1	9	No	No	No	No	No	No	No	No	No	No
13	2	104	1	9	No	No	No	No	No	No	No	No	No	No
14	2	95	1	8	No	No	No	No	No	No	No	No	No	No
15	2	95	1	8	No	No	No	No	No	No	No	No	No	No
16	2	93	1	8	No	No	No	No	No	No	No	No	No	No
17	2	53	1	4	No	No	No	No	No	No	No	No	No	No
18	2	29	1	2	No	No	No	No	No	No	No	No	No	No
19	2	26	1	2	No	No	No	No	No	No	No	No	No	No
20	2	11	1	1	No	No	No	No	No	No	No	No	No	No
21	2	8	1	1	No	No	No	No	No	No	No	No	No	No
22	2	8	1	1	No	No	No	No	No	No	No	No	No	No
23	2	5	1	0	No	No	No	No	No	No	No	No	No	No
24	2	5	1	0	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	S
Total Stopped Delay Per Vehicle on Minor Approach (s)	9.7
Number of Lanes on Minor Street Approach	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:03
Delay Condition Met	No
Volume on Minor Street Approach During Same Hour	22
High Minor Volume Condition Met	No
Total Entering Volume on All Approaches During Same Hour	287
Number of Approaches on Intersection	3
Total Volume Condition Met	No
Warrant Met for Approach	No
Warrant Met for Intersection	**No**

Signal Warrants Report For Intersection 8: Monty Hall Drive / Buddy Rogers Avenue

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	E, W
Minor Approaches	S, N
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets	
	E	W	S	N
1	104	26	96	31
2	100	25	92	30
3	98	24	90	29
4	83	21	77	25
5	79	20	73	24
6	71	18	65	21
7	66	16	60	20
8	62	16	58	19
9	50	12	46	15
10	47	12	43	14
11	47	12	43	14
12	45	11	41	13
13	41	10	37	12
14	37	9	35	11
15	37	9	35	11
16	36	9	34	11
17	21	5	19	6
18	11	3	11	3
19	10	3	10	3
20	4	1	4	1
21	3	1	3	1
22	3	1	3	1
23	2	1	2	1
24	2	1	2	1

Warrant Analysis by Hour

Hour	Major Lanes		Minor Lanes		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	2	130	2	127	No	No	No	No	No	No	No	No	No	No
2	2	125	2	122	No	No	No	No	No	No	No	No	No	No
3	2	122	2	119	No	No	No	No	No	No	No	No	No	No
4	2	104	2	102	No	No	No	No	No	No	No	No	No	No
5	2	99	2	97	No	No	No	No	No	No	No	No	No	No
6	2	89	2	86	No	No	No	No	No	No	No	No	No	No
7	2	82	2	80	No	No	No	No	No	No	No	No	No	No
8	2	78	2	77	No	No	No	No	No	No	No	No	No	No
9	2	62	2	61	No	No	No	No	No	No	No	No	No	No
10	2	59	2	57	No	No	No	No	No	No	No	No	No	No
11	2	59	2	57	No	No	No	No	No	No	No	No	No	No
12	2	56	2	54	No	No	No	No	No	No	No	No	No	No
13	2	51	2	49	No	No	No	No	No	No	No	No	No	No
14	2	46	2	46	No	No	No	No	No	No	No	No	No	No
15	2	46	2	46	No	No	No	No	No	No	No	No	No	No
16	2	45	2	45	No	No	No	No	No	No	No	No	No	No
17	2	26	2	25	No	No	No	No	No	No	No	No	No	No
18	2	14	2	14	No	No	No	No	No	No	No	No	No	No
19	2	13	2	13	No	No	No	No	No	No	No	No	No	No
20	2	5	2	5	No	No	No	No	No	No	No	No	No	No
21	2	4	2	4	No	No	No	No	No	No	No	No	No	No
22	2	4	2	4	No	No	No	No	No	No	No	No	No	No
23	2	3	2	3	No	No	No	No	No	No	No	No	No	No
24	2	3	2	3	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	S	N
Total Stopped Delay Per Vehicle on Minor Approach (s)	7.6	7.8
Number of Lanes on Minor Street Approach	1	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:12	0:04
Delay Condition Met	No	No
Volume on Minor Street Approach During Same Hour	96	31
High Minor Volume Condition Met	No	No
Total Entering Volume on All Approaches During Same Hour	257	257
Number of Approaches on Intersection	4	4
Total Volume Condition Met	No	No
Warrant Met for Approach	No	No
Warrant Met for Intersection	**No**	

Signal Warrants Report For Intersection 16: Cathedral Canyon Drive / Paseo Real

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	N, S
Minor Approaches	E, W
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets	
	N	S	E	W
1	767	710	47	43
2	736	682	45	41
3	721	667	44	40
4	614	568	38	34
5	583	540	36	33
6	522	483	32	29
7	483	447	30	27
8	460	426	28	26
9	368	341	23	21
10	345	320	21	19
11	345	320	21	19
12	330	305	20	18
13	299	277	18	17
14	276	256	17	15
15	276	256	17	15
16	268	248	16	15
17	153	142	9	9
18	84	78	5	5
19	77	71	5	4
20	31	28	2	2
21	23	21	1	1
22	23	21	1	1
23	15	14	1	1
24	15	14	1	1

Warrant Analysis by Hour

Hour	Major Lanes		Minor Lanes		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	6	1477	2	90	No	No	No	No	No	No	No	Yes	No	No
2	6	1418	2	86	No	No	No	No	No	No	No	Yes	No	No
3	6	1388	2	84	No	No	No	No	No	No	No	Yes	No	No
4	6	1182	2	72	No	No	No	No	No	No	No	No	No	No
5	6	1123	2	69	No	No	No	No	No	No	No	No	No	No
6	6	1005	2	61	No	No	No	No	No	No	No	No	No	No
7	6	930	2	57	No	No	No	No	No	No	No	No	No	No
8	6	886	2	54	No	No	No	No	No	No	No	No	No	No
9	6	709	2	44	No	No	No	No	No	No	No	No	No	No
10	6	665	2	40	No	No	No	No	No	No	No	No	No	No
11	6	665	2	40	No	No	No	No	No	No	No	No	No	No
12	6	635	2	38	No	No	No	No	No	No	No	No	No	No
13	6	576	2	35	No	No	No	No	No	No	No	No	No	No
14	6	532	2	32	No	No	No	No	No	No	No	No	No	No
15	6	532	2	32	No	No	No	No	No	No	No	No	No	No
16	6	516	2	31	No	No	No	No	No	No	No	No	No	No
17	6	295	2	18	No	No	No	No	No	No	No	No	No	No
18	6	162	2	10	No	No	No	No	No	No	No	No	No	No
19	6	148	2	9	No	No	No	No	No	No	No	No	No	No
20	6	59	2	4	No	No	No	No	No	No	No	No	No	No
21	6	44	2	2	No	No	No	No	No	No	No	No	No	No
22	6	44	2	2	No	No	No	No	No	No	No	No	No	No
23	6	29	2	2	No	No	No	No	No	No	No	No	No	No
24	6	29	2	2	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	3	0	0

Warrant 3 Condition A

Orientation	E	W
Total Stopped Delay Per Vehicle on Minor Approach (s)	31	27.8
Number of Lanes on Minor Street Approach	1	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:24	0:19
Delay Condition Met	No	No
Volume on Minor Street Approach During Same Hour	47	43
High Minor Volume Condition Met	No	No
Total Entering Volume on All Approaches During Same Hour	1567	1567
Number of Approaches on Intersection	4	4
Total Volume Condition Met	Yes	Yes
Warrant Met for Approach	No	No
Warrant Met for Intersection	**No**	

Signal Warrants Report For Intersection 1: North Project Driveway 1 / Buddy Rogers Avenue

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	E, W
Minor Approaches	S, N
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets	
	E	W	S	N
1	145	102	117	0
2	139	98	112	0
3	136	96	110	0
4	116	82	94	0
5	110	78	89	0
6	99	69	80	0
7	91	64	74	0
8	87	61	70	0
9	70	49	56	0
10	65	46	53	0
11	65	46	53	0
12	62	44	50	0
13	57	40	46	0
14	52	37	42	0
15	52	37	42	0
16	51	36	41	0
17	29	20	23	0
18	16	11	13	0
19	15	10	12	0
20	6	4	5	0
21	4	3	4	0
22	4	3	4	0
23	3	2	2	0
24	3	2	2	0

Warrant Analysis by Hour

Hour	Major Lanes		Minor Lanes		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	2	247	3	117	No	No	No	No	No	No	No	No	No	No
2	2	237	3	112	No	No	No	No	No	No	No	No	No	No
3	2	232	3	110	No	No	No	No	No	No	No	No	No	No
4	2	198	3	94	No	No	No	No	No	No	No	No	No	No
5	2	188	3	89	No	No	No	No	No	No	No	No	No	No
6	2	168	3	80	No	No	No	No	No	No	No	No	No	No
7	2	155	3	74	No	No	No	No	No	No	No	No	No	No
8	2	148	3	70	No	No	No	No	No	No	No	No	No	No
9	2	119	3	56	No	No	No	No	No	No	No	No	No	No
10	2	111	3	53	No	No	No	No	No	No	No	No	No	No
11	2	111	3	53	No	No	No	No	No	No	No	No	No	No
12	2	106	3	50	No	No	No	No	No	No	No	No	No	No
13	2	97	3	46	No	No	No	No	No	No	No	No	No	No
14	2	89	3	42	No	No	No	No	No	No	No	No	No	No
15	2	89	3	42	No	No	No	No	No	No	No	No	No	No
16	2	87	3	41	No	No	No	No	No	No	No	No	No	No
17	2	49	3	23	No	No	No	No	No	No	No	No	No	No
18	2	27	3	13	No	No	No	No	No	No	No	No	No	No
19	2	25	3	12	No	No	No	No	No	No	No	No	No	No
20	2	10	3	5	No	No	No	No	No	No	No	No	No	No
21	2	7	3	4	No	No	No	No	No	No	No	No	No	No
22	2	7	3	4	No	No	No	No	No	No	No	No	No	No
23	2	5	3	2	No	No	No	No	No	No	No	No	No	No
24	2	5	3	2	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	S	N
Total Stopped Delay Per Vehicle on Minor Approach (s)	10.1	11
Number of Lanes on Minor Street Approach	2	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:19	0:00
Delay Condition Met	No	No
Volume on Minor Street Approach During Same Hour	117	0
High Minor Volume Condition Met	No	No
Total Entering Volume on All Approaches During Same Hour	364	364
Number of Approaches on Intersection	4	4
Total Volume Condition Met	No	No
Warrant Met for Approach	No	No
Warrant Met for Intersection	**No**	

Signal Warrants Report For Intersection 2: Date Palm Drive / Buddy Rogers Avenue

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	Yes
#2	Four Hour Vehicular Volume	Yes
#3	Peak Hour	Yes

Intersection Warrants Parameters

Major Approaches	S, N
Minor Approaches	W
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets
	S	N	W
1	2016	1774	125
2	1935	1703	120
3	1895	1668	118
4	1613	1419	100
5	1532	1348	95
6	1371	1206	85
7	1270	1118	79
8	1210	1064	75
9	968	852	60
10	907	798	56
11	907	798	56
12	867	763	54
13	786	692	49
14	726	639	45
15	726	639	45
16	706	621	44
17	403	355	25
18	222	195	14
19	202	177	13
20	81	71	5
21	60	53	4
22	60	53	4
23	40	35	3
24	40	35	3

Warrant Analysis by Hour

Hour	Major Lanes		Minor Lanes		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	5	3790	1	125	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
2	5	3638	1	120	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
3	5	3563	1	118	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
4	5	3032	1	100	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes	No
5	5	2880	1	95	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes	No
6	5	2577	1	85	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes	No
7	5	2388	1	79	No	No	No	No	Yes	Yes	Yes	Yes	No	No
8	5	2274	1	75	No	No	No	No	Yes	Yes	Yes	Yes	No	No
9	5	1820	1	60	No	No	No	No	No	Yes	Yes	Yes	No	No
10	5	1705	1	56	No	No	No	No	No	No	Yes	Yes	No	No
11	5	1705	1	56	No	No	No	No	No	No	Yes	Yes	No	No
12	5	1630	1	54	No	No	No	No	No	No	Yes	Yes	No	No
13	5	1478	1	49	No	No	No	No	No	No	No	Yes	No	No
14	5	1365	1	45	No	No	No	No	No	No	No	Yes	No	No
15	5	1365	1	45	No	No	No	No	No	No	No	Yes	No	No
16	5	1327	1	44	No	No	No	No	No	No	No	Yes	No	No
17	5	758	1	25	No	No	No	No	No	No	No	No	No	No
18	5	417	1	14	No	No	No	No	No	No	No	No	No	No
19	5	379	1	13	No	No	No	No	No	No	No	No	No	No
20	5	152	1	5	No	No	No	No	No	No	No	No	No	No
21	5	113	1	4	No	No	No	No	No	No	No	No	No	No
22	5	113	1	4	No	No	No	No	No	No	No	No	No	No
23	5	75	1	3	No	No	No	No	No	No	No	No	No	No
24	5	75	1	3	No	No	No	No	No	No	No	No	No	No
Hours Met					0	2	3	6	8	9	12	16	6	3

Warrant 3 Condition A

Orientation	W
Total Stopped Delay Per Vehicle on Minor Approach (s)	4124.5
Number of Lanes on Minor Street Approach	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	143:12
Delay Condition Met	Yes
Volume on Minor Street Approach During Same Hour	125
High Minor Volume Condition Met	Yes
Total Entering Volume on All Approaches During Same Hour	3915
Number of Approaches on Intersection	3
Total Volume Condition Met	Yes
Warrant Met for Approach	Yes
Warrant Met for Intersection	**Yes**

Signal Warrants Report For Intersection 6: Date Palm Drive / East Palm Drive

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	N, S
Minor Approaches	W
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets
	N	S	W
1	1609	35	25
2	1545	34	24
3	1512	33	24
4	1287	28	20
5	1223	27	19
6	1094	24	17
7	1014	22	16
8	965	21	15
9	772	17	12
10	724	16	11
11	724	16	11
12	692	15	11
13	628	14	10
14	579	13	9
15	579	13	9
16	563	12	9
17	322	7	5
18	177	4	3
19	161	4	3
20	64	1	1
21	48	1	1
22	48	1	1
23	32	1	1
24	32	1	1

Warrant Analysis by Hour

Hour	Major Lanes		Minor Lanes		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	4	1644	1	25	No	No	No	No	No	No	No	No	No	No
2	4	1579	1	24	No	No	No	No	No	No	No	No	No	No
3	4	1545	1	24	No	No	No	No	No	No	No	No	No	No
4	4	1315	1	20	No	No	No	No	No	No	No	No	No	No
5	4	1250	1	19	No	No	No	No	No	No	No	No	No	No
6	4	1118	1	17	No	No	No	No	No	No	No	No	No	No
7	4	1036	1	16	No	No	No	No	No	No	No	No	No	No
8	4	986	1	15	No	No	No	No	No	No	No	No	No	No
9	4	789	1	12	No	No	No	No	No	No	No	No	No	No
10	4	740	1	11	No	No	No	No	No	No	No	No	No	No
11	4	740	1	11	No	No	No	No	No	No	No	No	No	No
12	4	707	1	11	No	No	No	No	No	No	No	No	No	No
13	4	642	1	10	No	No	No	No	No	No	No	No	No	No
14	4	592	1	9	No	No	No	No	No	No	No	No	No	No
15	4	592	1	9	No	No	No	No	No	No	No	No	No	No
16	4	575	1	9	No	No	No	No	No	No	No	No	No	No
17	4	329	1	5	No	No	No	No	No	No	No	No	No	No
18	4	181	1	3	No	No	No	No	No	No	No	No	No	No
19	4	165	1	3	No	No	No	No	No	No	No	No	No	No
20	4	65	1	1	No	No	No	No	No	No	No	No	No	No
21	4	49	1	1	No	No	No	No	No	No	No	No	No	No
22	4	49	1	1	No	No	No	No	No	No	No	No	No	No
23	4	33	1	1	No	No	No	No	No	No	No	No	No	No
24	4	33	1	1	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	W
Total Stopped Delay Per Vehicle on Minor Approach (s)	18.5
Number of Lanes on Minor Street Approach	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:07
Delay Condition Met	No
Volume on Minor Street Approach During Same Hour	25
High Minor Volume Condition Met	No
Total Entering Volume on All Approaches During Same Hour	1669
Number of Approaches on Intersection	3
Total Volume Condition Met	Yes
Warrant Met for Approach	No
Warrant Met for Intersection	**No**

Signal Warrants Report For Intersection 7: North Project Driveway 2 / Buddy Rogers Avenue

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	E, W
Minor Approaches	S
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets
	E	W	S
1	154	102	13
2	148	98	12
3	145	96	12
4	123	82	10
5	117	78	10
6	105	69	9
7	97	64	8
8	92	61	8
9	74	49	6
10	69	46	6
11	69	46	6
12	66	44	6
13	60	40	5
14	55	37	5
15	55	37	5
16	54	36	5
17	31	20	3
18	17	11	1
19	15	10	1
20	6	4	1
21	5	3	0
22	5	3	0
23	3	2	0
24	3	2	0

Warrant Analysis by Hour

Hour	Major Lanes		Minor Lanes		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	2	256	1	13	No	No	No	No	No	No	No	No	No	No
2	2	246	1	12	No	No	No	No	No	No	No	No	No	No
3	2	241	1	12	No	No	No	No	No	No	No	No	No	No
4	2	205	1	10	No	No	No	No	No	No	No	No	No	No
5	2	195	1	10	No	No	No	No	No	No	No	No	No	No
6	2	174	1	9	No	No	No	No	No	No	No	No	No	No
7	2	161	1	8	No	No	No	No	No	No	No	No	No	No
8	2	153	1	8	No	No	No	No	No	No	No	No	No	No
9	2	123	1	6	No	No	No	No	No	No	No	No	No	No
10	2	115	1	6	No	No	No	No	No	No	No	No	No	No
11	2	115	1	6	No	No	No	No	No	No	No	No	No	No
12	2	110	1	6	No	No	No	No	No	No	No	No	No	No
13	2	100	1	5	No	No	No	No	No	No	No	No	No	No
14	2	92	1	5	No	No	No	No	No	No	No	No	No	No
15	2	92	1	5	No	No	No	No	No	No	No	No	No	No
16	2	90	1	5	No	No	No	No	No	No	No	No	No	No
17	2	51	1	3	No	No	No	No	No	No	No	No	No	No
18	2	28	1	1	No	No	No	No	No	No	No	No	No	No
19	2	25	1	1	No	No	No	No	No	No	No	No	No	No
20	2	10	1	1	No	No	No	No	No	No	No	No	No	No
21	2	8	1	0	No	No	No	No	No	No	No	No	No	No
22	2	8	1	0	No	No	No	No	No	No	No	No	No	No
23	2	5	1	0	No	No	No	No	No	No	No	No	No	No
24	2	5	1	0	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	S
Total Stopped Delay Per Vehicle on Minor Approach (s)	8.9
Number of Lanes on Minor Street Approach	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:01
Delay Condition Met	No
Volume on Minor Street Approach During Same Hour	13
High Minor Volume Condition Met	No
Total Entering Volume on All Approaches During Same Hour	269
Number of Approaches on Intersection	3
Total Volume Condition Met	No
Warrant Met for Approach	No
Warrant Met for Intersection	**No**

Signal Warrants Report For Intersection 8: Monty Hall Drive / Buddy Rogers Avenue

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	E, W
Minor Approaches	S, N
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets	
	E	W	S	N
1	78	53	93	47
2	75	51	89	45
3	73	50	87	44
4	62	42	74	38
5	59	40	71	36
6	53	36	63	32
7	49	33	59	30
8	47	32	56	28
9	37	25	45	23
10	35	24	42	21
11	35	24	42	21
12	34	23	40	20
13	30	21	36	18
14	28	19	33	17
15	28	19	33	17
16	27	19	33	16
17	16	11	19	9
18	9	6	10	5
19	8	5	9	5
20	3	2	4	2
21	2	2	3	1
22	2	2	3	1
23	2	1	2	1
24	2	1	2	1

Warrant Analysis by Hour

Hour	Major Lanes		Minor Lanes		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	2	131	2	140	No	No	No	No	No	No	No	No	No	No
2	2	126	2	134	No	No	No	No	No	No	No	No	No	No
3	2	123	2	131	No	No	No	No	No	No	No	No	No	No
4	2	104	2	112	No	No	No	No	No	No	No	No	No	No
5	2	99	2	107	No	No	No	No	No	No	No	No	No	No
6	2	89	2	95	No	No	No	No	No	No	No	No	No	No
7	2	82	2	89	No	No	No	No	No	No	No	No	No	No
8	2	79	2	84	No	No	No	No	No	No	No	No	No	No
9	2	62	2	68	No	No	No	No	No	No	No	No	No	No
10	2	59	2	63	No	No	No	No	No	No	No	No	No	No
11	2	59	2	63	No	No	No	No	No	No	No	No	No	No
12	2	57	2	60	No	No	No	No	No	No	No	No	No	No
13	2	51	2	54	No	No	No	No	No	No	No	No	No	No
14	2	47	2	50	No	No	No	No	No	No	No	No	No	No
15	2	47	2	50	No	No	No	No	No	No	No	No	No	No
16	2	46	2	49	No	No	No	No	No	No	No	No	No	No
17	2	27	2	28	No	No	No	No	No	No	No	No	No	No
18	2	15	2	15	No	No	No	No	No	No	No	No	No	No
19	2	13	2	14	No	No	No	No	No	No	No	No	No	No
20	2	5	2	6	No	No	No	No	No	No	No	No	No	No
21	2	4	2	4	No	No	No	No	No	No	No	No	No	No
22	2	4	2	4	No	No	No	No	No	No	No	No	No	No
23	2	3	2	3	No	No	No	No	No	No	No	No	No	No
24	2	3	2	3	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	S	N
Total Stopped Delay Per Vehicle on Minor Approach (s)	7.7	8
Number of Lanes on Minor Street Approach	1	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:11	0:06
Delay Condition Met	No	No
Volume on Minor Street Approach During Same Hour	93	47
High Minor Volume Condition Met	No	No
Total Entering Volume on All Approaches During Same Hour	271	271
Number of Approaches on Intersection	4	4
Total Volume Condition Met	No	No
Warrant Met for Approach	No	No
Warrant Met for Intersection	**No**	

Signal Warrants Report For Intersection 16: Cathedral Canyon Drive / Paseo Real

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	N, S
Minor Approaches	E, W
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets	
	N	S	E	W
1	859	1089	33	30
2	825	1045	32	29
3	807	1024	31	28
4	687	871	26	24
5	653	828	25	23
6	584	741	22	20
7	541	686	21	19
8	515	653	20	18
9	412	523	16	14
10	387	490	15	14
11	387	490	15	14
12	369	468	14	13
13	335	425	13	12
14	309	392	12	11
15	309	392	12	11
16	301	381	12	11
17	172	218	7	6
18	94	120	4	3
19	86	109	3	3
20	34	44	1	1
21	26	33	1	1
22	26	33	1	1
23	17	22	1	1
24	17	22	1	1

Warrant Analysis by Hour

Hour	Major Lanes		Minor Lanes		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	6	1948	2	63	No	No	No	No	No	No	No	No	No	No
2	6	1870	2	61	No	No	No	No	No	No	No	No	No	No
3	6	1831	2	59	No	No	No	No	No	No	No	No	No	No
4	6	1558	2	50	No	No	No	No	No	No	No	No	No	No
5	6	1481	2	48	No	No	No	No	No	No	No	No	No	No
6	6	1325	2	42	No	No	No	No	No	No	No	No	No	No
7	6	1227	2	40	No	No	No	No	No	No	No	No	No	No
8	6	1168	2	38	No	No	No	No	No	No	No	No	No	No
9	6	935	2	30	No	No	No	No	No	No	No	No	No	No
10	6	877	2	29	No	No	No	No	No	No	No	No	No	No
11	6	877	2	29	No	No	No	No	No	No	No	No	No	No
12	6	837	2	27	No	No	No	No	No	No	No	No	No	No
13	6	760	2	25	No	No	No	No	No	No	No	No	No	No
14	6	701	2	23	No	No	No	No	No	No	No	No	No	No
15	6	701	2	23	No	No	No	No	No	No	No	No	No	No
16	6	682	2	23	No	No	No	No	No	No	No	No	No	No
17	6	390	2	13	No	No	No	No	No	No	No	No	No	No
18	6	214	2	7	No	No	No	No	No	No	No	No	No	No
19	6	195	2	6	No	No	No	No	No	No	No	No	No	No
20	6	78	2	2	No	No	No	No	No	No	No	No	No	No
21	6	59	2	2	No	No	No	No	No	No	No	No	No	No
22	6	59	2	2	No	No	No	No	No	No	No	No	No	No
23	6	39	2	2	No	No	No	No	No	No	No	No	No	No
24	6	39	2	2	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	E	W
Total Stopped Delay Per Vehicle on Minor Approach (s)	84.7	32.7
Number of Lanes on Minor Street Approach	1	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:46	0:16
Delay Condition Met	No	No
Volume on Minor Street Approach During Same Hour	33	30
High Minor Volume Condition Met	No	No
Total Entering Volume on All Approaches During Same Hour	2011	2011
Number of Approaches on Intersection	4	4
Total Volume Condition Met	Yes	Yes
Warrant Met for Approach	No	No
Warrant Met for Intersection	**No**	

Signal Warrants Report For Intersection 1: North Project Driveway 1 / Buddy Rogers Avenue

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	E, W
Minor Approaches	S, N
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets	
	E	W	S	N
1	201	124	160	0
2	193	119	154	0
3	189	117	150	0
4	161	99	128	0
5	153	94	122	0
6	137	84	109	0
7	127	78	101	0
8	121	74	96	0
9	96	60	77	0
10	90	56	72	0
11	90	56	72	0
12	86	53	69	0
13	78	48	62	0
14	72	45	58	0
15	72	45	58	0
16	70	43	56	0
17	40	25	32	0
18	22	14	18	0
19	20	12	16	0
20	8	5	6	0
21	6	4	5	0
22	6	4	5	0
23	4	2	3	0
24	4	2	3	0

Warrant Analysis by Hour

Hour	Major Lanes		Minor Lanes		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	2	325	3	160	No	No	No	No	No	No	No	No	No	No
2	2	312	3	154	No	No	No	No	No	No	No	No	No	No
3	2	306	3	150	No	No	No	No	No	No	No	No	No	No
4	2	260	3	128	No	No	No	No	No	No	No	No	No	No
5	2	247	3	122	No	No	No	No	No	No	No	No	No	No
6	2	221	3	109	No	No	No	No	No	No	No	No	No	No
7	2	205	3	101	No	No	No	No	No	No	No	No	No	No
8	2	195	3	96	No	No	No	No	No	No	No	No	No	No
9	2	156	3	77	No	No	No	No	No	No	No	No	No	No
10	2	146	3	72	No	No	No	No	No	No	No	No	No	No
11	2	146	3	72	No	No	No	No	No	No	No	No	No	No
12	2	139	3	69	No	No	No	No	No	No	No	No	No	No
13	2	126	3	62	No	No	No	No	No	No	No	No	No	No
14	2	117	3	58	No	No	No	No	No	No	No	No	No	No
15	2	117	3	58	No	No	No	No	No	No	No	No	No	No
16	2	113	3	56	No	No	No	No	No	No	No	No	No	No
17	2	65	3	32	No	No	No	No	No	No	No	No	No	No
18	2	36	3	18	No	No	No	No	No	No	No	No	No	No
19	2	32	3	16	No	No	No	No	No	No	No	No	No	No
20	2	13	3	6	No	No	No	No	No	No	No	No	No	No
21	2	10	3	5	No	No	No	No	No	No	No	No	No	No
22	2	10	3	5	No	No	No	No	No	No	No	No	No	No
23	2	6	3	3	No	No	No	No	No	No	No	No	No	No
24	2	6	3	3	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	S	N
Total Stopped Delay Per Vehicle on Minor Approach (s)	10.7	12.4
Number of Lanes on Minor Street Approach	2	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:28	0:00
Delay Condition Met	No	No
Volume on Minor Street Approach During Same Hour	160	0
High Minor Volume Condition Met	Yes	No
Total Entering Volume on All Approaches During Same Hour	485	485
Number of Approaches on Intersection	4	4
Total Volume Condition Met	No	No
Warrant Met for Approach	No	No
Warrant Met for Intersection	**No**	

Signal Warrants Report For Intersection 2: Date Palm Drive / Buddy Rogers Avenue

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	Yes
#2	Four Hour Vehicular Volume	Yes
#3	Peak Hour	Yes

Intersection Warrants Parameters

Major Approaches	S, N
Minor Approaches	W
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets
	S	N	W
1	1488	1748	190
2	1428	1678	182
3	1399	1643	179
4	1190	1398	152
5	1131	1328	144
6	1012	1189	129
7	937	1101	120
8	893	1049	114
9	714	839	91
10	670	787	86
11	670	787	86
12	640	752	82
13	580	682	74
14	536	629	68
15	536	629	68
16	521	612	67
17	298	350	38
18	164	192	21
19	149	175	19
20	60	70	8
21	45	52	6
22	45	52	6
23	30	35	4
24	30	35	4

Warrant Analysis by Hour

Hour	Major Lanes		Minor Lanes		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	5	3236	1	190	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
2	5	3106	1	182	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
3	5	3042	1	179	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
4	5	2588	1	152	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
5	5	2459	1	144	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
6	5	2201	1	129	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
7	5	2038	1	120	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
8	5	1942	1	114	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
9	5	1553	1	91	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes	No
10	5	1457	1	86	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes	No
11	5	1457	1	86	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes	No
12	5	1392	1	82	No	No	No	No	Yes	Yes	Yes	Yes	Yes	No
13	5	1262	1	74	No	No	No	No	No	Yes	Yes	Yes	No	No
14	5	1165	1	68	No	No	No	No	No	Yes	Yes	Yes	No	No
15	5	1165	1	68	No	No	No	No	No	Yes	Yes	Yes	No	No
16	5	1133	1	67	No	No	No	No	No	Yes	Yes	Yes	No	No
17	5	648	1	38	No	No	No	No	No	No	No	No	No	No
18	5	356	1	21	No	No	No	No	No	No	No	No	No	No
19	5	324	1	19	No	No	No	No	No	No	No	No	No	No
20	5	130	1	8	No	No	No	No	No	No	No	No	No	No
21	5	97	1	6	No	No	No	No	No	No	No	No	No	No
22	5	97	1	6	No	No	No	No	No	No	No	No	No	No
23	5	65	1	4	No	No	No	No	No	No	No	No	No	No
24	5	65	1	4	No	No	No	No	No	No	No	No	No	No
Hours Met					4	7	8	11	12	16	16	16	12	8

Warrant 3 Condition A

Orientation	W
Total Stopped Delay Per Vehicle on Minor Approach (s)	3909.1
Number of Lanes on Minor Street Approach	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	206:18
Delay Condition Met	Yes
Volume on Minor Street Approach During Same Hour	190
High Minor Volume Condition Met	Yes
Total Entering Volume on All Approaches During Same Hour	3426
Number of Approaches on Intersection	3
Total Volume Condition Met	Yes
Warrant Met for Approach	Yes
Warrant Met for Intersection	**Yes**

Signal Warrants Report For Intersection 6: Date Palm Drive / East Palm Drive

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	N, S
Minor Approaches	W
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets
	N	S	W
1	1613	39	44
2	1548	37	42
3	1516	37	41
4	1290	31	35
5	1226	30	33
6	1097	27	30
7	1016	25	28
8	968	23	26
9	774	19	21
10	726	18	20
11	726	18	20
12	694	17	19
13	629	15	17
14	581	14	16
15	581	14	16
16	565	14	15
17	323	8	9
18	177	4	5
19	161	4	4
20	65	2	2
21	48	1	1
22	48	1	1
23	32	1	1
24	32	1	1

Warrant Analysis by Hour

Hour	Major Lanes		Minor Lanes		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	4	1652	1	44	No	No	No	No	No	No	No	Yes	No	No
2	4	1585	1	42	No	No	No	No	No	No	No	Yes	No	No
3	4	1553	1	41	No	No	No	No	No	No	No	No	No	No
4	4	1321	1	35	No	No	No	No	No	No	No	No	No	No
5	4	1256	1	33	No	No	No	No	No	No	No	No	No	No
6	4	1124	1	30	No	No	No	No	No	No	No	No	No	No
7	4	1041	1	28	No	No	No	No	No	No	No	No	No	No
8	4	991	1	26	No	No	No	No	No	No	No	No	No	No
9	4	793	1	21	No	No	No	No	No	No	No	No	No	No
10	4	744	1	20	No	No	No	No	No	No	No	No	No	No
11	4	744	1	20	No	No	No	No	No	No	No	No	No	No
12	4	711	1	19	No	No	No	No	No	No	No	No	No	No
13	4	644	1	17	No	No	No	No	No	No	No	No	No	No
14	4	595	1	16	No	No	No	No	No	No	No	No	No	No
15	4	595	1	16	No	No	No	No	No	No	No	No	No	No
16	4	579	1	15	No	No	No	No	No	No	No	No	No	No
17	4	331	1	9	No	No	No	No	No	No	No	No	No	No
18	4	181	1	5	No	No	No	No	No	No	No	No	No	No
19	4	165	1	4	No	No	No	No	No	No	No	No	No	No
20	4	67	1	2	No	No	No	No	No	No	No	No	No	No
21	4	49	1	1	No	No	No	No	No	No	No	No	No	No
22	4	49	1	1	No	No	No	No	No	No	No	No	No	No
23	4	33	1	1	No	No	No	No	No	No	No	No	No	No
24	4	33	1	1	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	2	0	0

Warrant 3 Condition A

Orientation	W
Total Stopped Delay Per Vehicle on Minor Approach (s)	19.7
Number of Lanes on Minor Street Approach	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:14
Delay Condition Met	No
Volume on Minor Street Approach During Same Hour	44
High Minor Volume Condition Met	No
Total Entering Volume on All Approaches During Same Hour	1696
Number of Approaches on Intersection	3
Total Volume Condition Met	Yes
Warrant Met for Approach	No
Warrant Met for Intersection	**No**

Signal Warrants Report For Intersection 7: North Project Driveway 2 / Buddy Rogers Avenue

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	E, W
Minor Approaches	S
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets
	E	W	S
1	196	166	40
2	188	159	38
3	184	156	38
4	157	133	32
5	149	126	30
6	133	113	27
7	123	105	25
8	118	100	24
9	94	80	19
10	88	75	18
11	88	75	18
12	84	71	17
13	76	65	16
14	71	60	14
15	71	60	14
16	69	58	14
17	39	33	8
18	22	18	4
19	20	17	4
20	8	7	2
21	6	5	1
22	6	5	1
23	4	3	1
24	4	3	1

Warrant Analysis by Hour

Hour	Major Lanes		Minor Lanes		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	2	362	1	40	No	No	No	No	No	No	No	No	No	No
2	2	347	1	38	No	No	No	No	No	No	No	No	No	No
3	2	340	1	38	No	No	No	No	No	No	No	No	No	No
4	2	290	1	32	No	No	No	No	No	No	No	No	No	No
5	2	275	1	30	No	No	No	No	No	No	No	No	No	No
6	2	246	1	27	No	No	No	No	No	No	No	No	No	No
7	2	228	1	25	No	No	No	No	No	No	No	No	No	No
8	2	218	1	24	No	No	No	No	No	No	No	No	No	No
9	2	174	1	19	No	No	No	No	No	No	No	No	No	No
10	2	163	1	18	No	No	No	No	No	No	No	No	No	No
11	2	163	1	18	No	No	No	No	No	No	No	No	No	No
12	2	155	1	17	No	No	No	No	No	No	No	No	No	No
13	2	141	1	16	No	No	No	No	No	No	No	No	No	No
14	2	131	1	14	No	No	No	No	No	No	No	No	No	No
15	2	131	1	14	No	No	No	No	No	No	No	No	No	No
16	2	127	1	14	No	No	No	No	No	No	No	No	No	No
17	2	72	1	8	No	No	No	No	No	No	No	No	No	No
18	2	40	1	4	No	No	No	No	No	No	No	No	No	No
19	2	37	1	4	No	No	No	No	No	No	No	No	No	No
20	2	15	1	2	No	No	No	No	No	No	No	No	No	No
21	2	11	1	1	No	No	No	No	No	No	No	No	No	No
22	2	11	1	1	No	No	No	No	No	No	No	No	No	No
23	2	7	1	1	No	No	No	No	No	No	No	No	No	No
24	2	7	1	1	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	S
Total Stopped Delay Per Vehicle on Minor Approach (s)	10.5
Number of Lanes on Minor Street Approach	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:06
Delay Condition Met	No
Volume on Minor Street Approach During Same Hour	40
High Minor Volume Condition Met	No
Total Entering Volume on All Approaches During Same Hour	402
Number of Approaches on Intersection	3
Total Volume Condition Met	No
Warrant Met for Approach	No
Warrant Met for Intersection	**No**

Signal Warrants Report For Intersection 8: Monty Hall Drive / Buddy Rogers Avenue

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	E, W
Minor Approaches	S, N
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets	
	E	W	S	N
1	126	26	124	31
2	121	25	119	30
3	118	24	117	29
4	101	21	99	25
5	96	20	94	24
6	86	18	84	21
7	79	16	78	20
8	76	16	74	19
9	60	12	60	15
10	57	12	56	14
11	57	12	56	14
12	54	11	53	13
13	49	10	48	12
14	45	9	45	11
15	45	9	45	11
16	44	9	43	11
17	25	5	25	6
18	14	3	14	3
19	13	3	12	3
20	5	1	5	1
21	4	1	4	1
22	4	1	4	1
23	3	1	2	1
24	3	1	2	1

Warrant Analysis by Hour

Hour	Major Lanes		Minor Lanes		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	2	152	2	155	No	No	No	No	No	No	No	No	No	No
2	2	146	2	149	No	No	No	No	No	No	No	No	No	No
3	2	142	2	146	No	No	No	No	No	No	No	No	No	No
4	2	122	2	124	No	No	No	No	No	No	No	No	No	No
5	2	116	2	118	No	No	No	No	No	No	No	No	No	No
6	2	104	2	105	No	No	No	No	No	No	No	No	No	No
7	2	95	2	98	No	No	No	No	No	No	No	No	No	No
8	2	92	2	93	No	No	No	No	No	No	No	No	No	No
9	2	72	2	75	No	No	No	No	No	No	No	No	No	No
10	2	69	2	70	No	No	No	No	No	No	No	No	No	No
11	2	69	2	70	No	No	No	No	No	No	No	No	No	No
12	2	65	2	66	No	No	No	No	No	No	No	No	No	No
13	2	59	2	60	No	No	No	No	No	No	No	No	No	No
14	2	54	2	56	No	No	No	No	No	No	No	No	No	No
15	2	54	2	56	No	No	No	No	No	No	No	No	No	No
16	2	53	2	54	No	No	No	No	No	No	No	No	No	No
17	2	30	2	31	No	No	No	No	No	No	No	No	No	No
18	2	17	2	17	No	No	No	No	No	No	No	No	No	No
19	2	16	2	15	No	No	No	No	No	No	No	No	No	No
20	2	6	2	6	No	No	No	No	No	No	No	No	No	No
21	2	5	2	5	No	No	No	No	No	No	No	No	No	No
22	2	5	2	5	No	No	No	No	No	No	No	No	No	No
23	2	4	2	3	No	No	No	No	No	No	No	No	No	No
24	2	4	2	3	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	S	N
Total Stopped Delay Per Vehicle on Minor Approach (s)	7.8	7.9
Number of Lanes on Minor Street Approach	1	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:16	0:04
Delay Condition Met	No	No
Volume on Minor Street Approach During Same Hour	124	31
High Minor Volume Condition Met	Yes	No
Total Entering Volume on All Approaches During Same Hour	307	307
Number of Approaches on Intersection	4	4
Total Volume Condition Met	No	No
Warrant Met for Approach	No	No
Warrant Met for Intersection	**No**	

Signal Warrants Report For Intersection 16: Cathedral Canyon Drive / Paseo Real

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	N, S
Minor Approaches	E, W
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets	
	N	S	E	W
1	808	748	54	43
2	776	718	52	41
3	760	703	51	40
4	646	598	43	34
5	614	568	41	33
6	549	509	37	29
7	509	471	34	27
8	485	449	32	26
9	388	359	26	21
10	364	337	24	19
11	364	337	24	19
12	347	322	23	18
13	315	292	21	17
14	291	269	19	15
15	291	269	19	15
16	283	262	19	15
17	162	150	11	9
18	89	82	6	5
19	81	75	5	4
20	32	30	2	2
21	24	22	2	1
22	24	22	2	1
23	16	15	1	1
24	16	15	1	1

Warrant Analysis by Hour

Hour	Major Lanes		Minor Lanes		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	6	1556	2	97	No	No	No	No	No	No	Yes	Yes	No	No
2	6	1494	2	93	No	No	No	No	No	No	Yes	Yes	No	No
3	6	1463	2	91	No	No	No	No	No	No	No	Yes	No	No
4	6	1244	2	77	No	No	No	No	No	No	No	Yes	No	No
5	6	1182	2	74	No	No	No	No	No	No	No	No	No	No
6	6	1058	2	66	No	No	No	No	No	No	No	No	No	No
7	6	980	2	61	No	No	No	No	No	No	No	No	No	No
8	6	934	2	58	No	No	No	No	No	No	No	No	No	No
9	6	747	2	47	No	No	No	No	No	No	No	No	No	No
10	6	701	2	43	No	No	No	No	No	No	No	No	No	No
11	6	701	2	43	No	No	No	No	No	No	No	No	No	No
12	6	669	2	41	No	No	No	No	No	No	No	No	No	No
13	6	607	2	38	No	No	No	No	No	No	No	No	No	No
14	6	560	2	34	No	No	No	No	No	No	No	No	No	No
15	6	560	2	34	No	No	No	No	No	No	No	No	No	No
16	6	545	2	34	No	No	No	No	No	No	No	No	No	No
17	6	312	2	20	No	No	No	No	No	No	No	No	No	No
18	6	171	2	11	No	No	No	No	No	No	No	No	No	No
19	6	156	2	9	No	No	No	No	No	No	No	No	No	No
20	6	62	2	4	No	No	No	No	No	No	No	No	No	No
21	6	46	2	3	No	No	No	No	No	No	No	No	No	No
22	6	46	2	3	No	No	No	No	No	No	No	No	No	No
23	6	31	2	2	No	No	No	No	No	No	No	No	No	No
24	6	31	2	2	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	2	4	0	0

Warrant 3 Condition A

Orientation	E	W
Total Stopped Delay Per Vehicle on Minor Approach (s)	38.9	30.9
Number of Lanes on Minor Street Approach	1	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:34	0:22
Delay Condition Met	No	No
Volume on Minor Street Approach During Same Hour	54	43
High Minor Volume Condition Met	No	No
Total Entering Volume on All Approaches During Same Hour	1653	1653
Number of Approaches on Intersection	4	4
Total Volume Condition Met	Yes	Yes
Warrant Met for Approach	No	No
Warrant Met for Intersection	**No**	

Signal Warrants Report For Intersection 2: Date Palm Drive / Buddy Rogers Avenue

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	S, N
Minor Approaches	W
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets
	S	N	W
1	2074	1729	39
2	1991	1660	37
3	1950	1625	37
4	1659	1383	31
5	1576	1314	30
6	1410	1176	27
7	1307	1089	25
8	1244	1037	23
9	996	830	19
10	933	778	18
11	933	778	18
12	892	743	17
13	809	674	15
14	747	622	14
15	747	622	14
16	726	605	14
17	415	346	8
18	228	190	4
19	207	173	4
20	83	69	2
21	62	52	1
22	62	52	1
23	41	35	1
24	41	35	1

Warrant Analysis by Hour

Hour	Major Lanes		Minor Lanes		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	5	3803	1	39	No	No	No	No	No	No	No	No	No	No
2	5	3651	1	37	No	No	No	No	No	No	No	No	No	No
3	5	3575	1	37	No	No	No	No	No	No	No	No	No	No
4	5	3042	1	31	No	No	No	No	No	No	No	No	No	No
5	5	2890	1	30	No	No	No	No	No	No	No	No	No	No
6	5	2586	1	27	No	No	No	No	No	No	No	No	No	No
7	5	2396	1	25	No	No	No	No	No	No	No	No	No	No
8	5	2281	1	23	No	No	No	No	No	No	No	No	No	No
9	5	1826	1	19	No	No	No	No	No	No	No	No	No	No
10	5	1711	1	18	No	No	No	No	No	No	No	No	No	No
11	5	1711	1	18	No	No	No	No	No	No	No	No	No	No
12	5	1635	1	17	No	No	No	No	No	No	No	No	No	No
13	5	1483	1	15	No	No	No	No	No	No	No	No	No	No
14	5	1369	1	14	No	No	No	No	No	No	No	No	No	No
15	5	1369	1	14	No	No	No	No	No	No	No	No	No	No
16	5	1331	1	14	No	No	No	No	No	No	No	No	No	No
17	5	761	1	8	No	No	No	No	No	No	No	No	No	No
18	5	418	1	4	No	No	No	No	No	No	No	No	No	No
19	5	380	1	4	No	No	No	No	No	No	No	No	No	No
20	5	152	1	2	No	No	No	No	No	No	No	No	No	No
21	5	114	1	1	No	No	No	No	No	No	No	No	No	No
22	5	114	1	1	No	No	No	No	No	No	No	No	No	No
23	5	76	1	1	No	No	No	No	No	No	No	No	No	No
24	5	76	1	1	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	W
Total Stopped Delay Per Vehicle on Minor Approach (s)	1205.2
Number of Lanes on Minor Street Approach	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	13:03
Delay Condition Met	Yes
Volume on Minor Street Approach During Same Hour	39
High Minor Volume Condition Met	No
Total Entering Volume on All Approaches During Same Hour	3842
Number of Approaches on Intersection	3
Total Volume Condition Met	Yes
Warrant Met for Approach	No
Warrant Met for Intersection	**No**

Signal Warrants Report For Intersection 16: Cathedral Canyon Drive / Paseo Real

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	N, S
Minor Approaches	E, W
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets	
	N	S	E	W
1	834	1083	29	30
2	801	1040	28	29
3	784	1018	27	28
4	667	866	23	24
5	634	823	22	23
6	567	736	20	20
7	525	682	18	19
8	500	650	17	18
9	400	520	14	14
10	375	487	13	14
11	375	487	13	14
12	359	466	12	13
13	325	422	11	12
14	300	390	10	11
15	300	390	10	11
16	292	379	10	11
17	167	217	6	6
18	92	119	3	3
19	83	108	3	3
20	33	43	1	1
21	25	32	1	1
22	25	32	1	1
23	17	22	1	1
24	17	22	1	1

Warrant Analysis by Hour

Hour	Major Lanes		Minor Lanes		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	6	1917	2	59	No	No	No	No	No	No	No	No	No	No
2	6	1841	2	57	No	No	No	No	No	No	No	No	No	No
3	6	1802	2	55	No	No	No	No	No	No	No	No	No	No
4	6	1533	2	47	No	No	No	No	No	No	No	No	No	No
5	6	1457	2	45	No	No	No	No	No	No	No	No	No	No
6	6	1303	2	40	No	No	No	No	No	No	No	No	No	No
7	6	1207	2	37	No	No	No	No	No	No	No	No	No	No
8	6	1150	2	35	No	No	No	No	No	No	No	No	No	No
9	6	920	2	28	No	No	No	No	No	No	No	No	No	No
10	6	862	2	27	No	No	No	No	No	No	No	No	No	No
11	6	862	2	27	No	No	No	No	No	No	No	No	No	No
12	6	825	2	25	No	No	No	No	No	No	No	No	No	No
13	6	747	2	23	No	No	No	No	No	No	No	No	No	No
14	6	690	2	21	No	No	No	No	No	No	No	No	No	No
15	6	690	2	21	No	No	No	No	No	No	No	No	No	No
16	6	671	2	21	No	No	No	No	No	No	No	No	No	No
17	6	384	2	12	No	No	No	No	No	No	No	No	No	No
18	6	211	2	6	No	No	No	No	No	No	No	No	No	No
19	6	191	2	6	No	No	No	No	No	No	No	No	No	No
20	6	76	2	2	No	No	No	No	No	No	No	No	No	No
21	6	57	2	2	No	No	No	No	No	No	No	No	No	No
22	6	57	2	2	No	No	No	No	No	No	No	No	No	No
23	6	39	2	2	No	No	No	No	No	No	No	No	No	No
24	6	39	2	2	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	E	W
Total Stopped Delay Per Vehicle on Minor Approach (s)	70.1	31.1
Number of Lanes on Minor Street Approach	1	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:33	0:15
Delay Condition Met	No	No
Volume on Minor Street Approach During Same Hour	29	30
High Minor Volume Condition Met	No	No
Total Entering Volume on All Approaches During Same Hour	1976	1976
Number of Approaches on Intersection	4	4
Total Volume Condition Met	Yes	Yes
Warrant Met for Approach	No	No
Warrant Met for Intersection	**No**	

Signal Warrants Report For Intersection 27: Van Fleet Street / B Street-West Project Driveway

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	S, N
Minor Approaches	E, W
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets	
	S	N	E	W
1	132	181	72	26
2	127	174	69	25
3	124	170	68	24
4	106	145	58	21
5	100	138	55	20
6	90	123	49	18
7	83	114	45	16
8	79	109	43	16
9	63	87	35	12
10	59	81	32	12
11	59	81	32	12
12	57	78	31	11
13	51	71	28	10
14	48	65	26	9
15	48	65	26	9
16	46	63	25	9
17	26	36	14	5
18	15	20	8	3
19	13	18	7	3
20	5	7	3	1
21	4	5	2	1
22	4	5	2	1
23	3	4	1	1
24	3	4	1	1

Warrant Analysis by Hour

Hour	Major Lanes		Minor Lanes		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	2	313	2	98	No	No	No	No	No	No	No	No	No	No
2	2	301	2	94	No	No	No	No	No	No	No	No	No	No
3	2	294	2	92	No	No	No	No	No	No	No	No	No	No
4	2	251	2	79	No	No	No	No	No	No	No	No	No	No
5	2	238	2	75	No	No	No	No	No	No	No	No	No	No
6	2	213	2	67	No	No	No	No	No	No	No	No	No	No
7	2	197	2	61	No	No	No	No	No	No	No	No	No	No
8	2	188	2	59	No	No	No	No	No	No	No	No	No	No
9	2	150	2	47	No	No	No	No	No	No	No	No	No	No
10	2	140	2	44	No	No	No	No	No	No	No	No	No	No
11	2	140	2	44	No	No	No	No	No	No	No	No	No	No
12	2	135	2	42	No	No	No	No	No	No	No	No	No	No
13	2	122	2	38	No	No	No	No	No	No	No	No	No	No
14	2	113	2	35	No	No	No	No	No	No	No	No	No	No
15	2	113	2	35	No	No	No	No	No	No	No	No	No	No
16	2	109	2	34	No	No	No	No	No	No	No	No	No	No
17	2	62	2	19	No	No	No	No	No	No	No	No	No	No
18	2	35	2	11	No	No	No	No	No	No	No	No	No	No
19	2	31	2	10	No	No	No	No	No	No	No	No	No	No
20	2	12	2	4	No	No	No	No	No	No	No	No	No	No
21	2	9	2	3	No	No	No	No	No	No	No	No	No	No
22	2	9	2	3	No	No	No	No	No	No	No	No	No	No
23	2	7	2	2	No	No	No	No	No	No	No	No	No	No
24	2	7	2	2	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	E	W
Total Stopped Delay Per Vehicle on Minor Approach (s)	10.2	12
Number of Lanes on Minor Street Approach	1	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:12	0:05
Delay Condition Met	No	No
Volume on Minor Street Approach During Same Hour	72	26
High Minor Volume Condition Met	No	No
Total Entering Volume on All Approaches During Same Hour	411	411
Number of Approaches on Intersection	4	4
Total Volume Condition Met	No	No
Warrant Met for Approach	No	No
Warrant Met for Intersection	**No**	

Signal Warrants Report For Intersection 28: Van Fleet Street / D Street

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	S, N
Minor Approaches	E, W
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets	
	S	N	E	W
1	97	106	49	24
2	93	102	47	23
3	91	100	46	23
4	78	85	39	19
5	74	81	37	18
6	66	72	33	16
7	61	67	31	15
8	58	64	29	14
9	47	51	24	12
10	44	48	22	11
11	44	48	22	11
12	42	46	21	10
13	38	41	19	9
14	35	38	18	9
15	35	38	18	9
16	34	37	17	8
17	19	21	10	5
18	11	12	5	3
19	10	11	5	2
20	4	4	2	1
21	3	3	1	1
22	3	3	1	1
23	2	2	1	0
24	2	2	1	0

Warrant Analysis by Hour

Hour	Major Lanes		Minor Lanes		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	2	203	2	73	No	No	No	No	No	No	No	No	No	No
2	2	195	2	70	No	No	No	No	No	No	No	No	No	No
3	2	191	2	69	No	No	No	No	No	No	No	No	No	No
4	2	163	2	58	No	No	No	No	No	No	No	No	No	No
5	2	155	2	55	No	No	No	No	No	No	No	No	No	No
6	2	138	2	49	No	No	No	No	No	No	No	No	No	No
7	2	128	2	46	No	No	No	No	No	No	No	No	No	No
8	2	122	2	43	No	No	No	No	No	No	No	No	No	No
9	2	98	2	36	No	No	No	No	No	No	No	No	No	No
10	2	92	2	33	No	No	No	No	No	No	No	No	No	No
11	2	92	2	33	No	No	No	No	No	No	No	No	No	No
12	2	88	2	31	No	No	No	No	No	No	No	No	No	No
13	2	79	2	28	No	No	No	No	No	No	No	No	No	No
14	2	73	2	27	No	No	No	No	No	No	No	No	No	No
15	2	73	2	27	No	No	No	No	No	No	No	No	No	No
16	2	71	2	25	No	No	No	No	No	No	No	No	No	No
17	2	40	2	15	No	No	No	No	No	No	No	No	No	No
18	2	23	2	8	No	No	No	No	No	No	No	No	No	No
19	2	21	2	7	No	No	No	No	No	No	No	No	No	No
20	2	8	2	3	No	No	No	No	No	No	No	No	No	No
21	2	6	2	2	No	No	No	No	No	No	No	No	No	No
22	2	6	2	2	No	No	No	No	No	No	No	No	No	No
23	2	4	2	1	No	No	No	No	No	No	No	No	No	No
24	2	4	2	1	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	E	W
Total Stopped Delay Per Vehicle on Minor Approach (s)	9.7	10.5
Number of Lanes on Minor Street Approach	1	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:07	0:04
Delay Condition Met	No	No
Volume on Minor Street Approach During Same Hour	49	24
High Minor Volume Condition Met	No	No
Total Entering Volume on All Approaches During Same Hour	276	276
Number of Approaches on Intersection	4	4
Total Volume Condition Met	No	No
Warrant Met for Approach	No	No
Warrant Met for Intersection	**No**	

Signal Warrants Report For Intersection 29: South Project Driveway / D Street

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	E, W
Minor Approaches	N
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets
	E	W	N
1	12	21	37
2	12	20	36
3	11	20	35
4	10	17	30
5	9	16	28
6	8	14	25
7	8	13	23
8	7	13	22
9	6	10	18
10	5	9	17
11	5	9	17
12	5	9	16
13	5	8	14
14	4	8	13
15	4	8	13
16	4	7	13
17	2	4	7
18	1	2	4
19	1	2	4
20	0	1	1
21	0	1	1
22	0	1	1
23	0	0	1
24	0	0	1

Warrant Analysis by Hour

Hour	Major Lanes		Minor Lanes		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	2	33	1	37	No	No	No	No	No	No	No	No	No	No
2	2	32	1	36	No	No	No	No	No	No	No	No	No	No
3	2	31	1	35	No	No	No	No	No	No	No	No	No	No
4	2	27	1	30	No	No	No	No	No	No	No	No	No	No
5	2	25	1	28	No	No	No	No	No	No	No	No	No	No
6	2	22	1	25	No	No	No	No	No	No	No	No	No	No
7	2	21	1	23	No	No	No	No	No	No	No	No	No	No
8	2	20	1	22	No	No	No	No	No	No	No	No	No	No
9	2	16	1	18	No	No	No	No	No	No	No	No	No	No
10	2	14	1	17	No	No	No	No	No	No	No	No	No	No
11	2	14	1	17	No	No	No	No	No	No	No	No	No	No
12	2	14	1	16	No	No	No	No	No	No	No	No	No	No
13	2	13	1	14	No	No	No	No	No	No	No	No	No	No
14	2	12	1	13	No	No	No	No	No	No	No	No	No	No
15	2	12	1	13	No	No	No	No	No	No	No	No	No	No
16	2	11	1	13	No	No	No	No	No	No	No	No	No	No
17	2	6	1	7	No	No	No	No	No	No	No	No	No	No
18	2	3	1	4	No	No	No	No	No	No	No	No	No	No
19	2	3	1	4	No	No	No	No	No	No	No	No	No	No
20	2	1	1	1	No	No	No	No	No	No	No	No	No	No
21	2	1	1	1	No	No	No	No	No	No	No	No	No	No
22	2	1	1	1	No	No	No	No	No	No	No	No	No	No
23	2	0	1	1	No	No	No	No	No	No	No	No	No	No
24	2	0	1	1	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	N
Total Stopped Delay Per Vehicle on Minor Approach (s)	8.5
Number of Lanes on Minor Street Approach	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:05
Delay Condition Met	No
Volume on Minor Street Approach During Same Hour	37
High Minor Volume Condition Met	No
Total Entering Volume on All Approaches During Same Hour	70
Number of Approaches on Intersection	3
Total Volume Condition Met	No
Warrant Met for Approach	No
Warrant Met for Intersection	**No**

Signal Warrants Report For Intersection 2: Date Palm Drive / Buddy Rogers Avenue

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	S, N
Minor Approaches	W
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets
	S	N	W
1	1545	1691	58
2	1483	1623	56
3	1452	1590	55
4	1236	1353	46
5	1174	1285	44
6	1051	1150	39
7	973	1065	37
8	927	1015	35
9	742	812	28
10	695	761	26
11	695	761	26
12	664	727	25
13	603	659	23
14	556	609	21
15	556	609	21
16	541	592	20
17	309	338	12
18	170	186	6
19	155	169	6
20	62	68	2
21	46	51	2
22	46	51	2
23	31	34	1
24	31	34	1

Warrant Analysis by Hour

Hour	Major Lanes		Minor Lanes		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	5	3236	1	58	No	No	No	No	No	No	Yes	Yes	No	No
2	5	3106	1	56	No	No	No	No	No	No	Yes	Yes	No	No
3	5	3042	1	55	No	No	No	No	No	No	Yes	Yes	No	No
4	5	2589	1	46	No	No	No	No	No	No	No	Yes	No	No
5	5	2459	1	44	No	No	No	No	No	No	No	Yes	No	No
6	5	2201	1	39	No	No	No	No	No	No	No	No	No	No
7	5	2038	1	37	No	No	No	No	No	No	No	No	No	No
8	5	1942	1	35	No	No	No	No	No	No	No	No	No	No
9	5	1554	1	28	No	No	No	No	No	No	No	No	No	No
10	5	1456	1	26	No	No	No	No	No	No	No	No	No	No
11	5	1456	1	26	No	No	No	No	No	No	No	No	No	No
12	5	1391	1	25	No	No	No	No	No	No	No	No	No	No
13	5	1262	1	23	No	No	No	No	No	No	No	No	No	No
14	5	1165	1	21	No	No	No	No	No	No	No	No	No	No
15	5	1165	1	21	No	No	No	No	No	No	No	No	No	No
16	5	1133	1	20	No	No	No	No	No	No	No	No	No	No
17	5	647	1	12	No	No	No	No	No	No	No	No	No	No
18	5	356	1	6	No	No	No	No	No	No	No	No	No	No
19	5	324	1	6	No	No	No	No	No	No	No	No	No	No
20	5	130	1	2	No	No	No	No	No	No	No	No	No	No
21	5	97	1	2	No	No	No	No	No	No	No	No	No	No
22	5	97	1	2	No	No	No	No	No	No	No	No	No	No
23	5	65	1	1	No	No	No	No	No	No	No	No	No	No
24	5	65	1	1	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	3	5	0	0

Warrant 3 Condition A

Orientation	W
Total Stopped Delay Per Vehicle on Minor Approach (s)	840.3
Number of Lanes on Minor Street Approach	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	13:32
Delay Condition Met	Yes
Volume on Minor Street Approach During Same Hour	58
High Minor Volume Condition Met	No
Total Entering Volume on All Approaches During Same Hour	3294
Number of Approaches on Intersection	3
Total Volume Condition Met	Yes
Warrant Met for Approach	No
Warrant Met for Intersection	**No**

Signal Warrants Report For Intersection 16: Cathedral Canyon Drive / Paseo Real

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	N, S
Minor Approaches	E, W
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets	
	N	S	E	W
1	775	715	48	43
2	744	686	46	41
3	729	672	45	40
4	620	572	38	34
5	589	543	36	33
6	527	486	33	29
7	488	450	30	27
8	465	429	29	26
9	372	343	23	21
10	349	322	22	19
11	349	322	22	19
12	333	307	21	18
13	302	279	19	17
14	279	257	17	15
15	279	257	17	15
16	271	250	17	15
17	155	143	10	9
18	85	79	5	5
19	78	72	5	4
20	31	29	2	2
21	23	21	1	1
22	23	21	1	1
23	16	14	1	1
24	16	14	1	1

Warrant Analysis by Hour

Hour	Major Lanes		Minor Lanes		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	6	1490	2	91	No	No	No	No	No	No	No	Yes	No	No
2	6	1430	2	87	No	No	No	No	No	No	No	Yes	No	No
3	6	1401	2	85	No	No	No	No	No	No	No	Yes	No	No
4	6	1192	2	72	No	No	No	No	No	No	No	No	No	No
5	6	1132	2	69	No	No	No	No	No	No	No	No	No	No
6	6	1013	2	62	No	No	No	No	No	No	No	No	No	No
7	6	938	2	57	No	No	No	No	No	No	No	No	No	No
8	6	894	2	55	No	No	No	No	No	No	No	No	No	No
9	6	715	2	44	No	No	No	No	No	No	No	No	No	No
10	6	671	2	41	No	No	No	No	No	No	No	No	No	No
11	6	671	2	41	No	No	No	No	No	No	No	No	No	No
12	6	640	2	39	No	No	No	No	No	No	No	No	No	No
13	6	581	2	36	No	No	No	No	No	No	No	No	No	No
14	6	536	2	32	No	No	No	No	No	No	No	No	No	No
15	6	536	2	32	No	No	No	No	No	No	No	No	No	No
16	6	521	2	32	No	No	No	No	No	No	No	No	No	No
17	6	298	2	19	No	No	No	No	No	No	No	No	No	No
18	6	164	2	10	No	No	No	No	No	No	No	No	No	No
19	6	150	2	9	No	No	No	No	No	No	No	No	No	No
20	6	60	2	4	No	No	No	No	No	No	No	No	No	No
21	6	44	2	2	No	No	No	No	No	No	No	No	No	No
22	6	44	2	2	No	No	No	No	No	No	No	No	No	No
23	6	30	2	2	No	No	No	No	No	No	No	No	No	No
24	6	30	2	2	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	3	0	0

Warrant 3 Condition A

Orientation	E	W
Total Stopped Delay Per Vehicle on Minor Approach (s)	32.1	28.3
Number of Lanes on Minor Street Approach	1	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:25	0:20
Delay Condition Met	No	No
Volume on Minor Street Approach During Same Hour	48	43
High Minor Volume Condition Met	No	No
Total Entering Volume on All Approaches During Same Hour	1581	1581
Number of Approaches on Intersection	4	4
Total Volume Condition Met	Yes	Yes
Warrant Met for Approach	No	No
Warrant Met for Intersection	**No**	

Signal Warrants Report For Intersection 27: Van Fleet Street / B Street-West Project Driveway

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	S, N
Minor Approaches	E, W
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets	
	S	N	E	W
1	80	163	73	30
2	77	156	70	29
3	75	153	69	28
4	64	130	58	24
5	61	124	55	23
6	54	111	50	20
7	50	103	46	19
8	48	98	44	18
9	38	78	35	14
10	36	73	33	14
11	36	73	33	14
12	34	70	31	13
13	31	64	28	12
14	29	59	26	11
15	29	59	26	11
16	28	57	26	11
17	16	33	15	6
18	9	18	8	3
19	8	16	7	3
20	3	7	3	1
21	2	5	2	1
22	2	5	2	1
23	2	3	1	1
24	2	3	1	1

Warrant Analysis by Hour

Hour	Major Lanes		Minor Lanes		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	2	243	2	103	No	No	No	No	No	No	No	No	No	No
2	2	233	2	99	No	No	No	No	No	No	No	No	No	No
3	2	228	2	97	No	No	No	No	No	No	No	No	No	No
4	2	194	2	82	No	No	No	No	No	No	No	No	No	No
5	2	185	2	78	No	No	No	No	No	No	No	No	No	No
6	2	165	2	70	No	No	No	No	No	No	No	No	No	No
7	2	153	2	65	No	No	No	No	No	No	No	No	No	No
8	2	146	2	62	No	No	No	No	No	No	No	No	No	No
9	2	116	2	49	No	No	No	No	No	No	No	No	No	No
10	2	109	2	47	No	No	No	No	No	No	No	No	No	No
11	2	109	2	47	No	No	No	No	No	No	No	No	No	No
12	2	104	2	44	No	No	No	No	No	No	No	No	No	No
13	2	95	2	40	No	No	No	No	No	No	No	No	No	No
14	2	88	2	37	No	No	No	No	No	No	No	No	No	No
15	2	88	2	37	No	No	No	No	No	No	No	No	No	No
16	2	85	2	37	No	No	No	No	No	No	No	No	No	No
17	2	49	2	21	No	No	No	No	No	No	No	No	No	No
18	2	27	2	11	No	No	No	No	No	No	No	No	No	No
19	2	24	2	10	No	No	No	No	No	No	No	No	No	No
20	2	10	2	4	No	No	No	No	No	No	No	No	No	No
21	2	7	2	3	No	No	No	No	No	No	No	No	No	No
22	2	7	2	3	No	No	No	No	No	No	No	No	No	No
23	2	5	2	2	No	No	No	No	No	No	No	No	No	No
24	2	5	2	2	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	E	W
Total Stopped Delay Per Vehicle on Minor Approach (s)	10.1	12.5
Number of Lanes on Minor Street Approach	1	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:12	0:06
Delay Condition Met	No	No
Volume on Minor Street Approach During Same Hour	73	30
High Minor Volume Condition Met	No	No
Total Entering Volume on All Approaches During Same Hour	346	346
Number of Approaches on Intersection	4	4
Total Volume Condition Met	No	No
Warrant Met for Approach	No	No
Warrant Met for Intersection	**No**	

Signal Warrants Report For Intersection 28: Van Fleet Street / D Street

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	S, N
Minor Approaches	E, W
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets	
	S	N	E	W
1	56	68	45	23
2	54	65	43	22
3	53	64	42	22
4	45	54	36	18
5	43	52	34	17
6	38	46	31	16
7	35	43	28	14
8	34	41	27	14
9	27	33	22	11
10	25	31	20	10
11	25	31	20	10
12	24	29	19	10
13	22	27	18	9
14	20	24	16	8
15	20	24	16	8
16	20	24	16	8
17	11	14	9	5
18	6	7	5	3
19	6	7	5	2
20	2	3	2	1
21	2	2	1	1
22	2	2	1	1
23	1	1	1	0
24	1	1	1	0

Warrant Analysis by Hour

Hour	Major Lanes		Minor Lanes		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	2	124	2	68	No	No	No	No	No	No	No	No	No	No
2	2	119	2	65	No	No	No	No	No	No	No	No	No	No
3	2	117	2	64	No	No	No	No	No	No	No	No	No	No
4	2	99	2	54	No	No	No	No	No	No	No	No	No	No
5	2	95	2	51	No	No	No	No	No	No	No	No	No	No
6	2	84	2	47	No	No	No	No	No	No	No	No	No	No
7	2	78	2	42	No	No	No	No	No	No	No	No	No	No
8	2	75	2	41	No	No	No	No	No	No	No	No	No	No
9	2	60	2	33	No	No	No	No	No	No	No	No	No	No
10	2	56	2	30	No	No	No	No	No	No	No	No	No	No
11	2	56	2	30	No	No	No	No	No	No	No	No	No	No
12	2	53	2	29	No	No	No	No	No	No	No	No	No	No
13	2	49	2	27	No	No	No	No	No	No	No	No	No	No
14	2	44	2	24	No	No	No	No	No	No	No	No	No	No
15	2	44	2	24	No	No	No	No	No	No	No	No	No	No
16	2	44	2	24	No	No	No	No	No	No	No	No	No	No
17	2	25	2	14	No	No	No	No	No	No	No	No	No	No
18	2	13	2	8	No	No	No	No	No	No	No	No	No	No
19	2	13	2	7	No	No	No	No	No	No	No	No	No	No
20	2	5	2	3	No	No	No	No	No	No	No	No	No	No
21	2	4	2	2	No	No	No	No	No	No	No	No	No	No
22	2	4	2	2	No	No	No	No	No	No	No	No	No	No
23	2	2	2	1	No	No	No	No	No	No	No	No	No	No
24	2	2	2	1	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	E	W
Total Stopped Delay Per Vehicle on Minor Approach (s)	9.2	9.8
Number of Lanes on Minor Street Approach	1	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:06	0:03
Delay Condition Met	No	No
Volume on Minor Street Approach During Same Hour	45	23
High Minor Volume Condition Met	No	No
Total Entering Volume on All Approaches During Same Hour	192	192
Number of Approaches on Intersection	4	4
Total Volume Condition Met	No	No
Warrant Met for Approach	No	No
Warrant Met for Intersection	**No**	

Signal Warrants Report For Intersection 29: South Project Driveway / D Street

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	E, W
Minor Approaches	N
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets
	E	W	N
1	12	25	38
2	12	24	36
3	11	24	36
4	10	20	30
5	9	19	29
6	8	17	26
7	8	16	24
8	7	15	23
9	6	12	18
10	5	11	17
11	5	11	17
12	5	11	16
13	5	10	15
14	4	9	14
15	4	9	14
16	4	9	13
17	2	5	8
18	1	3	4
19	1	3	4
20	0	1	2
21	0	1	1
22	0	1	1
23	0	1	1
24	0	1	1

Warrant Analysis by Hour

Hour	Major Lanes		Minor Lanes		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	2	37	1	38	No	No	No	No	No	No	No	No	No	No
2	2	36	1	36	No	No	No	No	No	No	No	No	No	No
3	2	35	1	36	No	No	No	No	No	No	No	No	No	No
4	2	30	1	30	No	No	No	No	No	No	No	No	No	No
5	2	28	1	29	No	No	No	No	No	No	No	No	No	No
6	2	25	1	26	No	No	No	No	No	No	No	No	No	No
7	2	24	1	24	No	No	No	No	No	No	No	No	No	No
8	2	22	1	23	No	No	No	No	No	No	No	No	No	No
9	2	18	1	18	No	No	No	No	No	No	No	No	No	No
10	2	16	1	17	No	No	No	No	No	No	No	No	No	No
11	2	16	1	17	No	No	No	No	No	No	No	No	No	No
12	2	16	1	16	No	No	No	No	No	No	No	No	No	No
13	2	15	1	15	No	No	No	No	No	No	No	No	No	No
14	2	13	1	14	No	No	No	No	No	No	No	No	No	No
15	2	13	1	14	No	No	No	No	No	No	No	No	No	No
16	2	13	1	13	No	No	No	No	No	No	No	No	No	No
17	2	7	1	8	No	No	No	No	No	No	No	No	No	No
18	2	4	1	4	No	No	No	No	No	No	No	No	No	No
19	2	4	1	4	No	No	No	No	No	No	No	No	No	No
20	2	1	1	2	No	No	No	No	No	No	No	No	No	No
21	2	1	1	1	No	No	No	No	No	No	No	No	No	No
22	2	1	1	1	No	No	No	No	No	No	No	No	No	No
23	2	1	1	1	No	No	No	No	No	No	No	No	No	No
24	2	1	1	1	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	N
Total Stopped Delay Per Vehicle on Minor Approach (s)	8.5
Number of Lanes on Minor Street Approach	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:05
Delay Condition Met	No
Volume on Minor Street Approach During Same Hour	38
High Minor Volume Condition Met	No
Total Entering Volume on All Approaches During Same Hour	75
Number of Approaches on Intersection	3
Total Volume Condition Met	No
Warrant Met for Approach	No
Warrant Met for Intersection	**No**

LOS Worksheets

APPENDIX E

Existing Conditions

Intersection Level Of Service Report
Intersection 2: Date Palm Drive / Buddy Rogers Avenue

Control Type:	Two-way stop	Delay (sec / veh):	19.8
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.090

Intersection Setup

Name						
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	0	0	0
Pocket Length [ft]	150.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00		40.00		40.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

Volumes

Name						
Base Volume Input [veh/h]	4	671	533	27	23	6
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	4	671	533	27	23	6
Peak Hour Factor	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	175	139	7	6	2
Total Analysis Volume [veh/h]	4	700	556	28	24	6
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.01	0.01	0.00	0.09	0.01
d_M, Delay for Movement [s/veh]	8.66	0.00	0.00	0.00	19.84	11.41
Movement LOS	A	A	A	A	C	B
95th-Percentile Queue Length [veh]	0.01	0.00	0.00	0.00	0.33	0.33
95th-Percentile Queue Length [ft]	0.31	0.00	0.00	0.00	8.15	8.15
d_A, Approach Delay [s/veh]	0.05		0.00		18.16	
Approach LOS	A		A		C	
d_I, Intersection Delay [s/veh]	0.44					
Intersection LOS	C					

Intersection Level Of Service Report
Intersection 3: Date Palm Drive / East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	10.1
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.605

Intersection Setup

Name						
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	1	2	0	0	0
Pocket Length [ft]	230.00	230.00	195.00	100.00	100.00	100.00
Speed [mph]	40.00		40.00		40.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		Yes		No	

Volumes

Name						
Base Volume Input [veh/h]	409	118	143	1125	1247	472
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	409	118	143	1125	1247	472
Peak Hour Factor	0.9560	0.9560	0.9560	0.9560	0.9560	0.9560
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	107	31	37	294	326	123
Total Analysis Volume [veh/h]	428	123	150	1177	1304	494
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	1 - E Palm Canyon Drive
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Split	Split	Protected	Permissive	Permissive	Overlap
Signal group	1	0	3	8	4	4
Auxiliary Signal Groups						3,4
Lead / Lag	Lead	-	Lead	-	-	-
Minimum Green [s]	7	0	7	7	7	7
Maximum Green [s]	30	0	30	30	30	30
Amber [s]	3.0	0.0	3.0	3.0	3.0	3.0
All red [s]	1.0	0.0	1.0	1.0	1.0	1.0
Split [s]	22	0	11	38	27	27
Vehicle Extension [s]	3.0	0.0	3.0	3.0	3.0	3.0
Walk [s]	5	0	0	5	5	5
Pedestrian Clearance [s]	10	0	0	10	10	10
Rest In Walk	No			No	No	
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0
Minimum Recall	No		No	No	No	No
Maximum Recall	No		No	No	No	No
Pedestrian Recall	No		No	No	No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	R	L	C	C	R
C, Cycle Length [s]	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	2.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	0.00
g_i, Effective Green Time [s]	8	8	10	44	30	44
g / C, Green / Cycle	0.13	0.13	0.16	0.73	0.50	0.73
(v / s)_i Volume / Saturation Flow Rate	0.08	0.08	0.05	0.23	0.26	0.31
s, saturation flow rate [veh/h]	5168	1583	2741	5074	5074	1583
c, Capacity [veh/h]	700	215	483	3712	2550	1158
d1, Uniform Delay [s]	24.51	24.37	23.95	2.82	10.02	3.15
k, delay calibration	0.11	0.11	0.11	0.50	0.50	0.18
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.87	2.40	0.36	0.23	0.74	0.41
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

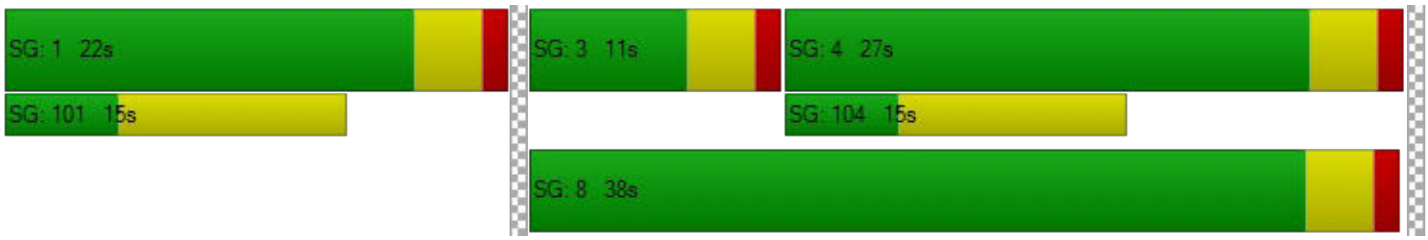
X, volume / capacity	0.61	0.57	0.31	0.32	0.51	0.43
d, Delay for Lane Group [s/veh]	25.38	26.78	24.31	3.05	10.76	3.56
Lane Group LOS	C	C	C	A	B	A
Critical Lane Group	Yes	No	No	No	Yes	Yes
50th-Percentile Queue Length [veh]	1.78	1.62	0.91	0.66	3.06	0.94
50th-Percentile Queue Length [ft]	44.58	40.60	22.75	16.41	76.52	23.61
95th-Percentile Queue Length [veh]	3.21	2.92	1.64	1.18	5.51	1.70
95th-Percentile Queue Length [ft]	80.25	73.08	40.95	29.53	137.73	42.50

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	25.38	26.78	24.31	3.05	10.76	3.56
Movement LOS	C	C	C	A	B	A
d_A, Approach Delay [s/veh]	25.69		5.45		8.78	
Approach LOS	C		A		A	
d_I, Intersection Delay [s/veh]	10.11					
Intersection LOS	B					
Intersection V/C	0.605					

Sequence

Ring 1	1	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 5: Monty Hall Drive-Van Fleet Avenue / East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	8.1
Analysis Method:	HCM 2010	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.560

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	1	0	1	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	45.00	100.00	100.00	105.00	100.00	130.00	125.00	100.00	180.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	11	7	55	12	6	12	6	1211	9	92	1276	16
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	11	7	55	12	6	12	6	1211	9	92	1276	16
Peak Hour Factor	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	2	14	3	2	3	2	317	2	24	334	4
Total Analysis Volume [veh/h]	12	7	58	13	6	13	6	1269	9	96	1338	17
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	1 - E Palm Canyon Drive
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	0	7	7	0	7	7	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	19	0	0	19	0	11	30	0	11	30	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	R	L	C	L	C	R	L	C	R
C, Cycle Length [s]	60	60	60	60	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	5	5	5	5	1	37	37	6	42	42
g / C, Green / Cycle	0.09	0.09	0.09	0.09	0.01	0.62	0.62	0.09	0.70	0.70
(v / s)_i Volume / Saturation Flow Rate	0.02	0.04	0.01	0.01	0.00	0.36	0.01	0.05	0.38	0.01
s, saturation flow rate [veh/h]	1251	1583	1403	1662	1774	3547	1583	1774	3547	1583
c, Capacity [veh/h]	206	137	164	144	23	2197	981	168	2486	1110
d1, Uniform Delay [s]	25.37	26.06	28.48	25.39	29.40	6.78	4.38	26.07	4.32	2.72
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.19	2.07	0.20	0.41	5.69	1.11	0.02	3.06	0.84	0.03
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.09	0.42	0.08	0.13	0.26	0.58	0.01	0.57	0.54	0.02
d, Delay for Lane Group [s/veh]	25.57	28.13	28.69	25.81	35.09	7.89	4.40	29.13	5.16	2.74
Lane Group LOS	C	C	C	C	D	A	A	C	A	A
Critical Lane Group	No	Yes	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh]	0.24	0.80	0.18	0.25	0.12	3.29	0.03	1.34	2.04	0.04
50th-Percentile Queue Length [ft]	6.00	19.92	4.45	6.14	2.90	82.31	0.79	33.46	50.88	0.89
95th-Percentile Queue Length [veh]	0.43	1.43	0.32	0.44	0.21	5.93	0.06	2.41	3.66	0.06
95th-Percentile Queue Length [ft]	10.80	35.85	8.00	11.05	5.22	148.16	1.43	60.23	91.59	1.61

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	25.57	25.57	28.13	28.69	25.81	25.81	35.09	7.89	4.40	29.13	5.16	2.74
Movement LOS	C	C	C	C	C	C	D	A	A	C	A	A
d_A, Approach Delay [s/veh]	27.50			26.98			8.00			6.72		
Approach LOS	C			C			A			A		
d_I, Intersection Delay [s/veh]	8.09											
Intersection LOS	A											
Intersection V/C	0.560											

Sequence

Ring 1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 6: Date Palm Drive / East Palm Drive

Control Type:	Two-way stop	Delay (sec / veh):	10.1
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

Intersection Setup

Name						
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00		40.00		40.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

Volumes

Name						
Base Volume Input [veh/h]	0	8	539	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.00	1.00	1.00	1.04	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	8	539	0	0	0
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	2	146	0	0	0
Total Analysis Volume [veh/h]	0	9	586	0	0	0
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.01	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	0.00	0.00	10.12
Movement LOS		A	A	A		B
95th-Percentile Queue Length [veh]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	0.00		0.00		10.12	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	0.00					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 8: Monty Hall Drive / Buddy Rogers Avenue

Control Type:	All-way stop	Delay (sec / veh):	7.3
Analysis Method:	HCM 2010	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.057

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			No			No		

Volumes

Name												
Base Volume Input [veh/h]	13	7	3	23	12	0	4	15	21	9	11	5
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	13	7	3	23	12	0	4	15	21	9	11	5
Peak Hour Factor	0.7500	0.7500	0.7500	0.7500	0.7500	0.7500	0.7500	0.7500	0.7500	0.7500	0.7500	0.7500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	2	1	8	4	0	1	5	7	3	4	2
Total Analysis Volume [veh/h]	17	9	4	31	16	0	5	20	28	12	15	7
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	858	842	938	877
Degree of Utilization, x	0.03	0.06	0.06	0.04

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.11	0.18	0.18	0.12
95th-Percentile Queue Length [ft]	2.71	4.43	4.49	3.02
Approach Delay [s/veh]	7.35	7.53	7.07	7.27
Approach LOS	A	A	A	A
Intersection Delay [s/veh]	7.29			
Intersection LOS	A			

Intersection Level Of Service Report
Intersection 9: Buddy Rogers Avenue/ East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	3.2
Analysis Method:	HCM 2010	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.454

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	13	2	28	10	5	22	23	1186	3	42	1227	15
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	13	2	28	10	5	22	23	1186	3	42	1227	15
Peak Hour Factor	0.9310	0.9310	0.9310	0.9310	0.9310	0.9310	0.9310	0.9310	0.9310	0.9310	0.9310	0.9310
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	1	8	3	1	6	6	318	1	11	329	4
Total Analysis Volume [veh/h]	14	2	30	11	5	24	25	1274	3	45	1318	16
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	1 - E Palm Canyon Drive
Cycle Length [s]	100
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	7	0	0	7	0	0	7	0	0	7	0
Maximum Green [s]	0	30	0	0	30	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	19	0	0	19	0	0	70	0	0	70	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No			No			No			No	
Maximum Recall		No			No			No			No	
Pedestrian Recall		No			No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	C	L	C	R	L	C	R
C, Cycle Length [s]	100	100	100	100	100	100	100	100
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	2.00	2.00	0.00	0.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	5	5	87	87	87	87	87	87
g / C, Green / Cycle	0.05	0.05	0.87	0.87	0.87	0.87	0.87	0.87
(v / s)_i Volume / Saturation Flow Rate	0.03	0.02	0.06	0.36	0.00	0.10	0.37	0.01
s, saturation flow rate [veh/h]	1645	1664	415	3547	1583	433	3547	1583
c, Capacity [veh/h]	131	131	390	3082	1376	405	3082	1376
d1, Uniform Delay [s]	46.29	46.11	2.93	1.34	0.86	2.97	1.36	0.87
k, delay calibration	0.11	0.11	0.50	0.50	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.61	1.31	0.32	0.41	0.00	0.55	0.44	0.02
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.35	0.31	0.06	0.41	0.00	0.11	0.43	0.01
d, Delay for Lane Group [s/veh]	47.89	47.42	3.25	1.75	0.86	3.52	1.80	0.88
Lane Group LOS	D	D	A	A	A	A	A	A
Critical Lane Group	Yes	No	No	No	No	No	Yes	No
50th-Percentile Queue Length [veh]	1.15	0.99	0.12	0.47	0.00	0.22	0.49	0.01
50th-Percentile Queue Length [ft]	28.68	24.77	2.97	11.65	0.05	5.40	12.31	0.27
95th-Percentile Queue Length [veh]	2.07	1.78	0.21	0.84	0.00	0.39	0.89	0.02
95th-Percentile Queue Length [ft]	51.63	44.59	5.34	20.97	0.09	9.73	22.17	0.48

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	47.89	47.89	47.89	47.42	47.42	47.42	3.25	1.75	0.86	3.52	1.80	0.88
Movement LOS	D	D	D	D	D	D	A	A	A	A	A	A
d_A, Approach Delay [s/veh]	47.89			47.42			1.77			1.84		
Approach LOS	D			D			A			A		
d_I, Intersection Delay [s/veh]	3.24											
Intersection LOS	A											
Intersection V/C	0.454											

Sequence

Ring 1	2	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 10: Cathedral Canyon Drive / East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	14.7
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.571

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	0	1	0	0	1	0	1
Pocket Length [ft]	100.00	100.00	70.00	90.00	100.00	100.00	238.00	100.00	100.00	190.00	100.00	270.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	62	124	46	129	147	74	119	1056	74	66	998	157
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	62	124	46	129	147	74	119	1056	74	66	998	157
Peak Hour Factor	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	16	32	12	34	38	19	31	275	19	17	260	41
Total Analysis Volume [veh/h]	65	129	48	135	153	77	124	1101	77	69	1041	164
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	1 - E Palm Canyon Drive
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Overlap	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	6	3	8	0	7	4	0
Auxiliary Signal Groups						3,6						
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	7	7	7	0	7	7	0
Maximum Green [s]	0	30	0	0	30	30	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	1.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	19	0	0	19	19	11	30	0	11	30	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	5	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	10	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No	No	No	No		No	No	
Maximum Recall		No			No	No	No	No		No	No	
Pedestrian Recall		No			No	No	No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	60	60	60	60	60	60	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	0.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	14	14	14	14	14	24	6	29	29	5	28	28
g / C, Green / Cycle	0.23	0.23	0.23	0.23	0.23	0.40	0.10	0.49	0.49	0.08	0.47	0.47
(v / s)_i Volume / Saturation Flow Rate	0.05	0.07	0.03	0.11	0.08	0.05	0.07	0.31	0.05	0.04	0.21	0.10
s, saturation flow rate [veh/h]	1229	1863	1583	1256	1863	1583	1774	3547	1583	1774	5074	1583
c, Capacity [veh/h]	274	428	364	293	428	630	181	1740	777	142	2377	742
d1, Uniform Delay [s]	24.22	19.13	18.36	25.02	19.40	11.42	26.03	11.30	8.19	26.44	10.67	9.46
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.44	0.39	0.16	1.13	0.50	0.09	4.56	1.77	0.25	2.58	0.59	0.69
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.24	0.30	0.13	0.46	0.36	0.12	0.69	0.63	0.10	0.49	0.44	0.22
d, Delay for Lane Group [s/veh]	24.66	19.52	18.53	26.15	19.90	11.51	30.59	13.06	8.44	29.01	11.25	10.14
Lane Group LOS	C	B	B	C	B	B	C	B	A	C	B	B
Critical Lane Group	No	No	No	Yes	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh]	0.80	1.36	0.49	1.76	1.64	0.56	1.78	4.55	0.47	0.96	2.55	1.15
50th-Percentile Queue Length [ft]	20.09	34.04	12.15	44.00	41.04	13.89	44.50	113.82	11.83	24.08	63.66	28.86
95th-Percentile Queue Length [veh]	1.45	2.45	0.88	3.17	2.96	1.00	3.20	8.05	0.85	1.73	4.58	2.08
95th-Percentile Queue Length [ft]	36.17	61.28	21.88	79.21	73.88	25.00	80.09	201.30	21.30	43.34	114.60	51.95

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	24.66	19.52	18.53	26.15	19.90	11.51	30.59	13.06	8.44	29.01	11.25	10.14
Movement LOS	C	B	B	C	B	B	C	B	A	C	B	B
d_A, Approach Delay [s/veh]	20.70			20.44			14.46			12.07		
Approach LOS	C			C			B			B		
d_I, Intersection Delay [s/veh]	14.67											
Intersection LOS	B											
Intersection V/C	0.571											

Sequence

Ring 1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 11: Perez Road / East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	20.6
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.700

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	150.00	100.00	100.00	170.00	100.00	45.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	34	24	15	19	8	347	269	1161	7	7	1128	12
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	34	24	15	19	8	347	269	1161	7	7	1128	12
Peak Hour Factor	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	9	6	4	5	2	92	71	307	2	2	298	3
Total Analysis Volume [veh/h]	36	25	16	20	8	367	284	1227	7	7	1192	13
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	80
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	0	7	7	0	7	7	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	19	0	0	19	0	11	25	0	17	31	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	R	L	C	C	L	C	R
C, Cycle Length [s]	80	80	80	80	80	80	80	80	80	80	80
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	6	6	12	12	12	9	45	45	1	37	37
g / C, Green / Cycle	0.07	0.07	0.15	0.15	0.15	0.11	0.56	0.56	0.01	0.47	0.47
(v / s)_i Volume / Saturation Flow Rate	0.02	0.02	0.01	0.12	0.12	0.08	0.23	0.23	0.00	0.34	0.01
s, saturation flow rate [veh/h]	1774	1743	1774	1594	1583	3445	3547	1857	1774	3547	1583
c, Capacity [veh/h]	130	127	268	240	239	388	1994	1044	25	1646	735
d1, Uniform Delay [s]	35.17	35.29	29.25	32.79	32.79	34.43	9.96	9.96	39.13	17.36	11.62
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.15	1.44	0.12	5.50	5.54	2.69	0.62	1.17	5.83	2.81	0.04
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

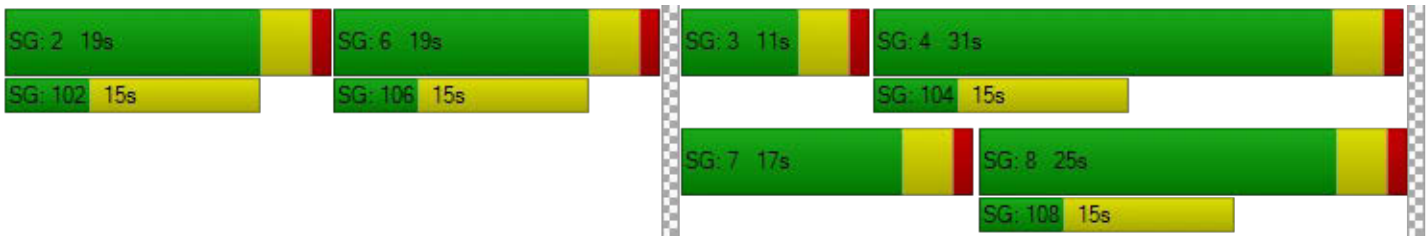
X, volume / capacity	0.28	0.32	0.07	0.78	0.78	0.73	0.41	0.41	0.28	0.72	0.02
d, Delay for Lane Group [s/veh]	36.32	36.72	29.36	38.29	38.32	37.12	10.57	11.13	44.97	20.17	11.66
Lane Group LOS	D	D	C	D	D	D	B	B	D	C	B
Critical Lane Group	No	Yes	No	No	Yes	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh]	0.68	0.78	0.32	3.69	3.67	2.69	3.51	3.84	0.17	8.33	0.12
50th-Percentile Queue Length [ft]	16.93	19.44	8.09	92.18	91.67	67.14	87.77	95.97	4.29	208.27	3.03
95th-Percentile Queue Length [veh]	1.22	1.40	0.58	6.64	6.60	4.83	6.32	6.91	0.31	13.06	0.22
95th-Percentile Queue Length [ft]	30.47	34.99	14.56	165.92	165.01	120.84	157.98	172.75	7.72	326.61	5.46

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	36.32	36.72	36.72	29.36	38.29	38.31	37.12	10.76	11.13	44.97	20.17	11.66
Movement LOS	D	D	D	C	D	D	D	B	B	D	C	B
d_A, Approach Delay [s/veh]	36.53			37.85			15.70			20.22		
Approach LOS	D			D			B			C		
d_I, Intersection Delay [s/veh]	20.64											
Intersection LOS	C											
Intersection V/C	0.700											

Sequence

Ring 1	2	6	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 12: Canyon Plaza Drive / East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	9.0
Analysis Method:	HCM 2010	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.551

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	1	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	95.00	90.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	51	1	74	5	2	12	13	1375	26	51	1443	10
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	51	1	74	5	2	12	13	1375	26	51	1443	10
Peak Hour Factor	0.9550	0.9550	0.9550	0.9550	0.9550	0.9550	0.9550	0.9550	0.9550	0.9550	0.9550	0.9550
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	13	0	19	1	1	3	3	360	7	13	378	3
Total Analysis Volume [veh/h]	53	1	77	5	2	13	14	1440	27	53	1511	10
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	100
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	0	7	7	0	7	7	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	23	0	0	23	0	11	66	0	11	66	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	L	C	R	L	C	C
C, Cycle Length [s]	100	100	100	100	100	100	100	100	100	100
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	9	9	9	9	2	74	74	5	77	77
g / C, Green / Cycle	0.09	0.09	0.09	0.09	0.02	0.74	0.74	0.05	0.77	0.77
(v / s)_i Volume / Saturation Flow Rate	0.04	0.05	0.00	0.01	0.01	0.41	0.02	0.03	0.41	0.41
s, saturation flow rate [veh/h]	1393	1586	1316	1616	1774	3547	1583	1774	1863	1858
c, Capacity [veh/h]	150	137	94	139	40	2624	1171	96	1436	1433
d1, Uniform Delay [s]	46.34	43.91	48.51	42.15	48.14	5.70	3.44	46.12	4.43	4.43
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.42	3.71	0.23	0.34	5.07	0.83	0.04	4.90	1.40	1.41
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.35	0.57	0.05	0.11	0.35	0.55	0.02	0.55	0.53	0.53
d, Delay for Lane Group [s/veh]	47.76	47.62	48.74	42.48	53.21	6.53	3.48	51.02	5.83	5.84
Lane Group LOS	D	D	D	D	D	A	A	D	A	A
Critical Lane Group	No	Yes	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh]	1.32	1.95	0.13	0.35	0.39	5.03	0.12	1.38	4.46	4.46
50th-Percentile Queue Length [ft]	32.98	48.70	3.16	8.67	9.82	125.87	2.98	34.59	111.54	111.49
95th-Percentile Queue Length [veh]	2.37	3.51	0.23	0.62	0.71	8.71	0.21	2.49	7.93	7.92
95th-Percentile Queue Length [ft]	59.37	87.67	5.68	15.60	17.67	217.87	5.36	62.27	198.15	198.07

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	47.76	47.62	47.62	48.74	42.48	42.48	53.21	6.53	3.48	51.02	5.83	5.84
Movement LOS	D	D	D	D	D	D	D	A	A	D	A	A
d_A, Approach Delay [s/veh]	47.68			44.05			6.92			7.36		
Approach LOS	D			D			A			A		
d_I, Intersection Delay [s/veh]	9.03											
Intersection LOS	A											
Intersection V/C	0.551											

Sequence

Ring 1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 13: Golf Club Drive / East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	9.7
Analysis Method:	HCM 2010	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.652

Intersection Setup

Name						
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	0	0	0
Pocket Length [ft]	100.00	100.00	90.00	100.00	100.00	100.00
Speed [mph]	40.00		40.00		40.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		Yes		No	

Volumes

Name						
Base Volume Input [veh/h]	146	51	83	1246	1366	113
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	146	51	83	1246	1366	113
Peak Hour Factor	0.9240	0.9240	0.9240	0.9240	0.9240	0.9240
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	40	14	22	337	370	31
Total Analysis Volume [veh/h]	158	55	90	1348	1478	122
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	80
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Split	Split	Protected	Permissive	Permissive	Permissive
Signal group	1	0	3	8	4	0
Auxiliary Signal Groups						
Lead / Lag	Lead	-	Lead	-	-	-
Minimum Green [s]	7	0	7	7	7	0
Maximum Green [s]	30	0	7	30	30	0
Amber [s]	3.0	0.0	3.0	3.0	3.0	0.0
All red [s]	1.0	0.0	1.0	1.0	1.0	0.0
Split [s]	50	0	11	30	19	0
Vehicle Extension [s]	3.0	0.0	3.0	3.0	3.0	0.0
Walk [s]	5	0	0	5	5	0
Pedestrian Clearance [s]	10	0	0	10	10	0
Rest In Walk	No			No	No	
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	2.0	0.0
Minimum Recall	No		Yes	No	No	
Maximum Recall	No		No	No	No	
Pedestrian Recall	No		No	No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	C	C
C, Cycle Length [s]	80	80	80	80	80	80
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	7	7	6	65	55	55
g / C, Green / Cycle	0.09	0.09	0.08	0.81	0.68	0.68
(v / s)_i Volume / Saturation Flow Rate	0.06	0.06	0.05	0.38	0.43	0.44
s, saturation flow rate [veh/h]	1774	1668	1774	3547	1863	1814
c, Capacity [veh/h]	162	153	134	2867	1272	1238
d1, Uniform Delay [s]	35.16	35.21	36.00	2.37	7.06	7.20
k, delay calibration	0.11	0.11	0.11	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	4.70	5.27	5.67	0.56	2.37	2.61
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.67	0.68	0.67	0.47	0.63	0.65
d, Delay for Lane Group [s/veh]	39.87	40.48	41.67	2.92	9.42	9.81
Lane Group LOS	D	D	D	A	A	A
Critical Lane Group	No	Yes	Yes	No	No	Yes
50th-Percentile Queue Length [veh]	2.17	2.10	1.84	1.21	6.03	6.20
50th-Percentile Queue Length [ft]	54.15	52.43	46.06	30.30	150.75	154.98
95th-Percentile Queue Length [veh]	3.90	3.77	3.32	2.18	10.06	10.28
95th-Percentile Queue Length [ft]	97.48	94.37	82.91	54.54	251.43	257.06

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	40.06	40.48	41.67	2.92	9.60	9.81
Movement LOS	D	D	D	A	A	A
d_A, Approach Delay [s/veh]	40.17		5.35		9.62	
Approach LOS	D		A		A	
d_I, Intersection Delay [s/veh]	9.73					
Intersection LOS	A					
Intersection V/C	0.652					

Sequence

Ring 1	1	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 14: Cathedral Canyon Drive / Officer David Vasquez Road

Control Type:	Signalized	Delay (sec / veh):	6.6
Analysis Method:	HCM 2010	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.194

Intersection Setup

Name						
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	1	0	1	1
Pocket Length [ft]	100.00	100.00	205.00	100.00	120.00	120.00
Speed [mph]	40.00		40.00		40.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		Yes		Yes	

Volumes

Name						
Base Volume Input [veh/h]	417	5	25	404	6	53
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	417	5	25	404	6	53
Peak Hour Factor	0.9140	0.9140	0.9140	0.9140	0.9140	0.9140
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	114	1	7	111	2	14
Total Analysis Volume [veh/h]	456	5	27	442	7	58
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	2 - N. Cathedral Canyon Drive
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permissive	Permissive	Protected	Permissive	Split	Overlap
Signal group	2	0	1	6	7	7
Auxiliary Signal Groups						1,7
Lead / Lag	-	-	Lead	-	Lead	-
Minimum Green [s]	7	0	7	7	7	7
Maximum Green [s]	30	0	30	30	30	30
Amber [s]	3.0	0.0	3.0	3.0	3.0	3.0
All red [s]	1.0	0.0	1.0	1.0	1.0	1.0
Split [s]	86	0	15	101	19	19
Vehicle Extension [s]	3.0	0.0	3.0	3.0	3.0	3.0
Walk [s]	5	0	0	5	5	5
Pedestrian Clearance [s]	10	0	0	10	10	10
Rest In Walk	No			No	No	
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0
Minimum Recall	No		No	No	No	No
Maximum Recall	No		No	No	No	No
Pedestrian Recall	No		No	No	No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	C	L	C	L	R
C, Cycle Length [s]	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	0.00
g_i, Effective Green Time [s]	98	98	4	106	6	14
g / C, Green / Cycle	0.81	0.81	0.03	0.88	0.05	0.12
(v / s)_i Volume / Saturation Flow Rate	0.12	0.12	0.02	0.12	0.00	0.04
s, saturation flow rate [veh/h]	1863	1856	1774	3547	3445	1583
c, Capacity [veh/h]	1514	1509	62	3126	179	191
d1, Uniform Delay [s]	2.39	2.40	56.72	0.97	54.01	48.18
k, delay calibration	0.50	0.50	0.11	0.50	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.21	0.22	4.73	0.09	0.09	0.89
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.15	0.15	0.43	0.14	0.04	0.30
d, Delay for Lane Group [s/veh]	2.61	2.61	61.45	1.06	54.10	49.07
Lane Group LOS	A	A	E	A	D	D
Critical Lane Group	No	Yes	Yes	No	No	Yes
50th-Percentile Queue Length [veh]	0.85	0.85	0.87	0.20	0.10	1.61
50th-Percentile Queue Length [ft]	21.20	21.22	21.80	4.89	2.53	40.30
95th-Percentile Queue Length [veh]	1.53	1.53	1.57	0.35	0.18	2.90
95th-Percentile Queue Length [ft]	38.17	38.20	39.24	8.81	4.56	72.54

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	2.61	2.61	61.45	1.06	54.10	49.07
Movement LOS	A	A	E	A	D	D
d_A, Approach Delay [s/veh]	2.61		4.54		49.61	
Approach LOS	A		A		D	
d_I, Intersection Delay [s/veh]	6.59					
Intersection LOS	A					
Intersection V/C	0.194					

Sequence

Ring 1	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	7	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 15: Cathedral Canyon Drive / Perez Road

Control Type:	Signalized	Delay (sec / veh):	40.3
Analysis Method:	HCM 2010	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.500

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	1	1	0	0
Pocket Length [ft]	95.00	100.00	100.00	205.00	100.00	100.00	100.00	100.00	100.00	150.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	38	379	64	148	314	119	152	252	46	63	222	202
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	38	379	64	148	314	119	152	252	46	63	222	202
Peak Hour Factor	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	10	98	17	38	81	31	39	65	12	16	57	52
Total Analysis Volume [veh/h]	39	392	66	153	325	123	157	261	48	65	230	209
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	2 - N. Cathedral Canyon Drive
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	5.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	34	0	25	48	0	25	47	0	14	36	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	L	C	R	L	C	C
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	5	18	18	12	25	25	13	68	68	6	61	61
g / C, Green / Cycle	0.04	0.15	0.15	0.10	0.21	0.21	0.11	0.56	0.56	0.05	0.51	0.51
(v / s)_i Volume / Saturation Flow Rate	0.02	0.13	0.13	0.09	0.13	0.13	0.09	0.07	0.03	0.04	0.12	0.13
s, saturation flow rate [veh/h]	1774	1863	1771	1774	1863	1692	1774	3547	1583	1774	1863	1583
c, Capacity [veh/h]	77	277	264	182	388	353	188	1996	891	93	948	806
d1, Uniform Delay [s]	56.18	49.71	49.80	52.88	42.99	43.08	52.62	12.39	11.84	55.97	16.52	16.69
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	5.10	6.79	7.59	9.76	1.49	1.70	9.22	0.14	0.12	9.19	0.61	0.78
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

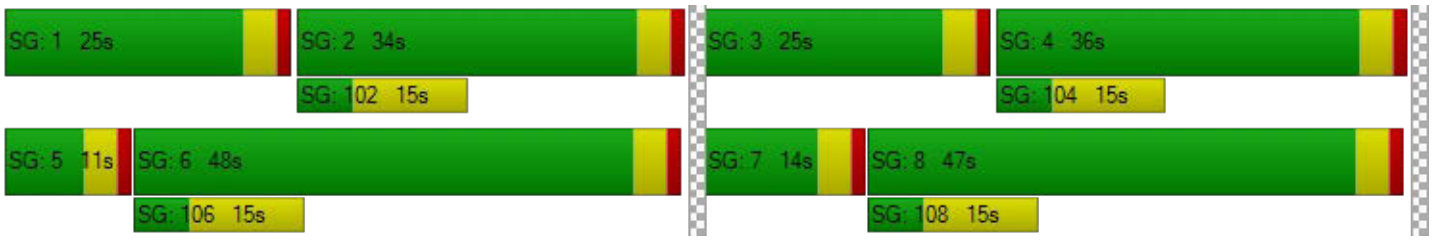
X, volume / capacity	0.51	0.84	0.85	0.84	0.60	0.61	0.83	0.13	0.05	0.70	0.24	0.26
d, Delay for Lane Group [s/veh]	61.28	56.50	57.39	62.64	44.49	44.78	61.84	12.53	11.96	65.16	17.13	17.47
Lane Group LOS	E	E	E	E	D	D	E	B	B	E	B	B
Critical Lane Group	No	No	Yes	Yes	No	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh]	1.25	7.21	7.00	4.95	6.31	5.84	5.04	1.62	0.58	2.14	3.58	3.31
50th-Percentile Queue Length [ft]	31.21	180.18	174.93	123.64	157.71	145.91	126.05	40.45	14.60	53.61	89.41	82.74
95th-Percentile Queue Length [veh]	2.25	11.61	11.34	8.59	10.43	9.80	8.72	2.91	1.05	3.86	6.44	5.96
95th-Percentile Queue Length [ft]	56.18	290.24	283.38	214.82	260.69	244.96	218.11	72.82	26.27	96.50	160.93	148.93

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	61.28	56.86	57.39	62.64	44.57	44.78	61.84	12.53	11.96	65.16	17.13	17.47
Movement LOS	E	E	E	E	D	D	E	B	B	E	B	B
d_A, Approach Delay [s/veh]	57.28			49.21			29.08			23.47		
Approach LOS	E			D			C			C		
d_I, Intersection Delay [s/veh]	40.34											
Intersection LOS	D											
Intersection V/C	0.500											

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 16: Cathedral Canyon Drive / Paseo Real

Control Type:	Two-way stop	Delay (sec / veh):	37.9
Analysis Method:	HCM 2010	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.026

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	0	0	0	0	0	0
Pocket Length [ft]	55.00	100.00	100.00	55.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name												
Base Volume Input [veh/h]	25	749	6	12	578	8	6	1	16	5	3	8
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	25	749	6	12	578	8	6	1	16	5	3	8
Peak Hour Factor	0.9370	0.9370	0.9370	0.9370	0.9370	0.9370	0.9370	0.9370	0.9370	0.9370	0.9370	0.9370
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	7	200	2	3	154	2	2	0	4	1	1	2
Total Analysis Volume [veh/h]	27	799	6	13	617	9	6	1	17	5	3	9
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.03	0.01	0.00	0.02	0.01	0.00	0.04	0.01	0.02	0.04	0.03	0.02
d_M, Delay for Movement [s/veh]	8.89	0.00	0.00	9.49	0.00	0.00	29.09	37.26	11.12	33.33	37.90	12.44
Movement LOS	A	A	A	A	A	A	D	E	B	D	E	B
95th-Percentile Queue Length [veh]	0.09	0.00	0.00	0.05	0.00	0.00	0.23	0.23	0.23	0.25	0.25	0.25
95th-Percentile Queue Length [ft]	2.19	0.00	0.00	1.21	0.00	0.00	5.82	5.82	5.82	6.34	6.34	6.34
d_A, Approach Delay [s/veh]	0.29			0.19			16.70			23.08		
Approach LOS	A			A			C			C		
d_I, Intersection Delay [s/veh]	0.76											
Intersection LOS	E											

Intersection Level Of Service Report
Intersection 17: Cathedral Canyon Drive / Dinah Shore Drive

Control Type:	Signalized	Delay (sec / veh):	37.5
Analysis Method:	HCM 2010	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.671

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	130.00	100.00	100.00	75.00	100.00	100.00	100.00	100.00	100.00	150.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	228	474	97	113	260	28	59	775	189	95	652	83
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	228	474	97	113	260	28	59	775	189	95	652	83
Peak Hour Factor	0.9340	0.9340	0.9340	0.9340	0.9340	0.9340	0.9340	0.9340	0.9340	0.9340	0.9340	0.9340
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	61	127	26	30	70	7	16	207	51	25	175	22
Total Analysis Volume [veh/h]	244	507	104	121	278	30	63	830	202	102	698	89
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	2 - N. Cathedral Canyon Drive
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	104.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	29	34	0	16	21	0	11	55	0	15	59	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	L	C	C	L	C	C
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	19	23	23	10	14	14	6	62	62	9	65	65
g / C, Green / Cycle	0.15	0.19	0.19	0.08	0.12	0.12	0.05	0.52	0.52	0.07	0.54	0.54
(v / s)_i Volume / Saturation Flow Rate	0.14	0.17	0.17	0.07	0.08	0.08	0.04	0.29	0.29	0.06	0.22	0.22
s, saturation flow rate [veh/h]	1774	1863	1754	1774	1863	1800	1774	1863	1738	1774	1863	1790
c, Capacity [veh/h]	275	356	335	149	224	216	93	967	903	129	1005	966
d1, Uniform Delay [s]	49.74	47.28	47.28	54.11	50.74	50.79	55.95	19.46	19.47	54.80	16.22	16.22
k, delay calibration	0.12	0.19	0.19	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	10.42	11.69	12.38	10.20	3.88	4.14	8.47	2.27	2.43	10.32	1.18	1.23
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.89	0.88	0.88	0.81	0.70	0.70	0.68	0.55	0.55	0.79	0.40	0.40
d, Delay for Lane Group [s/veh]	60.16	58.96	59.66	64.31	54.62	54.94	64.42	21.72	21.90	65.12	17.41	17.46
Lane Group LOS	E	E	E	E	D	D	E	C	C	E	B	B
Critical Lane Group	No	No	Yes	Yes	No	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh]	7.83	10.10	9.59	3.96	4.67	4.57	2.07	10.08	9.46	3.36	6.46	6.22
50th-Percentile Queue Length [ft]	195.71	252.57	239.68	98.95	116.63	114.35	51.64	251.93	236.48	83.91	161.42	155.49
95th-Percentile Queue Length [veh]	12.42	15.32	14.67	7.12	8.21	8.08	3.72	15.28	14.50	6.04	10.62	10.31
95th-Percentile Queue Length [ft]	310.42	382.89	366.63	178.12	205.19	202.04	92.95	382.08	362.58	151.05	265.61	257.74

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	60.16	59.23	59.66	64.31	54.76	54.94	64.42	21.79	21.90	65.12	17.43	17.46
Movement LOS	E	E	E	E	D	D	E	C	C	E	B	B
d_A, Approach Delay [s/veh]	59.55			57.47			24.26			22.90		
Approach LOS	E			E			C			C		
d_I, Intersection Delay [s/veh]	37.48											
Intersection LOS	D											
Intersection V/C	0.671											

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 18: Date Palm Drive / Gerald Ford Drive

Control Type:	Signalized	Delay (sec / veh):	22.4
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.418

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	85.00	100.00	85.00	160.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			Yes			Yes			No		

Volumes

Name												
Base Volume Input [veh/h]	20	597	290	119	438	44	58	56	18	167	42	148
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	20	597	290	119	438	44	58	56	18	167	42	148
Peak Hour Factor	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	5	157	76	31	115	12	15	15	5	44	11	39
Total Analysis Volume [veh/h]	21	629	306	125	462	46	61	59	19	176	44	156
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	6 - N/S
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Split	Split	Split	Split	Split	Split
Signal group	5	2	0	1	6	0	3	8	0	7	4	4
Auxiliary Signal Groups												1,4
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	7	7	0	7	7	0	0	7	0	0	7	7
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	30
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	3.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	1.0
Split [s]	11	61	0	25	75	0	0	34	0	0	34	34
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	3.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	5
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	10
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	2.0
Minimum Recall	No	No		No	No			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	C	L	C	C	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.00	0.00	2.00	2.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	4	75	75	10	82	82	22	22	22	22	22	22
g / C, Green / Cycle	0.03	0.63	0.63	0.09	0.69	0.69	0.18	0.18	0.18	0.18	0.18	0.18
(v / s)_i Volume / Saturation Flow Rate	0.01	0.18	0.19	0.07	0.14	0.14	0.04	0.02	0.02	0.08	0.09	0.10
s, saturation flow rate [veh/h]	1774	3547	1583	1774	1863	1804	1357	1863	1714	1316	1256	1583
c, Capacity [veh/h]	52	2232	996	152	1278	1237	141	344	317	249	281	293
d1, Uniform Delay [s]	57.20	10.02	10.22	53.93	6.87	6.88	55.51	40.74	40.80	47.84	45.67	44.24
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	4.94	0.32	0.80	10.29	0.36	0.37	2.07	0.15	0.17	1.14	0.96	1.51
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.40	0.28	0.31	0.82	0.20	0.20	0.43	0.11	0.12	0.42	0.41	0.53
d, Delay for Lane Group [s/veh]	62.14	10.34	11.02	64.22	7.23	7.24	57.58	40.89	40.97	48.98	46.62	45.74
Lane Group LOS	E	B	B	E	A	A	E	D	D	D	D	D
Critical Lane Group	No	No	Yes	Yes	No	No	No	No	No	No	No	Yes
50th-Percentile Queue Length [veh]	0.69	3.55	3.64	4.08	2.26	2.20	1.87	0.97	0.95	2.96	3.15	4.25
50th-Percentile Queue Length [ft]	17.20	88.71	91.11	102.11	56.50	55.07	46.73	24.36	23.87	74.08	78.86	106.16
95th-Percentile Queue Length [veh]	1.24	6.39	6.56	7.35	4.07	3.96	3.36	1.75	1.72	5.33	5.68	7.63
95th-Percentile Queue Length [ft]	30.97	159.67	163.99	183.79	101.70	99.12	84.11	43.85	42.97	133.35	141.95	190.65

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	62.14	10.34	11.02	64.22	7.23	7.24	57.58	40.91	40.97	48.05	46.62	45.74
Movement LOS	E	B	B	E	A	A	E	D	D	D	D	D
d_A, Approach Delay [s/veh]	11.69			18.49			48.23			46.92		
Approach LOS	B			B			D			D		
d_I, Intersection Delay [s/veh]	22.45											
Intersection LOS	C											
Intersection V/C	0.418											

Sequence

Ring 1	1	2	-	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 19: Date Palm Drive / Dinah Shore Drive

Control Type:	Signalized	Delay (sec / veh):	23.8
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.585

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	2	0	1	2	0	1	1	0	0	1	0	1
Pocket Length [ft]	225.00	100.00	125.00	170.00	100.00	50.00	150.00	100.00	100.00	130.00	100.00	180.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			No		

Volumes

Name												
Base Volume Input [veh/h]	231	614	79	115	586	73	102	576	215	69	537	117
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	231	614	79	115	586	73	102	576	215	69	537	117
Peak Hour Factor	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	63	167	21	31	159	20	28	157	58	19	146	32
Total Analysis Volume [veh/h]	251	668	86	125	638	79	111	627	234	75	584	127
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	1 - E Palm Canyon Drive
Cycle Length [s]	70
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Overlap
Signal group	5	2	0	1	6	0	3	8	0	7	4	4
Auxiliary Signal Groups												1,4
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	7
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	30
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	1.0
Split [s]	11	19	0	11	19	0	20	29	0	11	20	20
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	5
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	10
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0
Minimum Recall	No	No		No	No		No	No		No	No	No
Maximum Recall	No	No		No	No		No	No		No	No	No
Pedestrian Recall	No	No		No	No		No	No		No	No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	70	70	70	70	70	70	70	70	70	70	70	70
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	0.00
g_i, Effective Green Time [s]	7	27	27	6	26	26	6	16	16	5	15	25
g / C, Green / Cycle	0.10	0.38	0.38	0.09	0.37	0.37	0.09	0.22	0.22	0.08	0.21	0.36
(v / s)_i Volume / Saturation Flow Rate	0.07	0.19	0.05	0.04	0.13	0.05	0.06	0.18	0.15	0.04	0.16	0.08
s, saturation flow rate [veh/h]	3445	3547	1583	3445	5074	1583	1774	3547	1583	1774	3547	1583
c, Capacity [veh/h]	346	1336	596	319	1872	584	160	796	355	139	755	574
d1, Uniform Delay [s]	30.66	16.82	14.43	30.01	16.00	14.72	31.02	25.68	24.80	31.14	26.06	15.52
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.91	1.34	0.51	0.78	0.50	0.48	5.32	1.79	2.09	3.19	1.73	0.19
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

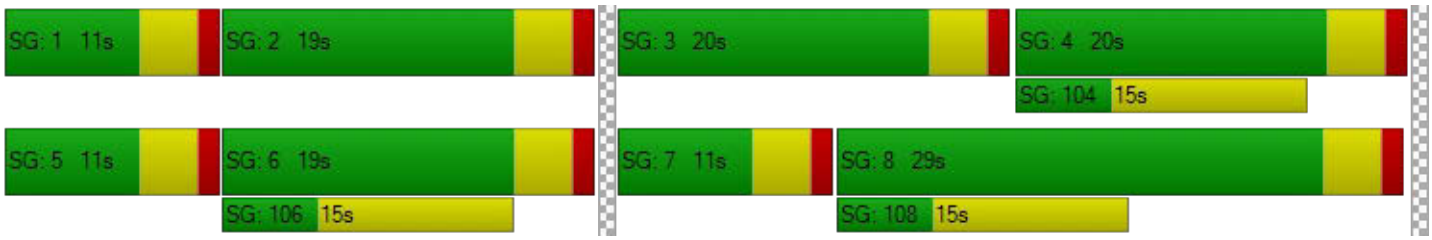
X, volume / capacity	0.73	0.50	0.14	0.39	0.34	0.14	0.69	0.79	0.66	0.54	0.77	0.22
d, Delay for Lane Group [s/veh]	33.57	18.16	14.94	30.79	16.50	15.20	36.35	27.46	26.89	34.33	27.79	15.72
Lane Group LOS	C	B	B	C	B	B	D	C	C	C	C	B
Critical Lane Group	No	Yes	No	Yes	No	No	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh]	2.06	3.86	0.88	0.97	2.26	0.82	1.94	4.69	3.44	1.27	4.38	1.29
50th-Percentile Queue Length [ft]	51.54	96.43	22.04	24.13	56.41	20.50	48.54	117.15	86.06	31.73	109.51	32.21
95th-Percentile Queue Length [veh]	3.71	6.94	1.59	1.74	4.06	1.48	3.50	8.24	6.20	2.28	7.81	2.32
95th-Percentile Queue Length [ft]	92.77	173.57	39.67	43.44	101.53	36.90	87.38	205.90	154.90	57.12	195.33	57.98

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	33.57	18.16	14.94	30.79	16.50	15.20	36.35	27.46	26.89	34.33	27.79	15.72
Movement LOS	C	B	B	C	B	B	D	C	C	C	C	B
d_A, Approach Delay [s/veh]	21.73			18.50			28.34			26.46		
Approach LOS	C			B			C			C		
d_I, Intersection Delay [s/veh]	23.79											
Intersection LOS	C											
Intersection V/C	0.585											

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	



Intersection Level Of Service Report
Intersection 20: Date Palm Drive / Ramon Road

Control Type:	Signalized	Delay (sec / veh):	26.9
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.715

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	215.00	100.00	80.00	180.00	100.00	100.00	350.00	100.00	100.00	230.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			No		

Volumes

Name												
Base Volume Input [veh/h]	241	564	82	189	486	156	192	754	157	136	717	147
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	241	564	82	189	486	156	192	754	157	136	717	147
Peak Hour Factor	0.9770	0.9770	0.9770	0.9770	0.9770	0.9770	0.9770	0.9770	0.9770	0.9770	0.9770	0.9770
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	62	144	21	48	124	40	49	193	40	35	183	38
Total Analysis Volume [veh/h]	247	577	84	193	497	160	197	772	161	139	734	150
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	7 - E/W
Cycle Length [s]	70
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	12	15	0	16	19	0	16	27	0	12	23	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	C	L	C	C
C, Cycle Length [s]	70	70	70	70	70	70	70	70	70	70	70	70
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	7	20	20	9	23	23	10	17	17	7	15	15
g / C, Green / Cycle	0.10	0.29	0.29	0.13	0.32	0.32	0.14	0.25	0.25	0.10	0.21	0.21
(v / s)_i Volume / Saturation Flow Rate	0.07	0.16	0.05	0.11	0.14	0.10	0.11	0.18	0.18	0.08	0.17	0.17
s, saturation flow rate [veh/h]	3445	3547	1583	1774	3547	1583	1774	3547	1703	1774	3547	1706
c, Capacity [veh/h]	347	1019	455	240	1140	509	244	884	425	179	754	363
d1, Uniform Delay [s]	30.60	21.31	18.85	29.49	18.81	17.99	29.41	24.06	24.09	30.83	26.17	26.21
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.71	2.28	0.89	6.28	1.21	1.61	6.28	1.08	2.25	7.15	1.90	3.99
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

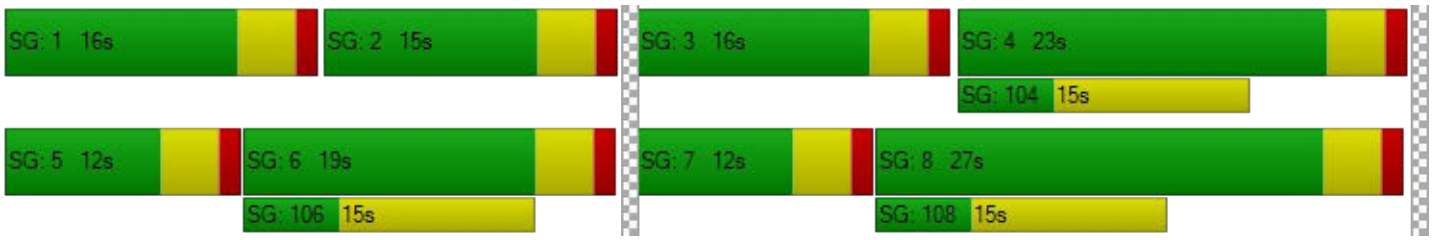
X, volume / capacity	0.71	0.57	0.18	0.81	0.44	0.31	0.81	0.71	0.71	0.78	0.79	0.80
d, Delay for Lane Group [s/veh]	33.31	23.60	19.74	35.77	20.02	19.60	35.69	25.14	26.34	37.98	28.07	30.20
Lane Group LOS	C	C	B	D	C	B	D	C	C	D	C	C
Critical Lane Group	No	Yes	No	Yes	No	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh]	2.02	3.94	1.05	3.35	3.04	1.98	3.41	4.45	4.44	2.50	4.49	4.57
50th-Percentile Queue Length [ft]	50.48	98.59	26.13	83.71	75.95	49.51	85.35	111.29	110.93	62.41	112.33	114.31
95th-Percentile Queue Length [veh]	3.63	7.10	1.88	6.03	5.47	3.57	6.15	7.91	7.89	4.49	7.97	8.08
95th-Percentile Queue Length [ft]	90.86	177.47	47.04	150.69	136.71	89.13	153.63	197.79	197.29	112.34	199.24	201.98

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	33.31	23.60	19.74	35.77	20.02	19.60	35.69	25.36	26.34	37.98	28.47	30.20
Movement LOS	C	C	B	D	C	B	D	C	C	D	C	C
d_A, Approach Delay [s/veh]	25.88			23.52			27.30			30.02		
Approach LOS	C			C			C			C		
d_I, Intersection Delay [s/veh]	26.86											
Intersection LOS	C											
Intersection V/C	0.715											

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 21: Da Vall Drive / Dinah Shore Drive

Control Type:	Signalized	Delay (sec / veh):	31.0
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.498

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	0	1	0	1	1	0	0
Pocket Length [ft]	120.00	100.00	120.00	130.00	100.00	100.00	175.00	100.00	215.00	185.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	173	327	44	48	197	85	60	533	174	59	544	107
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	173	327	44	48	197	85	60	533	174	59	544	107
Peak Hour Factor	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	48	90	12	13	54	23	16	146	48	16	149	29
Total Analysis Volume [veh/h]	190	359	48	53	216	93	66	586	191	65	598	118
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	6 - N/S
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	30	44	0	12	26	0	13	51	0	13	51	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	C	L	C	R	L	C	C
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	15	22	22	6	13	13	6	70	70	6	70	70
g / C, Green / Cycle	0.12	0.18	0.18	0.05	0.11	0.11	0.05	0.58	0.58	0.05	0.58	0.58
(v / s)_i Volume / Saturation Flow Rate	0.11	0.10	0.03	0.03	0.09	0.09	0.04	0.17	0.12	0.04	0.20	0.20
s, saturation flow rate [veh/h]	1774	3547	1583	1774	1863	1679	1774	3547	1583	1774	1863	1758
c, Capacity [veh/h]	221	656	293	87	204	184	93	2058	919	93	1081	1020
d1, Uniform Delay [s]	51.54	44.37	41.13	55.94	52.04	52.24	55.98	12.66	12.02	55.97	13.19	13.19
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	9.45	0.71	0.26	6.64	6.36	8.32	9.50	0.35	0.51	9.22	0.86	0.91
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.86	0.55	0.16	0.61	0.78	0.81	0.71	0.28	0.21	0.70	0.34	0.34
d, Delay for Lane Group [s/veh]	60.99	45.09	41.39	62.59	58.40	60.56	65.48	13.01	12.53	65.19	14.04	14.11
Lane Group LOS	E	D	D	E	E	E	E	B	B	E	B	B
Critical Lane Group	Yes	No	No	No	No	Yes	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh]	6.08	4.83	1.20	1.71	4.96	4.75	2.18	3.83	2.44	2.14	5.14	4.87
50th-Percentile Queue Length [ft]	152.07	120.65	30.03	42.78	123.93	118.79	54.58	95.77	61.00	53.62	128.40	121.85
95th-Percentile Queue Length [veh]	10.13	8.43	2.16	3.08	8.61	8.33	3.93	6.90	4.39	3.86	8.85	8.49
95th-Percentile Queue Length [ft]	253.19	210.72	54.05	77.01	215.22	208.16	98.24	172.38	109.80	96.52	221.32	212.37

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	60.99	45.09	41.39	62.59	58.97	60.56	65.48	13.01	12.53	65.19	14.07	14.11
Movement LOS	E	D	D	E	E	E	E	B	B	E	B	B
d_A, Approach Delay [s/veh]	49.85			59.90			17.01			18.33		
Approach LOS	D			E			B			B		
d_I, Intersection Delay [s/veh]	31.01											
Intersection LOS	C											
Intersection V/C	0.498											

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 22: Da Vall Drive / Gerald Ford Drive

Control Type:	Signalized	Delay (sec / veh):	39.8
Analysis Method:	HCM 2010	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.375

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	200.00	100.00	175.00	140.00	100.00	100.00	175.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	125	374	36	96	268	64	40	349	83	42	295	120
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	125	374	36	96	268	64	40	349	83	42	295	120
Peak Hour Factor	0.9480	0.9480	0.9480	0.9480	0.9480	0.9480	0.9480	0.9480	0.9480	0.9480	0.9480	0.9480
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	33	99	9	25	71	17	11	92	22	11	78	32
Total Analysis Volume [veh/h]	132	395	38	101	283	68	42	368	88	44	311	127
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	6 - N/S
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	28	41	0	22	35	0	12	45	0	12	45	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	C	L	C	C	L	C	C
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	11	72	72	9	70	70	5	18	18	5	18	18
g / C, Green / Cycle	0.09	0.60	0.60	0.07	0.58	0.58	0.04	0.15	0.15	0.05	0.15	0.15
(v / s)_i Volume / Saturation Flow Rate	0.07	0.11	0.02	0.06	0.10	0.10	0.02	0.13	0.13	0.02	0.12	0.13
s, saturation flow rate [veh/h]	1774	3547	1583	1774	1863	1741	1774	1863	1741	1774	1863	1684
c, Capacity [veh/h]	161	2126	949	127	1081	1010	79	279	261	81	281	254
d1, Uniform Delay [s]	53.61	10.84	9.87	54.85	11.70	11.73	56.10	49.62	49.73	56.06	49.31	49.49
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	9.75	0.19	0.08	10.56	0.33	0.36	5.35	6.61	7.66	5.53	5.53	6.86
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

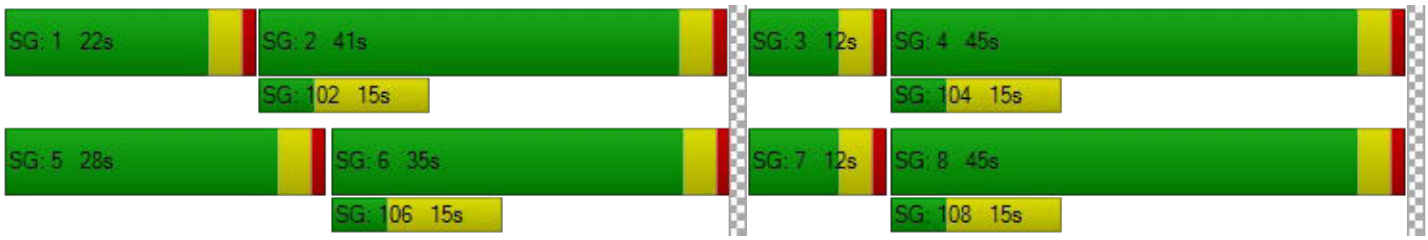
X, volume / capacity	0.82	0.19	0.04	0.79	0.17	0.17	0.53	0.84	0.85	0.54	0.81	0.83
d, Delay for Lane Group [s/veh]	63.36	11.03	9.95	65.41	12.04	12.09	61.45	56.23	57.39	61.59	54.84	56.35
Lane Group LOS	E	B	A	E	B	B	E	E	E	E	D	E
Critical Lane Group	Yes	No	No	No	No	Yes	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh]	4.28	2.28	0.41	3.33	2.21	2.12	1.35	7.20	6.92	1.41	6.90	6.50
50th-Percentile Queue Length [ft]	107.12	56.93	10.24	83.29	55.36	53.01	33.63	180.10	173.06	35.26	172.52	162.47
95th-Percentile Queue Length [veh]	7.68	4.10	0.74	6.00	3.99	3.82	2.42	11.61	11.24	2.54	11.21	10.68
95th-Percentile Queue Length [ft]	191.98	102.47	18.44	149.92	99.65	95.41	60.53	290.14	280.93	63.46	280.23	266.99

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	63.36	11.03	9.95	65.41	12.06	12.09	61.45	56.65	57.39	61.59	55.25	56.35
Movement LOS	E	B	A	E	B	B	E	E	E	E	E	E
d_A, Approach Delay [s/veh]	23.18			23.98			57.19			56.12		
Approach LOS	C			C			E			E		
d_I, Intersection Delay [s/veh]	39.79											
Intersection LOS	D											
Intersection V/C	0.375											

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 23: East Palm Canyon Drive / Frank Sinatra Drive

Control Type:	Signalized	Delay (sec / veh):	30.0
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.561

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	1	1	0	0	2	0	1
Pocket Length [ft]	160.00	100.00	45.00	325.00	100.00	250.00	100.00	100.00	100.00	120.00	100.00	1200.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			No			Yes		

Volumes

Name												
Base Volume Input [veh/h]	43	1314	198	296	1170	20	44	53	19	144	29	302
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	43	1314	198	296	1170	20	44	53	19	144	29	302
Peak Hour Factor	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	12	355	54	80	316	5	12	14	5	39	8	82
Total Analysis Volume [veh/h]	46	1421	214	320	1265	22	48	57	21	156	31	326
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	6 - N/S
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	66.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Overlap	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Overlap
Signal group	5	2	2	1	6	0	3	8	0	7	4	4
Auxiliary Signal Groups			1,2,3,4,									1,2,3,4,
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	7	7	7	0	7	7	0	7	7	7
Maximum Green [s]	30	30	30	30	30	0	30	30	0	30	30	30
Amber [s]	3.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0
All red [s]	1.0	1.0	1.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	1.0
Split [s]	11	60	60	27	76	0	14	19	0	14	19	19
Vehicle Extension [s]	3.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0
Walk [s]	0	5	5	0	5	0	0	5	0	0	5	5
Pedestrian Clearance [s]	0	10	10	0	10	0	0	10	0	0	10	10
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0
Minimum Recall	No	No	No	No	No		No	No		No	No	No
Maximum Recall	No	No	No	No	No		No	No		No	No	No
Pedestrian Recall	No	No	No	No	No		No	No		No	No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	0.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	0.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	2.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	7	42	212	19	54	54	8	34	9	36	212
g / C, Green / Cycle	0.06	0.35	1.77	0.16	0.45	0.45	0.06	0.29	0.08	0.30	1.77
(v / s)_i Volume / Saturation Flow Rate	0.03	0.28	0.14	0.12	0.25	0.01	0.03	0.04	0.05	0.02	0.21
s, saturation flow rate [veh/h]	1774	5074	1583	2741	5074	1583	1412	1778	3445	1863	1583
c, Capacity [veh/h]	104	1765	2797	442	2264	706	124	508	264	556	2797
d1, Uniform Delay [s]	54.61	35.44	0.00	50.33	24.52	18.66	56.58	32.03	53.60	30.01	0.00
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.11	0.50	0.32
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.96	0.90	0.01	2.27	0.22	0.02	1.95	0.64	2.12	0.19	0.05
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.44	0.80	0.08	0.72	0.56	0.03	0.39	0.15	0.59	0.06	0.12
d, Delay for Lane Group [s/veh]	57.57	36.34	0.01	52.60	24.73	18.68	58.53	32.67	55.72	30.20	0.05
Lane Group LOS	E	D	A	D	C	B	E	C	E	C	A
Critical Lane Group	No	Yes	No	Yes	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh]	1.41	12.25	0.01	4.73	8.54	0.34	1.48	1.76	2.32	0.66	0.04
50th-Percentile Queue Length [ft]	35.25	306.36	0.23	118.29	213.48	8.52	37.04	44.03	58.00	16.55	1.06
95th-Percentile Queue Length [veh]	2.54	18.00	0.02	8.30	13.33	0.61	2.67	3.17	4.18	1.19	0.08
95th-Percentile Queue Length [ft]	63.44	449.88	0.42	207.47	333.28	15.34	66.66	79.25	104.40	29.79	1.91

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	57.57	36.34	0.01	52.60	24.73	18.68	58.53	32.67	32.67	55.72	30.20	0.05
Movement LOS	E	D	A	D	C	B	E	C	C	E	C	A
d_A, Approach Delay [s/veh]	32.30			30.20			42.52			18.80		
Approach LOS	C			C			D			B		
d_I, Intersection Delay [s/veh]	30.00											
Intersection LOS	C											
Intersection V/C	0.561											

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 24: East Palm Canyon Drive / Mirage Cove Drive

Control Type:	Signalized	Delay (sec / veh):	38.7
Analysis Method:	HCM 2010	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.371

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	1	1	0	0
Pocket Length [ft]	150.00	100.00	100.00	110.00	100.00	100.00	75.00	100.00	75.00	75.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	16	1475	9	16	1379	15	35	0	20	6	0	26
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	16	1475	9	16	1379	15	35	0	20	6	0	26
Peak Hour Factor	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	399	2	4	373	4	9	0	5	2	0	7
Total Analysis Volume [veh/h]	17	1595	10	17	1491	16	38	0	22	6	0	28
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	6 - N/S
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	5	2	0	1	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	7	7	0	7	7	0	0	7	0	0	7	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	11	90	0	11	90	0	0	19	0	0	19	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No	No		No	No			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	L	C	R	L	C
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.00	0.00	2.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	3	41	41	3	41	41	64	64	64	64	64
g / C, Green / Cycle	0.03	0.34	0.34	0.03	0.34	0.34	0.53	0.53	0.53	0.53	0.53
(v / s)_i Volume / Saturation Flow Rate	0.01	0.30	0.30	0.01	0.28	0.28	0.03	0.00	0.01	0.00	0.02
s, saturation flow rate [veh/h]	1774	3547	1857	1774	3547	1853	1377	1863	1583	1412	1583
c, Capacity [veh/h]	46	1204	630	46	1204	629	759	995	846	789	846
d1, Uniform Delay [s]	57.43	37.21	37.21	57.43	36.29	36.29	14.93	0.00	13.18	14.09	13.24
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	4.82	2.17	4.03	4.82	1.47	2.76	0.12	0.00	0.06	0.02	0.07
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.37	0.87	0.87	0.37	0.82	0.82	0.05	0.00	0.03	0.01	0.03
d, Delay for Lane Group [s/veh]	62.25	39.39	41.24	62.25	37.75	39.05	15.05	0.00	13.24	14.10	13.31
Lane Group LOS	E	D	D	E	D	D	B	A	B	B	B
Critical Lane Group	No	No	Yes	Yes	No	No	Yes	No	No	No	No
50th-Percentile Queue Length [veh]	0.56	14.35	15.35	0.56	13.06	13.87	0.54	0.00	0.28	0.08	0.36
50th-Percentile Queue Length [ft]	14.05	358.66	383.67	14.05	326.44	346.71	13.41	0.00	7.12	2.02	9.10
95th-Percentile Queue Length [veh]	1.01	20.56	21.77	1.01	18.98	19.98	0.97	0.00	0.51	0.15	0.66
95th-Percentile Queue Length [ft]	25.28	513.95	544.29	25.28	474.60	499.39	24.14	0.00	12.82	3.64	16.39

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	62.25	40.01	41.24	62.25	38.19	39.05	15.05	0.00	13.24	14.10	13.31	13.31
Movement LOS	E	D	D	E	D	D	B	A	B	B	B	B
d_A, Approach Delay [s/veh]	40.25			38.47			14.39			13.45		
Approach LOS	D			D			B			B		
d_I, Intersection Delay [s/veh]	38.65											
Intersection LOS	D											
Intersection V/C	0.371											

Sequence

Ring 1	1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 25: East Palm Canyon Drive / Country Club Drive

Control Type:	Signalized	Delay (sec / veh):	33.5
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.456

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	2	0	0	1	0	0	1	0	0
Pocket Length [ft]	160.00	100.00	45.00	190.00	100.00	100.00	30.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			Yes			Yes			No		

Volumes

Name												
Base Volume Input [veh/h]	8	1344	49	145	1218	3	3	8	9	41	4	207
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	8	1344	49	145	1218	3	3	8	9	41	4	207
Peak Hour Factor	0.9370	0.9370	0.9370	0.9370	0.9370	0.9370	0.9370	0.9370	0.9370	0.9370	0.9370	0.9370
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	359	13	39	325	1	1	2	2	11	1	55
Total Analysis Volume [veh/h]	9	1434	52	155	1300	3	3	9	10	44	4	221
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	6 - N/S
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	61.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Protecte	Permiss	Overlap	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	5	2	2	1	6	0	0	8	0	0	4	0
Auxiliary Signal Groups			1,2,4,5,									
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	7	7	7	7	7	0	0	7	0	0	7	0
Maximum Green [s]	30	30	30	30	30	0	0	30	0	0	30	0
Amber [s]	3.0	3.0	3.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	1.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	11	78	78	19	86	0	0	23	0	0	23	0
Vehicle Extension [s]	3.0	3.0	3.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	5	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	10	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	2.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	2.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No	No	No	No	No			No			No	
Maximum Recall	No	No	No	No	No			No			No	
Pedestrian Recall	No	No	No	No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	C	L	C	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	0.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	2.00	0.00	0.00	2.00	0.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	6	41	220	11	46	46	56	56	56	56	56
g / C, Green / Cycle	0.05	0.34	1.83	0.09	0.38	0.38	0.47	0.47	0.47	0.47	0.47
(v / s)_i Volume / Saturation Flow Rate	0.01	0.28	0.03	0.06	0.24	0.24	0.00	0.01	0.03	0.07	0.07
s, saturation flow rate [veh/h]	1774	5074	1583	2741	3547	1861	1151	1704	1388	1592	1583
c, Capacity [veh/h]	90	1731	2903	257	1350	708	536	799	681	746	742
d1, Uniform Delay [s]	54.33	36.31	0.00	54.76	30.33	30.33	20.71	17.13	18.92	18.23	18.23
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.48	1.07	0.00	2.26	0.50	0.94	0.02	0.05	0.18	0.43	0.43
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.10	0.83	0.02	0.60	0.63	0.63	0.01	0.02	0.06	0.15	0.15
d, Delay for Lane Group [s/veh]	54.81	37.38	0.00	57.02	30.82	31.27	20.73	17.19	19.10	18.66	18.67
Lane Group LOS	D	D	A	E	C	C	C	B	B	B	B
Critical Lane Group	No	Yes	No	Yes	No	No	No	No	No	No	Yes
50th-Percentile Queue Length [veh]	0.27	12.58	0.00	2.35	9.83	10.40	0.05	0.29	0.72	1.83	1.83
50th-Percentile Queue Length [ft]	6.70	314.51	0.05	58.66	245.76	260.05	1.29	7.21	18.01	45.86	45.68
95th-Percentile Queue Length [veh]	0.48	18.40	0.00	4.22	14.97	15.69	0.09	0.52	1.30	3.30	3.29
95th-Percentile Queue Length [ft]	12.06	459.94	0.09	105.59	374.31	392.28	2.32	12.99	32.41	82.55	82.22

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	54.81	37.38	0.00	57.02	30.97	31.27	20.73	17.19	17.19	19.10	18.66	18.66
Movement LOS	D	D	A	E	C	C	C	B	B	B	B	B
d_A, Approach Delay [s/veh]	36.18			33.74			17.67			18.73		
Approach LOS	D			C			B			B		
d_I, Intersection Delay [s/veh]	33.51											
Intersection LOS	C											
Intersection V/C	0.456											

Sequence

Ring 1	1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 26: Thompson Road-Morningside Drive / Frank Sinatra Drive

Control Type:	Signalized	Delay (sec / veh):	8.2
Analysis Method:	HCM 2010	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.342

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	150.00	100.00	100.00	90.00	100.00	100.00	90.00	100.00	100.00	130.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	163	22	37	11	15	8	10	434	102	46	476	19
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	163	22	37	11	15	8	10	434	102	46	476	19
Peak Hour Factor	0.9030	0.9030	0.9030	0.9030	0.9030	0.9030	0.9030	0.9030	0.9030	0.9030	0.9030	0.9030
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	45	6	10	3	4	2	3	120	28	13	132	5
Total Analysis Volume [veh/h]	181	24	41	12	17	9	11	481	113	51	527	21
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	7 - E/W
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	0	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	7	0	0	7	0	0	7	0	0	7	0
Maximum Green [s]	0	30	0	0	30	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	31	0	0	31	0	0	29	0	0	29	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No			No			No			No	
Maximum Recall		No			No			No			No	
Pedestrian Recall		No			No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	C	L	C	C	L	C	C
C, Cycle Length [s]	60	60	60	60	60	60	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	0.00	2.00	0.00	0.00	2.00	0.00	0.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	12	12	12	12	12	12	40	40	40	40	40	40
g / C, Green / Cycle	0.21	0.21	0.21	0.21	0.21	0.21	0.66	0.66	0.66	0.66	0.66	0.66
(v / s)_i Volume / Saturation Flow Rate	0.13	0.01	0.03	0.01	0.01	0.01	0.01	0.16	0.17	0.06	0.15	0.15
s, saturation flow rate [veh/h]	1379	1863	1583	1381	1863	1659	856	1863	1742	820	1863	1838
c, Capacity [veh/h]	346	385	327	341	385	343	610	1229	1150	582	1229	1213
d1, Uniform Delay [s]	24.14	19.12	19.38	21.37	19.01	19.03	5.56	4.15	4.16	6.08	4.07	4.07
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.23	0.07	0.17	0.04	0.04	0.04	0.05	0.48	0.52	0.30	0.42	0.43
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.52	0.06	0.13	0.04	0.03	0.04	0.02	0.25	0.25	0.09	0.22	0.22
d, Delay for Lane Group [s/veh]	25.37	19.19	19.55	21.41	19.05	19.07	5.62	4.64	4.68	6.38	4.50	4.50
Lane Group LOS	C	B	B	C	B	B	A	A	A	A	A	A
Critical Lane Group	Yes	No	No	No	No	No	No	No	Yes	No	No	No
50th-Percentile Queue Length [veh]	2.33	0.25	0.43	0.13	0.13	0.13	0.05	1.02	0.97	0.26	0.90	0.89
50th-Percentile Queue Length [ft]	58.14	6.19	10.78	3.33	3.34	3.33	1.29	25.44	24.34	6.54	22.47	22.27
95th-Percentile Queue Length [veh]	4.19	0.45	0.78	0.24	0.24	0.24	0.09	1.83	1.75	0.47	1.62	1.60
95th-Percentile Queue Length [ft]	104.66	11.13	19.41	5.99	6.02	5.99	2.32	45.79	43.81	11.78	40.44	40.08

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	25.37	19.19	19.55	21.41	19.05	19.07	5.62	4.65	4.68	6.38	4.50	4.50
Movement LOS	C	B	B	C	B	B	A	A	A	A	A	A
d_A, Approach Delay [s/veh]	23.80			19.80			4.68			4.66		
Approach LOS	C			B			A			A		
d_I, Intersection Delay [s/veh]	8.22											
Intersection LOS	A											
Intersection V/C	0.342											

Sequence

Ring 1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 28: Van Fleet Street / D Street

Control Type:	Two-way stop	Delay (sec / veh):	10.2
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.001

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	3	64	1	3	71	6	10	1	2	2	1	6
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	3	64	1	3	71	6	10	1	2	2	1	6
Peak Hour Factor	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	19	0	1	21	2	3	0	1	1	0	2
Total Analysis Volume [veh/h]	4	75	1	4	84	7	12	1	2	2	1	7
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.01
d_M, Delay for Movement [s/veh]	7.40	0.00	0.00	7.37	0.00	0.00	9.77	10.16	8.80	9.69	10.13	8.70
Movement LOS	A	A	A	A	A	A	A	B	A	A	B	A
95th-Percentile Queue Length [veh]	0.17	0.17	0.17	0.20	0.20	0.20	0.06	0.06	0.06	0.03	0.03	0.03
95th-Percentile Queue Length [ft]	4.21	4.21	4.21	4.98	4.98	4.98	1.46	1.46	1.46	0.84	0.84	0.84
d_A, Approach Delay [s/veh]	0.37			0.31			9.67			9.04		
Approach LOS	A			A			A			A		
d_I, Intersection Delay [s/veh]	1.47											
Intersection LOS	B											

Intersection Level Of Service Report
Intersection 2: Date Palm Drive / Buddy Rogers Avenue

Control Type:	Two-way stop	Delay (sec / veh):	18.0
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.101

Intersection Setup

Name						
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	0	0	0
Pocket Length [ft]	150.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00		40.00		40.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

Volumes

Name						
Base Volume Input [veh/h]	4	492	513	25	29	14
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	4	492	513	25	29	14
Peak Hour Factor	0.9410	0.9410	0.9410	0.9410	0.9410	0.9410
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	131	136	7	8	4
Total Analysis Volume [veh/h]	4	523	545	27	31	15
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.01	0.01	0.00	0.10	0.02
d_M, Delay for Movement [s/veh]	8.63	0.00	0.00	0.00	18.00	11.38
Movement LOS	A	A	A	A	C	B
95th-Percentile Queue Length [veh]	0.01	0.00	0.00	0.00	0.41	0.41
95th-Percentile Queue Length [ft]	0.30	0.00	0.00	0.00	10.29	10.29
d_A, Approach Delay [s/veh]	0.07		0.00		15.84	
Approach LOS	A		A		C	
d_I, Intersection Delay [s/veh]	0.67					
Intersection LOS	C					

Intersection Level Of Service Report
Intersection 3: Date Palm Drive / East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	9.3
Analysis Method:	HCM 2010	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.538

Intersection Setup

Name						
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	1	2	0	0	0
Pocket Length [ft]	230.00	230.00	195.00	100.00	100.00	100.00
Speed [mph]	40.00		40.00		40.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		Yes		No	

Volumes

Name						
Base Volume Input [veh/h]	339	121	149	1198	1174	347
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	339	121	149	1198	1174	347
Peak Hour Factor	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	91	33	40	322	316	93
Total Analysis Volume [veh/h]	365	130	160	1288	1262	373
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	1 - E Palm Canyon Drive
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Split	Split	Protected	Permissive	Permissive	Overlap
Signal group	1	0	3	8	4	4
Auxiliary Signal Groups						3,4
Lead / Lag	Lead	-	Lead	-	-	-
Minimum Green [s]	7	0	7	7	7	7
Maximum Green [s]	30	0	30	30	30	30
Amber [s]	3.0	0.0	3.0	3.0	3.0	3.0
All red [s]	1.0	0.0	1.0	1.0	1.0	1.0
Split [s]	22	0	11	38	27	27
Vehicle Extension [s]	3.0	0.0	3.0	3.0	3.0	3.0
Walk [s]	5	0	0	5	5	5
Pedestrian Clearance [s]	10	0	0	10	10	10
Rest In Walk	No			No	No	
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0
Minimum Recall	No		No	No	No	No
Maximum Recall	No		No	No	No	No
Pedestrian Recall	No		No	No	No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	R	L	C	C	R
C, Cycle Length [s]	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	2.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	0.00
g_i, Effective Green Time [s]	8	8	8	44	33	44
g / C, Green / Cycle	0.13	0.13	0.12	0.74	0.54	0.74
(v / s)_i Volume / Saturation Flow Rate	0.07	0.08	0.06	0.25	0.25	0.24
s, saturation flow rate [veh/h]	5168	1583	2741	5074	5074	1583
c, Capacity [veh/h]	684	210	384	3727	2756	1163
d1, Uniform Delay [s]	24.36	24.67	26.09	2.84	8.36	2.77
k, delay calibration	0.11	0.11	0.11	0.50	0.50	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.65	2.97	0.72	0.25	0.55	0.16
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

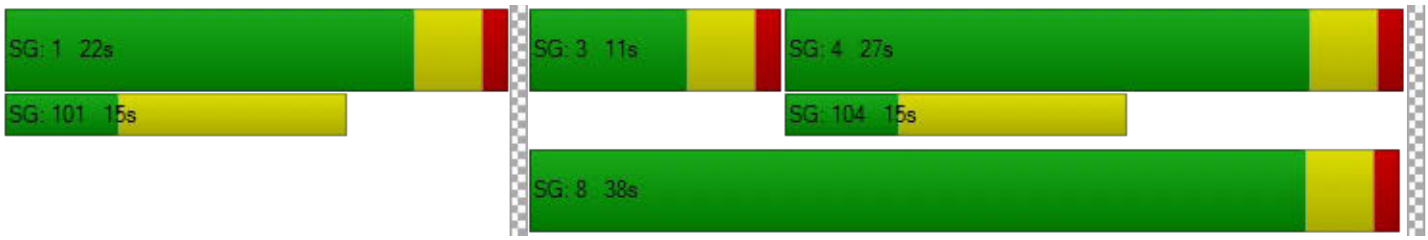
X, volume / capacity	0.53	0.62	0.42	0.35	0.46	0.32
d, Delay for Lane Group [s/veh]	25.01	27.64	26.82	3.09	8.91	2.93
Lane Group LOS	C	C	C	A	A	A
Critical Lane Group	No	Yes	No	No	Yes	Yes
50th-Percentile Queue Length [veh]	1.50	1.75	1.04	0.71	2.54	0.58
50th-Percentile Queue Length [ft]	37.53	43.83	25.92	17.75	63.39	14.47
95th-Percentile Queue Length [veh]	2.70	3.16	1.87	1.28	4.56	1.04
95th-Percentile Queue Length [ft]	67.56	78.89	46.65	31.96	114.10	26.04

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	25.01	27.64	26.82	3.09	8.91	2.93
Movement LOS	C	C	C	A	A	A
d_A, Approach Delay [s/veh]	25.70		5.72		7.55	
Approach LOS	C		A		A	
d_I, Intersection Delay [s/veh]	9.32					
Intersection LOS	A					
Intersection V/C	0.538					

Sequence

Ring 1	1	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 5: Monty Hall Drive-Van Fleet Avenue / East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	7.0
Analysis Method:	HCM 2010	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.519

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	1	0	1	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	45.00	100.00	100.00	105.00	100.00	130.00	125.00	100.00	180.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	11	1	44	10	9	12	13	1322	16	55	1290	10
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	11	1	44	10	9	12	13	1322	16	55	1290	10
Peak Hour Factor	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	0	11	3	2	3	3	345	4	14	336	3
Total Analysis Volume [veh/h]	11	1	46	10	9	13	14	1379	17	57	1345	10
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	1 - E Palm Canyon Drive
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	0	7	7	0	7	7	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	24	0	0	24	0	14	53	0	13	52	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	R	L	C	L	C	R	L	C	R
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	5	5	5	5	2	67	67	5	70	70
g / C, Green / Cycle	0.06	0.06	0.06	0.06	0.02	0.75	0.75	0.06	0.78	0.78
(v / s)_i Volume / Saturation Flow Rate	0.02	0.03	0.01	0.01	0.01	0.39	0.01	0.03	0.38	0.01
s, saturation flow rate [veh/h]	760	1583	1410	1687	1774	3547	1583	1774	3547	1583
c, Capacity [veh/h]	123	96	100	102	43	2646	1181	106	2773	1238
d1, Uniform Delay [s]	41.70	40.92	44.09	40.25	43.22	4.75	2.93	41.11	3.45	2.15
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.34	3.66	0.44	1.04	4.34	0.74	0.02	4.14	0.61	0.01
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.10	0.48	0.10	0.21	0.33	0.52	0.01	0.54	0.48	0.01
d, Delay for Lane Group [s/veh]	42.04	44.58	44.53	41.29	47.56	5.49	2.96	45.24	4.06	2.17
Lane Group LOS	D	D	D	D	D	A	A	D	A	A
Critical Lane Group	No	Yes	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh]	0.26	1.05	0.23	0.48	0.35	3.64	0.06	1.31	2.50	0.03
50th-Percentile Queue Length [ft]	6.61	26.33	5.67	11.98	8.73	91.03	1.47	32.77	62.42	0.63
95th-Percentile Queue Length [veh]	0.48	1.90	0.41	0.86	0.63	6.55	0.11	2.36	4.49	0.05
95th-Percentile Queue Length [ft]	11.89	47.39	10.21	21.56	15.71	163.86	2.64	58.98	112.35	1.13

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	42.04	42.04	44.58	44.53	41.29	41.29	47.56	5.49	2.96	45.24	4.06	2.17
Movement LOS	D	D	D	D	D	D	D	A	A	D	A	A
d_A, Approach Delay [s/veh]	44.05			42.30			5.87			5.71		
Approach LOS	D			D			A			A		
d_I, Intersection Delay [s/veh]	6.95											
Intersection LOS	A											
Intersection V/C	0.519											

Sequence

Ring 1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 6: Date Palm Drive / East Palm Drive

Control Type:	Two-way stop	Delay (sec / veh):	10.1
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

Intersection Setup

Name						
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00		40.00		40.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

Volumes

Name						
Base Volume Input [veh/h]	0	8	539	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.00	1.00	1.00	1.04	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	8	539	0	0	0
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	2	146	0	0	0
Total Analysis Volume [veh/h]	0	9	586	0	0	0
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.01	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	0.00	0.00	10.12
Movement LOS		A	A	A		B
95th-Percentile Queue Length [veh]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	0.00		0.00		10.12	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	0.00					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 8: Monty Hall Drive / Buddy Rogers Avenue

Control Type:	All-way stop	Delay (sec / veh):	7.3
Analysis Method:	HCM 2010	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.057

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			No			No		

Volumes

Name												
Base Volume Input [veh/h]	20	5	4	17	6	0	1	13	6	7	25	12
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	20	5	4	17	6	0	1	13	6	7	25	12
Peak Hour Factor	0.8290	0.8290	0.8290	0.8290	0.8290	0.8290	0.8290	0.8290	0.8290	0.8290	0.8290	0.8290
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	6	2	1	5	2	0	0	4	2	2	8	4
Total Analysis Volume [veh/h]	24	6	5	21	7	0	1	16	7	8	30	14
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	863	841	910	908
Degree of Utilization, x	0.04	0.03	0.03	0.06

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.13	0.10	0.08	0.18
95th-Percentile Queue Length [ft]	3.17	2.58	2.03	4.55
Approach Delay [s/veh]	7.35	7.43	7.06	7.21
Approach LOS	A	A	A	A
Intersection Delay [s/veh]	7.26			
Intersection LOS	A			

Intersection Level Of Service Report

Intersection 9: Buddy Rogers Avenue/ East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	3.7
Analysis Method:	HCM 2010	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.483

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	10	1	39	19	2	28	16	1309	2	16	1255	17
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	10	1	39	19	2	28	16	1309	2	16	1255	17
Peak Hour Factor	0.9360	0.9360	0.9360	0.9360	0.9360	0.9360	0.9360	0.9360	0.9360	0.9360	0.9360	0.9360
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	0	10	5	1	7	4	350	1	4	335	5
Total Analysis Volume [veh/h]	11	1	42	20	2	30	17	1399	2	17	1341	18
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	1 - E Palm Canyon Drive
Cycle Length [s]	110
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	7	0	0	7	0	0	7	0	0	7	0
Maximum Green [s]	0	30	0	0	30	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	28	0	0	28	0	0	82	0	0	82	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No			No			No			No	
Maximum Recall		No			No			No			No	
Pedestrian Recall		No			No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	C	L	C	R	L	C	R
C, Cycle Length [s]	110	110	110	110	110	110	110	110
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	2.00	2.00	0.00	0.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	6	6	96	96	96	96	96	96
g / C, Green / Cycle	0.05	0.05	0.88	0.88	0.88	0.88	0.88	0.88
(v / s)_i Volume / Saturation Flow Rate	0.03	0.04	0.04	0.39	0.00	0.04	0.38	0.01
s, saturation flow rate [veh/h]	1658	1456	406	3547	1583	384	3547	1583
c, Capacity [veh/h]	125	121	380	3105	1386	361	3105	1386
d1, Uniform Delay [s]	51.09	51.15	2.90	1.41	0.85	3.05	1.37	0.86
k, delay calibration	0.11	0.11	0.50	0.50	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.33	2.41	0.22	0.47	0.00	0.25	0.44	0.02
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.43	0.43	0.04	0.45	0.00	0.05	0.43	0.01
d, Delay for Lane Group [s/veh]	53.42	53.56	3.12	1.88	0.86	3.30	1.81	0.88
Lane Group LOS	D	D	A	A	A	A	A	A
Critical Lane Group	No	Yes	No	Yes	No	No	No	No
50th-Percentile Queue Length [veh]	1.51	1.46	0.09	0.74	0.00	0.09	0.69	0.01
50th-Percentile Queue Length [ft]	37.80	36.55	2.15	18.40	0.04	2.26	17.14	0.37
95th-Percentile Queue Length [veh]	2.72	2.63	0.15	1.32	0.00	0.16	1.23	0.03
95th-Percentile Queue Length [ft]	68.03	65.80	3.86	33.12	0.07	4.06	30.85	0.67

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	53.42	53.42	53.42	53.56	53.56	53.56	3.12	1.88	0.86	3.30	1.81	0.88
Movement LOS	D	D	D	D	D	D	A	A	A	A	A	A
d_A, Approach Delay [s/veh]	53.42			53.56			1.90			1.82		
Approach LOS	D			D			A			A		
d_I, Intersection Delay [s/veh]	3.74											
Intersection LOS	A											
Intersection V/C	0.483											

Sequence

Ring 1	2	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 10: Cathedral Canyon Drive / East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	14.4
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.593

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	0	1	0	0	1	0	1
Pocket Length [ft]	100.00	100.00	70.00	90.00	100.00	100.00	238.00	100.00	100.00	190.00	100.00	270.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	71	113	50	127	131	92	110	1151	77	61	1111	120
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	71	113	50	127	131	92	110	1151	77	61	1111	120
Peak Hour Factor	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	18	29	13	33	34	24	28	298	20	16	287	31
Total Analysis Volume [veh/h]	73	117	52	131	135	95	114	1190	80	63	1149	124
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	1 - E Palm Canyon Drive
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Overlap	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	6	3	8	0	7	4	0
Auxiliary Signal Groups						3,6						
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	7	7	7	0	7	7	0
Maximum Green [s]	0	30	0	0	30	30	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	1.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	19	0	0	19	19	19	30	0	11	22	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	5	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	10	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No	No	No	No		No	No	
Maximum Recall		No			No	No	No	No		No	No	
Pedestrian Recall		No			No	No	No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	60	60	60	60	60	60	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	0.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	13	13	13	13	13	23	6	30	30	5	29	29
g / C, Green / Cycle	0.22	0.22	0.22	0.22	0.22	0.39	0.10	0.50	0.50	0.08	0.48	0.48
(v / s)_i Volume / Saturation Flow Rate	0.06	0.06	0.03	0.10	0.07	0.06	0.06	0.34	0.05	0.04	0.23	0.08
s, saturation flow rate [veh/h]	1249	1863	1583	1270	1863	1583	1774	3547	1583	1774	5074	1583
c, Capacity [veh/h]	276	412	351	290	412	614	176	1783	796	135	2432	759
d1, Uniform Delay [s]	24.39	19.41	18.81	25.10	19.61	11.98	26.01	11.17	7.82	26.56	10.52	8.83
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.50	0.37	0.19	1.10	0.46	0.12	3.93	2.00	0.25	2.50	0.66	0.46
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

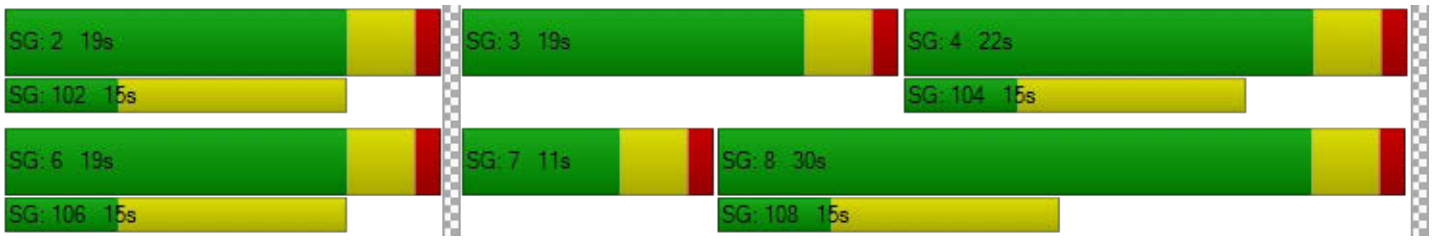
X, volume / capacity	0.26	0.28	0.15	0.45	0.33	0.15	0.65	0.67	0.10	0.47	0.47	0.16
d, Delay for Lane Group [s/veh]	24.89	19.78	19.00	26.20	20.07	12.09	29.94	13.17	8.07	29.07	11.18	9.29
Lane Group LOS	C	B	B	C	C	B	C	B	A	C	B	A
Critical Lane Group	No	No	No	Yes	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh]	0.91	1.24	0.54	1.71	1.45	0.71	1.62	4.94	0.47	0.88	2.80	0.82
50th-Percentile Queue Length [ft]	22.74	31.12	13.41	42.69	36.34	17.83	40.38	123.55	11.86	22.05	70.02	20.45
95th-Percentile Queue Length [veh]	1.64	2.24	0.97	3.07	2.62	1.28	2.91	8.59	0.85	1.59	5.04	1.47
95th-Percentile Queue Length [ft]	40.92	56.01	24.14	76.85	65.42	32.09	72.68	214.69	21.34	39.69	126.03	36.82

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	24.89	19.78	19.00	26.20	20.07	12.09	29.94	13.17	8.07	29.07	11.18	9.29
Movement LOS	C	B	B	C	C	B	C	B	A	C	B	A
d_A, Approach Delay [s/veh]	21.16			20.19			14.26			11.85		
Approach LOS	C			C			B			B		
d_I, Intersection Delay [s/veh]	14.44											
Intersection LOS	B											
Intersection V/C	0.593											

Sequence

Ring 1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 11: Perez Road / East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	15.4
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.679

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	150.00	100.00	100.00	170.00	100.00	45.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	9	9	4	17	10	257	212	1274	4	4	1270	21
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	9	9	4	17	10	257	212	1274	4	4	1270	21
Peak Hour Factor	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	2	1	4	3	66	54	327	1	1	326	5
Total Analysis Volume [veh/h]	9	9	4	17	10	264	218	1308	4	4	1304	22
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	70
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	0	7	7	0	7	7	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	19	0	0	19	0	11	21	0	11	21	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	R	L	C	C	L	C	R
C, Cycle Length [s]	70	70	70	70	70	70	70	70	70	70	70
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	3	3	9	9	9	7	42	42	1	36	36
g / C, Green / Cycle	0.04	0.04	0.12	0.12	0.12	0.10	0.61	0.61	0.01	0.52	0.52
(v / s)_i Volume / Saturation Flow Rate	0.01	0.01	0.01	0.09	0.09	0.06	0.24	0.24	0.00	0.37	0.01
s, saturation flow rate [veh/h]	1774	1767	1774	1601	1583	3445	3547	1860	1774	3547	1583
c, Capacity [veh/h]	65	65	217	196	194	342	2140	1122	16	1821	813
d1, Uniform Delay [s]	32.75	32.83	27.31	29.59	29.59	30.43	7.29	7.29	34.56	13.15	8.43
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.94	1.48	0.15	4.51	4.58	1.98	0.56	1.07	7.42	2.44	0.06
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

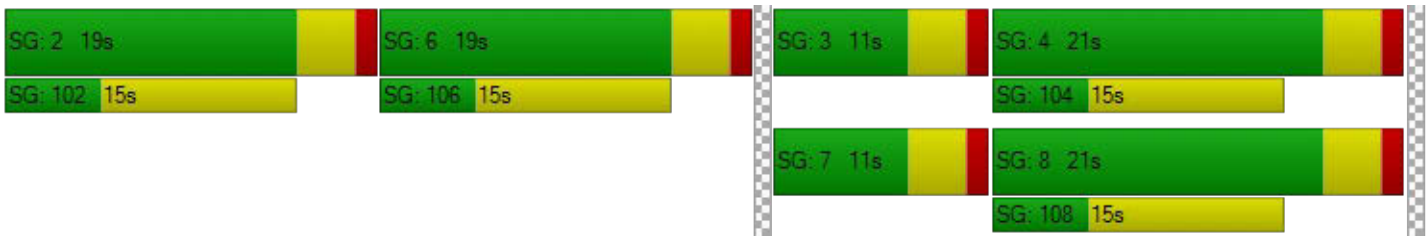
X, volume / capacity	0.14	0.20	0.08	0.70	0.70	0.64	0.40	0.40	0.24	0.72	0.03
d, Delay for Lane Group [s/veh]	33.69	34.30	27.46	34.10	34.17	32.40	7.86	8.37	41.98	15.59	8.49
Lane Group LOS	C	C	C	C	C	C	A	A	D	B	A
Critical Lane Group	No	Yes	No	No	Yes	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh]	0.16	0.23	0.25	2.32	2.30	1.75	2.64	2.92	0.10	6.91	0.15
50th-Percentile Queue Length [ft]	3.92	5.73	6.14	57.98	57.53	43.70	65.88	73.07	2.45	172.86	3.75
95th-Percentile Queue Length [veh]	0.28	0.41	0.44	4.17	4.14	3.15	4.74	5.26	0.18	11.23	0.27
95th-Percentile Queue Length [ft]	7.06	10.31	11.05	104.37	103.56	78.66	118.59	131.53	4.41	280.67	6.76

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	33.69	34.30	34.30	27.46	34.10	34.14	32.40	8.03	8.37	41.98	15.59	8.49
Movement LOS	C	C	C	C	C	C	C	A	A	D	B	A
d_A, Approach Delay [s/veh]	34.05			33.74			11.50			15.55		
Approach LOS	C			C			B			B		
d_I, Intersection Delay [s/veh]	15.40											
Intersection LOS	B											
Intersection V/C	0.679											

Sequence

Ring 1	2	6	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 12: Canyon Plaza Drive / East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	9.6
Analysis Method:	HCM 2010	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.588

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	1	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	95.00	90.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	55	2	83	6	3	14	10	1457	39	56	1457	11
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	55	2	83	6	3	14	10	1457	39	56	1457	11
Peak Hour Factor	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	14	1	22	2	1	4	3	380	10	15	380	3
Total Analysis Volume [veh/h]	57	2	87	6	3	15	10	1519	41	58	1519	11
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	100
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	0	7	7	0	7	7	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	70	0	0	70	0	11	19	0	11	19	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	L	C	R	L	C	C
C, Cycle Length [s]	100	100	100	100	100	100	100	100	100	100
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	9	9	9	9	2	73	73	6	77	77
g / C, Green / Cycle	0.09	0.09	0.09	0.09	0.02	0.73	0.73	0.06	0.77	0.77
(v / s)_i Volume / Saturation Flow Rate	0.04	0.06	0.00	0.01	0.01	0.43	0.03	0.03	0.41	0.41
s, saturation flow rate [veh/h]	1389	1589	1303	1624	1774	3547	1583	1774	1863	1858
c, Capacity [veh/h]	157	148	95	151	30	2591	1157	100	1434	1430
d1, Uniform Delay [s]	45.93	43.55	48.47	41.57	48.58	6.35	3.72	46.05	4.50	4.51
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.40	3.87	0.28	0.35	6.16	0.98	0.06	5.29	1.43	1.44
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.36	0.60	0.06	0.12	0.33	0.59	0.04	0.58	0.53	0.53
d, Delay for Lane Group [s/veh]	47.33	47.42	48.75	41.92	54.74	7.33	3.78	51.34	5.93	5.94
Lane Group LOS	D	D	D	D	D	A	A	D	A	A
Critical Lane Group	No	Yes	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh]	1.41	2.22	0.15	0.41	0.29	5.87	0.19	1.52	4.56	4.56
50th-Percentile Queue Length [ft]	35.30	55.46	3.79	10.30	7.33	146.72	4.83	37.96	113.93	113.88
95th-Percentile Queue Length [veh]	2.54	3.99	0.27	0.74	0.53	9.84	0.35	2.73	8.06	8.06
95th-Percentile Queue Length [ft]	63.54	99.83	6.82	18.55	13.19	246.04	8.69	68.33	201.45	201.38

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	47.33	47.42	47.42	48.75	41.92	41.92	54.74	7.33	3.78	51.34	5.94	5.94
Movement LOS	D	D	D	D	D	D	D	A	A	D	A	A
d_A, Approach Delay [s/veh]	47.39			43.63			7.53			7.60		
Approach LOS	D			D			A			A		
d_I, Intersection Delay [s/veh]	9.57											
Intersection LOS	A											
Intersection V/C	0.588											

Sequence

Ring 1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 13: Golf Club Drive / East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	10.2
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.679

Intersection Setup

Name						
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	0	0	0
Pocket Length [ft]	100.00	100.00	90.00	100.00	100.00	100.00
Speed [mph]	40.00		40.00		40.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		Yes		No	

Volumes

Name						
Base Volume Input [veh/h]	179	70	73	1477	1407	141
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	179	70	73	1477	1407	141
Peak Hour Factor	0.9660	0.9660	0.9660	0.9660	0.9660	0.9660
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	46	18	19	382	364	36
Total Analysis Volume [veh/h]	185	72	76	1529	1457	146
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	70
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Split	Split	Protected	Permissive	Permissive	Permissive
Signal group	1	0	3	8	4	0
Auxiliary Signal Groups						
Lead / Lag	Lead	-	Lead	-	-	-
Minimum Green [s]	7	0	7	7	7	0
Maximum Green [s]	30	0	7	30	30	0
Amber [s]	3.0	0.0	3.0	3.0	3.0	0.0
All red [s]	1.0	0.0	1.0	1.0	1.0	0.0
Split [s]	24	0	11	46	35	0
Vehicle Extension [s]	3.0	0.0	3.0	3.0	3.0	0.0
Walk [s]	5	0	0	5	5	0
Pedestrian Clearance [s]	10	0	0	10	10	0
Rest In Walk	No			No	No	
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	2.0	0.0
Minimum Recall	No		Yes	No	No	
Maximum Recall	No		No	No	No	
Pedestrian Recall	No		No	No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	C	C
C, Cycle Length [s]	70	70	70	70	70	70
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	8	8	5	54	45	45
g / C, Green / Cycle	0.11	0.11	0.08	0.78	0.64	0.64
(v / s)_i Volume / Saturation Flow Rate	0.07	0.08	0.04	0.43	0.43	0.44
s, saturation flow rate [veh/h]	1774	1659	1774	3547	1863	1805
c, Capacity [veh/h]	194	181	136	2754	1197	1160
d1, Uniform Delay [s]	30.03	30.07	31.19	3.07	7.85	8.05
k, delay calibration	0.11	0.11	0.11	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	4.16	4.63	3.53	0.81	2.99	3.39
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

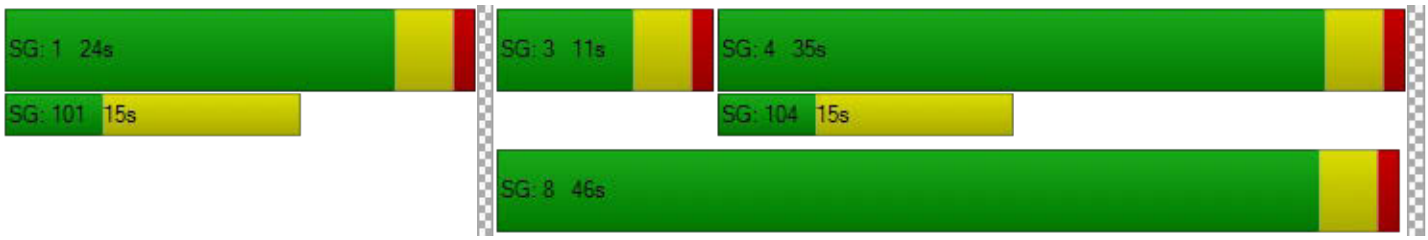
X, volume / capacity	0.68	0.69	0.56	0.56	0.67	0.69
d, Delay for Lane Group [s/veh]	34.20	34.70	34.72	3.89	10.84	11.44
Lane Group LOS	C	C	C	A	B	B
Critical Lane Group	No	Yes	Yes	No	No	Yes
50th-Percentile Queue Length [veh]	2.22	2.13	1.29	1.64	6.06	6.28
50th-Percentile Queue Length [ft]	55.51	53.22	32.36	41.06	151.48	157.10
95th-Percentile Queue Length [veh]	4.00	3.83	2.33	2.96	10.10	10.40
95th-Percentile Queue Length [ft]	99.92	95.79	58.24	73.91	252.41	259.88

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	34.34	34.70	34.72	3.89	11.11	11.44
Movement LOS	C	C	C	A	B	B
d_A, Approach Delay [s/veh]	34.44		5.35		11.14	
Approach LOS	C		A		B	
d_I, Intersection Delay [s/veh]	10.18					
Intersection LOS	B					
Intersection V/C	0.679					

Sequence

Ring 1	1	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 14: Cathedral Canyon Drive / Officer David Vasquez Road

Control Type:	Signalized	Delay (sec / veh):	4.0
Analysis Method:	HCM 2010	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.178

Intersection Setup

Name						
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	1	0	1	1
Pocket Length [ft]	100.00	100.00	205.00	100.00	120.00	120.00
Speed [mph]	40.00		40.00		40.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		Yes		Yes	

Volumes

Name						
Base Volume Input [veh/h]	344	7	17	370	7	32
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	344	7	17	370	7	32
Peak Hour Factor	0.8670	0.8670	0.8670	0.8670	0.8670	0.8670
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	99	2	5	107	2	9
Total Analysis Volume [veh/h]	397	8	20	427	8	37
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	2 - N. Cathedral Canyon Drive
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permissive	Permissive	Protected	Permissive	Split	Overlap
Signal group	2	0	1	6	7	7
Auxiliary Signal Groups						1,7
Lead / Lag	-	-	Lead	-	Lead	-
Minimum Green [s]	7	0	7	7	7	7
Maximum Green [s]	30	0	30	30	30	30
Amber [s]	3.0	0.0	3.0	3.0	3.0	3.0
All red [s]	1.0	0.0	1.0	1.0	1.0	1.0
Split [s]	30	0	11	41	19	19
Vehicle Extension [s]	3.0	0.0	3.0	3.0	3.0	3.0
Walk [s]	5	0	0	5	5	5
Pedestrian Clearance [s]	10	0	0	10	10	10
Rest In Walk	No			No	No	
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0
Minimum Recall	No		No	No	No	No
Maximum Recall	No		No	No	No	No
Pedestrian Recall	No		No	No	No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	C	L	C	L	R
C, Cycle Length [s]	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	0.00
g_i, Effective Green Time [s]	42	42	2	48	4	10
g / C, Green / Cycle	0.70	0.70	0.03	0.80	0.06	0.16
(v / s)_i Volume / Saturation Flow Rate	0.11	0.11	0.01	0.12	0.00	0.02
s, saturation flow rate [veh/h]	1863	1850	1774	3547	3445	1583
c, Capacity [veh/h]	1306	1297	63	2849	220	262
d1, Uniform Delay [s]	3.01	3.01	28.31	1.32	26.42	21.44
k, delay calibration	0.50	0.50	0.11	0.50	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.25	0.26	2.88	0.11	0.07	0.24
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

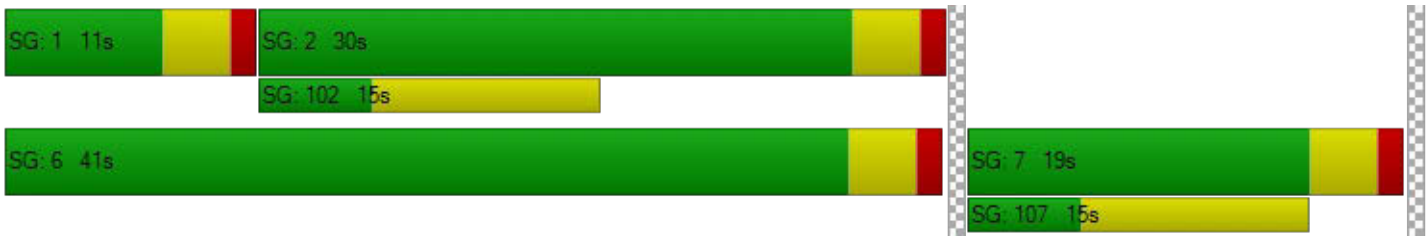
X, volume / capacity	0.15	0.16	0.32	0.15	0.04	0.14
d, Delay for Lane Group [s/veh]	3.26	3.27	31.20	1.44	26.49	21.68
Lane Group LOS	A	A	C	A	C	C
Critical Lane Group	No	Yes	Yes	No	No	Yes
50th-Percentile Queue Length [veh]	0.46	0.46	0.31	0.04	0.05	0.42
50th-Percentile Queue Length [ft]	11.46	11.49	7.72	1.10	1.28	10.50
95th-Percentile Queue Length [veh]	0.83	0.83	0.56	0.08	0.09	0.76
95th-Percentile Queue Length [ft]	20.63	20.68	13.89	1.98	2.31	18.91

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	3.27	3.27	31.20	1.44	26.49	21.68
Movement LOS	A	A	C	A	C	C
d_A, Approach Delay [s/veh]	3.27		2.77		22.54	
Approach LOS	A		A		C	
d_I, Intersection Delay [s/veh]	3.98					
Intersection LOS	A					
Intersection V/C	0.178					

Sequence

Ring 1	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 15: Cathedral Canyon Drive / Perez Road

Control Type:	Signalized	Delay (sec / veh):	21.9
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.430

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	1	1	0	0
Pocket Length [ft]	95.00	100.00	100.00	205.00	100.00	100.00	100.00	100.00	100.00	150.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	26	297	52	109	282	127	114	192	51	48	207	88
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	26	297	52	109	282	127	114	192	51	48	207	88
Peak Hour Factor	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	7	76	13	28	72	33	29	49	13	12	53	23
Total Analysis Volume [veh/h]	27	305	53	112	290	130	117	197	52	49	213	90
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	2 - N. Cathedral Canyon Drive
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	19	0	11	19	0	11	19	0	11	19	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	L	C	R	L	C	C
C, Cycle Length [s]	60	60	60	60	60	60	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	3	8	8	6	12	12	6	26	26	4	24	24
g / C, Green / Cycle	0.04	0.14	0.14	0.10	0.19	0.19	0.10	0.43	0.43	0.07	0.40	0.40
(v / s)_i Volume / Saturation Flow Rate	0.02	0.10	0.10	0.06	0.12	0.12	0.07	0.06	0.03	0.03	0.08	0.09
s, saturation flow rate [veh/h]	1774	1863	1769	1774	1863	1672	1774	3547	1583	1774	1863	1681
c, Capacity [veh/h]	80	259	246	179	363	326	179	1518	678	119	734	662
d1, Uniform Delay [s]	27.92	24.77	24.82	26.02	22.16	22.22	26.10	10.44	10.20	26.99	12.08	12.13
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.47	3.47	3.88	3.58	1.62	1.90	4.01	0.18	0.22	2.28	0.66	0.77
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.34	0.70	0.72	0.63	0.60	0.62	0.65	0.13	0.08	0.41	0.21	0.22
d, Delay for Lane Group [s/veh]	30.40	28.24	28.70	29.60	23.78	24.13	30.10	10.62	10.42	29.28	12.74	12.90
Lane Group LOS	C	C	C	C	C	C	C	B	B	C	B	B
Critical Lane Group	No	No	Yes	Yes	No	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh]	0.40	2.48	2.43	1.58	2.68	2.48	1.66	0.68	0.37	0.69	1.29	1.23
50th-Percentile Queue Length [ft]	10.03	62.00	60.67	39.42	66.93	62.09	41.59	17.07	9.36	17.33	32.20	30.75
95th-Percentile Queue Length [veh]	0.72	4.46	4.37	2.84	4.82	4.47	2.99	1.23	0.67	1.25	2.32	2.21
95th-Percentile Queue Length [ft]	18.06	111.60	109.21	70.95	120.47	111.76	74.85	30.72	16.84	31.20	57.97	55.34

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	30.40	28.43	28.70	29.60	23.86	24.13	30.10	10.62	10.42	29.28	12.78	12.90
Movement LOS	C	C	C	C	C	C	C	B	B	C	B	B
d_A, Approach Delay [s/veh]	28.61			25.13			16.82			15.11		
Approach LOS	C			C			B			B		
d_I, Intersection Delay [s/veh]	21.93											
Intersection LOS	C											
Intersection V/C	0.430											

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 16: Cathedral Canyon Drive / Paseo Real

Control Type:	Two-way stop	Delay (sec / veh):	23.6
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.029

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	0	0	0	0	0	0
Pocket Length [ft]	55.00	100.00	100.00	55.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name												
Base Volume Input [veh/h]	11	482	9	16	509	19	11	5	16	9	6	14
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	11	482	9	16	509	19	11	5	16	9	6	14
Peak Hour Factor	0.9680	0.9680	0.9680	0.9680	0.9680	0.9680	0.9680	0.9680	0.9680	0.9680	0.9680	0.9680
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	124	2	4	131	5	3	1	4	2	2	4
Total Analysis Volume [veh/h]	11	498	9	17	526	20	11	5	17	9	6	14
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.00	0.00	0.02	0.01	0.00	0.05	0.02	0.02	0.04	0.03	0.02
d_M, Delay for Movement [s/veh]	8.57	0.00	0.00	8.47	0.00	0.00	20.99	23.57	11.02	20.42	23.61	10.79
Movement LOS	A	A	A	A	A	A	C	C	B	C	C	B
95th-Percentile Queue Length [veh]	0.03	0.00	0.00	0.05	0.00	0.00	0.31	0.31	0.31	0.27	0.27	0.27
95th-Percentile Queue Length [ft]	0.82	0.00	0.00	1.23	0.00	0.00	7.67	7.67	7.67	6.86	6.86	6.86
d_A, Approach Delay [s/veh]	0.18			0.26			16.24			16.43		
Approach LOS	A			A			C			C		
d_I, Intersection Delay [s/veh]	1.09											
Intersection LOS	C											

Intersection Level Of Service Report

Intersection 17: Cathedral Canyon Drive / Dinah Shore Drive

Control Type:	Signalized	Delay (sec / veh):	22.5
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.590

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	130.00	100.00	100.00	75.00	100.00	100.00	100.00	100.00	100.00	150.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	156	237	102	119	230	28	31	587	198	102	575	71
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	156	237	102	119	230	28	31	587	198	102	575	71
Peak Hour Factor	0.9700	0.9700	0.9700	0.9700	0.9700	0.9700	0.9700	0.9700	0.9700	0.9700	0.9700	0.9700
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	40	61	26	31	59	7	8	151	51	26	148	18
Total Analysis Volume [veh/h]	161	244	105	123	237	29	32	605	204	105	593	73
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	2 - N. Cathedral Canyon Drive
Cycle Length [s]	70
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	21	19	0	21	19	0	11	19	0	11	19	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	L	C	C	L	C	C
C, Cycle Length [s]	70	70	70	70	70	70	70	70	70	70	70	70
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	8	10	10	6	8	8	3	32	32	6	35	35
g / C, Green / Cycle	0.12	0.14	0.14	0.09	0.11	0.11	0.05	0.46	0.46	0.09	0.50	0.50
(v / s)_i Volume / Saturation Flow Rate	0.09	0.10	0.10	0.07	0.07	0.07	0.02	0.23	0.23	0.06	0.18	0.18
s, saturation flow rate [veh/h]	1774	1863	1677	1774	1863	1793	1774	1863	1704	1774	1863	1792
c, Capacity [veh/h]	207	254	229	165	209	201	86	848	776	156	922	887
d1, Uniform Delay [s]	30.13	29.03	29.10	31.07	29.85	29.88	32.40	13.49	13.49	31.05	10.96	10.96
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	6.13	3.73	4.47	6.62	3.30	3.56	2.68	2.09	2.29	4.94	1.13	1.18
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

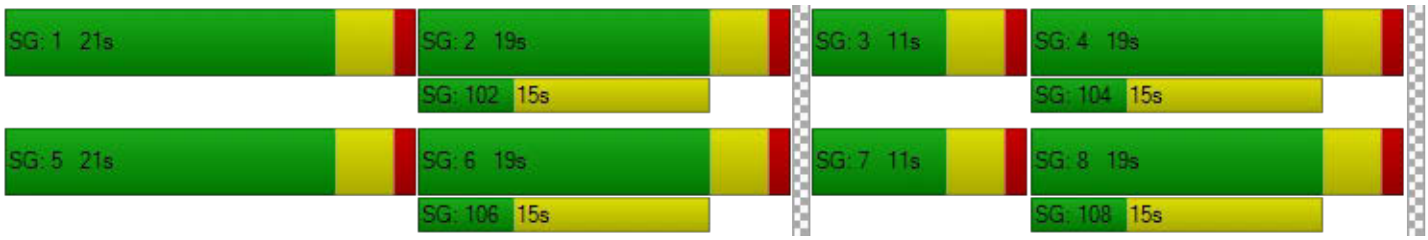
X, volume / capacity	0.78	0.72	0.73	0.75	0.64	0.65	0.37	0.50	0.50	0.67	0.37	0.37
d, Delay for Lane Group [s/veh]	36.26	32.76	33.57	37.69	33.15	33.43	35.08	15.57	15.78	35.99	12.09	12.14
Lane Group LOS	D	C	C	D	C	C	D	B	B	D	B	B
Critical Lane Group	No	No	Yes	Yes	No	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh]	2.81	2.98	2.79	2.20	2.22	2.18	0.56	4.45	4.12	1.83	2.97	2.87
50th-Percentile Queue Length [ft]	70.29	74.53	69.84	54.99	55.47	54.47	13.99	111.13	102.93	45.64	74.21	71.82
95th-Percentile Queue Length [veh]	5.06	5.37	5.03	3.96	3.99	3.92	1.01	7.90	7.41	3.29	5.34	5.17
95th-Percentile Queue Length [ft]	126.53	134.16	125.71	98.97	99.85	98.05	25.19	197.58	185.27	82.15	133.58	129.27

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	36.26	32.97	33.57	37.69	33.27	33.43	35.08	15.64	15.78	35.99	12.11	12.14
Movement LOS	D	C	C	D	C	C	D	B	B	D	B	B
d_A, Approach Delay [s/veh]	34.13			34.68			16.41			15.37		
Approach LOS	C			C			B			B		
d_I, Intersection Delay [s/veh]	22.52											
Intersection LOS	C											
Intersection V/C	0.590											

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 18: Date Palm Drive / Gerald Ford Drive

Control Type:	Signalized	Delay (sec / veh):	14.4
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.432

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	85.00	100.00	85.00	160.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			Yes			Yes			No		

Volumes

Name												
Base Volume Input [veh/h]	22	418	198	120	415	61	36	46	46	196	44	127
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	22	418	198	120	415	61	36	46	46	196	44	127
Peak Hour Factor	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	6	109	52	31	108	16	9	12	12	51	11	33
Total Analysis Volume [veh/h]	23	436	207	125	433	64	38	48	48	205	46	133
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	6 - N/S
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Split	Split	Split	Split	Split	Split
Signal group	5	2	0	1	6	0	3	8	0	7	4	4
Auxiliary Signal Groups												1,4
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	7	7	0	7	7	0	0	7	0	0	7	7
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	30
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	3.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	1.0
Split [s]	11	25	0	16	30	0	0	19	0	0	19	19
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	3.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	5
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	10
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	2.0
Minimum Recall	No	No		No	No			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	C	L	C	C	L	C	R
C, Cycle Length [s]	60	60	60	60	60	60	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.00	0.00	2.00	2.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	2	30	30	6	34	34	12	12	12	12	12	12
g / C, Green / Cycle	0.04	0.50	0.50	0.10	0.56	0.56	0.20	0.20	0.20	0.20	0.20	0.20
(v / s)_i Volume / Saturation Flow Rate	0.01	0.12	0.13	0.07	0.14	0.14	0.03	0.03	0.03	0.09	0.12	0.08
s, saturation flow rate [veh/h]	1774	3547	1583	1774	1863	1780	1354	1863	1583	1294	1162	1583
c, Capacity [veh/h]	66	1761	786	181	1046	1000	170	375	319	301	333	319
d1, Uniform Delay [s]	28.18	8.67	8.75	26.02	6.68	6.68	28.62	19.64	19.74	24.40	22.64	20.89
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	3.13	0.34	0.82	4.62	0.55	0.58	0.66	0.15	0.22	0.81	0.79	0.87
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

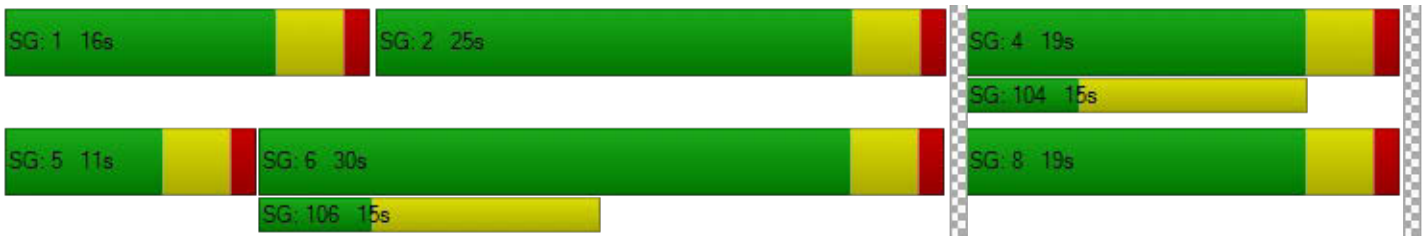
X, volume / capacity	0.35	0.25	0.26	0.69	0.24	0.24	0.22	0.13	0.15	0.39	0.40	0.42
d, Delay for Lane Group [s/veh]	31.30	9.01	9.56	30.63	7.23	7.26	29.28	19.80	19.95	25.21	23.43	21.76
Lane Group LOS	C	A	A	C	A	A	C	B	B	C	C	C
Critical Lane Group	No	No	Yes	Yes	No	No	No	No	No	No	Yes	No
50th-Percentile Queue Length [veh]	0.35	1.34	1.38	1.80	1.33	1.28	0.53	0.51	0.51	1.47	1.65	1.52
50th-Percentile Queue Length [ft]	8.84	33.48	34.56	44.90	33.13	32.06	13.20	12.68	12.82	36.84	41.27	38.12
95th-Percentile Queue Length [veh]	0.64	2.41	2.49	3.23	2.39	2.31	0.95	0.91	0.92	2.65	2.97	2.74
95th-Percentile Queue Length [ft]	15.90	60.26	62.22	80.82	59.64	57.70	23.75	22.82	23.07	66.32	74.29	68.61

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	31.30	9.01	9.56	30.63	7.24	7.26	29.28	19.80	19.95	24.45	23.43	21.76
Movement LOS	C	A	A	C	A	A	C	B	B	C	C	C
d_A, Approach Delay [s/veh]	9.95			11.94			22.54			23.39		
Approach LOS	A			B			C			C		
d_I, Intersection Delay [s/veh]	14.43											
Intersection LOS	B											
Intersection V/C	0.432											

Sequence

Ring 1	1	2	-	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 19: Date Palm Drive / Dinah Shore Drive

Control Type:	Signalized	Delay (sec / veh):	20.8
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.502

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	2	0	1	2	0	1	1	0	0	1	0	1
Pocket Length [ft]	225.00	100.00	125.00	170.00	100.00	50.00	150.00	100.00	100.00	130.00	100.00	180.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			No		

Volumes

Name												
Base Volume Input [veh/h]	185	483	58	114	538	75	103	483	173	59	427	115
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	185	483	58	114	538	75	103	483	173	59	427	115
Peak Hour Factor	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	49	128	15	30	142	20	27	128	46	16	113	30
Total Analysis Volume [veh/h]	196	512	61	121	570	79	109	512	183	63	452	122
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	1 - E Palm Canyon Drive
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Overlap
Signal group	5	2	0	1	6	0	3	8	0	7	4	4
Auxiliary Signal Groups												1,4
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	7
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	30
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	1.0
Split [s]	11	19	0	11	19	0	11	19	0	11	19	19
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	5
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	10
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0
Minimum Recall	No	No		No	No		No	No		No	No	No
Maximum Recall	No	No		No	No		No	No		No	No	No
Pedestrian Recall	No	No		No	No		No	No		No	No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	60	60	60	60	60	60	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	0.00
g_i, Effective Green Time [s]	7	22	22	6	21	21	6	12	12	5	10	20
g / C, Green / Cycle	0.11	0.36	0.36	0.10	0.35	0.35	0.10	0.19	0.19	0.08	0.17	0.34
(v / s)_i Volume / Saturation Flow Rate	0.06	0.14	0.04	0.04	0.11	0.05	0.06	0.14	0.12	0.04	0.13	0.08
s, saturation flow rate [veh/h]	3445	3547	1583	3445	5074	1583	1774	3547	1583	1774	3547	1583
c, Capacity [veh/h]	391	1282	573	355	1782	556	177	679	303	139	603	538
d1, Uniform Delay [s]	25.12	14.36	12.78	25.13	14.30	13.36	26.03	23.04	22.29	26.55	23.80	14.25
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.99	0.93	0.37	0.56	0.47	0.54	3.44	1.73	1.93	2.29	1.90	0.21
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.50	0.40	0.11	0.34	0.32	0.14	0.62	0.75	0.60	0.45	0.75	0.23
d, Delay for Lane Group [s/veh]	26.11	15.29	13.15	25.70	14.77	13.89	29.47	24.76	24.22	28.83	25.69	14.46
Lane Group LOS	C	B	B	C	B	B	C	C	C	C	C	B
Critical Lane Group	No	Yes	No	Yes	No	No	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh]	1.25	2.35	0.52	0.76	1.68	0.70	1.53	3.21	2.27	0.88	2.89	1.05
50th-Percentile Queue Length [ft]	31.18	58.76	13.07	18.98	41.99	17.62	38.26	80.17	56.69	21.94	72.18	26.29
95th-Percentile Queue Length [veh]	2.25	4.23	0.94	1.37	3.02	1.27	2.75	5.77	4.08	1.58	5.20	1.89
95th-Percentile Queue Length [ft]	56.13	105.77	23.53	34.16	75.58	31.72	68.87	144.31	102.05	39.49	129.92	47.32

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	26.11	15.29	13.15	25.70	14.77	13.89	29.47	24.76	24.22	28.83	25.69	14.46
Movement LOS	C	B	B	C	B	B	C	C	C	C	C	B
d_A, Approach Delay [s/veh]	17.88			16.40			25.28			23.85		
Approach LOS	B			B			C			C		
d_I, Intersection Delay [s/veh]	20.77											
Intersection LOS	C											
Intersection V/C	0.502											

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 20: Date Palm Drive / Ramon Road

Control Type:	Signalized	Delay (sec / veh):	26.7
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.694

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	215.00	100.00	80.00	180.00	100.00	100.00	350.00	100.00	100.00	230.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			No		

Volumes

Name												
Base Volume Input [veh/h]	215	474	82	221	460	139	193	684	133	104	610	117
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	215	474	82	221	460	139	193	684	133	104	610	117
Peak Hour Factor	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	57	126	22	59	122	37	51	181	35	28	162	31
Total Analysis Volume [veh/h]	228	502	87	234	487	147	204	725	141	110	646	124
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	7 - E/W
Cycle Length [s]	70
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	11	0	24	24	0	16	24	0	11	19	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	C	L	C	C
C, Cycle Length [s]	70	70	70	70	70	70	70	70	70	70	70	70
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	7	20	20	11	24	24	10	17	17	6	13	13
g / C, Green / Cycle	0.10	0.29	0.29	0.16	0.35	0.35	0.14	0.24	0.24	0.09	0.18	0.18
(v / s)_i Volume / Saturation Flow Rate	0.07	0.14	0.05	0.13	0.14	0.09	0.11	0.16	0.17	0.06	0.15	0.15
s, saturation flow rate [veh/h]	3445	3547	1583	1774	3547	1583	1774	3547	1712	1774	3547	1714
c, Capacity [veh/h]	344	1008	450	287	1228	548	251	838	404	159	655	317
d1, Uniform Delay [s]	30.48	20.96	19.04	28.43	17.40	16.54	29.26	24.52	24.55	31.02	27.34	27.40
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.19	1.76	0.96	5.59	0.96	1.20	6.28	1.05	2.21	5.24	2.17	4.65
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.66	0.50	0.19	0.81	0.40	0.27	0.81	0.70	0.70	0.69	0.79	0.80
d, Delay for Lane Group [s/veh]	32.67	22.71	19.99	34.01	18.36	17.74	35.55	25.58	26.76	36.27	29.51	32.05
Lane Group LOS	C	C	B	C	B	B	D	C	C	D	C	C
Critical Lane Group	No	Yes	No	Yes	No	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh]	1.84	3.34	1.09	3.95	2.81	1.70	3.53	4.15	4.16	1.92	3.99	4.13
50th-Percentile Queue Length [ft]	45.98	83.44	27.32	98.82	70.26	42.55	88.22	103.71	104.05	48.04	99.80	103.31
95th-Percentile Queue Length [veh]	3.31	6.01	1.97	7.11	5.06	3.06	6.35	7.47	7.49	3.46	7.19	7.44
95th-Percentile Queue Length [ft]	82.76	150.20	49.18	177.87	126.47	76.59	158.79	186.68	187.29	86.47	179.65	185.95

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	32.67	22.71	19.99	34.01	18.36	17.74	35.55	25.81	26.76	36.27	30.02	32.05
Movement LOS	C	C	B	C	B	B	D	C	C	D	C	C
d_A, Approach Delay [s/veh]	25.20			22.47			27.79			31.08		
Approach LOS	C			C			C			C		
d_I, Intersection Delay [s/veh]	26.74											
Intersection LOS	C											
Intersection V/C	0.694											

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 21: Da Vall Drive / Dinah Shore Drive

Control Type:	Signalized	Delay (sec / veh):	17.3
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.427

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	0	1	0	1	1	0	0
Pocket Length [ft]	120.00	100.00	120.00	130.00	100.00	100.00	175.00	100.00	215.00	185.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	127	128	47	52	160	41	43	448	134	50	469	59
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	127	128	47	52	160	41	43	448	134	50	469	59
Peak Hour Factor	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	33	34	12	14	42	11	11	118	35	13	124	16
Total Analysis Volume [veh/h]	134	135	50	55	169	43	45	472	141	53	494	62
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	6 - N/S
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	19	0	11	19	0	11	19	0	11	19	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	C	L	C	R	L	C	C
C, Cycle Length [s]	60	60	60	60	60	60	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	6	9	9	4	7	7	4	27	27	4	27	27
g / C, Green / Cycle	0.11	0.15	0.15	0.07	0.11	0.11	0.06	0.45	0.45	0.07	0.45	0.45
(v / s)_i Volume / Saturation Flow Rate	0.08	0.04	0.03	0.03	0.06	0.06	0.03	0.13	0.09	0.03	0.15	0.15
s, saturation flow rate [veh/h]	1774	3547	1583	1774	1863	1736	1774	3547	1583	1774	1863	1791
c, Capacity [veh/h]	188	522	233	129	212	197	113	1577	704	125	841	809
d1, Uniform Delay [s]	26.06	22.80	22.65	26.75	25.14	25.20	27.13	10.73	10.21	26.87	10.70	10.71
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	4.91	0.26	0.46	2.22	1.89	2.18	2.29	0.49	0.64	2.29	1.08	1.13
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.71	0.26	0.21	0.43	0.51	0.53	0.40	0.30	0.20	0.43	0.34	0.34
d, Delay for Lane Group [s/veh]	30.97	23.06	23.10	28.98	27.03	27.38	29.42	11.21	10.85	29.16	11.78	11.84
Lane Group LOS	C	C	C	C	C	C	C	B	B	C	B	B
Critical Lane Group	Yes	No	No	No	No	Yes	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh]	1.94	0.78	0.59	0.77	1.42	1.39	0.64	1.72	1.04	0.75	2.19	2.13
50th-Percentile Queue Length [ft]	48.50	19.61	14.82	19.27	35.60	34.79	16.01	42.96	26.04	18.66	54.69	53.18
95th-Percentile Queue Length [veh]	3.49	1.41	1.07	1.39	2.56	2.50	1.15	3.09	1.87	1.34	3.94	3.83
95th-Percentile Queue Length [ft]	87.31	35.30	26.68	34.68	64.07	62.62	28.82	77.33	46.87	33.59	98.45	95.72

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	30.97	23.06	23.10	28.98	27.15	27.38	29.42	11.21	10.85	29.16	11.80	11.84
Movement LOS	C	C	C	C	C	C	C	B	B	C	B	B
d_A, Approach Delay [s/veh]	26.39			27.56			12.38			13.32		
Approach LOS	C			C			B			B		
d_I, Intersection Delay [s/veh]	17.29											
Intersection LOS	B											
Intersection V/C	0.427											

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 22: Da Vall Drive / Gerald Ford Drive

Control Type:	Signalized	Delay (sec / veh):	21.9
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.371

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	200.00	100.00	175.00	140.00	100.00	100.00	175.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	94	178	44	73	199	50	30	285	97	34	245	90
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	94	178	44	73	199	50	30	285	97	34	245	90
Peak Hour Factor	0.9210	0.9210	0.9210	0.9210	0.9210	0.9210	0.9210	0.9210	0.9210	0.9210	0.9210	0.9210
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	26	48	12	20	54	14	8	77	26	9	67	24
Total Analysis Volume [veh/h]	102	193	48	79	216	54	33	309	105	37	266	98
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	6 - N/S
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	19	0	11	19	0	11	19	0	11	19	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	C	L	C	C	L	C	C
C, Cycle Length [s]	60	60	60	60	60	60	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	6	26	26	5	25	25	3	10	10	3	10	10
g / C, Green / Cycle	0.10	0.43	0.43	0.09	0.42	0.42	0.05	0.16	0.16	0.06	0.16	0.16
(v / s)_i Volume / Saturation Flow Rate	0.06	0.05	0.03	0.04	0.07	0.08	0.02	0.11	0.12	0.02	0.10	0.10
s, saturation flow rate [veh/h]	1774	3547	1583	1774	1863	1737	1774	1863	1705	1774	1863	1696
c, Capacity [veh/h]	173	1529	683	156	785	732	92	297	271	100	305	277
d1, Uniform Delay [s]	26.05	10.32	10.06	26.25	10.90	10.92	27.60	24.07	24.15	27.41	23.46	23.54
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	3.17	0.17	0.20	2.53	0.49	0.54	2.32	3.29	3.91	2.26	2.02	2.41
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.59	0.13	0.07	0.51	0.18	0.18	0.36	0.72	0.74	0.37	0.62	0.64
d, Delay for Lane Group [s/veh]	29.22	10.49	10.26	28.79	11.39	11.46	29.92	27.36	28.06	29.67	25.48	25.95
Lane Group LOS	C	B	B	C	B	B	C	C	C	C	C	C
Critical Lane Group	Yes	No	No	No	No	Yes	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh]	1.42	0.66	0.34	1.10	1.04	1.01	0.48	2.86	2.73	0.53	2.39	2.28
50th-Percentile Queue Length [ft]	35.62	16.53	8.53	27.39	26.06	25.25	12.01	71.43	68.26	13.33	59.84	57.03
95th-Percentile Queue Length [veh]	2.56	1.19	0.61	1.97	1.88	1.82	0.87	5.14	4.91	0.96	4.31	4.11
95th-Percentile Queue Length [ft]	64.12	29.76	15.35	49.29	46.90	45.45	21.63	128.57	122.87	24.00	107.71	102.66

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	29.22	10.49	10.26	28.79	11.41	11.46	29.92	27.58	28.06	29.67	25.62	25.95
Movement LOS	C	B	B	C	B	B	C	C	C	C	C	C
d_A, Approach Delay [s/veh]	16.03			15.35			27.86			26.07		
Approach LOS	B			B			C			C		
d_I, Intersection Delay [s/veh]	21.93											
Intersection LOS	C											
Intersection V/C	0.371											

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	



Intersection Level Of Service Report
Intersection 23: East Palm Canyon Drive / Frank Sinatra Drive

Control Type:	Signalized	Delay (sec / veh):	25.3
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.527

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	1	1	0	0	2	0	1
Pocket Length [ft]	160.00	100.00	45.00	325.00	100.00	250.00	100.00	100.00	100.00	120.00	100.00	1200.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			No			Yes		

Volumes

Name												
Base Volume Input [veh/h]	47	1301	147	214	1244	33	34	18	13	141	24	199
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	47	1301	147	214	1244	33	34	18	13	141	24	199
Peak Hour Factor	0.9210	0.9210	0.9210	0.9210	0.9210	0.9210	0.9210	0.9210	0.9210	0.9210	0.9210	0.9210
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	13	353	40	58	338	9	9	5	4	38	7	54
Total Analysis Volume [veh/h]	51	1413	160	232	1351	36	37	20	14	153	26	216
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	6 - N/S
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Overlap	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Overlap
Signal group	5	2	2	1	6	0	3	8	0	7	4	4
Auxiliary Signal Groups			1,2,3,4,									1,2,3,4,
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	7	7	7	0	7	7	0	7	7	7
Maximum Green [s]	30	30	30	30	30	0	30	30	0	30	30	30
Amber [s]	3.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0
All red [s]	1.0	1.0	1.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	1.0
Split [s]	24	47	47	13	36	0	11	19	0	11	19	19
Vehicle Extension [s]	3.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0
Walk [s]	0	5	5	0	5	0	0	5	0	0	5	5
Pedestrian Clearance [s]	0	10	10	0	10	0	0	10	0	0	10	10
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0
Minimum Recall	No	No	No	No	No		No	No		No	No	No
Maximum Recall	No	No	No	No	No		No	No		No	No	No
Pedestrian Recall	No	No	No	No	No		No	No		No	No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	L	C	R
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	0.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	0.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	2.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	7	32	152	9	34	34	4	26	7	29	152
g / C, Green / Cycle	0.08	0.35	1.69	0.10	0.38	0.38	0.05	0.29	0.08	0.32	1.69
(v / s)_i Volume / Saturation Flow Rate	0.03	0.28	0.10	0.08	0.27	0.02	0.03	0.02	0.04	0.01	0.14
s, saturation flow rate [veh/h]	1774	5074	1583	2741	5074	1583	1412	1737	3445	1863	1583
c, Capacity [veh/h]	139	1795	2675	303	1907	595	123	502	273	595	2675
d1, Uniform Delay [s]	39.41	26.10	0.00	41.57	23.94	17.97	43.54	23.26	40.00	21.17	0.00
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.11	0.50	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.60	0.79	0.01	4.07	0.49	0.04	1.36	0.26	1.80	0.14	0.01
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.37	0.79	0.06	0.77	0.71	0.06	0.30	0.07	0.56	0.04	0.08
d, Delay for Lane Group [s/veh]	41.01	26.89	0.01	45.64	24.43	18.02	44.90	23.52	41.80	21.30	0.01
Lane Group LOS	D	C	A	D	C	B	D	C	D	C	A
Critical Lane Group	No	Yes	No	Yes	No	No	No	No	Yes	No	Yes
50th-Percentile Queue Length [veh]	1.10	8.51	0.01	2.66	7.63	0.46	0.84	0.54	1.65	0.38	0.01
50th-Percentile Queue Length [ft]	27.45	212.86	0.17	66.57	190.69	11.49	21.06	13.43	41.15	9.57	0.24
95th-Percentile Queue Length [veh]	1.98	13.30	0.01	4.79	12.16	0.83	1.52	0.97	2.96	0.69	0.02
95th-Percentile Queue Length [ft]	49.41	332.49	0.31	119.82	303.93	20.68	37.91	24.17	74.08	17.23	0.43

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	41.01	26.89	0.01	45.64	24.43	18.02	44.90	23.52	23.52	41.80	21.30	0.01
Movement LOS	D	C	A	D	C	B	D	C	C	D	C	A
d_A, Approach Delay [s/veh]	24.69			27.33			34.66			17.60		
Approach LOS	C			C			C			B		
d_I, Intersection Delay [s/veh]	25.28											
Intersection LOS	C											
Intersection V/C	0.527											

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 24: East Palm Canyon Drive / Mirage Cove Drive

Control Type:	Signalized	Delay (sec / veh):	19.0
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.402

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	1	1	0	0
Pocket Length [ft]	150.00	100.00	100.00	110.00	100.00	100.00	75.00	100.00	75.00	75.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	40	1394	6	23	1334	43	39	0	21	4	0	23
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	40	1394	6	23	1334	43	39	0	21	4	0	23
Peak Hour Factor	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	10	365	2	6	350	11	10	0	6	1	0	6
Total Analysis Volume [veh/h]	42	1461	6	24	1398	45	41	0	22	4	0	24
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	6 - N/S
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	5	2	0	1	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	7	7	0	7	7	0	0	7	0	0	7	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	11	30	0	11	30	0	0	19	0	0	19	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No	No		No	No			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	L	C	R	L	C
C, Cycle Length [s]	60	60	60	60	60	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.00	0.00	2.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	4	21	21	2	20	20	24	24	24	24	24
g / C, Green / Cycle	0.06	0.36	0.36	0.04	0.34	0.34	0.40	0.40	0.40	0.40	0.40
(v / s)_i Volume / Saturation Flow Rate	0.02	0.27	0.27	0.01	0.27	0.27	0.03	0.00	0.01	0.00	0.02
s, saturation flow rate [veh/h]	1774	3547	1859	1774	3547	1833	1381	1863	1583	1412	1583
c, Capacity [veh/h]	108	1269	665	72	1197	619	620	749	637	644	637
d1, Uniform Delay [s]	27.16	17.03	17.03	28.06	18.04	18.04	12.63	0.00	10.91	11.93	10.92
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.26	0.95	1.86	2.65	1.24	2.45	0.21	0.00	0.10	0.02	0.11
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

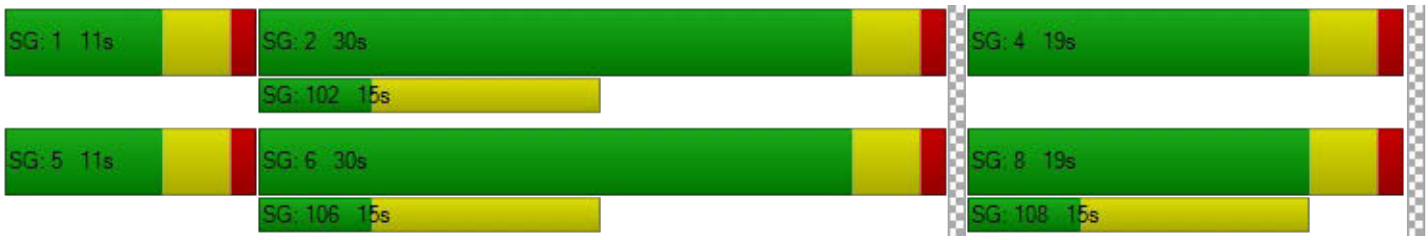
X, volume / capacity	0.39	0.76	0.76	0.33	0.79	0.79	0.07	0.00	0.03	0.01	0.04
d, Delay for Lane Group [s/veh]	29.42	17.98	18.89	30.71	19.29	20.49	12.83	0.00	11.01	11.95	11.03
Lane Group LOS	C	B	B	C	B	C	B	A	B	B	B
Critical Lane Group	Yes	No	No	No	No	Yes	Yes	No	No	No	No
50th-Percentile Queue Length [veh]	0.60	5.05	5.46	0.36	5.23	5.61	0.34	0.00	0.17	0.03	0.18
50th-Percentile Queue Length [ft]	14.98	126.15	136.40	9.05	130.67	140.25	8.59	0.00	4.14	0.79	4.53
95th-Percentile Queue Length [veh]	1.08	8.73	9.29	0.65	8.98	9.49	0.62	0.00	0.30	0.06	0.33
95th-Percentile Queue Length [ft]	26.97	218.26	232.16	16.29	224.41	237.36	15.47	0.00	7.46	1.43	8.15

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	29.42	18.29	18.89	30.71	19.67	20.49	12.83	0.00	11.01	11.95	11.03	11.03
Movement LOS	C	B	B	C	B	C	B	A	B	B	B	B
d_A, Approach Delay [s/veh]	18.60			19.88			12.20			11.16		
Approach LOS	B			B			B			B		
d_I, Intersection Delay [s/veh]	19.01											
Intersection LOS	B											
Intersection V/C	0.402											

Sequence

Ring 1	1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 25: East Palm Canyon Drive / Country Club Drive

Control Type:	Signalized	Delay (sec / veh):	19.9
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.466

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	2	0	0	1	0	0	1	0	0
Pocket Length [ft]	160.00	100.00	45.00	190.00	100.00	100.00	30.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			Yes			Yes			No		

Volumes

Name												
Base Volume Input [veh/h]	6	1285	78	134	1246	8	4	4	5	84	4	146
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	6	1285	78	134	1246	8	4	4	5	84	4	146
Peak Hour Factor	0.9380	0.9380	0.9380	0.9380	0.9380	0.9380	0.9380	0.9380	0.9380	0.9380	0.9380	0.9380
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	342	21	36	332	2	1	1	1	22	1	39
Total Analysis Volume [veh/h]	6	1370	83	143	1328	9	4	4	5	90	4	156
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	6 - N/S
Cycle Length [s]	70
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Protecte	Permiss	Overlap	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	5	2	2	1	6	0	0	8	0	0	4	0
Auxiliary Signal Groups			1,2,4,5,									
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	7	7	7	7	7	0	0	7	0	0	7	0
Maximum Green [s]	30	30	30	30	30	0	0	30	0	0	30	0
Amber [s]	3.0	3.0	3.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	1.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	11	40	40	11	40	0	0	19	0	0	19	0
Vehicle Extension [s]	3.0	3.0	3.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	5	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	10	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	2.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	2.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No	No	No	No	No			No			No	
Maximum Recall	No	No	No	No	No			No			No	
Pedestrian Recall	No	No	No	No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	C	L	C	L	C	R
C, Cycle Length [s]	70	70	70	70	70	70	70	70	70	70	70
L, Total Lost Time per Cycle [s]	4.00	4.00	0.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	2.00	0.00	0.00	2.00	0.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	6	25	120	7	26	26	27	27	27	27	27
g / C, Green / Cycle	0.08	0.35	1.71	0.10	0.37	0.37	0.38	0.38	0.38	0.38	0.38
(v / s)_i Volume / Saturation Flow Rate	0.00	0.27	0.05	0.05	0.25	0.25	0.00	0.01	0.06	0.05	0.05
s, saturation flow rate [veh/h]	1774	5074	1583	2741	3547	1856	1221	1696	1400	1595	1583
c, Capacity [veh/h]	149	1786	2715	298	1290	675	493	647	592	608	604
d1, Uniform Delay [s]	29.53	20.17	0.00	31.90	18.85	18.85	16.29	13.50	15.86	14.14	14.14
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.11	0.71	0.00	1.19	0.64	1.21	0.03	0.04	0.54	0.45	0.45
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.04	0.77	0.03	0.48	0.68	0.68	0.01	0.01	0.15	0.13	0.13
d, Delay for Lane Group [s/veh]	29.64	20.88	0.00	33.10	19.49	20.07	16.32	13.54	16.40	14.59	14.59
Lane Group LOS	C	C	A	C	B	C	B	B	B	B	B
Critical Lane Group	No	Yes	No	Yes	No	No	No	No	Yes	No	No
50th-Percentile Queue Length [veh]	0.09	5.92	0.00	1.16	5.37	5.73	0.04	0.09	0.99	0.81	0.81
50th-Percentile Queue Length [ft]	2.30	148.03	0.09	28.99	134.23	143.21	1.10	2.15	24.70	20.33	20.22
95th-Percentile Queue Length [veh]	0.17	9.91	0.01	2.09	9.17	9.65	0.08	0.15	1.78	1.46	1.46
95th-Percentile Queue Length [ft]	4.13	247.80	0.15	52.18	229.23	241.35	1.98	3.87	44.46	36.59	36.40

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	29.64	20.88	0.00	33.10	19.69	20.07	16.32	13.54	13.54	16.40	14.59	14.59
Movement LOS	C	C	A	C	B	C	B	B	B	B	B	B
d_A, Approach Delay [s/veh]	19.73			20.99			14.39			15.24		
Approach LOS	B			C			B			B		
d_I, Intersection Delay [s/veh]	19.94											
Intersection LOS	B											
Intersection V/C	0.466											

Sequence

Ring 1	1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 26: Thompson Road-Morningside Drive / Frank Sinatra Drive

Control Type:	Signalized	Delay (sec / veh):	6.3
Analysis Method:	HCM 2010	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.362

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	150.00	100.00	100.00	90.00	100.00	100.00	90.00	100.00	100.00	130.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	85	16	30	19	36	13	12	459	227	63	457	18
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	85	16	30	19	36	13	12	459	227	63	457	18
Peak Hour Factor	0.8230	0.8230	0.8230	0.8230	0.8230	0.8230	0.8230	0.8230	0.8230	0.8230	0.8230	0.8230
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	26	5	9	6	11	4	4	139	69	19	139	5
Total Analysis Volume [veh/h]	103	19	36	23	44	16	15	558	276	77	555	22
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	7 - E/W
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	0	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	7	0	0	7	0	0	7	0	0	7	0
Maximum Green [s]	0	30	0	0	30	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	21	0	0	21	0	0	39	0	0	39	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No			No			No			No	
Maximum Recall		No			No			No			No	
Pedestrian Recall		No			No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	C	L	C	C	L	C	C
C, Cycle Length [s]	60	60	60	60	60	60	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	0.00	2.00	0.00	0.00	2.00	0.00	0.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	7	7	7	7	7	7	45	45	45	45	45	45
g / C, Green / Cycle	0.12	0.12	0.12	0.12	0.12	0.12	0.74	0.74	0.74	0.74	0.74	0.74
(v / s)_i Volume / Saturation Flow Rate	0.08	0.01	0.02	0.02	0.02	0.02	0.02	0.24	0.24	0.12	0.16	0.16
s, saturation flow rate [veh/h]	1337	1863	1583	1388	1863	1701	833	1863	1657	656	1863	1838
c, Capacity [veh/h]	259	233	198	271	233	213	644	1383	1230	507	1383	1364
d1, Uniform Delay [s]	26.17	23.30	23.60	24.30	23.45	23.48	4.21	2.62	2.62	5.71	2.37	2.37
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.98	0.15	0.44	0.13	0.25	0.30	0.07	0.61	0.69	0.63	0.35	0.35
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.40	0.08	0.18	0.08	0.13	0.14	0.02	0.32	0.32	0.15	0.21	0.21
d, Delay for Lane Group [s/veh]	27.15	23.45	24.04	24.43	23.70	23.77	4.27	3.23	3.31	6.35	2.72	2.72
Lane Group LOS	C	C	C	C	C	C	A	A	A	A	A	A
Critical Lane Group	Yes	No	No	No	No	No	No	No	Yes	No	No	No
50th-Percentile Queue Length [veh]	1.37	0.23	0.44	0.28	0.36	0.36	0.06	0.79	0.73	0.39	0.46	0.46
50th-Percentile Queue Length [ft]	34.23	5.66	11.00	7.01	9.08	8.99	1.38	19.65	18.17	9.84	11.53	11.44
95th-Percentile Queue Length [veh]	2.46	0.41	0.79	0.50	0.65	0.65	0.10	1.41	1.31	0.71	0.83	0.82
95th-Percentile Queue Length [ft]	61.61	10.19	19.80	12.61	16.34	16.19	2.49	35.36	32.70	17.72	20.76	20.60

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	27.15	23.45	24.04	24.43	23.72	23.77	4.27	3.25	3.31	6.35	2.72	2.72
Movement LOS	C	C	C	C	C	C	A	A	A	A	A	A
d_A, Approach Delay [s/veh]	26.00			23.93			3.29			3.15		
Approach LOS	C			C			A			A		
d_I, Intersection Delay [s/veh]	6.27											
Intersection LOS	A											
Intersection V/C	0.362											

Sequence

Ring 1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 28: Van Fleet Street / D Street

Control Type:	Two-way stop	Delay (sec / veh):	9.6
Analysis Method:	HCM 2010	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.008

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	1	32	2	4	42	5	3	5	2	2	1	2
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	1	32	2	4	42	5	3	5	2	2	1	2
Peak Hour Factor	0.8710	0.8710	0.8710	0.8710	0.8710	0.8710	0.8710	0.8710	0.8710	0.8710	0.8710	0.8710
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	9	1	1	12	1	1	1	1	1	0	1
Total Analysis Volume [veh/h]	1	37	2	5	48	6	3	6	2	2	1	2
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	7.32	0.00	0.00	7.30	0.00	0.00	9.18	9.64	8.60	9.18	9.62	8.50
Movement LOS	A	A	A	A	A	A	A	A	A	A	A	A
95th-Percentile Queue Length [veh]	0.08	0.08	0.08	0.12	0.12	0.12	0.04	0.04	0.04	0.02	0.02	0.02
95th-Percentile Queue Length [ft]	1.98	1.98	1.98	2.92	2.92	2.92	0.99	0.99	0.99	0.42	0.42	0.42
d_A, Approach Delay [s/veh]	0.18			0.62			9.33			9.00		
Approach LOS	A			A			A			A		
d_I, Intersection Delay [s/veh]	1.66											
Intersection LOS	A											

Opening Year Conditions
Alternative A

Traffic Impact Analysis

Vistro File: G:\...\EACP Alt A.vistro
Report File: G:\...\EAC PM.pdf

Scenario 8 EAC PM ALT A
7/30/2018

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	North Project Driveway 1 / Buddy Rogers Avenue	Two-way stop	HCM 2010	NB Thru	0.000	9.4	A
2	Date Palm Drive / Buddy Rogers Avenue	Two-way stop	HCM 2010	EB Left	0.109	18.9	C
3	Date Palm Drive / East Palm Canyon Drive	Signalized	HCM 2010	SB Right	0.589	10.7	B
4	South Project Driveway-Allen Avenue / East Palm Canyon Drive	Signalized	HCM 2010	SB Right	0.471	1.1	A
5	Monty Hall Drive-Van Fleet Avenue / East Palm Canyon Drive	Signalized	HCM 2010	EB Left	0.622	8.8	A
6	Date Palm Drive / East Palm Drive	Two-way stop	HCM 2010	EB Right	0.000	11.4	B
7	North Project Driveway 2 / Buddy Rogers Avenue	Two-way stop	HCM 2010	NB Left	0.000	8.8	A
8	Monty Hall Drive / Buddy Rogers Avenue	All-way stop	HCM 2010	SB Left	0.059	7.3	A
9	Buddy Rogers Avenue/ East Palm Canyon Drive	Signalized	HCM 2010	NB Right	0.501	3.5	A
10	Cathedral Canyon Drive / East Palm Canyon Drive	Signalized	HCM 2010	EB Left	0.636	16.0	B
11	Perez Road / East Palm Canyon Drive	Signalized	HCM 2010	WB Left	0.754	22.9	C
12	Canyon Plaza Drive / East Palm Canyon Drive	Signalized	HCM 2010	EB Left	0.610	10.5	B
13	Golf Club Drive / East Palm Canyon Drive	Signalized	HCM 2010	SB Right	0.660	9.8	A
14	Cathedral Canyon Drive / Officer David Vasquez Road	Signalized	HCM 2010	SB Left	0.228	4.8	A
15	Cathedral Canyon Drive / Perez Road	Signalized	HCM 2010	SB Left	0.587	25.6	C
16	Cathedral Canyon Drive / Paseo Real	Two-way stop	HCM 2010	WB Thru	0.030	42.3	E

17	Cathedral Canyon Drive / Dinah Shore Drive	Signalized	HCM 2010	SB Left	0.787	28.6	C
18	Date Palm Drive / Gerald Ford Drive	Signalized	HCM 2010	NB Left	0.578	17.9	B
19	Date Palm Drive / Dinah Shore Drive	Signalized	HCM 2010	EB Left	0.596	23.8	C
20	Date Palm Drive / Ramon Road	Signalized	HCM 2010	WB Left	0.753	27.6	C
21	Da Vall Drive / Dinah Shore Drive	Signalized	HCM 2010	NB Left	0.584	22.0	C
22	Da Vall Drive / Gerald Ford Drive	Signalized	HCM 2010	NB Left	0.462	22.1	C
23	East Palm Canyon Drive / Frank Sinatra Drive	Signalized	HCM 2010	WB Right	0.790	27.0	C
24	East Palm Canyon Drive / Mirage Cove Drive	Signalized	HCM 2010	NB Left	0.461	6.8	A
25	East Palm Canyon Drive / Country Club Drive	Signalized	HCM 2010	NB Left	0.530	9.8	A
26	Thompson Road-Morningside Drive / Frank Sinatra Drive	Signalized	HCM 2010	NB Left	0.355	8.4	A
27	Van Fleet Street / B Street-West Project Driveway	Two-way stop	HCM 2010	EB Thru	0.000	10.2	B
28	Van Fleet Street / D Street	Two-way stop	HCM 2010	EB Thru	0.001	10.2	B
29	South Project Driveway / D Street	Two-way stop	HCM 2010	SB Left	0.000	8.6	A

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. for all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report

Intersection 1: North Project Driveway 1 / Buddy Rogers Avenue

Control Type:	Two-way stop	Delay (sec / veh):	9.4
Analysis Method:	HCM 2010	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			No			No		

Volumes

Name												
Base Volume Input [veh/h]	0	0	0	0	0	0	0	29	0	0	31	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	0	0	0	0	30	0	0	32	0
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	0	0	0	0	8	0	0	9	0
Total Analysis Volume [veh/h]	0	0	0	0	0	0	0	33	0	0	35	0
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	No	No		
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	No	No		
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	8.89	9.38	8.46	8.89	9.38	8.47	7.28	0.00	0.00	7.28	0.00	0.00
Movement LOS	A	A	A	A	A	A	A	A	A	A	A	A
95th-Percentile Queue Length [veh]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	8.91			8.91			0.00			0.00		
Approach LOS	A			A			A			A		
d_I, Intersection Delay [s/veh]	0.00											
Intersection LOS	A											

Intersection Level Of Service Report
Intersection 2: Date Palm Drive / Buddy Rogers Avenue

Control Type:	Two-way stop	Delay (sec / veh):	18.9
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.109

Intersection Setup

Name						
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00		40.00		40.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

Volumes

Name						
Base Volume Input [veh/h]	4	671	533	27	23	6
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	2.97	1.04	1.04	2.97	1.33	1.33
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	54	66	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	12	752	620	80	31	8
Peak Hour Factor	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	196	162	21	8	2
Total Analysis Volume [veh/h]	13	785	647	84	32	8
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.02	0.01	0.01	0.00	0.11	0.01
d_M, Delay for Movement [s/veh]	12.01	0.00	0.00	0.00	18.87	13.25
Movement LOS	B	A	A	A	C	B
95th-Percentile Queue Length [veh]	0.08	0.00	0.00	0.00	0.42	0.42
95th-Percentile Queue Length [ft]	1.90	0.00	0.00	0.00	10.50	10.50
d_A, Approach Delay [s/veh]	0.20		0.00		17.75	
Approach LOS	A		A		C	
d_I, Intersection Delay [s/veh]	0.55					
Intersection LOS	C					

Intersection Level Of Service Report
Intersection 3: Date Palm Drive / East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	10.7
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.589

Intersection Setup

Name						
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00		40.00		40.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		Yes		Yes	

Volumes

Name						
Base Volume Input [veh/h]	409	118	143	1125	1247	472
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	20	46	37	65	67	16
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	445	169	186	1235	1364	507
Peak Hour Factor	0.9560	0.9560	0.9560	0.9560	0.9560	0.9560
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	116	44	49	323	357	133
Total Analysis Volume [veh/h]	465	177	195	1292	1427	530
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Split	Split	ProtectedPermissi	Permissive	Permissive	Permissive
Signal group	1	0	3	8	4	4
Auxiliary Signal Groups						3,4
Lead / Lag	Lead	-	Lead	-	-	-
Minimum Green [s]	7	0	7	7	7	7
Maximum Green [s]	30	0	7	30	30	30
Amber [s]	3.0	0.0	3.0	3.0	3.0	3.0
All red [s]	1.0	0.0	1.0	1.0	1.0	1.0
Split [s]	19	0	16	41	25	25
Vehicle Extension [s]	3.0	0.0	3.0	3.0	3.0	3.0
Walk [s]	5	0	0	5	5	5
Pedestrian Clearance [s]	10	0	0	10	10	10
Rest In Walk	No			No	No	
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0
Minimum Recall	No		Yes	No	No	
Maximum Recall	No		No	No	No	
Pedestrian Recall	No		No	No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	R	L	C	C	C
C, Cycle Length [s]	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	0.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	10	10	42	42	32	32
g / C, Green / Cycle	0.16	0.16	0.71	0.71	0.53	0.53
(v / s)_i Volume / Saturation Flow Rate	0.09	0.11	0.19	0.25	0.28	0.33
s, saturation flow rate [veh/h]	5168	1583	1051	5074	5074	1583
c, Capacity [veh/h]	835	256	870	3579	2678	836
d1, Uniform Delay [s]	23.23	23.80	5.98	3.50	9.33	10.08
k, delay calibration	0.11	0.11	0.11	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.58	3.33	0.13	0.28	0.76	3.66
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.56	0.69	0.22	0.36	0.53	0.63
d, Delay for Lane Group [s/veh]	23.82	27.14	6.11	3.78	10.10	13.74
Lane Group LOS	C	C	A	A	B	B
Critical Lane Group	No	Yes	Yes	No	No	Yes
50th-Percentile Queue Length [veh]	1.86	2.36	0.18	1.00	3.19	4.46
50th-Percentile Queue Length [ft]	46.57	59.09	4.43	24.92	79.81	111.59
95th-Percentile Queue Length [veh]	3.35	4.25	0.32	1.79	5.75	7.93
95th-Percentile Queue Length [ft]	83.82	106.36	7.97	44.86	143.66	198.21

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	23.82	27.14	6.11	3.78	10.10	13.74
Movement LOS	C	C	A	A	B	B
d_A, Approach Delay [s/veh]	24.73		4.09		11.08	
Approach LOS	C		A		B	
d_I, Intersection Delay [s/veh]	10.68					
Intersection LOS	B					
Intersection V/C	0.589					

Sequence

Ring 1	1	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 4: South Project Driveway-Allen Avenue / East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	1.1
Analysis Method:	HCM 2010	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.471

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	0	0	0	0	0	1	4	1262	0	0	1341	11
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	103	0	0	113	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	0	0	1	4	1415	0	0	1508	11
Peak Hour Factor	0.9120	0.9120	0.9120	0.9120	0.9120	0.9120	0.9120	0.9120	0.9120	0.9120	0.9120	0.9120
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	0	0	0	1	388	0	0	413	3
Total Analysis Volume [veh/h]	0	0	0	0	0	1	4	1552	0	0	1654	12
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	1 - E Palm Canyon Drive
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	0	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	7	0	0	7	0	0	7	0	0	7	0
Maximum Green [s]	0	30	0	0	30	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	19	0	0	19	0	0	101	0	0	101	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No			No			No			No	
Maximum Recall		No			No			No			No	
Pedestrian Recall		No			No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	L	C	C	C	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	2.00	0.00	2.00	0.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	0	0	0	112	112	112	112	112
g / C, Green / Cycle	0.00	0.00	0.00	0.93	0.93	0.93	0.93	0.93
(v / s)_i Volume / Saturation Flow Rate	0.00	0.00	0.00	0.44	0.44	0.00	0.33	0.01
s, saturation flow rate [veh/h]	400	1412	1583	1852	1695	331	5074	1583
c, Capacity [veh/h]	31	61	4	1754	1578	343	4723	1474
d1, Uniform Delay [s]	0.00	0.00	59.70	0.51	0.51	0.00	0.42	0.29
k, delay calibration	0.11	0.11	0.11	0.50	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.00	0.00	33.63	0.88	1.01	0.00	0.21	0.01
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.00	0.00	0.26	0.46	0.47	0.00	0.35	0.01
d, Delay for Lane Group [s/veh]	0.00	0.00	93.33	1.39	1.52	0.00	0.63	0.30
Lane Group LOS	A	A	F	A	A	A	A	A
Critical Lane Group	No	No	Yes	Yes	No	No	No	No
50th-Percentile Queue Length [veh]	0.00	0.00	0.07	0.43	0.44	0.00	0.09	0.00
50th-Percentile Queue Length [ft]	0.00	0.00	1.63	10.76	11.07	0.00	2.24	0.10
95th-Percentile Queue Length [veh]	0.00	0.00	0.12	0.78	0.80	0.00	0.16	0.01
95th-Percentile Queue Length [ft]	0.00	0.00	2.94	19.38	19.93	0.00	4.04	0.18

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	0.00	93.33	93.33	1.39	1.45	1.52	0.00	0.63	0.30
Movement LOS	A	A	A	A	F	F	A	A	A	A	A	A
d_A, Approach Delay [s/veh]	0.00			93.33			1.45			0.63		
Approach LOS	A			F			A			A		
d_I, Intersection Delay [s/veh]	1.05											
Intersection LOS	A											
Intersection V/C	0.471											

Sequence

Ring 1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 5: Monty Hall Drive-Van Fleet Avenue / East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	8.8
Analysis Method:	HCM 2010	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.622

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	1	0	1	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	45.00	100.00	100.00	105.00	100.00	130.00	125.00	100.00	180.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	11	7	55	12	6	12	6	1211	9	92	1276	16
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	103	0	0	113	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	11	7	57	12	6	12	6	1362	9	96	1440	17
Peak Hour Factor	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	2	15	3	2	3	2	357	2	25	377	4
Total Analysis Volume [veh/h]	12	7	60	13	6	13	6	1428	9	101	1509	18
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	1 - E Palm Canyon Drive
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	0	7	7	0	7	7	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	19	0	0	19	0	11	30	0	11	30	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	R	L	C	L	C	R	L	C	R
C, Cycle Length [s]	60	60	60	60	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	5	5	5	5	1	37	37	6	42	42
g / C, Green / Cycle	0.09	0.09	0.09	0.09	0.01	0.62	0.62	0.10	0.70	0.70
(v / s)_i Volume / Saturation Flow Rate	0.02	0.04	0.01	0.01	0.00	0.40	0.01	0.06	0.43	0.01
s, saturation flow rate [veh/h]	1255	1583	1403	1662	1774	3547	1583	1774	3547	1583
c, Capacity [veh/h]	207	139	165	145	23	2187	976	171	2482	1108
d1, Uniform Delay [s]	25.32	26.03	28.42	25.34	29.40	7.40	4.45	26.05	4.72	2.74
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.19	2.13	0.20	0.40	5.69	1.53	0.02	3.23	1.12	0.03
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.09	0.43	0.08	0.13	0.26	0.65	0.01	0.59	0.61	0.02
d, Delay for Lane Group [s/veh]	25.51	28.16	28.62	25.74	35.09	8.93	4.46	29.28	5.83	2.77
Lane Group LOS	C	C	C	C	D	A	A	C	A	A
Critical Lane Group	No	Yes	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh]	0.24	0.82	0.18	0.25	0.12	4.10	0.03	1.41	2.54	0.04
50th-Percentile Queue Length [ft]	5.99	20.61	4.44	6.13	2.90	102.39	0.80	35.30	63.54	0.95
95th-Percentile Queue Length [veh]	0.43	1.48	0.32	0.44	0.21	7.37	0.06	2.54	4.57	0.07
95th-Percentile Queue Length [ft]	10.78	37.10	7.99	11.03	5.22	184.31	1.45	63.55	114.37	1.72

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	25.51	25.51	28.16	28.62	25.74	25.74	35.09	8.93	4.46	29.28	5.83	2.77
Movement LOS	C	C	C	C	C	C	D	A	A	C	A	A
d_A, Approach Delay [s/veh]	27.52			26.91			9.01			7.25		
Approach LOS	C			C			A			A		
d_I, Intersection Delay [s/veh]	8.75											
Intersection LOS	A											
Intersection V/C	0.622											

Sequence

Ring 1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 6: Date Palm Drive / East Palm Drive

Control Type:	Two-way stop	Delay (sec / veh):	11.4
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

Intersection Setup

Name						
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00		40.00		40.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

Volumes

Name						
Base Volume Input [veh/h]	0	8	539	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	54	66	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	62	627	0	0	0
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	17	170	0	0	0
Total Analysis Volume [veh/h]	0	67	682	0	0	0
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.01	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	0.00	0.00	11.44
Movement LOS		A	A	A		B
95th-Percentile Queue Length [veh]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	0.00		0.00		11.44	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	0.00					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 7: North Project Driveway 2 / Buddy Rogers Avenue

Control Type:	Two-way stop	Delay (sec / veh):	8.8
Analysis Method:	HCM 2010	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

Intersection Setup

Name						
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00		40.00		40.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name						
Base Volume Input [veh/h]	0	0	29	0	0	31
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.00	1.00	1.04	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	29	0	0	31
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	8	0	0	8
Total Analysis Volume [veh/h]	0	0	32	0	0	34
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	8.83	8.46	0.00	0.00	7.28	0.00
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	8.64		0.00		0.00	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	0.00					
Intersection LOS	A					

Intersection Level Of Service Report
Intersection 8: Monty Hall Drive / Buddy Rogers Avenue

Control Type:	All-way stop	Delay (sec / veh):	7.3
Analysis Method:	HCM 2010	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.059

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			No			No		

Volumes

Name												
Base Volume Input [veh/h]	13	7	3	23	12	0	4	15	21	9	11	5
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	14	7	3	24	12	0	4	16	22	9	11	5
Peak Hour Factor	0.7500	0.7500	0.7500	0.7500	0.7500	0.7500	0.7500	0.7500	0.7500	0.7500	0.7500	0.7500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	5	2	1	8	4	0	1	5	7	3	4	2
Total Analysis Volume [veh/h]	19	9	4	32	16	0	5	21	29	12	15	7
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	855	840	935	875
Degree of Utilization, x	0.04	0.06	0.06	0.04

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.12	0.18	0.19	0.12
95th-Percentile Queue Length [ft]	2.91	4.54	4.68	3.03
Approach Delay [s/veh]	7.38	7.54	7.09	7.28
Approach LOS	A	A	A	A
Intersection Delay [s/veh]	7.31			
Intersection LOS	A			

Intersection Level Of Service Report

Intersection 9: Buddy Rogers Avenue/ East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	3.5
Analysis Method:	HCM 2010	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.501

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	13	2	28	10	5	22	23	1186	3	42	1227	15
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	103	0	0	113	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	14	2	29	10	5	23	24	1336	3	44	1389	16
Peak Hour Factor	0.9310	0.9310	0.9310	0.9310	0.9310	0.9310	0.9310	0.9310	0.9310	0.9310	0.9310	0.9310
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	1	8	3	1	6	6	359	1	12	373	4
Total Analysis Volume [veh/h]	15	2	31	11	5	25	26	1435	3	47	1492	17
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	1 - E Palm Canyon Drive
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	0	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	7	0	0	7	0	0	7	0	0	7	0
Maximum Green [s]	0	30	0	0	30	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	19	0	0	19	0	0	101	0	0	101	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No			No			No			No	
Maximum Recall		No			No			No			No	
Pedestrian Recall		No			No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	C	L	C	R	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	2.00	2.00	0.00	0.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	6	6	106	106	106	106	106	106
g / C, Green / Cycle	0.05	0.05	0.89	0.89	0.89	0.89	0.89	0.89
(v / s)_i Volume / Saturation Flow Rate	0.03	0.03	0.07	0.40	0.00	0.13	0.42	0.01
s, saturation flow rate [veh/h]	1595	1626	351	3547	1583	371	3547	1583
c, Capacity [veh/h]	114	114	334	3144	1403	352	3144	1403
d1, Uniform Delay [s]	56.11	55.84	3.11	1.30	0.77	3.13	1.34	0.78
k, delay calibration	0.11	0.11	0.50	0.50	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.45	1.89	0.45	0.48	0.00	0.79	0.52	0.02
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.42	0.36	0.08	0.46	0.00	0.13	0.47	0.01
d, Delay for Lane Group [s/veh]	58.56	57.73	3.56	1.78	0.78	3.92	1.85	0.80
Lane Group LOS	E	E	A	A	A	A	A	A
Critical Lane Group	Yes	No	No	No	No	No	Yes	No
50th-Percentile Queue Length [veh]	1.48	1.26	0.15	0.74	0.00	0.28	0.79	0.01
50th-Percentile Queue Length [ft]	37.09	31.38	3.83	18.51	0.06	7.00	19.81	0.34
95th-Percentile Queue Length [veh]	2.67	2.26	0.28	1.33	0.00	0.50	1.43	0.02
95th-Percentile Queue Length [ft]	66.77	56.48	6.89	33.32	0.11	12.60	35.67	0.62

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	58.56	58.56	58.56	57.73	57.73	57.73	3.56	1.78	0.78	3.92	1.85	0.80
Movement LOS	E	E	E	E	E	E	A	A	A	A	A	A
d_A, Approach Delay [s/veh]	58.56			57.73			1.81			1.90		
Approach LOS	E			E			A			A		
d_I, Intersection Delay [s/veh]	3.47											
Intersection LOS	A											
Intersection V/C	0.501											

Sequence

Ring 1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 10: Cathedral Canyon Drive / East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	16.0
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.636

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	0	1	0	0	1	0	1
Pocket Length [ft]	100.00	100.00	70.00	90.00	100.00	100.00	238.00	100.00	100.00	190.00	100.00	270.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	62	124	46	129	147	74	119	1056	74	66	998	157
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	2	0	4	0	0	15	9	99	4	8	105	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	66	129	52	134	153	92	133	1197	81	77	1143	163
Peak Hour Factor	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	17	34	14	35	40	24	35	312	21	20	298	42
Total Analysis Volume [veh/h]	69	135	54	140	160	96	139	1248	84	80	1192	170
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	1 - E Palm Canyon Drive
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Overlap	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	6	3	8	0	7	4	0
Auxiliary Signal Groups						6						
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	7	7	7	0	7	7	0
Maximum Green [s]	0	30	0	0	30	30	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	1.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	19	0	0	19	19	22	30	0	11	19	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	5	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	10	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No	No	No	No		No	No	
Maximum Recall		No			No	No	No	No		No	No	
Pedestrian Recall		No			No	No	No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	60	60	60	60	60	60	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	14	14	14	14	14	14	6	29	29	5	28	28
g / C, Green / Cycle	0.24	0.24	0.24	0.24	0.24	0.24	0.11	0.48	0.48	0.09	0.46	0.46
(v / s)_i Volume / Saturation Flow Rate	0.06	0.07	0.03	0.11	0.09	0.06	0.08	0.35	0.05	0.05	0.23	0.11
s, saturation flow rate [veh/h]	1221	1863	1583	1249	1863	1583	1774	3547	1583	1774	5074	1583
c, Capacity [veh/h]	277	437	372	295	437	372	187	1700	759	153	2333	728
d1, Uniform Delay [s]	24.18	18.96	18.20	24.97	19.23	18.72	26.06	12.56	8.59	26.26	11.45	9.81
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.47	0.40	0.18	1.18	0.51	0.36	5.69	2.85	0.29	2.77	0.80	0.75
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

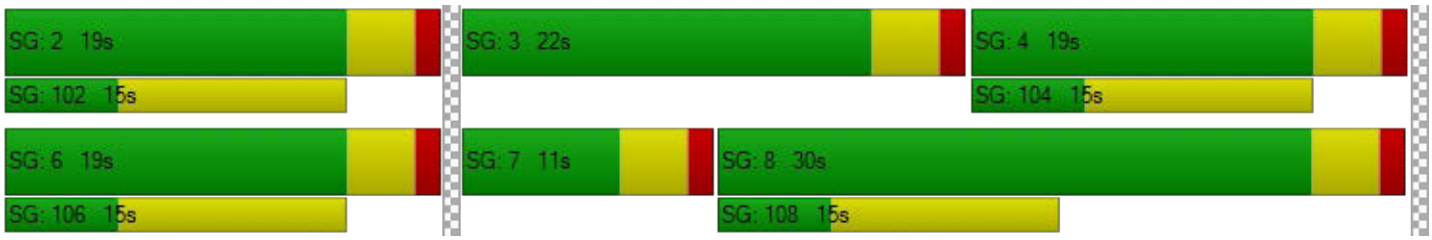
X, volume / capacity	0.25	0.31	0.15	0.47	0.37	0.26	0.74	0.73	0.11	0.52	0.51	0.23
d, Delay for Lane Group [s/veh]	24.64	19.35	18.38	26.15	19.75	19.08	31.75	15.41	8.89	29.03	12.25	10.56
Lane Group LOS	C	B	B	C	B	B	C	B	A	C	B	B
Critical Lane Group	No	No	No	Yes	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh]	0.85	1.42	0.54	1.83	1.71	1.00	2.04	5.84	0.54	1.11	3.13	1.24
50th-Percentile Queue Length [ft]	21.32	35.40	13.59	45.65	42.68	24.95	51.06	146.03	13.46	27.86	78.21	30.89
95th-Percentile Queue Length [veh]	1.54	2.55	0.98	3.29	3.07	1.80	3.68	9.80	0.97	2.01	5.63	2.22
95th-Percentile Queue Length [ft]	38.38	63.72	24.47	82.18	76.82	44.91	91.90	245.12	24.22	50.15	140.78	55.60

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	24.64	19.35	18.38	26.15	19.75	19.08	31.75	15.41	8.89	29.03	12.25	10.56
Movement LOS	C	B	B	C	B	B	C	B	A	C	B	B
d_A, Approach Delay [s/veh]	20.56			21.85			16.58			12.98		
Approach LOS	C			C			B			B		
d_I, Intersection Delay [s/veh]	16.00											
Intersection LOS	B											
Intersection V/C	0.636											

Sequence

Ring 1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 11: Perez Road / East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	22.9
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.754

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	150.00	100.00	100.00	170.00	100.00	45.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	34	24	15	19	8	347	269	1161	7	7	1128	12
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	2	0	0	0	0	110	0	2	120	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	35	25	18	20	8	361	280	1317	7	9	1293	12
Peak Hour Factor	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	9	7	5	5	2	95	74	348	2	2	342	3
Total Analysis Volume [veh/h]	37	26	19	21	8	382	296	1392	7	10	1367	13
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	0	7	7	0	7	7	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	19	0	0	41	0	11	19	0	11	19	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	R	L	C	C	L	C	R
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	6	6	14	14	14	10	52	52	2	44	44
g / C, Green / Cycle	0.07	0.07	0.15	0.15	0.15	0.12	0.58	0.58	0.02	0.49	0.49
(v / s)_i Volume / Saturation Flow Rate	0.02	0.03	0.01	0.12	0.12	0.09	0.26	0.26	0.01	0.39	0.01
s, saturation flow rate [veh/h]	1774	1734	1774	1593	1583	3445	3547	1858	1774	3547	1583
c, Capacity [veh/h]	122	119	273	245	244	398	2060	1079	33	1717	766
d1, Uniform Delay [s]	39.92	40.13	32.65	36.78	36.78	38.59	10.68	10.68	43.67	19.53	12.10
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.37	1.95	0.12	5.84	5.87	2.78	0.70	1.33	5.04	3.93	0.04
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

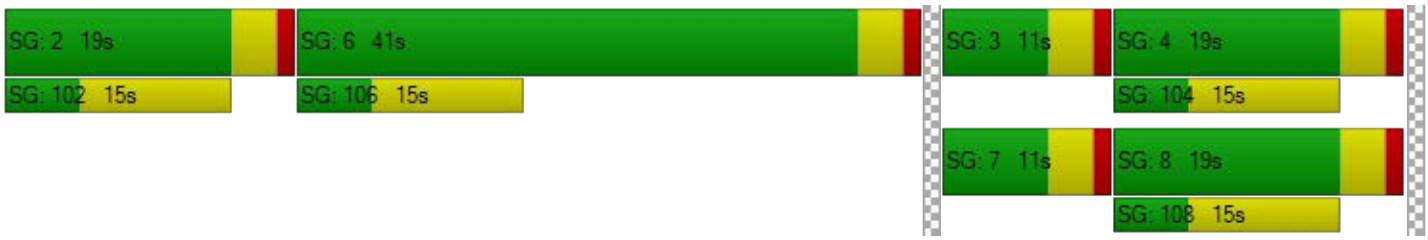
X, volume / capacity	0.30	0.38	0.08	0.80	0.80	0.74	0.45	0.45	0.30	0.80	0.02
d, Delay for Lane Group [s/veh]	41.29	42.08	32.77	42.62	42.65	41.37	11.38	12.02	48.71	23.46	12.14
Lane Group LOS	D	D	C	D	D	D	B	B	D	C	B
Critical Lane Group	No	Yes	No	No	Yes	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh]	0.80	0.99	0.39	4.38	4.35	3.20	4.60	5.01	0.26	11.55	0.13
50th-Percentile Queue Length [ft]	20.04	24.69	9.71	109.42	108.82	79.97	115.07	125.32	6.49	288.64	3.34
95th-Percentile Queue Length [veh]	1.44	1.78	0.70	7.81	7.77	5.76	8.12	8.68	0.47	17.12	0.24
95th-Percentile Queue Length [ft]	36.07	44.45	17.47	195.19	194.36	143.94	203.04	217.12	11.69	427.95	6.01

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	41.29	42.08	42.08	32.77	42.62	42.64	41.37	11.60	12.02	48.71	23.46	12.14
Movement LOS	D	D	D	C	D	D	D	B	B	D	C	B
d_A, Approach Delay [s/veh]	41.73			42.13			16.80			23.53		
Approach LOS	D			D			B			C		
d_I, Intersection Delay [s/veh]	22.90											
Intersection LOS	C											
Intersection V/C	0.754											

Sequence

Ring 1	2	6	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 12: Canyon Plaza Drive / East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	10.5
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.610

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	1	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	95.00	90.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	51	1	74	5	2	12	13	1375	26	51	1443	10
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	4	0	2	11	0	4	6	97	4	2	99	19
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	57	1	79	16	2	16	20	1527	31	55	1600	29
Peak Hour Factor	0.9550	0.9550	0.9550	0.9550	0.9550	0.9550	0.9550	0.9550	0.9550	0.9550	0.9550	0.9550
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	15	0	21	4	1	4	5	400	8	14	419	8
Total Analysis Volume [veh/h]	60	1	83	17	2	17	21	1599	32	58	1675	30
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	100
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	0	7	7	0	7	7	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	19	0	0	19	0	11	70	0	11	70	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	L	C	R	L	C	C
C, Cycle Length [s]	100	100	100	100	100	100	100	100	100	100
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	9	9	9	9	3	73	73	6	75	75
g / C, Green / Cycle	0.09	0.09	0.09	0.09	0.03	0.73	0.73	0.06	0.75	0.75
(v / s)_i Volume / Saturation Flow Rate	0.04	0.05	0.01	0.01	0.01	0.45	0.02	0.03	0.46	0.46
s, saturation flow rate [veh/h]	1388	1586	1308	1609	1774	3547	1583	1774	1863	1851
c, Capacity [veh/h]	157	149	99	151	55	2589	1156	100	1406	1398
d1, Uniform Delay [s]	46.08	43.35	48.56	41.54	47.51	6.64	3.72	46.05	5.54	5.56
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.53	3.32	0.81	0.37	4.28	1.12	0.04	5.31	1.95	1.99
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

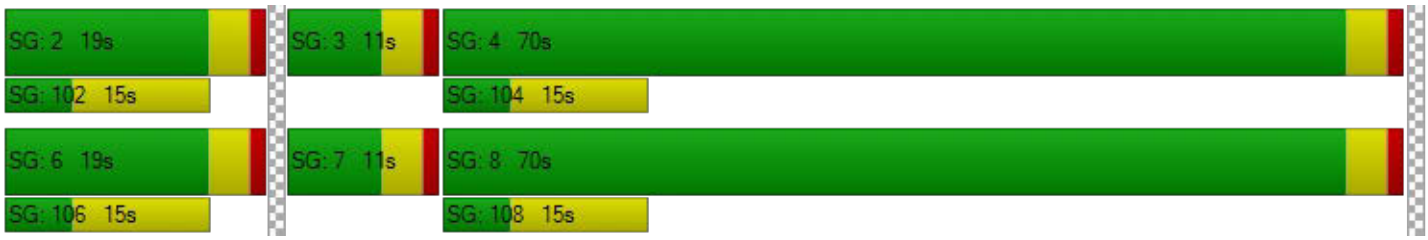
X, volume / capacity	0.38	0.56	0.17	0.13	0.38	0.62	0.03	0.58	0.61	0.61
d, Delay for Lane Group [s/veh]	47.62	46.67	49.36	41.91	51.79	7.75	3.76	51.37	7.49	7.54
Lane Group LOS	D	D	D	D	D	A	A	D	A	A
Critical Lane Group	No	Yes	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh]	1.49	2.07	0.43	0.44	0.57	6.48	0.15	1.52	6.24	6.26
50th-Percentile Queue Length [ft]	37.31	51.82	10.82	10.88	14.17	161.99	3.76	37.97	156.05	156.43
95th-Percentile Queue Length [veh]	2.69	3.73	0.78	0.78	1.02	10.65	0.27	2.73	10.34	10.36
95th-Percentile Queue Length [ft]	67.15	93.27	19.48	19.58	25.50	266.35	6.78	68.35	258.49	258.99

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	47.62	46.67	46.67	49.36	41.91	41.91	51.79	7.75	3.76	51.37	7.51	7.54
Movement LOS	D	D	D	D	D	D	D	A	A	D	A	A
d_A, Approach Delay [s/veh]	47.06			45.43			8.23			8.96		
Approach LOS	D			D			A			A		
d_I, Intersection Delay [s/veh]	10.52											
Intersection LOS	B											
Intersection V/C	0.610											

Sequence

Ring 1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 13: Golf Club Drive / East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	9.8
Analysis Method:	HCM 2010	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.660

Intersection Setup

Name						
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	0	0	0
Pocket Length [ft]	100.00	100.00	90.00	100.00	100.00	100.00
Speed [mph]	40.00		40.00		40.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		Yes		No	

Volumes

Name						
Base Volume Input [veh/h]	146	51	83	1246	1366	113
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	6	0	0	101	98	9
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	158	53	86	1397	1519	127
Peak Hour Factor	0.9240	0.9240	0.9240	0.9240	0.9240	0.9240
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	43	14	23	378	411	34
Total Analysis Volume [veh/h]	171	57	93	1512	1644	137
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Split	Split	ProtectedPermissi	Permissive	Permissive	Permissive
Signal group	1	0	3	8	4	0
Auxiliary Signal Groups						
Lead / Lag	Lead	-	Lead	-	-	-
Minimum Green [s]	7	0	7	7	7	0
Maximum Green [s]	30	0	30	30	30	0
Amber [s]	3.0	0.0	3.0	3.0	3.0	0.0
All red [s]	1.0	0.0	1.0	1.0	1.0	0.0
Split [s]	60	0	11	30	19	0
Vehicle Extension [s]	3.0	0.0	3.0	3.0	3.0	0.0
Walk [s]	5	0	0	5	5	0
Pedestrian Clearance [s]	10	0	0	10	10	0
Rest In Walk	No			No	No	
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	2.0	0.0
Minimum Recall	No		No	No	No	
Maximum Recall	No		No	No	No	
Pedestrian Recall	No		No	No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	C	C
C, Cycle Length [s]	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	0.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	8	8	74	74	63	63
g / C, Green / Cycle	0.09	0.09	0.82	0.82	0.70	0.70
(v / s)_i Volume / Saturation Flow Rate	0.07	0.07	0.21	0.43	0.48	0.49
s, saturation flow rate [veh/h]	1774	1671	438	3547	1863	1814
c, Capacity [veh/h]	166	156	397	2900	1308	1273
d1, Uniform Delay [s]	39.61	39.66	7.96	2.61	7.65	7.85
k, delay calibration	0.11	0.11	0.11	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	5.36	5.97	0.30	0.67	2.88	3.21
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.70	0.71	0.23	0.52	0.68	0.70
d, Delay for Lane Group [s/veh]	44.97	45.63	8.26	3.28	10.53	11.06
Lane Group LOS	D	D	A	A	B	B
Critical Lane Group	No	Yes	Yes	No	No	Yes
50th-Percentile Queue Length [veh]	2.66	2.57	0.15	1.87	8.02	8.29
50th-Percentile Queue Length [ft]	66.46	64.24	3.79	46.65	200.56	207.26
95th-Percentile Queue Length [veh]	4.78	4.63	0.27	3.36	12.67	13.01
95th-Percentile Queue Length [ft]	119.62	115.64	6.83	83.97	316.69	325.32

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	45.18	45.63	8.26	3.28	10.77	11.06
Movement LOS	D	D	A	A	B	B
d_A, Approach Delay [s/veh]	45.29		3.57		10.79	
Approach LOS	D		A		B	
d_I, Intersection Delay [s/veh]	9.76					
Intersection LOS	A					
Intersection V/C	0.660					

Sequence

Ring 1	1	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 14: Cathedral Canyon Drive / Officer David Vasquez Road

Control Type:	Signalized	Delay (sec / veh):	4.8
Analysis Method:	HCM 2010	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.228

Intersection Setup

Name						
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	1	0	1	1
Pocket Length [ft]	100.00	100.00	205.00	100.00	120.00	120.00
Speed [mph]	40.00		40.00		40.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		Yes		Yes	

Volumes

Name						
Base Volume Input [veh/h]	417	5	25	404	6	53
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	9	0	0	15	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	443	5	26	435	6	55
Peak Hour Factor	0.9140	0.9140	0.9140	0.9140	0.9140	0.9140
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	121	1	7	119	2	15
Total Analysis Volume [veh/h]	485	5	28	476	7	60
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	2 - N. Cathedral Canyon Drive
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permissive	Permissive	Protected	Permissive	Split	Overlap
Signal group	2	0	1	6	7	7
Auxiliary Signal Groups						1,7
Lead / Lag	-	-	Lead	-	Lead	-
Minimum Green [s]	7	0	7	7	7	7
Maximum Green [s]	30	0	30	30	30	30
Amber [s]	3.0	0.0	3.0	3.0	3.0	3.0
All red [s]	1.0	0.0	1.0	1.0	1.0	1.0
Split [s]	30	0	11	41	19	19
Vehicle Extension [s]	3.0	0.0	3.0	3.0	3.0	3.0
Walk [s]	5	0	0	5	5	5
Pedestrian Clearance [s]	10	0	0	10	10	10
Rest In Walk	No			No	No	
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0
Minimum Recall	No		No	No	No	No
Maximum Recall	No		No	No	No	No
Pedestrian Recall	No		No	No	No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	C	L	C	L	R
C, Cycle Length [s]	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	0.00
g_i, Effective Green Time [s]	41	41	3	47	5	11
g / C, Green / Cycle	0.68	0.68	0.04	0.79	0.08	0.19
(v / s)_i Volume / Saturation Flow Rate	0.13	0.13	0.02	0.13	0.00	0.04
s, saturation flow rate [veh/h]	1863	1856	1774	3547	3445	1583
c, Capacity [veh/h]	1256	1251	81	2789	278	306
d1, Uniform Delay [s]	3.68	3.68	27.83	1.59	25.48	20.36
k, delay calibration	0.50	0.50	0.11	0.50	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.35	0.35	2.50	0.13	0.04	0.31
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

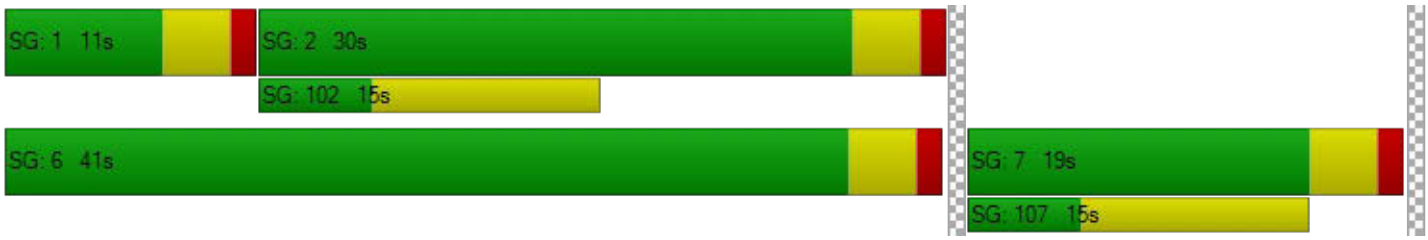
X, volume / capacity	0.20	0.20	0.34	0.17	0.03	0.20
d, Delay for Lane Group [s/veh]	4.03	4.03	30.32	1.72	25.51	20.68
Lane Group LOS	A	A	C	A	C	C
Critical Lane Group	No	Yes	Yes	No	No	Yes
50th-Percentile Queue Length [veh]	0.71	0.71	0.41	0.11	0.04	0.66
50th-Percentile Queue Length [ft]	17.63	17.65	10.37	2.75	1.09	16.51
95th-Percentile Queue Length [veh]	1.27	1.27	0.75	0.20	0.08	1.19
95th-Percentile Queue Length [ft]	31.74	31.78	18.67	4.96	1.96	29.71

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	4.03	4.03	30.32	1.72	25.51	20.68
Movement LOS	A	A	C	A	C	C
d_A, Approach Delay [s/veh]	4.03		3.31		21.18	
Approach LOS	A		A		C	
d_I, Intersection Delay [s/veh]	4.77					
Intersection LOS	A					
Intersection V/C	0.228					

Sequence

Ring 1	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 15: Cathedral Canyon Drive / Perez Road

Control Type:	Signalized	Delay (sec / veh):	25.6
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.587

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	1	1	0	0
Pocket Length [ft]	95.00	100.00	100.00	205.00	100.00	100.00	100.00	100.00	100.00	150.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	38	379	64	148	314	119	152	252	46	63	222	202
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	9	0	0	15	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	40	403	67	154	342	124	158	262	48	66	231	210
Peak Hour Factor	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	10	104	17	40	88	32	41	68	12	17	60	54
Total Analysis Volume [veh/h]	41	417	69	159	354	128	163	271	50	68	239	217
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	2 - N. Cathedral Canyon Drive
Cycle Length [s]	70
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	5.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	23	0	17	29	0	11	19	0	11	19	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	L	C	R	L	C	C
C, Cycle Length [s]	70	70	70	70	70	70	70	70	70	70	70	70
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	4	12	12	8	16	16	8	29	29	5	26	26
g / C, Green / Cycle	0.06	0.17	0.17	0.11	0.23	0.23	0.12	0.41	0.41	0.07	0.37	0.37
(v / s)_i Volume / Saturation Flow Rate	0.02	0.13	0.13	0.09	0.13	0.14	0.09	0.08	0.03	0.04	0.13	0.14
s, saturation flow rate [veh/h]	1774	1863	1772	1774	1863	1697	1774	3547	1583	1774	1863	1583
c, Capacity [veh/h]	101	321	306	204	429	391	209	1455	649	133	684	581
d1, Uniform Delay [s]	31.97	27.74	27.79	30.24	24.06	24.09	30.11	13.23	12.62	31.27	16.14	16.30
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.59	3.92	4.30	6.39	1.27	1.43	6.23	0.28	0.23	3.04	1.41	1.83
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

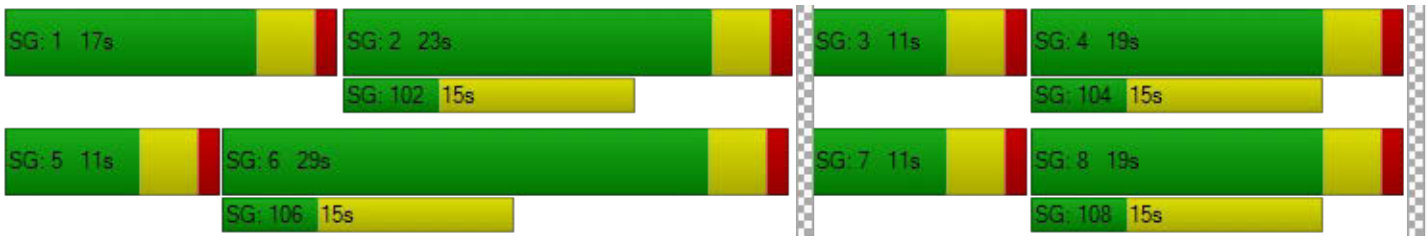
X, volume / capacity	0.40	0.77	0.78	0.78	0.59	0.59	0.78	0.19	0.08	0.51	0.35	0.37
d, Delay for Lane Group [s/veh]	34.56	31.67	32.08	36.63	25.33	25.52	36.34	13.52	12.85	34.30	17.54	18.13
Lane Group LOS	C	C	C	D	C	C	D	B	B	C	B	B
Critical Lane Group	No	No	Yes	Yes	No	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh]	0.70	4.01	3.89	2.79	3.54	3.28	2.85	1.25	0.46	1.15	2.72	2.55
50th-Percentile Queue Length [ft]	17.61	100.20	97.15	69.85	88.43	81.92	71.23	31.19	11.51	28.78	68.02	63.66
95th-Percentile Queue Length [veh]	1.27	7.21	6.99	5.03	6.37	5.90	5.13	2.25	0.83	2.07	4.90	4.58
95th-Percentile Queue Length [ft]	31.70	180.35	174.87	125.73	159.18	147.46	128.22	56.13	20.73	51.81	122.44	114.58

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	34.56	31.84	32.08	36.63	25.38	25.52	36.34	13.52	12.85	34.30	17.54	18.13
Movement LOS	C	C	C	D	C	C	D	B	B	C	B	B
d_A, Approach Delay [s/veh]	32.08			28.20			21.13			19.96		
Approach LOS	C			C			C			B		
d_I, Intersection Delay [s/veh]	25.58											
Intersection LOS	C											
Intersection V/C	0.587											

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 16: Cathedral Canyon Drive / Paseo Real

Control Type:	Two-way stop	Delay (sec / veh):	42.3
Analysis Method:	HCM 2010	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.030

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	0	0	0	0	0	0
Pocket Length [ft]	55.00	100.00	100.00	55.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name												
Base Volume Input [veh/h]	25	749	6	12	578	8	6	1	16	5	3	8
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	9	0	0	15	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	26	788	6	12	616	8	6	1	17	5	3	8
Peak Hour Factor	0.9370	0.9370	0.9370	0.9370	0.9370	0.9370	0.9370	0.9370	0.9370	0.9370	0.9370	0.9370
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	7	210	2	3	164	2	2	0	5	1	1	2
Total Analysis Volume [veh/h]	28	841	6	13	657	9	6	1	18	5	3	9
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.03	0.01	0.00	0.02	0.01	0.00	0.04	0.01	0.03	0.04	0.03	0.02
d_M, Delay for Movement [s/veh]	9.04	0.00	0.00	9.66	0.00	0.00	32.00	41.47	11.44	36.92	42.29	12.97
Movement LOS	A	A	A	A	A	A	D	E	B	E	E	B
95th-Percentile Queue Length [veh]	0.09	0.00	0.00	0.05	0.00	0.00	0.26	0.26	0.26	0.28	0.28	0.28
95th-Percentile Queue Length [ft]	2.35	0.00	0.00	1.26	0.00	0.00	6.50	6.50	6.50	7.06	7.06	7.06
d_A, Approach Delay [s/veh]	0.29			0.18			17.58			25.19		
Approach LOS	A			A			C			D		
d_I, Intersection Delay [s/veh]	0.78											
Intersection LOS	E											

Intersection Level Of Service Report
Intersection 17: Cathedral Canyon Drive / Dinah Shore Drive

Control Type:	Signalized	Delay (sec / veh):	28.6
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.787

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	130.00	100.00	100.00	75.00	100.00	100.00	100.00	100.00	100.00	150.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	228	474	97	113	260	28	59	775	189	95	652	83
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	9	0	0	15	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	237	502	101	118	285	29	61	806	197	99	678	86
Peak Hour Factor	0.9340	0.9340	0.9340	0.9340	0.9340	0.9340	0.9340	0.9340	0.9340	0.9340	0.9340	0.9340
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	63	134	27	32	76	8	16	216	53	26	181	23
Total Analysis Volume [veh/h]	254	537	108	126	305	31	65	863	211	106	726	92
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	2 - N. Cathedral Canyon Drive
Cycle Length [s]	70
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	104.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	21	29	0	11	19	0	11	19	0	11	19	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	L	C	C	L	C	C
C, Cycle Length [s]	70	70	70	70	70	70	70	70	70	70	70	70
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	12	15	15	6	10	10	5	26	26	6	27	27
g / C, Green / Cycle	0.17	0.22	0.22	0.09	0.14	0.14	0.07	0.37	0.37	0.09	0.39	0.39
(v / s)_i Volume / Saturation Flow Rate	0.14	0.18	0.18	0.07	0.09	0.09	0.04	0.30	0.30	0.06	0.22	0.22
s, saturation flow rate [veh/h]	1774	1863	1756	1774	1863	1803	1774	1863	1738	1774	1863	1790
c, Capacity [veh/h]	306	408	384	165	260	252	130	694	647	156	722	694
d1, Uniform Delay [s]	28.09	26.09	26.09	31.11	28.62	28.65	31.33	19.71	19.73	31.07	16.99	16.99
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	5.81	4.00	4.24	7.12	2.78	2.94	2.98	9.41	10.11	5.07	3.36	3.49
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

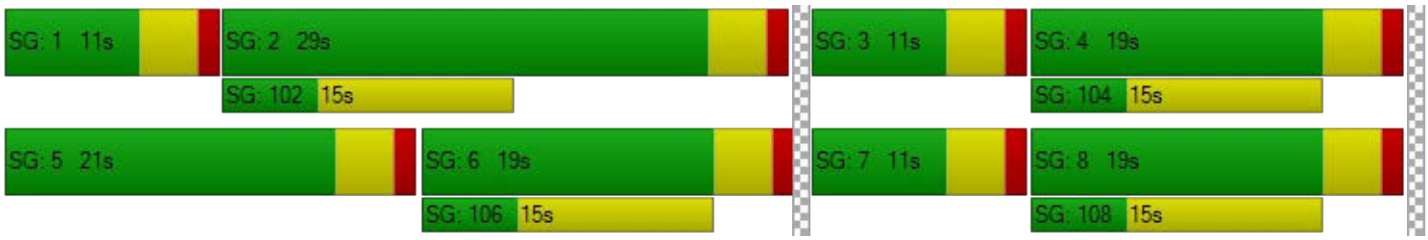
X, volume / capacity	0.83	0.81	0.81	0.76	0.65	0.66	0.50	0.80	0.80	0.68	0.58	0.58
d, Delay for Lane Group [s/veh]	33.90	30.09	30.33	38.23	31.40	31.59	34.31	29.12	29.83	36.14	20.35	20.48
Lane Group LOS	C	C	C	D	C	C	C	C	C	D	C	C
Critical Lane Group	No	No	Yes	Yes	No	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh]	4.29	5.26	4.98	2.27	2.71	2.66	1.10	8.82	8.37	1.85	5.27	5.09
50th-Percentile Queue Length [ft]	107.25	131.48	124.62	56.81	67.85	66.56	27.53	220.42	209.24	46.19	131.84	127.37
95th-Percentile Queue Length [veh]	7.69	9.02	8.65	4.09	4.88	4.79	1.98	13.69	13.11	3.33	9.04	8.80
95th-Percentile Queue Length [ft]	192.17	225.50	216.16	102.26	122.12	119.81	49.55	342.16	327.86	83.13	225.99	219.91

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	33.90	30.18	30.33	38.23	31.49	31.59	34.31	29.38	29.83	36.14	20.40	20.48
Movement LOS	C	C	C	D	C	C	C	C	C	D	C	C
d_A, Approach Delay [s/veh]	31.25			33.33			29.74			22.22		
Approach LOS	C			C			C			C		
d_I, Intersection Delay [s/veh]	28.59											
Intersection LOS	C											
Intersection V/C	0.787											

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	



Intersection Level Of Service Report
Intersection 18: Date Palm Drive / Gerald Ford Drive

Control Type:	Signalized	Delay (sec / veh):	17.9
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.578

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	85.00	100.00	85.00	160.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			Yes			Yes			No		

Volumes

Name												
Base Volume Input [veh/h]	20	597	290	119	438	44	58	56	18	167	42	148
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	51	3	0	64	16	16	0	0	2	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	21	672	305	124	520	62	76	58	19	176	44	154
Peak Hour Factor	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	6	177	80	33	137	16	20	15	5	46	12	41
Total Analysis Volume [veh/h]	22	708	321	131	548	65	80	61	20	185	46	162
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	6 - N/S
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Split	Split	Split	Split	Split	Split
Signal group	5	2	0	1	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	7	7	0	7	7	0	0	7	0	0	7	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	11	19	0	11	19	0	0	11	0	0	19	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No	No		No	No			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	C	L	C	C	L	C	R
C, Cycle Length [s]	60	60	60	60	60	60	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	2	23	23	6	27	27	7	7	7	9	9	9
g / C, Green / Cycle	0.04	0.38	0.38	0.10	0.45	0.45	0.11	0.11	0.11	0.14	0.14	0.14
(v / s)_i Volume / Saturation Flow Rate	0.01	0.14	0.20	0.07	0.11	0.12	0.05	0.02	0.02	0.06	0.06	0.10
s, saturation flow rate [veh/h]	1774	5074	1583	1774	3547	1764	1774	1863	1712	1774	1808	1583
c, Capacity [veh/h]	68	1908	595	187	1572	782	194	204	187	255	260	228
d1, Uniform Delay [s]	28.23	13.64	14.72	26.05	10.56	10.58	25.04	24.45	24.49	23.63	23.63	24.63
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.69	0.56	3.48	4.69	0.40	0.82	1.40	0.48	0.56	1.24	1.21	4.10
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.32	0.37	0.54	0.70	0.26	0.26	0.41	0.20	0.21	0.45	0.45	0.71
d, Delay for Lane Group [s/veh]	30.92	14.19	18.20	30.73	10.96	11.40	26.44	24.93	25.05	24.87	24.84	28.72
Lane Group LOS	C	B	B	C	B	B	C	C	C	C	C	C
Critical Lane Group	No	No	Yes	Yes	No	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh]	0.34	2.03	3.42	1.89	1.45	1.56	1.04	0.51	0.50	1.43	1.46	2.24
50th-Percentile Queue Length [ft]	8.38	50.84	85.41	47.19	36.33	38.91	26.07	12.79	12.54	35.80	36.42	56.06
95th-Percentile Queue Length [veh]	0.60	3.66	6.15	3.40	2.62	2.80	1.88	0.92	0.90	2.58	2.62	4.04
95th-Percentile Queue Length [ft]	15.08	91.51	153.74	84.94	65.39	70.03	46.93	23.03	22.58	64.44	65.55	100.90

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	30.92	14.19	18.20	30.73	11.07	11.40	26.44	24.97	25.05	24.86	24.84	28.72
Movement LOS	C	B	B	C	B	B	C	C	C	C	C	C
d_A, Approach Delay [s/veh]	15.77			14.56			25.71			26.45		
Approach LOS	B			B			C			C		
d_I, Intersection Delay [s/veh]	17.85											
Intersection LOS	B											
Intersection V/C	0.578											

Sequence

Ring 1	1	2	4	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 19: Date Palm Drive / Dinah Shore Drive

Control Type:	Signalized	Delay (sec / veh):	23.8
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.596

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	2	0	1	2	0	1	1	0	0	1	0	1
Pocket Length [ft]	225.00	100.00	125.00	170.00	100.00	50.00	150.00	100.00	100.00	130.00	100.00	180.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			No		

Volumes

Name												
Base Volume Input [veh/h]	231	614	79	115	586	73	102	576	215	69	537	117
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	72	0	9	81	0	0	0	0	0	0	9
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	240	711	82	129	690	76	106	599	224	72	558	131
Peak Hour Factor	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	65	193	22	35	188	21	29	163	61	20	152	36
Total Analysis Volume [veh/h]	261	774	89	140	751	83	115	652	244	78	607	143
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	1 - E Palm Canyon Drive
Cycle Length [s]	70
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Overlap
Signal group	5	2	0	1	6	0	3	8	0	7	4	4
Auxiliary Signal Groups												4
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	7
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	30
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	1.0
Split [s]	11	19	0	11	19	0	20	29	0	11	20	20
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	5
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	10
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0
Minimum Recall	No	No		No	No		No	No		No	No	No
Maximum Recall	No	No		No	No		No	No		No	No	No
Pedestrian Recall	No	No		No	No		No	No		No	No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	70	70	70	70	70	70	70	70	70	70	70	70
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	7	26	26	7	25	25	6	16	16	6	15	15
g / C, Green / Cycle	0.10	0.37	0.37	0.09	0.36	0.36	0.09	0.23	0.23	0.08	0.22	0.22
(v / s)_i Volume / Saturation Flow Rate	0.08	0.15	0.06	0.04	0.15	0.05	0.06	0.18	0.15	0.04	0.17	0.09
s, saturation flow rate [veh/h]	3445	5074	1583	3445	5074	1583	1774	3547	1583	1774	3547	1583
c, Capacity [veh/h]	348	1856	579	327	1825	569	161	822	367	142	783	349
d1, Uniform Delay [s]	30.72	16.67	14.97	30.00	16.91	15.20	31.04	25.40	24.51	31.11	25.74	23.45
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	3.27	0.69	0.56	0.89	0.69	0.54	5.71	1.78	2.07	3.30	1.69	0.77
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

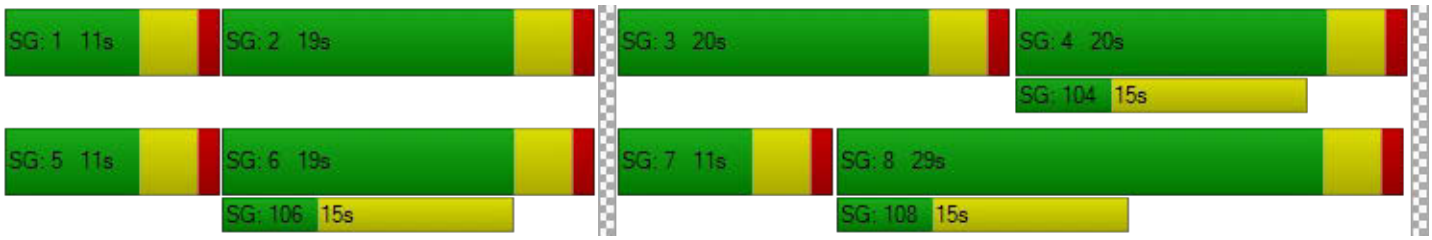
X, volume / capacity	0.75	0.42	0.15	0.43	0.41	0.15	0.71	0.79	0.66	0.55	0.78	0.41
d, Delay for Lane Group [s/veh]	34.00	17.37	15.54	30.90	17.60	15.74	36.75	27.18	26.58	34.41	27.43	24.22
Lane Group LOS	C	B	B	C	B	B	D	C	C	C	C	C
Critical Lane Group	Yes	No	No	No	Yes	No	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh]	2.16	2.85	0.94	1.08	2.79	0.88	2.03	4.85	3.57	1.32	4.53	1.94
50th-Percentile Queue Length [ft]	54.03	71.34	23.44	27.11	69.79	22.07	50.63	121.31	89.22	33.04	113.13	48.46
95th-Percentile Queue Length [veh]	3.89	5.14	1.69	1.95	5.03	1.59	3.65	8.47	6.42	2.38	8.01	3.49
95th-Percentile Queue Length [ft]	97.25	128.41	42.20	48.80	125.63	39.73	91.13	211.63	160.60	59.46	200.35	87.23

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	34.00	17.37	15.54	30.90	17.60	15.74	36.75	27.18	26.58	34.41	27.43	24.22
Movement LOS	C	B	B	C	B	B	D	C	C	C	C	C
d_A, Approach Delay [s/veh]	21.08			19.35			28.12			27.53		
Approach LOS	C			B			C			C		
d_I, Intersection Delay [s/veh]	23.82											
Intersection LOS	C											
Intersection V/C	0.596											

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 20: Date Palm Drive / Ramon Road

Control Type:	Signalized	Delay (sec / veh):	27.6
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.753

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	215.00	100.00	80.00	180.00	100.00	100.00	350.00	100.00	100.00	230.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			No		

Volumes

Name												
Base Volume Input [veh/h]	241	564	82	189	486	156	192	754	157	136	717	147
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	7	47	27	41	57	12	10	55	6	27	54	40
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	258	634	112	238	562	174	210	839	169	168	800	193
Peak Hour Factor	0.9770	0.9770	0.9770	0.9770	0.9770	0.9770	0.9770	0.9770	0.9770	0.9770	0.9770	0.9770
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	66	162	29	61	144	45	54	215	43	43	205	49
Total Analysis Volume [veh/h]	264	649	115	244	575	178	215	859	173	172	819	198
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	7 - E/W
Cycle Length [s]	70
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	12	11	0	25	24	0	15	23	0	11	19	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	C	L	C	C
C, Cycle Length [s]	70	70	70	70	70	70	70	70	70	70	70	70
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	7	12	12	12	16	16	10	22	22	8	20	20
g / C, Green / Cycle	0.10	0.17	0.17	0.17	0.23	0.23	0.15	0.32	0.32	0.12	0.29	0.29
(v / s)_i Volume / Saturation Flow Rate	0.08	0.13	0.07	0.14	0.11	0.11	0.12	0.20	0.20	0.10	0.19	0.19
s, saturation flow rate [veh/h]	3445	5074	1583	1774	5074	1583	1774	3547	1707	1774	3547	1683
c, Capacity [veh/h]	362	855	267	298	1174	366	263	1119	539	213	1020	484
d1, Uniform Delay [s]	30.46	27.85	26.19	28.20	23.41	23.39	29.01	20.48	20.49	30.10	22.12	22.14
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.81	1.41	1.10	5.53	0.32	1.00	6.20	2.61	5.36	7.00	3.58	7.42
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.73	0.76	0.43	0.82	0.49	0.49	0.82	0.62	0.62	0.81	0.68	0.68
d, Delay for Lane Group [s/veh]	33.28	29.26	27.29	33.72	23.73	24.39	35.22	23.09	25.85	37.10	25.70	29.56
Lane Group LOS	C	C	C	C	C	C	D	C	C	D	C	C
Critical Lane Group	No	Yes	No	Yes	No	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh]	2.16	3.30	1.68	4.10	2.55	2.44	3.70	4.73	4.98	3.04	5.01	5.29
50th-Percentile Queue Length [ft]	53.97	82.51	41.89	102.61	63.74	60.88	92.46	118.31	124.44	76.08	125.14	132.16
95th-Percentile Queue Length [veh]	3.89	5.94	3.02	7.39	4.59	4.38	6.66	8.30	8.64	5.48	8.67	9.06
95th-Percentile Queue Length [ft]	97.15	148.53	75.40	184.71	114.73	109.58	166.42	207.51	215.91	136.94	216.86	226.43

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	33.28	29.26	27.29	33.72	23.73	24.39	35.22	23.61	25.85	37.10	26.31	29.56
Movement LOS	C	C	C	C	C	C	D	C	C	D	C	C
d_A, Approach Delay [s/veh]	30.07			26.29			25.92			28.41		
Approach LOS	C			C			C			C		
d_I, Intersection Delay [s/veh]	27.63											
Intersection LOS	C											
Intersection V/C	0.753											

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 21: Da Vall Drive / Dinah Shore Drive

Control Type:	Signalized	Delay (sec / veh):	22.0
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.584

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	0	1	0	1	1	0	0
Pocket Length [ft]	120.00	100.00	120.00	130.00	100.00	100.00	175.00	100.00	215.00	185.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	173	327	44	48	197	85	60	533	174	59	544	107
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	2	0	0	0	0	9	0	2	9	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	180	340	48	50	205	88	62	563	181	63	575	111
Peak Hour Factor	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	49	93	13	14	56	24	17	155	50	17	158	30
Total Analysis Volume [veh/h]	198	374	53	55	225	97	68	619	199	69	632	122
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	6 - N/S
Cycle Length [s]	70
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	21	21	0	19	19	0	11	19	0	11	19	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	C	L	C	R	L	C	C
C, Cycle Length [s]	70	70	70	70	70	70	70	70	70	70	70	70
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	10	14	14	5	9	9	5	30	30	5	30	30
g / C, Green / Cycle	0.14	0.20	0.20	0.07	0.13	0.13	0.07	0.43	0.43	0.07	0.43	0.43
(v / s)_i Volume / Saturation Flow Rate	0.11	0.11	0.03	0.03	0.09	0.09	0.04	0.17	0.13	0.04	0.21	0.21
s, saturation flow rate [veh/h]	1774	3547	1583	1774	1863	1678	1774	3547	1583	1774	1863	1759
c, Capacity [veh/h]	248	710	317	120	239	215	133	1522	679	133	800	756
d1, Uniform Delay [s]	29.26	25.12	23.25	31.51	29.32	29.43	31.27	13.87	13.09	31.26	14.43	14.44
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	5.84	0.61	0.25	2.70	3.65	4.57	3.04	0.81	1.09	3.07	2.09	2.22
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.80	0.53	0.17	0.46	0.70	0.72	0.51	0.41	0.29	0.52	0.48	0.48
d, Delay for Lane Group [s/veh]	35.11	25.73	23.50	34.21	32.97	34.00	34.32	14.68	14.19	34.33	16.52	16.66
Lane Group LOS	D	C	C	C	C	C	C	B	B	C	B	B
Critical Lane Group	Yes	No	No	No	No	Yes	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh]	3.40	2.62	0.69	0.93	2.74	2.62	1.15	3.07	1.97	1.17	4.25	4.05
50th-Percentile Queue Length [ft]	84.95	65.57	17.35	23.31	68.43	65.42	28.79	76.86	49.22	29.21	106.23	101.16
95th-Percentile Queue Length [veh]	6.12	4.72	1.25	1.68	4.93	4.71	2.07	5.53	3.54	2.10	7.63	7.28
95th-Percentile Queue Length [ft]	152.92	118.03	31.23	41.97	123.17	117.75	51.82	138.34	88.60	52.58	190.75	182.08

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	35.11	25.73	23.50	34.21	33.23	34.00	34.32	14.68	14.19	34.33	16.58	16.66
Movement LOS	D	C	C	C	C	C	C	B	B	C	B	B
d_A, Approach Delay [s/veh]	28.51			33.57			16.08			18.08		
Approach LOS	C			C			B			B		
d_I, Intersection Delay [s/veh]	21.98											
Intersection LOS	C											
Intersection V/C	0.584											

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	



Intersection Level Of Service Report
Intersection 22: Da Vall Drive / Gerald Ford Drive

Control Type:	Signalized	Delay (sec / veh):	22.1
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.462

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	200.00	100.00	175.00	140.00	100.00	100.00	175.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	125	374	36	96	268	64	40	349	83	42	295	120
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	2	0	0	2	0	0	3	0	0	2	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	130	391	37	100	281	67	42	366	86	44	309	125
Peak Hour Factor	0.9480	0.9480	0.9480	0.9480	0.9480	0.9480	0.9480	0.9480	0.9480	0.9480	0.9480	0.9480
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	34	103	10	26	74	18	11	97	23	12	81	33
Total Analysis Volume [veh/h]	137	412	39	105	296	71	44	386	91	46	326	132
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	6 - N/S
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	19	0	11	19	0	11	19	0	11	19	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	C	L	C	C	L	C	C
C, Cycle Length [s]	60	60	60	60	60	60	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	6	24	24	6	23	23	4	10	10	4	11	11
g / C, Green / Cycle	0.11	0.40	0.40	0.10	0.39	0.39	0.06	0.17	0.17	0.06	0.18	0.18
(v / s)_i Volume / Saturation Flow Rate	0.08	0.12	0.02	0.06	0.10	0.10	0.02	0.13	0.13	0.03	0.13	0.13
s, saturation flow rate [veh/h]	1774	3547	1583	1774	1863	1741	1774	1863	1742	1774	1863	1684
c, Capacity [veh/h]	189	1404	627	175	722	675	112	326	305	116	329	298
d1, Uniform Delay [s]	26.07	12.45	11.28	26.04	12.57	12.60	27.12	23.62	23.67	27.05	23.42	23.50
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	5.17	0.53	0.19	3.28	0.88	0.96	2.21	3.49	3.93	2.20	3.00	3.58
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.72	0.29	0.06	0.60	0.26	0.27	0.39	0.75	0.76	0.40	0.72	0.74
d, Delay for Lane Group [s/veh]	31.24	12.98	11.47	29.32	13.45	13.56	29.33	27.11	27.60	29.25	26.42	27.08
Lane Group LOS	C	B	B	C	B	B	C	C	C	C	C	C
Critical Lane Group	Yes	No	No	No	No	Yes	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh]	1.99	1.67	0.30	1.47	1.61	1.55	0.63	3.26	3.13	0.65	3.12	2.94
50th-Percentile Queue Length [ft]	49.86	41.75	7.55	36.74	40.26	38.68	15.63	81.56	78.34	16.29	77.95	73.38
95th-Percentile Queue Length [veh]	3.59	3.01	0.54	2.65	2.90	2.78	1.13	5.87	5.64	1.17	5.61	5.28
95th-Percentile Queue Length [ft]	89.74	75.15	13.58	66.14	72.47	69.62	28.14	146.81	141.02	29.33	140.31	132.08

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	31.24	12.98	11.47	29.32	13.49	13.56	29.33	27.29	27.60	29.25	26.60	27.08
Movement LOS	C	B	B	C	B	B	C	C	C	C	C	C
d_A, Approach Delay [s/veh]	17.14			17.02			27.52			26.96		
Approach LOS	B			B			C			C		
d_I, Intersection Delay [s/veh]	22.08											
Intersection LOS	C											
Intersection V/C	0.462											

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 23: East Palm Canyon Drive / Frank Sinatra Drive

Control Type:	Signalized	Delay (sec / veh):	27.0
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.790

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	1	1	0	0	2	0	1
Pocket Length [ft]	160.00	100.00	45.00	325.00	100.00	250.00	100.00	100.00	100.00	120.00	100.00	1200.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			No			Yes		

Volumes

Name												
Base Volume Input [veh/h]	43	1314	198	296	1170	20	44	53	19	144	29	302
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	79	2	0	80	6	5	0	0	2	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	45	1446	208	308	1297	27	51	55	20	152	30	314
Peak Hour Factor	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	12	391	56	83	351	7	14	15	5	41	8	85
Total Analysis Volume [veh/h]	49	1563	225	333	1402	29	55	59	22	164	32	339
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	6 - N/S
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	66.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Overlap	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Overlap
Signal group	5	2	2	1	6	0	3	8	0	7	4	4
Auxiliary Signal Groups			2									4
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	7	7	7	0	7	7	0	7	7	7
Maximum Green [s]	30	30	30	30	30	0	30	30	0	30	30	30
Amber [s]	3.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0
All red [s]	1.0	1.0	1.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	1.0
Split [s]	11	33	33	14	36	0	11	28	0	15	32	32
Vehicle Extension [s]	3.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0
Walk [s]	0	5	5	0	5	0	0	5	0	0	5	5
Pedestrian Clearance [s]	0	10	10	0	10	0	0	10	0	0	10	10
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0
Minimum Recall	No	No	No	No	No		No	No		No	No	No
Maximum Recall	No	No	No	No	No		No	No		No	No	No
Pedestrian Recall	No	No	No	No	No		No	No		No	No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	L	C	R
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	5	37	37	10	42	42	5	20	7	21	21
g / C, Green / Cycle	0.06	0.41	0.41	0.11	0.47	0.47	0.06	0.22	0.08	0.24	0.24
(v / s)_i Volume / Saturation Flow Rate	0.03	0.31	0.14	0.10	0.28	0.02	0.03	0.05	0.05	0.02	0.21
s, saturation flow rate [veh/h]	1774	5074	1583	3445	5074	1583	1774	1778	3445	1863	1583
c, Capacity [veh/h]	100	2096	654	385	2377	742	105	392	267	444	377
d1, Uniform Delay [s]	41.30	22.45	18.11	39.38	17.60	12.98	41.17	28.71	40.30	26.61	33.28
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.19
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	3.69	2.47	1.44	5.89	1.08	0.10	3.95	0.26	2.30	0.07	12.50
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.49	0.75	0.34	0.86	0.59	0.04	0.52	0.21	0.62	0.07	0.90
d, Delay for Lane Group [s/veh]	44.99	24.92	19.55	45.28	18.68	13.07	45.12	28.97	42.60	26.68	45.78
Lane Group LOS	D	C	B	D	B	B	D	C	D	C	D
Critical Lane Group	No	Yes	No	Yes	No	No	Yes	No	No	No	Yes
50th-Percentile Queue Length [veh]	1.13	9.01	3.23	3.80	6.65	0.31	1.26	1.40	1.79	0.52	8.09
50th-Percentile Queue Length [ft]	28.13	225.19	80.80	94.96	166.29	7.84	31.58	35.03	44.66	13.01	202.35
95th-Percentile Queue Length [veh]	2.03	13.93	5.82	6.84	10.88	0.56	2.27	2.52	3.22	0.94	12.76
95th-Percentile Queue Length [ft]	50.63	348.24	145.44	170.93	272.03	14.12	56.84	63.06	80.40	23.42	319.00

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	44.99	24.92	19.55	45.28	18.68	13.07	45.12	28.97	28.97	42.60	26.68	45.78
Movement LOS	D	C	B	D	B	B	D	C	C	D	C	D
d_A, Approach Delay [s/veh]	24.80			23.61			35.50			43.66		
Approach LOS	C			C			D			D		
d_I, Intersection Delay [s/veh]	27.01											
Intersection LOS	C											
Intersection V/C	0.790											

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 24: East Palm Canyon Drive / Mirage Cove Drive

Control Type:	Signalized	Delay (sec / veh):	6.8
Analysis Method:	HCM 2010	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.461

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	1	1	0	0
Pocket Length [ft]	150.00	100.00	100.00	110.00	100.00	100.00	75.00	100.00	75.00	75.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	16	1475	9	16	1379	15	35	0	20	6	0	26
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	55	0	29	48	4	3	0	0	0	0	23
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	17	1589	9	46	1482	20	39	0	21	6	0	50
Peak Hour Factor	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	5	429	2	12	401	5	11	0	6	2	0	14
Total Analysis Volume [veh/h]	18	1718	10	50	1602	22	42	0	23	6	0	54
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	6 - N/S
Cycle Length [s]	70
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	5	2	0	1	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	7	7	0	7	7	0	0	7	0	0	7	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	11	40	0	11	40	0	0	19	0	0	19	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No	No		No	No			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	L	C	R	L	C
C, Cycle Length [s]	70	70	70	70	70	70	70	70	70	70	70
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.00	0.00	2.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	2	48	48	4	51	51	5	5	5	5	5
g / C, Green / Cycle	0.03	0.69	0.69	0.06	0.72	0.72	0.08	0.08	0.08	0.08	0.08
(v / s)_i Volume / Saturation Flow Rate	0.01	0.32	0.32	0.03	0.30	0.30	0.03	0.00	0.01	0.00	0.03
s, saturation flow rate [veh/h]	1774	3547	1857	1774	3547	1850	1345	1863	1583	1412	1583
c, Capacity [veh/h]	56	2438	1277	113	2554	1332	131	144	123	178	123
d1, Uniform Delay [s]	33.24	5.03	5.04	31.61	3.93	3.93	34.58	0.00	30.28	31.57	30.89
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	3.31	0.64	1.22	2.67	0.51	0.97	1.40	0.00	0.73	0.08	2.47
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.32	0.47	0.47	0.44	0.42	0.42	0.32	0.00	0.19	0.03	0.44
d, Delay for Lane Group [s/veh]	36.55	5.68	6.26	34.29	4.44	4.90	35.98	0.00	31.01	31.65	33.36
Lane Group LOS	D	A	A	C	A	A	D	A	C	C	C
Critical Lane Group	No	No	Yes	Yes	No	No	No	No	No	No	Yes
50th-Percentile Queue Length [veh]	0.33	2.49	2.81	0.85	1.77	2.02	0.73	0.00	0.37	0.09	0.90
50th-Percentile Queue Length [ft]	8.34	62.20	70.29	21.27	44.35	50.55	18.32	0.00	9.15	2.37	22.54
95th-Percentile Queue Length [veh]	0.60	4.48	5.06	1.53	3.19	3.64	1.32	0.00	0.66	0.17	1.62
95th-Percentile Queue Length [ft]	15.01	111.96	126.53	38.28	79.84	90.99	32.97	0.00	16.48	4.26	40.57

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	36.55	5.87	6.26	34.29	4.59	4.90	35.98	0.00	31.01	31.65	33.36	33.36
Movement LOS	D	A	A	C	A	A	D	A	C	C	C	C
d_A, Approach Delay [s/veh]	6.19			5.48			34.22			33.19		
Approach LOS	A			A			C			C		
d_I, Intersection Delay [s/veh]	6.83											
Intersection LOS	A											
Intersection V/C	0.461											

Sequence

Ring 1	1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 25: East Palm Canyon Drive / Country Club Drive

Control Type:	Signalized	Delay (sec / veh):	9.8
Analysis Method:	HCM 2010	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.530

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	2	0	0	1	0	0	1	0	0
Pocket Length [ft]	160.00	100.00	45.00	190.00	100.00	100.00	30.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			Yes			Yes			No		

Volumes

Name												
Base Volume Input [veh/h]	8	1344	49	145	1218	3	3	8	9	41	4	207
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	49	0	0	39	9	5	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	8	1447	51	151	1306	12	8	8	9	43	4	215
Peak Hour Factor	0.9370	0.9370	0.9370	0.9370	0.9370	0.9370	0.9370	0.9370	0.9370	0.9370	0.9370	0.9370
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	386	14	40	348	3	2	2	2	11	1	57
Total Analysis Volume [veh/h]	9	1544	54	161	1394	13	9	9	10	46	4	229
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	6 - N/S
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	61.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Protecte	Permiss	Overlap	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	5	2	2	1	6	0	0	8	0	0	4	0
Auxiliary Signal Groups			2									
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	7	7	7	7	7	0	0	7	0	0	7	0
Maximum Green [s]	30	30	30	30	30	0	0	30	0	0	30	0
Amber [s]	3.0	3.0	3.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	1.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	11	30	30	11	30	0	0	19	0	0	19	0
Vehicle Extension [s]	3.0	3.0	3.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	5	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	10	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	2.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	2.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No	No	No	No	No			No			No	
Maximum Recall	No	No	No	No	No			No			No	
Pedestrian Recall	No	No	No	No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	C	L	C	L	C	R
C, Cycle Length [s]	60	60	60	60	60	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	1	35	35	7	40	40	7	7	7	7	7
g / C, Green / Cycle	0.02	0.57	0.57	0.11	0.67	0.67	0.12	0.12	0.12	0.12	0.12
(v / s)_i Volume / Saturation Flow Rate	0.01	0.30	0.03	0.05	0.26	0.26	0.01	0.01	0.03	0.07	0.07
s, saturation flow rate [veh/h]	1774	5074	1583	3445	3547	1854	1143	1704	1388	1592	1583
c, Capacity [veh/h]	33	2909	908	380	2359	1233	142	200	230	186	185
d1, Uniform Delay [s]	29.13	7.88	5.67	24.98	4.56	4.56	29.17	23.72	26.36	25.31	25.31
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	4.49	0.70	0.13	0.75	0.49	0.94	0.19	0.21	0.42	3.43	3.46
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

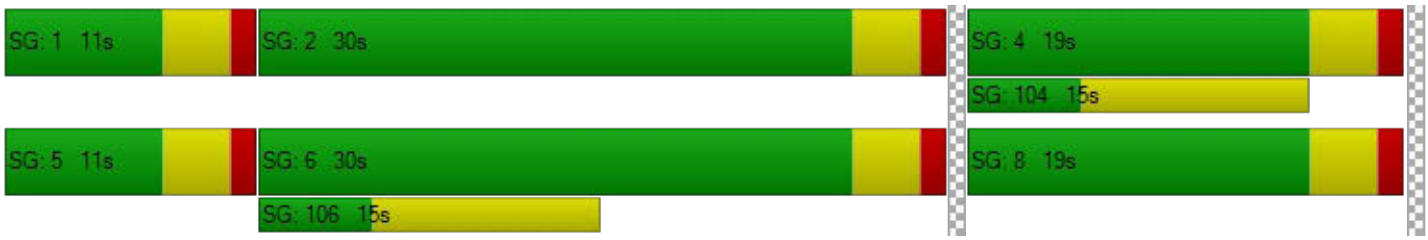
X, volume / capacity	0.28	0.53	0.06	0.42	0.39	0.39	0.06	0.10	0.20	0.63	0.63
d, Delay for Lane Group [s/veh]	33.62	8.57	5.80	25.73	5.05	5.50	29.36	23.92	26.79	28.74	28.77
Lane Group LOS	C	A	A	C	A	A	C	C	C	C	C
Critical Lane Group	No	Yes	No	Yes	No	No	No	No	No	No	Yes
50th-Percentile Queue Length [veh]	0.16	2.97	0.24	1.01	1.55	1.77	0.13	0.23	0.60	1.62	1.61
50th-Percentile Queue Length [ft]	3.97	74.32	6.05	25.32	38.79	44.37	3.14	5.77	14.99	40.39	40.24
95th-Percentile Queue Length [veh]	0.29	5.35	0.44	1.82	2.79	3.19	0.23	0.42	1.08	2.91	2.90
95th-Percentile Queue Length [ft]	7.15	133.78	10.89	45.57	69.82	79.87	5.66	10.38	26.99	72.69	72.43

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	33.62	8.57	5.80	25.73	5.20	5.50	29.36	23.92	23.92	26.79	28.74	28.76
Movement LOS	C	A	A	C	A	A	C	C	C	C	C	C
d_A, Approach Delay [s/veh]	8.62			7.31			25.67			28.43		
Approach LOS	A			A			C			C		
d_I, Intersection Delay [s/veh]	9.76											
Intersection LOS	A											
Intersection V/C	0.530											

Sequence

Ring 1	1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 26: Thompson Road-Morningside Drive / Frank Sinatra Drive

Control Type:	Signalized	Delay (sec / veh):	8.4
Analysis Method:	HCM 2010	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.355

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	150.00	100.00	100.00	90.00	100.00	100.00	90.00	100.00	100.00	130.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	163	22	37	11	15	8	10	434	102	46	476	19
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	170	23	38	11	16	8	10	451	106	48	495	20
Peak Hour Factor	0.9030	0.9030	0.9030	0.9030	0.9030	0.9030	0.9030	0.9030	0.9030	0.9030	0.9030	0.9030
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	47	6	11	3	4	2	3	125	29	13	137	6
Total Analysis Volume [veh/h]	188	25	42	12	18	9	11	499	117	53	548	22
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	7 - E/W
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	0	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	7	0	0	7	0	0	7	0	0	7	0
Maximum Green [s]	0	30	0	0	30	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	41	0	0	41	0	0	19	0	0	19	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No			No			No			No	
Maximum Recall		No			No			No			No	
Pedestrian Recall		No			No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	C	L	C	C	L	C	C
C, Cycle Length [s]	60	60	60	60	60	60	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	0.00	2.00	0.00	0.00	2.00	0.00	0.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	13	13	13	13	13	13	39	39	39	39	39	39
g / C, Green / Cycle	0.21	0.21	0.21	0.21	0.21	0.21	0.65	0.65	0.65	0.65	0.65	0.65
(v / s)_i Volume / Saturation Flow Rate	0.14	0.01	0.03	0.01	0.01	0.01	0.01	0.17	0.17	0.07	0.15	0.15
s, saturation flow rate [veh/h]	1378	1863	1583	1380	1863	1666	838	1863	1742	803	1863	1838
c, Capacity [veh/h]	356	398	338	350	398	356	590	1216	1138	564	1216	1200
d1, Uniform Delay [s]	23.88	18.80	19.05	21.02	18.68	18.70	5.87	4.36	4.36	6.44	4.27	4.27
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.22	0.07	0.16	0.04	0.03	0.04	0.06	0.52	0.56	0.33	0.46	0.46
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.53	0.06	0.12	0.03	0.03	0.04	0.02	0.26	0.26	0.09	0.24	0.24
d, Delay for Lane Group [s/veh]	25.10	18.86	19.21	21.06	18.72	18.74	5.93	4.88	4.93	6.78	4.73	4.74
Lane Group LOS	C	B	B	C	B	B	A	A	A	A	A	A
Critical Lane Group	Yes	No	No	No	No	No	No	No	Yes	No	No	No
50th-Percentile Queue Length [veh]	2.40	0.25	0.44	0.13	0.14	0.14	0.05	1.11	1.06	0.29	0.98	0.97
50th-Percentile Queue Length [ft]	60.07	6.37	10.92	3.29	3.43	3.41	1.35	27.75	26.51	7.15	24.56	24.33
95th-Percentile Queue Length [veh]	4.33	0.46	0.79	0.24	0.25	0.25	0.10	2.00	1.91	0.51	1.77	1.75
95th-Percentile Queue Length [ft]	108.13	11.47	19.66	5.92	6.18	6.15	2.43	49.95	47.72	12.87	44.21	43.80

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	25.10	18.86	19.21	21.06	18.72	18.74	5.93	4.90	4.93	6.78	4.73	4.74
Movement LOS	C	B	B	C	B	B	A	A	A	A	A	A
d_A, Approach Delay [s/veh]	23.52			19.45			4.92			4.91		
Approach LOS	C			B			A			A		
d_I, Intersection Delay [s/veh]	8.35											
Intersection LOS	A											
Intersection V/C	0.355											

Sequence

Ring 1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 27: Van Fleet Street / B Street-West Project Driveway

Control Type:	Two-way stop	Delay (sec / veh):	10.2
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	2	80	0	0	80	14	6	0	4	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	2	83	0	0	83	15	6	0	4	0	0	0
Peak Hour Factor	0.8940	0.8940	0.8940	0.8940	0.8940	0.8940	0.8940	0.8940	0.8940	0.8940	0.8940	0.8940
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	23	0	0	23	4	2	0	1	0	0	0
Total Analysis Volume [veh/h]	2	93	0	0	93	17	7	0	4	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	7.44	0.00	0.00	7.40	0.00	0.00	9.80	10.23	8.83	9.77	10.23	8.73
Movement LOS	A	A	A	A	A	A	A	B	A	A	B	A
95th-Percentile Queue Length [veh]	0.21	0.21	0.21	0.00	0.00	0.00	0.04	0.04	0.04	0.00	0.00	0.00
95th-Percentile Queue Length [ft]	5.14	5.14	5.14	0.00	0.00	0.00	1.02	1.02	1.02	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	0.16			0.00			9.45			9.58		
Approach LOS	A			A			A			A		
d_I, Intersection Delay [s/veh]	0.55											
Intersection LOS	B											

Intersection Level Of Service Report
Intersection 28: Van Fleet Street / D Street

Control Type:	Two-way stop	Delay (sec / veh):	10.2
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.001

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	3	64	1	3	71	6	10	1	2	2	1	6
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	3	67	1	3	74	6	10	1	2	2	1	6
Peak Hour Factor	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	20	0	1	22	2	3	0	1	1	0	2
Total Analysis Volume [veh/h]	4	79	1	4	87	7	12	1	2	2	1	7
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.01
d_M, Delay for Movement [s/veh]	7.41	0.00	0.00	7.38	0.00	0.00	9.82	10.20	8.81	9.74	10.18	8.72
Movement LOS	A	A	A	A	A	A	A	B	A	A	B	A
95th-Percentile Queue Length [veh]	0.18	0.18	0.18	0.21	0.21	0.21	0.06	0.06	0.06	0.03	0.03	0.03
95th-Percentile Queue Length [ft]	4.44	4.44	4.44	5.17	5.17	5.17	1.47	1.47	1.47	0.85	0.85	0.85
d_A, Approach Delay [s/veh]	0.35			0.30			9.72			9.07		
Approach LOS	A			A			A			A		
d_I, Intersection Delay [s/veh]	1.43											
Intersection LOS	B											

Intersection Level Of Service Report
Intersection 29: South Project Driveway / D Street

Control Type:	Two-way stop	Delay (sec / veh):	8.6
Analysis Method:	HCM 2010	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

Intersection Setup

Name						
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00		40.00		40.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name						
Base Volume Input [veh/h]	0	0	0	5	9	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	5	9	0
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	1	2	0
Total Analysis Volume [veh/h]	0	0	0	5	10	0
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	8.59	8.36	7.24	0.00	0.00	0.00
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	8.47		0.00		0.00	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	0.00					
Intersection LOS	A					

Traffic Impact Analysis

Vistro File: G:\...\EACP Alt A.vistro
Report File: G:\...\EAC SAT MD.pdf
Scenario 9 EAC SAT MD ALT A
7/30/2018

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	North Project Driveway 1 / Buddy Rogers Avenue	Two-way stop	HCM 2010	NB Thru	0.000	9.4	A
2	Date Palm Drive / Buddy Rogers Avenue	Two-way stop	HCM 2010	EB Left	0.134	18.8	C
3	Date Palm Drive / East Palm Canyon Drive	Signalized	HCM 2010	SB Right	0.561	10.5	B
4	South Project Driveway-Allen Avenue / East Palm Canyon Drive	Signalized	HCM 2010	SB Right	0.514	1.3	A
5	Monty Hall Drive-Van Fleet Avenue / East Palm Canyon Drive	Signalized	HCM 2010	EB Left	0.587	7.4	A
6	Date Palm Drive / East Palm Drive	Two-way stop	HCM 2010	EB Right	0.000	11.6	B
7	North Project Driveway 2 / Buddy Rogers Avenue	Two-way stop	HCM 2010	NB Left	0.000	8.8	A
8	Monty Hall Drive / Buddy Rogers Avenue	All-way stop	HCM 2010	SB Left	0.059	7.3	A
9	Buddy Rogers Avenue/ East Palm Canyon Drive	Signalized	HCM 2010	SB Right	0.554	4.0	A
10	Cathedral Canyon Drive / East Palm Canyon Drive	Signalized	HCM 2010	EB Left	0.659	16.3	B
11	Perez Road / East Palm Canyon Drive	Signalized	HCM 2010	WB Left	0.728	17.6	B
12	Canyon Plaza Drive / East Palm Canyon Drive	Signalized	HCM 2010	WB Left	0.661	11.9	B
13	Golf Club Drive / East Palm Canyon Drive	Signalized	HCM 2010	SB Right	0.696	11.1	B
14	Cathedral Canyon Drive / Officer David Vasquez Road	Signalized	HCM 2010	SB Left	0.190	4.0	A
15	Cathedral Canyon Drive / Perez Road	Signalized	HCM 2010	EB Left	0.452	22.1	C
16	Cathedral Canyon Drive / Paseo Real	Two-way stop	HCM 2010	WB Thru	0.032	25.6	D

17	Cathedral Canyon Drive / Dinah Shore Drive	Signalized	HCM 2010	SB Left	0.617	23.1	C
18	Date Palm Drive / Gerald Ford Drive	Signalized	HCM 2010	NB Left	0.467	17.6	B
19	Date Palm Drive / Dinah Shore Drive	Signalized	HCM 2010	EB Left	0.545	20.5	C
20	Date Palm Drive / Ramon Road	Signalized	HCM 2010	WB Left	0.787	31.4	C
21	Da Vall Drive / Dinah Shore Drive	Signalized	HCM 2010	NB Left	0.450	17.5	B
22	Da Vall Drive / Gerald Ford Drive	Signalized	HCM 2010	EB Left	0.388	22.0	C
23	East Palm Canyon Drive / Frank Sinatra Drive	Signalized	HCM 2010	EB Left	0.753	20.0	B
24	East Palm Canyon Drive / Mirage Cove Drive	Signalized	HCM 2010	EB Left	0.468	8.1	A
25	East Palm Canyon Drive / Country Club Drive	Signalized	HCM 2010	SB Left	0.503	18.8	B
26	Thompson Road-Morningside Drive / Frank Sinatra Drive	Signalized	HCM 2010	NB Left	0.377	6.4	A
27	Van Fleet Street / B Street-West Project Driveway	Two-way stop	HCM 2010	WB Thru	0.000	9.9	A
28	Van Fleet Street / D Street	Two-way stop	HCM 2010	EB Thru	0.008	9.7	A
29	South Project Driveway / D Street	Two-way stop	HCM 2010	SB Left	0.000	8.6	A

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. for all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report

Intersection 1: North Project Driveway 1 / Buddy Rogers Avenue

Control Type:	Two-way stop	Delay (sec / veh):	9.4
Analysis Method:	HCM 2010	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			No			No		

Volumes

Name												
Base Volume Input [veh/h]	0	0	0	0	0	0	0	29	0	0	31	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	0	0	0	0	30	0	0	32	0
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	0	0	0	0	8	0	0	9	0
Total Analysis Volume [veh/h]	0	0	0	0	0	0	0	33	0	0	35	0
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	No	No		
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	No	No		
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	8.89	9.38	8.46	8.89	9.38	8.47	7.28	0.00	0.00	7.28	0.00	0.00
Movement LOS	A	A	A	A	A	A	A	A	A	A	A	A
95th-Percentile Queue Length [veh]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	8.91			8.91			0.00			0.00		
Approach LOS	A			A			A			A		
d_I, Intersection Delay [s/veh]	0.00											
Intersection LOS	A											

Intersection Level Of Service Report
Intersection 2: Date Palm Drive / Buddy Rogers Avenue

Control Type:	Two-way stop	Delay (sec / veh):	18.8
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.134

Intersection Setup

Name						
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00		40.00		40.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

Volumes

Name						
Base Volume Input [veh/h]	4	492	513	25	29	14
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	2.97	1.04	1.04	2.97	1.33	1.33
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	87	96	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	12	599	630	74	39	19
Peak Hour Factor	0.9410	0.9410	0.9410	0.9410	0.9410	0.9410
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	159	167	20	10	5
Total Analysis Volume [veh/h]	13	637	670	79	41	20
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.03	0.01	0.01	0.00	0.13	0.04
d_M, Delay for Movement [s/veh]	12.15	0.00	0.00	0.00	18.85	13.85
Movement LOS	B	A	A	A	C	B
95th-Percentile Queue Length [veh]	0.08	0.00	0.00	0.00	0.61	0.61
95th-Percentile Queue Length [ft]	1.93	0.00	0.00	0.00	15.28	15.28
d_A, Approach Delay [s/veh]	0.24		0.00		17.21	
Approach LOS	A		A		C	
d_I, Intersection Delay [s/veh]	0.83					
Intersection LOS	C					

Intersection Level Of Service Report
Intersection 3: Date Palm Drive / East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	10.5
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.561

Intersection Setup

Name						
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00		40.00		40.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		Yes		Yes	

Volumes

Name						
Base Volume Input [veh/h]	339	121	149	1198	1174	347
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	28	68	63	103	103	24
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	381	194	218	1349	1324	385
Peak Hour Factor	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	102	52	59	363	356	103
Total Analysis Volume [veh/h]	410	209	234	1451	1424	414
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Split	Split	ProtectedPermissi	Permissive	Permissive	Permissive
Signal group	1	0	3	8	4	4
Auxiliary Signal Groups						3,4
Lead / Lag	Lead	-	Lead	-	-	-
Minimum Green [s]	7	0	7	7	7	7
Maximum Green [s]	30	0	7	30	30	30
Amber [s]	3.0	0.0	3.0	3.0	3.0	3.0
All red [s]	1.0	0.0	1.0	1.0	1.0	1.0
Split [s]	19	0	16	41	25	25
Vehicle Extension [s]	3.0	0.0	3.0	3.0	3.0	3.0
Walk [s]	5	0	0	5	5	5
Pedestrian Clearance [s]	10	0	0	10	10	10
Rest In Walk	No			No	No	
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0
Minimum Recall	No		Yes	No	No	
Maximum Recall	No		No	No	No	
Pedestrian Recall	No		No	No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	R	L	C	C	C
C, Cycle Length [s]	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	0.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	11	11	41	41	31	31
g / C, Green / Cycle	0.18	0.18	0.69	0.69	0.51	0.51
(v / s)_i Volume / Saturation Flow Rate	0.08	0.13	0.21	0.29	0.27	0.29
s, saturation flow rate [veh/h]	5168	1583	1117	5074	5074	1607
c, Capacity [veh/h]	919	282	906	3497	2585	819
d1, Uniform Delay [s]	22.08	23.42	5.42	4.07	9.94	10.14
k, delay calibration	0.11	0.11	0.11	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.34	3.85	0.15	0.36	0.79	2.77
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.45	0.74	0.26	0.41	0.53	0.56
d, Delay for Lane Group [s/veh]	22.42	27.27	5.57	4.43	10.73	12.91
Lane Group LOS	C	C	A	A	B	B
Critical Lane Group	No	Yes	Yes	No	No	Yes
50th-Percentile Queue Length [veh]	1.57	2.80	0.25	1.36	3.25	3.75
50th-Percentile Queue Length [ft]	39.31	70.12	6.23	34.04	81.17	93.72
95th-Percentile Queue Length [veh]	2.83	5.05	0.45	2.45	5.84	6.75
95th-Percentile Queue Length [ft]	70.76	126.21	11.21	61.26	146.11	168.70

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	22.42	27.27	5.57	4.43	10.80	12.91
Movement LOS	C	C	A	A	B	B
d_A, Approach Delay [s/veh]	24.06		4.59		11.28	
Approach LOS	C		A		B	
d_I, Intersection Delay [s/veh]	10.47					
Intersection LOS	B					
Intersection V/C	0.561					

Sequence

Ring 1	1	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 4: South Project Driveway-Allen Avenue / East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	1.3
Analysis Method:	HCM 2010	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.514

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	0	0	0	2	0	3	8	1365	0	0	1343	20
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	166	0	0	171	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	2	0	3	8	1586	0	0	1568	21
Peak Hour Factor	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	1	0	1	2	418	0	0	413	6
Total Analysis Volume [veh/h]	0	0	0	2	0	3	8	1671	0	0	1652	22
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	1 - E Palm Canyon Drive
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	0	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	7	0	0	7	0	0	7	0	0	7	0
Maximum Green [s]	0	30	0	0	30	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	19	0	0	19	0	0	101	0	0	101	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No			No			No			No	
Maximum Recall		No			No			No			No	
Pedestrian Recall		No			No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	L	C	C	C	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	2.00	0.00	2.00	0.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	1	1	1	111	111	111	111	111
g / C, Green / Cycle	0.01	0.01	0.01	0.92	0.92	0.92	0.92	0.92
(v / s)_i Volume / Saturation Flow Rate	0.00	0.00	0.00	0.48	0.47	0.00	0.33	0.01
s, saturation flow rate [veh/h]	134	1412	1583	1835	1695	295	5074	1583
c, Capacity [veh/h]	31	61	15	1726	1566	306	4688	1463
d1, Uniform Delay [s]	0.00	59.93	58.94	0.66	0.66	0.00	0.51	0.35
k, delay calibration	0.11	0.11	0.11	0.50	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.00	0.22	6.51	1.07	1.20	0.00	0.21	0.02
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.00	0.03	0.20	0.51	0.51	0.00	0.35	0.02
d, Delay for Lane Group [s/veh]	0.00	60.14	65.46	1.73	1.86	0.00	0.72	0.37
Lane Group LOS	A	E	E	A	A	A	A	A
Critical Lane Group	No	No	Yes	Yes	No	No	No	No
50th-Percentile Queue Length [veh]	0.00	0.06	0.12	0.51	0.52	0.00	0.09	0.01
50th-Percentile Queue Length [ft]	0.00	1.59	2.90	12.83	13.08	0.00	2.27	0.19
95th-Percentile Queue Length [veh]	0.00	0.11	0.21	0.92	0.94	0.00	0.16	0.01
95th-Percentile Queue Length [ft]	0.00	2.87	5.22	23.09	23.55	0.00	4.08	0.34

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	60.14	65.46	65.46	1.73	1.79	1.86	0.00	0.72	0.37
Movement LOS	A	A	A	E	E	E	A	A	A	A	A	A
d_A, Approach Delay [s/veh]	0.00			63.33			1.79			0.72		
Approach LOS	A			E			A			A		
d_I, Intersection Delay [s/veh]	1.35											
Intersection LOS	A											
Intersection V/C	0.514											

Sequence

Ring 1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 5: Monty Hall Drive-Van Fleet Avenue / East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	7.4
Analysis Method:	HCM 2010	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.587

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	1	0	1	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	45.00	100.00	100.00	105.00	100.00	130.00	125.00	100.00	180.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	11	1	44	10	9	12	13	1322	16	55	1290	10
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	166	0	0	171	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	11	1	46	10	9	12	14	1541	17	57	1513	10
Peak Hour Factor	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	0	12	3	2	3	4	402	4	15	394	3
Total Analysis Volume [veh/h]	11	1	48	10	9	13	15	1607	18	59	1578	10
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	1 - E Palm Canyon Drive
Cycle Length [s]	100
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	0	7	7	0	7	7	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	19	0	0	19	0	12	70	0	11	69	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	R	L	C	L	C	R	L	C	R
C, Cycle Length [s]	100	100	100	100	100	100	100	100	100	100
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	6	6	6	6	2	77	77	6	80	80
g / C, Green / Cycle	0.06	0.06	0.06	0.06	0.02	0.77	0.77	0.06	0.80	0.80
(v / s)_i Volume / Saturation Flow Rate	0.02	0.03	0.01	0.01	0.01	0.45	0.01	0.03	0.44	0.01
s, saturation flow rate [veh/h]	759	1583	1410	1687	1774	3547	1583	1774	3547	1583
c, Capacity [veh/h]	113	91	90	97	44	2714	1212	101	2828	1263
d1, Uniform Delay [s]	46.59	45.78	49.12	44.98	47.96	5.04	2.79	45.99	3.70	2.07
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.41	4.60	0.55	1.16	4.48	0.96	0.02	5.23	0.80	0.01
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

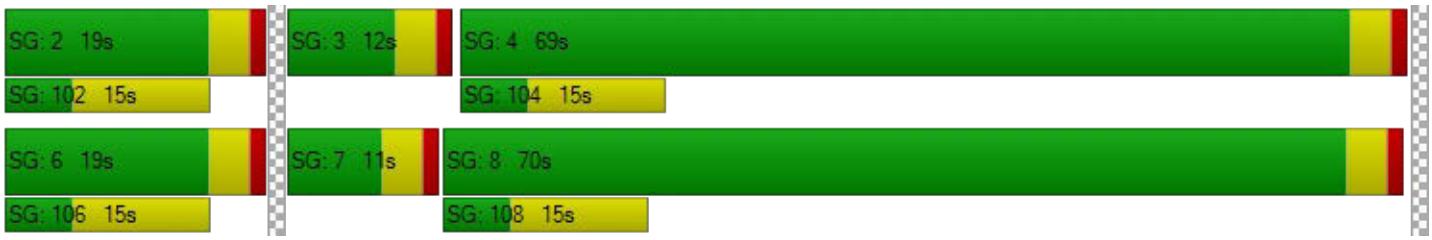
X, volume / capacity	0.11	0.53	0.11	0.23	0.34	0.59	0.01	0.58	0.56	0.01
d, Delay for Lane Group [s/veh]	47.00	50.39	49.66	46.14	52.44	6.00	2.81	51.23	4.50	2.08
Lane Group LOS	D	D	D	D	D	A	A	D	A	A
Critical Lane Group	No	Yes	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh]	0.30	1.25	0.26	0.54	0.41	5.01	0.07	1.54	3.53	0.03
50th-Percentile Queue Length [ft]	7.46	31.20	6.41	13.52	10.36	125.16	1.63	38.56	88.26	0.67
95th-Percentile Queue Length [veh]	0.54	2.25	0.46	0.97	0.75	8.68	0.12	2.78	6.35	0.05
95th-Percentile Queue Length [ft]	13.43	56.16	11.54	24.33	18.65	216.89	2.93	69.41	158.87	1.20

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	47.00	47.00	50.39	49.66	46.14	46.14	52.44	6.00	2.81	51.23	4.50	2.08
Movement LOS	D	D	D	D	D	D	D	A	A	D	A	A
d_A, Approach Delay [s/veh]	49.71			47.24			6.39			6.16		
Approach LOS	D			D			A			A		
d_I, Intersection Delay [s/veh]	7.43											
Intersection LOS	A											
Intersection V/C	0.587											

Sequence

Ring 1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 6: Date Palm Drive / East Palm Drive

Control Type:	Two-way stop	Delay (sec / veh):	11.6
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

Intersection Setup

Name						
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00		40.00		40.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

Volumes

Name						
Base Volume Input [veh/h]	0	8	539	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	87	96	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	95	657	0	0	0
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	26	179	0	0	0
Total Analysis Volume [veh/h]	0	103	714	0	0	0
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.01	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	0.00	0.00	11.59
Movement LOS		A	A	A		B
95th-Percentile Queue Length [veh]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	0.00		0.00		11.59	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	0.00					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 7: North Project Driveway 2 / Buddy Rogers Avenue

Control Type:	Two-way stop	Delay (sec / veh):	8.8
Analysis Method:	HCM 2010	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

Intersection Setup

Name						
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00		40.00		40.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name						
Base Volume Input [veh/h]	0	0	29	0	0	31
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.00	1.00	1.04	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	29	0	0	31
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	8	0	0	8
Total Analysis Volume [veh/h]	0	0	32	0	0	34
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	8.83	8.46	0.00	0.00	7.28	0.00
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	8.64		0.00		0.00	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	0.00					
Intersection LOS	A					

Intersection Level Of Service Report
Intersection 8: Monty Hall Drive / Buddy Rogers Avenue

Control Type:	All-way stop	Delay (sec / veh):	7.3
Analysis Method:	HCM 2010	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.059

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			No			No		

Volumes

Name												
Base Volume Input [veh/h]	20	5	4	17	6	0	1	13	6	7	25	12
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	21	5	4	18	6	0	1	14	6	7	26	12
Peak Hour Factor	0.8290	0.8290	0.8290	0.8290	0.8290	0.8290	0.8290	0.8290	0.8290	0.8290	0.8290	0.8290
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	6	2	1	5	2	0	0	4	2	2	8	4
Total Analysis Volume [veh/h]	25	6	5	22	7	0	1	17	7	8	31	14
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	860	840	907	905
Degree of Utilization, x	0.04	0.03	0.03	0.06

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.13	0.11	0.08	0.19
95th-Percentile Queue Length [ft]	3.27	2.68	2.12	4.65
Approach Delay [s/veh]	7.37	7.44	7.08	7.22
Approach LOS	A	A	A	A
Intersection Delay [s/veh]	7.28			
Intersection LOS	A			

Intersection Level Of Service Report

Intersection 9: Buddy Rogers Avenue/ East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	4.0
Analysis Method:	HCM 2010	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.554

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	10	1	39	19	2	28	16	1309	2	16	1255	17
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	166	0	0	171	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	10	1	41	20	2	29	17	1527	2	17	1476	18
Peak Hour Factor	0.9360	0.9360	0.9360	0.9360	0.9360	0.9360	0.9360	0.9360	0.9360	0.9360	0.9360	0.9360
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	0	11	5	1	8	5	408	1	5	394	5
Total Analysis Volume [veh/h]	11	1	44	21	2	31	18	1631	2	18	1577	19
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	1 - E Palm Canyon Drive
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	7	0	0	7	0	0	7	0	0	7	0
Maximum Green [s]	0	30	0	0	30	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	29	0	0	29	0	0	91	0	0	91	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No			No			No			No	
Maximum Recall		No			No			No			No	
Pedestrian Recall		No			No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	C	L	C	R	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	2.00	2.00	0.00	0.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	6	6	106	106	106	106	106	106
g / C, Green / Cycle	0.05	0.05	0.88	0.88	0.88	0.88	0.88	0.88
(v / s)_i Volume / Saturation Flow Rate	0.03	0.04	0.06	0.46	0.00	0.06	0.44	0.01
s, saturation flow rate [veh/h]	1651	1390	324	3547	1583	307	3547	1583
c, Capacity [veh/h]	118	111	308	3134	1399	294	3134	1399
d1, Uniform Delay [s]	56.06	56.21	3.45	1.50	0.81	3.64	1.46	0.82
k, delay calibration	0.11	0.11	0.50	0.50	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.95	3.30	0.36	0.62	0.00	0.40	0.58	0.02
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.48	0.49	0.06	0.52	0.00	0.06	0.50	0.01
d, Delay for Lane Group [s/veh]	59.00	59.51	3.81	2.12	0.81	4.04	2.04	0.84
Lane Group LOS	E	E	A	A	A	A	A	A
Critical Lane Group	No	Yes	No	Yes	No	No	No	No
50th-Percentile Queue Length [veh]	1.74	1.69	0.12	1.07	0.00	0.12	1.01	0.02
50th-Percentile Queue Length [ft]	43.47	42.31	2.88	26.86	0.04	3.02	25.22	0.43
95th-Percentile Queue Length [veh]	3.13	3.05	0.21	1.93	0.00	0.22	1.82	0.03
95th-Percentile Queue Length [ft]	78.25	76.15	5.19	48.36	0.08	5.44	45.39	0.77

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	59.00	59.00	59.00	59.51	59.51	59.51	3.81	2.12	0.81	4.04	2.04	0.84
Movement LOS	E	E	E	E	E	E	A	A	A	A	A	A
d_A, Approach Delay [s/veh]	59.00			59.51			2.14			2.05		
Approach LOS	E			E			A			A		
d_I, Intersection Delay [s/veh]	3.96											
Intersection LOS	A											
Intersection V/C	0.554											

Sequence

Ring 1	2	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 10: Cathedral Canyon Drive / East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	16.3
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.659

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	0	1	0	0	1	0	1
Pocket Length [ft]	100.00	100.00	70.00	90.00	100.00	100.00	238.00	100.00	100.00	190.00	100.00	270.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	71	113	50	127	131	92	110	1151	77	61	1111	120
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	4	0	7	0	0	15	12	159	5	10	162	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	78	118	59	132	136	111	126	1356	85	73	1317	125
Peak Hour Factor	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	20	31	15	34	35	29	33	351	22	19	340	32
Total Analysis Volume [veh/h]	81	122	61	137	141	115	130	1402	88	75	1362	129
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	1 - E Palm Canyon Drive
Cycle Length [s]	70
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Overlap	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	6	3	8	0	7	4	0
Auxiliary Signal Groups						3,6						
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	7	7	7	0	7	7	0
Maximum Green [s]	0	30	0	0	30	30	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	1.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	19	0	0	19	19	27	40	0	11	24	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	5	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	10	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No	No	No	No		No	No	
Maximum Recall		No			No	No	No	No		No	No	
Pedestrian Recall		No			No	No	No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	70	70	70	70	70	70	70	70	70	70	70	70
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	0.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	15	15	15	15	15	26	7	38	38	5	36	36
g / C, Green / Cycle	0.21	0.21	0.21	0.21	0.21	0.37	0.10	0.54	0.54	0.08	0.52	0.52
(v / s)_i Volume / Saturation Flow Rate	0.07	0.07	0.04	0.11	0.08	0.07	0.07	0.40	0.06	0.04	0.27	0.08
s, saturation flow rate [veh/h]	1243	1863	1583	1264	1863	1583	1774	3547	1583	1774	5074	1583
c, Capacity [veh/h]	253	397	337	268	397	586	177	1912	853	136	2617	817
d1, Uniform Delay [s]	28.96	23.23	22.58	29.72	23.49	15.00	30.65	12.32	7.89	31.21	11.24	8.95
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.72	0.43	0.25	1.51	0.54	0.16	5.75	2.54	0.24	3.45	0.74	0.41
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

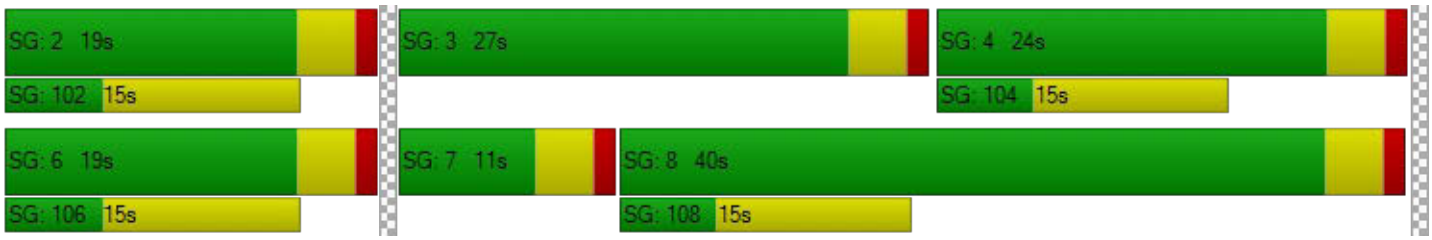
X, volume / capacity	0.32	0.31	0.18	0.51	0.36	0.20	0.73	0.73	0.10	0.55	0.52	0.16
d, Delay for Lane Group [s/veh]	29.68	23.66	22.83	31.23	24.03	15.16	36.40	14.86	8.13	34.65	11.98	9.36
Lane Group LOS	C	C	C	C	C	B	D	B	A	C	B	A
Critical Lane Group	No	No	No	Yes	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh]	1.24	1.61	0.78	2.20	1.88	1.13	2.27	7.22	0.58	1.28	3.96	0.95
50th-Percentile Queue Length [ft]	31.06	40.25	19.57	54.94	47.12	28.32	56.85	180.54	14.59	31.90	98.93	23.71
95th-Percentile Queue Length [veh]	2.24	2.90	1.41	3.96	3.39	2.04	4.09	11.63	1.05	2.30	7.12	1.71
95th-Percentile Queue Length [ft]	55.91	72.44	35.23	98.89	84.81	50.98	102.33	290.72	26.27	57.42	178.08	42.68

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	29.68	23.66	22.83	31.23	24.03	15.16	36.40	14.86	8.13	34.65	11.98	9.36
Movement LOS	C	C	C	C	C	B	D	B	A	C	B	A
d_A, Approach Delay [s/veh]	25.32			23.94			16.22			12.85		
Approach LOS	C			C			B			B		
d_I, Intersection Delay [s/veh]	16.26											
Intersection LOS	B											
Intersection V/C	0.659											

Sequence

Ring 1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 11: Perez Road / East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	17.6
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.728

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	150.00	100.00	100.00	170.00	100.00	45.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	9	9	4	17	10	257	212	1274	4	4	1270	21
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	5	0	0	0	0	170	0	5	175	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	9	9	9	18	10	267	220	1495	4	9	1496	22
Peak Hour Factor	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	2	2	5	3	69	56	384	1	2	384	6
Total Analysis Volume [veh/h]	9	9	9	18	10	274	226	1535	4	9	1536	23
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	0	7	7	0	7	7	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	19	0	0	24	0	11	36	0	11	36	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	R	L	C	C	L	C	R
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	4	4	11	11	11	8	59	59	1	52	52
g / C, Green / Cycle	0.04	0.04	0.12	0.12	0.12	0.09	0.65	0.65	0.02	0.57	0.57
(v / s)_i Volume / Saturation Flow Rate	0.01	0.01	0.01	0.09	0.09	0.07	0.28	0.28	0.01	0.43	0.01
s, saturation flow rate [veh/h]	1774	1712	1774	1600	1583	3445	3547	1860	1774	3547	1583
c, Capacity [veh/h]	70	68	209	189	187	319	2298	1205	30	2030	906
d1, Uniform Delay [s]	41.80	42.03	35.44	38.51	38.52	39.72	7.81	7.81	43.79	14.55	8.37
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.81	2.06	0.17	6.05	6.14	2.88	0.61	1.16	5.34	2.69	0.05
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

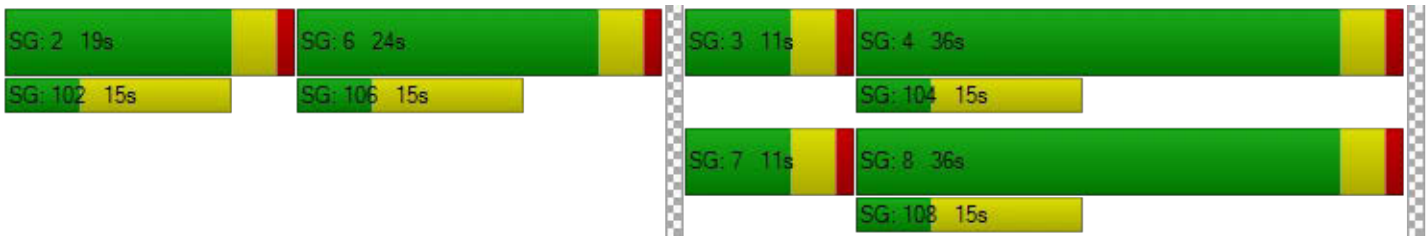
X, volume / capacity	0.13	0.27	0.09	0.76	0.76	0.71	0.44	0.44	0.30	0.76	0.03
d, Delay for Lane Group [s/veh]	42.61	44.09	35.61	44.56	44.66	42.60	8.42	8.98	49.13	17.24	8.42
Lane Group LOS	D	D	D	D	D	D	A	A	D	B	A
Critical Lane Group	No	Yes	No	No	Yes	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh]	0.20	0.42	0.35	3.25	3.23	2.47	4.03	4.41	0.24	10.69	0.18
50th-Percentile Queue Length [ft]	5.08	10.39	8.78	81.33	80.70	61.78	100.68	110.24	5.93	267.29	4.60
95th-Percentile Queue Length [veh]	0.37	0.75	0.63	5.86	5.81	4.45	7.25	7.85	0.43	16.05	0.33
95th-Percentile Queue Length [ft]	9.14	18.70	15.80	146.39	145.26	111.20	181.22	196.34	10.68	401.35	8.29

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	42.61	44.09	44.09	35.61	44.56	44.61	42.60	8.61	8.98	49.13	17.24	8.42
Movement LOS	D	D	D	D	D	D	D	A	A	D	B	A
d_A, Approach Delay [s/veh]	43.60			44.07			12.97			17.30		
Approach LOS	D			D			B			B		
d_I, Intersection Delay [s/veh]	17.61											
Intersection LOS	B											
Intersection V/C	0.728											

Sequence

Ring 1	2	6	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 12: Canyon Plaza Drive / East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	11.9
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.661

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	1	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	95.00	90.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	55	2	83	6	3	14	10	1457	39	56	1457	11
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	11	0	6	16	0	5	6	149	11	6	150	19
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	68	2	92	22	3	20	16	1664	52	64	1665	30
Peak Hour Factor	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	18	1	24	6	1	5	4	434	14	17	434	8
Total Analysis Volume [veh/h]	71	2	96	23	3	21	17	1735	54	67	1736	31
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	110
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	0	7	7	0	7	7	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	19	0	0	19	0	17	75	0	16	74	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	L	C	R	L	C	C
C, Cycle Length [s]	110	110	110	110	110	110	110	110	110	110
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	11	11	11	11	3	81	81	6	84	84
g / C, Green / Cycle	0.10	0.10	0.10	0.10	0.03	0.73	0.73	0.06	0.76	0.76
(v / s)_i Volume / Saturation Flow Rate	0.05	0.06	0.02	0.01	0.01	0.49	0.03	0.04	0.47	0.48
s, saturation flow rate [veh/h]	1381	1588	1292	1614	1774	3547	1583	1774	1863	1851
c, Capacity [veh/h]	160	162	95	165	46	2601	1161	98	1421	1412
d1, Uniform Delay [s]	50.31	47.26	53.47	45.02	52.69	7.65	4.05	50.99	5.88	5.91
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.92	3.60	1.31	0.40	4.89	1.37	0.08	7.97	2.06	2.10
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.44	0.60	0.24	0.15	0.37	0.67	0.05	0.68	0.62	0.63
d, Delay for Lane Group [s/veh]	52.24	50.86	54.78	45.42	57.59	9.03	4.12	58.96	7.94	8.01
Lane Group LOS	D	D	D	D	E	A	A	E	A	A
Critical Lane Group	No	Yes	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh]	1.97	2.68	0.66	0.61	0.52	8.68	0.29	2.00	7.40	7.43
50th-Percentile Queue Length [ft]	49.13	66.94	16.38	15.13	12.90	217.05	7.35	49.88	185.01	185.77
95th-Percentile Queue Length [veh]	3.54	4.82	1.18	1.09	0.93	13.51	0.53	3.59	11.86	11.90
95th-Percentile Queue Length [ft]	88.44	120.50	29.48	27.24	23.22	337.85	13.22	89.78	296.55	297.54

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	52.24	50.86	50.86	54.78	45.42	45.42	57.59	9.03	4.12	58.96	7.97	8.01
Movement LOS	D	D	D	D	D	D	E	A	A	E	A	A
d_A, Approach Delay [s/veh]	51.44			50.00			9.34			9.84		
Approach LOS	D			D			A			A		
d_I, Intersection Delay [s/veh]	11.92											
Intersection LOS	B											
Intersection V/C	0.661											

Sequence

Ring 1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 13: Golf Club Drive / East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	11.1
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.696

Intersection Setup

Name						
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	0	0	0
Pocket Length [ft]	100.00	100.00	90.00	100.00	100.00	100.00
Speed [mph]	40.00		40.00		40.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		Yes		No	

Volumes

Name						
Base Volume Input [veh/h]	179	70	73	1477	1407	141
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	8	0	0	157	155	11
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	194	73	76	1693	1618	158
Peak Hour Factor	0.9660	0.9660	0.9660	0.9660	0.9660	0.9660
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	50	19	20	438	419	41
Total Analysis Volume [veh/h]	201	76	79	1753	1675	164
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Split	Split	ProtectedPermissi	Permissive	Permissive	Permissive
Signal group	1	0	3	8	4	0
Auxiliary Signal Groups						
Lead / Lag	Lead	-	Lead	-	-	-
Minimum Green [s]	7	0	7	7	7	0
Maximum Green [s]	30	0	30	30	30	0
Amber [s]	3.0	0.0	3.0	3.0	3.0	0.0
All red [s]	1.0	0.0	1.0	1.0	1.0	0.0
Split [s]	60	0	11	30	19	0
Vehicle Extension [s]	3.0	0.0	3.0	3.0	3.0	0.0
Walk [s]	5	0	0	5	5	0
Pedestrian Clearance [s]	10	0	0	10	10	0
Rest In Walk	No			No	No	
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	2.0	0.0
Minimum Recall	No		No	No	No	
Maximum Recall	No		No	No	No	
Pedestrian Recall	No		No	No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	C	C
C, Cycle Length [s]	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	0.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	10	10	72	72	62	62
g / C, Green / Cycle	0.11	0.11	0.80	0.80	0.69	0.69
(v / s)_i Volume / Saturation Flow Rate	0.08	0.08	0.19	0.49	0.49	0.51
s, saturation flow rate [veh/h]	1774	1661	422	3547	1863	1806
c, Capacity [veh/h]	193	181	374	2846	1285	1246
d1, Uniform Delay [s]	38.89	38.93	9.31	3.47	8.54	8.82
k, delay calibration	0.11	0.11	0.11	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	5.43	6.02	0.28	1.01	3.43	3.94
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.74	0.75	0.21	0.62	0.72	0.74
d, Delay for Lane Group [s/veh]	44.32	44.95	9.59	4.48	11.97	12.75
Lane Group LOS	D	D	A	A	B	B
Critical Lane Group	No	Yes	Yes	No	No	Yes
50th-Percentile Queue Length [veh]	3.22	3.08	0.16	3.16	9.20	9.59
50th-Percentile Queue Length [ft]	80.58	77.05	4.02	79.05	230.09	239.86
95th-Percentile Queue Length [veh]	5.80	5.55	0.29	5.69	14.18	14.67
95th-Percentile Queue Length [ft]	145.04	138.69	7.24	142.29	354.47	366.86

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	44.51	44.95	9.59	4.48	12.32	12.75
Movement LOS	D	D	A	A	B	B
d_A, Approach Delay [s/veh]	44.62		4.70		12.36	
Approach LOS	D		A		B	
d_I, Intersection Delay [s/veh]	11.07					
Intersection LOS	B					
Intersection V/C	0.696					

Sequence

Ring 1	1	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 14: Cathedral Canyon Drive / Officer David Vasquez Road

Control Type:	Signalized	Delay (sec / veh):	4.0
Analysis Method:	HCM 2010	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.190

Intersection Setup

Name						
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	1	0	1	1
Pocket Length [ft]	100.00	100.00	205.00	100.00	120.00	120.00
Speed [mph]	40.00		40.00		40.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		Yes		Yes	

Volumes

Name						
Base Volume Input [veh/h]	344	7	17	370	7	32
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	12	0	0	15	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	370	7	18	400	7	33
Peak Hour Factor	0.8670	0.8670	0.8670	0.8670	0.8670	0.8670
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	107	2	5	115	2	10
Total Analysis Volume [veh/h]	427	8	21	461	8	38
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	2 - N. Cathedral Canyon Drive
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permissive	Permissive	Protected	Permissive	Split	Overlap
Signal group	2	0	1	6	7	7
Auxiliary Signal Groups						1,7
Lead / Lag	-	-	Lead	-	Lead	-
Minimum Green [s]	7	0	7	7	7	7
Maximum Green [s]	30	0	30	30	30	30
Amber [s]	3.0	0.0	3.0	3.0	3.0	3.0
All red [s]	1.0	0.0	1.0	1.0	1.0	1.0
Split [s]	30	0	11	41	19	19
Vehicle Extension [s]	3.0	0.0	3.0	3.0	3.0	3.0
Walk [s]	5	0	0	5	5	5
Pedestrian Clearance [s]	10	0	0	10	10	10
Rest In Walk	No			No	No	
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0
Minimum Recall	No		No	No	No	No
Maximum Recall	No		No	No	No	No
Pedestrian Recall	No		No	No	No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	C	L	C	L	R
C, Cycle Length [s]	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	0.00
g_i, Effective Green Time [s]	42	42	2	48	4	10
g / C, Green / Cycle	0.70	0.70	0.04	0.80	0.06	0.17
(v / s)_i Volume / Saturation Flow Rate	0.12	0.12	0.01	0.13	0.00	0.02
s, saturation flow rate [veh/h]	1863	1851	1774	3547	3445	1583
c, Capacity [veh/h]	1302	1294	65	2845	223	266
d1, Uniform Delay [s]	3.08	3.09	28.25	1.35	26.37	21.34
k, delay calibration	0.50	0.50	0.11	0.50	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.28	0.28	2.82	0.12	0.06	0.24
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

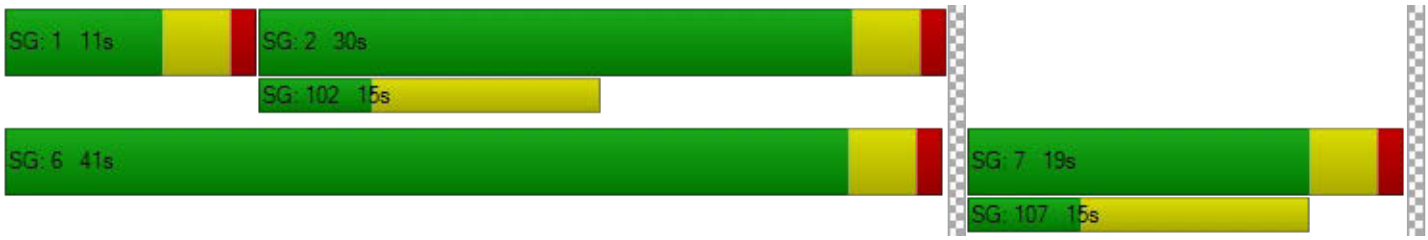
X, volume / capacity	0.17	0.17	0.32	0.16	0.04	0.14
d, Delay for Lane Group [s/veh]	3.36	3.37	31.06	1.47	26.44	21.58
Lane Group LOS	A	A	C	A	C	C
Critical Lane Group	No	No	No	Yes	No	Yes
50th-Percentile Queue Length [veh]	0.51	0.51	0.32	0.05	0.05	0.43
50th-Percentile Queue Length [ft]	12.68	12.71	8.05	1.21	1.28	10.75
95th-Percentile Queue Length [veh]	0.91	0.92	0.58	0.09	0.09	0.77
95th-Percentile Queue Length [ft]	22.82	22.88	14.49	2.17	2.31	19.35

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	3.36	3.37	31.06	1.47	26.44	21.58
Movement LOS	A	A	C	A	C	C
d_A, Approach Delay [s/veh]	3.36		2.76		22.43	
Approach LOS	A		A		C	
d_I, Intersection Delay [s/veh]	3.97					
Intersection LOS	A					
Intersection V/C	0.190					

Sequence

Ring 1	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 15: Cathedral Canyon Drive / Perez Road

Control Type:	Signalized	Delay (sec / veh):	22.1
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.452

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	1	1	0	0
Pocket Length [ft]	95.00	100.00	100.00	205.00	100.00	100.00	100.00	100.00	100.00	150.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	26	297	52	109	282	127	114	192	51	48	207	88
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	12	0	0	15	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	27	321	54	113	308	132	119	200	53	50	215	92
Peak Hour Factor	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	7	82	14	29	79	34	31	51	14	13	55	24
Total Analysis Volume [veh/h]	28	330	55	116	316	136	122	205	54	51	221	94
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	2 - N. Cathedral Canyon Drive
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	19	0	11	19	0	11	19	0	11	19	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	L	C	R	L	C	C
C, Cycle Length [s]	60	60	60	60	60	60	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	3	9	9	6	12	12	6	25	25	4	23	23
g / C, Green / Cycle	0.04	0.15	0.15	0.10	0.20	0.20	0.10	0.42	0.42	0.07	0.39	0.39
(v / s)_i Volume / Saturation Flow Rate	0.02	0.11	0.11	0.07	0.13	0.13	0.07	0.06	0.03	0.03	0.09	0.09
s, saturation flow rate [veh/h]	1774	1863	1772	1774	1863	1677	1774	3547	1583	1774	1863	1680
c, Capacity [veh/h]	82	273	259	181	376	339	181	1482	662	122	716	645
d1, Uniform Delay [s]	27.87	24.55	24.60	26.02	21.98	22.04	26.10	10.84	10.58	26.93	12.52	12.57
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.44	3.53	3.92	3.77	1.72	2.00	4.29	0.19	0.24	2.29	0.74	0.86
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.34	0.72	0.73	0.64	0.63	0.64	0.67	0.14	0.08	0.42	0.23	0.24
d, Delay for Lane Group [s/veh]	30.31	28.08	28.52	29.79	23.70	24.03	30.39	11.04	10.82	29.22	13.26	13.43
Lane Group LOS	C	C	C	C	C	C	C	B	B	C	B	B
Critical Lane Group	No	No	Yes	Yes	No	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh]	0.41	2.66	2.60	1.64	2.88	2.67	1.74	0.73	0.40	0.72	1.38	1.32
50th-Percentile Queue Length [ft]	10.37	66.48	64.98	40.99	72.02	66.71	43.62	18.30	10.00	18.00	34.53	32.90
95th-Percentile Queue Length [veh]	0.75	4.79	4.68	2.95	5.19	4.80	3.14	1.32	0.72	1.30	2.49	2.37
95th-Percentile Queue Length [ft]	18.66	119.66	116.97	73.77	129.63	120.07	78.52	32.95	18.00	32.39	62.15	59.22

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	30.31	28.26	28.52	29.79	23.78	24.03	30.39	11.04	10.82	29.22	13.31	13.43
Movement LOS	C	C	C	C	C	C	C	B	B	C	B	B
d_A, Approach Delay [s/veh]	28.43			25.07			17.21			15.56		
Approach LOS	C			C			B			B		
d_I, Intersection Delay [s/veh]	22.12											
Intersection LOS	C											
Intersection V/C	0.452											

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 16: Cathedral Canyon Drive / Paseo Real

Control Type:	Two-way stop	Delay (sec / veh):	25.6
Analysis Method:	HCM 2010	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.032

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	0	0	0	0	0	0
Pocket Length [ft]	55.00	100.00	100.00	55.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name												
Base Volume Input [veh/h]	11	482	9	16	509	19	11	5	16	9	6	14
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	12	0	0	15	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	11	513	9	17	544	20	11	5	17	9	6	15
Peak Hour Factor	0.9680	0.9680	0.9680	0.9680	0.9680	0.9680	0.9680	0.9680	0.9680	0.9680	0.9680	0.9680
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	132	2	4	140	5	3	1	4	2	2	4
Total Analysis Volume [veh/h]	11	530	9	18	562	21	11	5	18	9	6	15
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.01	0.00	0.02	0.01	0.00	0.05	0.03	0.03	0.04	0.03	0.02
d_M, Delay for Movement [s/veh]	8.69	0.00	0.00	8.57	0.00	0.00	22.70	25.58	11.35	21.99	25.63	11.08
Movement LOS	A	A	A	A	A	A	C	D	B	C	D	B
95th-Percentile Queue Length [veh]	0.03	0.00	0.00	0.05	0.00	0.00	0.34	0.34	0.34	0.30	0.30	0.30
95th-Percentile Queue Length [ft]	0.84	0.00	0.00	1.34	0.00	0.00	8.50	8.50	8.50	7.60	7.60	7.60
d_A, Approach Delay [s/veh]	0.17			0.26			17.11			17.26		
Approach LOS	A			A			C			C		
d_I, Intersection Delay [s/veh]	1.11											
Intersection LOS	D											

Intersection Level Of Service Report
Intersection 17: Cathedral Canyon Drive / Dinah Shore Drive

Control Type:	Signalized	Delay (sec / veh):	23.1
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.617

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	130.00	100.00	100.00	75.00	100.00	100.00	100.00	100.00	100.00	150.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	156	237	102	119	230	28	31	587	198	102	575	71
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	12	0	0	15	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	162	258	106	124	254	29	32	610	206	106	598	74
Peak Hour Factor	0.9700	0.9700	0.9700	0.9700	0.9700	0.9700	0.9700	0.9700	0.9700	0.9700	0.9700	0.9700
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	42	66	27	32	65	7	8	157	53	27	154	19
Total Analysis Volume [veh/h]	167	266	109	128	262	30	33	629	212	109	616	76
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	2 - N. Cathedral Canyon Drive
Cycle Length [s]	70
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	19	19	0	19	19	0	11	21	0	11	21	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	L	C	C	L	C	C
C, Cycle Length [s]	70	70	70	70	70	70	70	70	70	70	70	70
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	8	10	10	7	8	8	3	31	31	6	34	34
g / C, Green / Cycle	0.12	0.14	0.14	0.09	0.12	0.12	0.05	0.45	0.45	0.09	0.49	0.49
(v / s)_i Volume / Saturation Flow Rate	0.09	0.10	0.11	0.07	0.08	0.08	0.02	0.24	0.24	0.06	0.19	0.19
s, saturation flow rate [veh/h]	1774	1863	1683	1774	1863	1797	1774	1863	1704	1774	1863	1792
c, Capacity [veh/h]	213	267	241	169	220	212	87	829	758	158	903	868
d1, Uniform Delay [s]	30.01	28.79	28.86	31.01	29.67	29.70	32.36	14.16	14.16	31.07	11.51	11.51
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	6.17	3.83	4.52	6.84	3.52	3.78	2.68	2.42	2.65	5.32	1.27	1.32
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.78	0.73	0.74	0.76	0.67	0.68	0.38	0.53	0.53	0.69	0.39	0.39
d, Delay for Lane Group [s/veh]	36.18	32.62	33.38	37.85	33.19	33.48	35.04	16.58	16.81	36.40	12.78	12.84
Lane Group LOS	D	C	C	D	C	C	D	B	B	D	B	B
Critical Lane Group	No	No	Yes	Yes	No	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh]	2.91	3.20	2.99	2.29	2.44	2.40	0.58	4.83	4.47	1.91	3.21	3.11
50th-Percentile Queue Length [ft]	72.84	79.96	74.82	57.37	60.99	59.88	14.40	120.76	111.78	47.69	80.34	77.71
95th-Percentile Queue Length [veh]	5.24	5.76	5.39	4.13	4.39	4.31	1.04	8.43	7.94	3.43	5.78	5.59
95th-Percentile Queue Length [ft]	131.11	143.93	134.68	103.26	109.78	107.78	25.93	210.86	198.48	85.85	144.61	139.87

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	36.18	32.82	33.38	37.85	33.32	33.48	35.04	16.65	16.81	36.40	12.81	12.84
Movement LOS	D	C	C	D	C	C	D	B	B	D	B	B
d_A, Approach Delay [s/veh]	33.97			34.71			17.38			16.02		
Approach LOS	C			C			B			B		
d_I, Intersection Delay [s/veh]	23.14											
Intersection LOS	C											
Intersection V/C	0.617											

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 18: Date Palm Drive / Gerald Ford Drive

Control Type:	Signalized	Delay (sec / veh):	17.6
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.467

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	85.00	100.00	85.00	160.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			Yes			Yes			No		

Volumes

Name												
Base Volume Input [veh/h]	22	418	198	120	415	61	36	46	46	196	44	127
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	82	5	0	93	37	37	0	0	4	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	23	517	211	125	525	100	74	48	48	208	46	132
Peak Hour Factor	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	6	135	55	33	137	26	19	13	13	54	12	34
Total Analysis Volume [veh/h]	24	540	220	130	548	104	77	50	50	217	48	138
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	6 - N/S
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Split	Split	Split	Split	Split	Split
Signal group	5	2	0	1	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lag	-	-	Lag	-	-	-	-	-	-	-	-
Minimum Green [s]	7	7	0	7	7	0	0	7	0	0	7	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	11	11	0	19	19	0	0	11	0	0	19	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No	No		No	No			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	C	L	C	C	L	C	R
C, Cycle Length [s]	60	60	60	60	60	60	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	2	23	23	6	27	27	7	7	7	8	8	8
g / C, Green / Cycle	0.04	0.39	0.39	0.10	0.45	0.45	0.11	0.11	0.11	0.13	0.13	0.13
(v / s)_i Volume / Saturation Flow Rate	0.01	0.11	0.14	0.07	0.12	0.13	0.04	0.03	0.03	0.07	0.07	0.09
s, saturation flow rate [veh/h]	1774	5074	1583	1774	3547	1716	1774	1863	1583	1774	1805	1583
c, Capacity [veh/h]	73	1954	610	187	1594	772	197	207	176	236	240	210
d1, Uniform Delay [s]	28.10	12.75	13.23	26.03	10.42	10.44	24.90	24.47	24.59	24.49	24.49	24.84
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.59	0.35	1.66	4.58	0.43	0.90	1.26	0.60	0.87	2.06	2.02	3.45
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

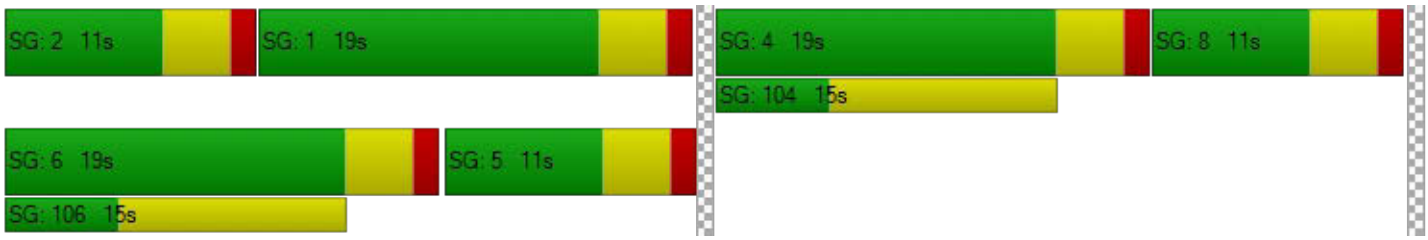
X, volume / capacity	0.33	0.28	0.36	0.69	0.27	0.28	0.39	0.24	0.28	0.56	0.56	0.66
d, Delay for Lane Group [s/veh]	30.69	13.10	14.89	30.62	10.84	11.34	26.15	25.07	25.47	26.55	26.51	28.29
Lane Group LOS	C	B	B	C	B	B	C	C	C	C	C	C
Critical Lane Group	No	No	Yes	Yes	No	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh]	0.36	1.46	2.05	1.87	1.55	1.63	1.00	0.63	0.64	1.72	1.75	1.89
50th-Percentile Queue Length [ft]	9.04	36.38	51.14	46.72	38.66	40.65	24.90	15.65	15.93	42.99	43.65	47.25
95th-Percentile Queue Length [veh]	0.65	2.62	3.68	3.36	2.78	2.93	1.79	1.13	1.15	3.10	3.14	3.40
95th-Percentile Queue Length [ft]	16.27	65.48	92.05	84.10	69.60	73.17	44.81	28.17	28.68	77.38	78.57	85.05

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	30.69	13.10	14.89	30.62	10.95	11.34	26.15	25.07	25.47	26.53	26.51	28.29
Movement LOS	C	B	B	C	B	B	C	C	C	C	C	C
d_A, Approach Delay [s/veh]	14.14			14.27			25.65			27.13		
Approach LOS	B			B			C			C		
d_I, Intersection Delay [s/veh]	17.58											
Intersection LOS	B											
Intersection V/C	0.467											

Sequence

Ring 1	1	2	4	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 19: Date Palm Drive / Dinah Shore Drive

Control Type:	Signalized	Delay (sec / veh):	20.5
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.545

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	2	0	1	2	0	1	1	0	0	1	0	1
Pocket Length [ft]	225.00	100.00	125.00	170.00	100.00	50.00	150.00	100.00	100.00	130.00	100.00	180.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			No		

Volumes

Name												
Base Volume Input [veh/h]	185	483	58	114	538	75	103	483	173	59	427	115
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	127	0	15	136	0	0	0	0	0	0	16
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	192	629	60	134	696	78	107	502	180	61	444	136
Peak Hour Factor	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	51	167	16	35	184	21	28	133	48	16	118	36
Total Analysis Volume [veh/h]	203	666	64	142	737	83	113	532	191	65	470	144
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	1 - E Palm Canyon Drive
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Overlap
Signal group	5	2	0	1	6	0	3	8	0	7	4	4
Auxiliary Signal Groups												1,4
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	7
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	30
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	1.0
Split [s]	11	19	0	11	19	0	11	19	0	11	19	19
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	5
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	10
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0
Minimum Recall	No	No		No	No		No	No		No	No	No
Maximum Recall	No	No		No	No		No	No		No	No	No
Pedestrian Recall	No	No		No	No		No	No		No	No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	60	60	60	60	60	60	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	0.00
g_i, Effective Green Time [s]	7	21	21	6	21	21	6	12	12	5	11	21
g / C, Green / Cycle	0.11	0.35	0.35	0.11	0.35	0.35	0.10	0.20	0.20	0.08	0.18	0.35
(v / s)_i Volume / Saturation Flow Rate	0.06	0.13	0.04	0.04	0.15	0.05	0.06	0.15	0.12	0.04	0.13	0.09
s, saturation flow rate [veh/h]	3445	5074	1583	3445	5074	1583	1774	3547	1583	1774	3547	1583
c, Capacity [veh/h]	393	1779	555	371	1746	545	179	698	312	142	622	553
d1, Uniform Delay [s]	25.15	14.64	13.25	25.04	15.18	13.69	26.02	22.88	22.12	26.50	23.63	14.04
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.05	0.60	0.42	0.65	0.75	0.59	3.62	1.76	1.96	2.31	1.89	0.25
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.52	0.37	0.12	0.38	0.42	0.15	0.63	0.76	0.61	0.46	0.76	0.26
d, Delay for Lane Group [s/veh]	26.20	15.24	13.68	25.69	15.93	14.28	29.64	24.64	24.08	28.81	25.52	14.28
Lane Group LOS	C	B	B	C	B	B	C	C	C	C	C	B
Critical Lane Group	Yes	No	No	No	Yes	No	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh]	1.30	2.01	0.56	0.89	2.31	0.76	1.59	3.33	2.36	0.90	2.99	1.23
50th-Percentile Queue Length [ft]	32.38	50.34	14.12	22.29	57.66	18.89	39.80	83.15	58.98	22.61	74.81	30.84
95th-Percentile Queue Length [veh]	2.33	3.62	1.02	1.60	4.15	1.36	2.87	5.99	4.25	1.63	5.39	2.22
95th-Percentile Queue Length [ft]	58.28	90.61	25.41	40.12	103.78	34.00	71.65	149.67	106.17	40.70	134.66	55.51

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	26.20	15.24	13.68	25.69	15.93	14.28	29.64	24.64	24.08	28.81	25.52	14.28
Movement LOS	C	B	B	C	B	B	C	C	C	C	C	B
d_A, Approach Delay [s/veh]	17.52			17.23			25.19			23.45		
Approach LOS	B			B			C			C		
d_I, Intersection Delay [s/veh]	20.50											
Intersection LOS	C											
Intersection V/C	0.545											

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	



Intersection Level Of Service Report
Intersection 20: Date Palm Drive / Ramon Road

Control Type:	Signalized	Delay (sec / veh):	31.4
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.787

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	215.00	100.00	80.00	180.00	100.00	100.00	350.00	100.00	100.00	230.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			No		

Volumes

Name												
Base Volume Input [veh/h]	215	474	82	221	460	139	193	684	133	104	610	117
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	14	76	53	79	84	24	23	113	14	53	113	79
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	238	569	138	309	562	169	224	824	152	161	747	201
Peak Hour Factor	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	63	151	37	82	149	45	59	218	40	43	198	53
Total Analysis Volume [veh/h]	252	603	146	327	595	179	237	873	161	171	791	213
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	7 - E/W
Cycle Length [s]	80
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	13	19	0	21	27	0	16	27	0	13	24	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	C	L	C	C
C, Cycle Length [s]	80	80	80	80	80	80	80	80	80	80	80	80
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	8	18	18	17	26	26	12	21	21	9	18	18
g / C, Green / Cycle	0.10	0.22	0.22	0.21	0.33	0.33	0.15	0.26	0.26	0.11	0.22	0.22
(v / s)_i Volume / Saturation Flow Rate	0.07	0.12	0.09	0.18	0.12	0.11	0.13	0.20	0.20	0.10	0.19	0.19
s, saturation flow rate [veh/h]	3445	5074	1583	1774	5074	1583	1774	3547	1718	1774	3547	1668
c, Capacity [veh/h]	340	1119	349	367	1668	520	267	922	447	201	790	372
d1, Uniform Delay [s]	35.16	27.65	26.84	30.94	20.48	20.38	33.41	27.33	27.33	34.91	30.00	30.02
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	3.20	1.86	3.65	7.55	0.60	1.80	9.68	1.28	2.63	9.69	2.96	6.16
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.74	0.54	0.42	0.89	0.36	0.34	0.89	0.75	0.76	0.85	0.86	0.87
d, Delay for Lane Group [s/veh]	38.36	29.52	30.50	38.49	21.08	22.18	43.09	28.61	29.97	44.59	32.96	36.19
Lane Group LOS	D	C	C	D	C	C	D	C	C	D	C	D
Critical Lane Group	No	Yes	No	Yes	No	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh]	2.43	3.39	2.61	6.51	2.70	2.60	4.98	5.84	5.84	3.64	6.21	6.20
50th-Percentile Queue Length [ft]	60.65	84.69	65.17	162.85	67.46	65.03	124.43	146.12	145.98	91.12	155.30	155.03
95th-Percentile Queue Length [veh]	4.37	6.10	4.69	10.70	4.86	4.68	8.64	9.81	9.80	6.56	10.30	10.28
95th-Percentile Queue Length [ft]	109.17	152.45	117.30	267.49	121.42	117.06	215.90	245.24	245.05	164.01	257.49	257.12

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	38.36	29.52	30.50	38.49	21.08	22.18	43.09	28.88	29.97	44.59	33.40	36.19
Movement LOS	D	C	C	D	C	C	D	C	C	D	C	D
d_A, Approach Delay [s/veh]	31.89			26.43			31.67			35.54		
Approach LOS	C			C			C			D		
d_I, Intersection Delay [s/veh]	31.45											
Intersection LOS	C											
Intersection V/C	0.787											

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 21: Da Vall Drive / Dinah Shore Drive

Control Type:	Signalized	Delay (sec / veh):	17.5
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.450

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	0	1	0	1	1	0	0
Pocket Length [ft]	120.00	100.00	120.00	130.00	100.00	100.00	175.00	100.00	215.00	185.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	127	128	47	52	160	41	43	448	134	50	469	59
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	2	0	0	0	0	15	0	2	16	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	132	133	51	54	166	43	45	481	139	54	504	61
Peak Hour Factor	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	35	35	13	14	44	11	12	127	37	14	133	16
Total Analysis Volume [veh/h]	139	140	54	57	175	45	47	507	146	57	531	64
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	6 - N/S
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	19	0	11	19	0	11	19	0	11	19	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	C	L	C	R	L	C	C
C, Cycle Length [s]	60	60	60	60	60	60	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	6	9	9	4	7	7	4	27	27	4	27	27
g / C, Green / Cycle	0.11	0.15	0.15	0.07	0.11	0.11	0.06	0.44	0.44	0.07	0.45	0.45
(v / s)_i Volume / Saturation Flow Rate	0.08	0.04	0.03	0.03	0.06	0.06	0.03	0.14	0.09	0.03	0.16	0.16
s, saturation flow rate [veh/h]	1774	3547	1583	1774	1863	1735	1774	3547	1583	1774	1863	1793
c, Capacity [veh/h]	190	521	233	132	212	198	116	1561	697	130	835	804
d1, Uniform Delay [s]	26.08	22.84	22.71	26.70	25.18	25.23	27.06	11.02	10.41	26.75	10.96	10.97
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	5.34	0.27	0.50	2.23	2.02	2.34	2.28	0.55	0.68	2.32	1.22	1.27
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.73	0.27	0.23	0.43	0.53	0.55	0.41	0.32	0.21	0.44	0.36	0.36
d, Delay for Lane Group [s/veh]	31.42	23.11	23.22	28.93	27.19	27.57	29.34	11.58	11.09	29.07	12.18	12.24
Lane Group LOS	C	C	C	C	C	C	C	B	B	C	B	B
Critical Lane Group	Yes	No	No	No	No	Yes	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh]	2.03	0.82	0.64	0.80	1.48	1.45	0.67	1.89	1.10	0.80	2.40	2.33
50th-Percentile Queue Length [ft]	50.77	20.38	16.07	19.93	37.12	36.25	16.67	47.33	27.41	19.99	59.99	58.31
95th-Percentile Queue Length [veh]	3.66	1.47	1.16	1.44	2.67	2.61	1.20	3.41	1.97	1.44	4.32	4.20
95th-Percentile Queue Length [ft]	91.39	36.68	28.92	35.88	66.82	65.24	30.01	85.20	49.34	35.99	107.98	104.96

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	31.42	23.11	23.22	28.93	27.33	27.57	29.34	11.58	11.09	29.07	12.20	12.24
Movement LOS	C	C	C	C	C	C	C	B	B	C	B	B
d_A, Approach Delay [s/veh]	26.60			27.70			12.67			13.68		
Approach LOS	C			C			B			B		
d_I, Intersection Delay [s/veh]	17.49											
Intersection LOS	B											
Intersection V/C	0.450											

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 22: Da Vall Drive / Gerald Ford Drive

Control Type:	Signalized	Delay (sec / veh):	22.0
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.388

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	200.00	100.00	175.00	140.00	100.00	100.00	175.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	94	178	44	73	199	50	30	285	97	34	245	90
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	2	0	0	2	0	0	5	0	0	4	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	98	187	46	76	209	52	31	301	101	35	259	94
Peak Hour Factor	0.9210	0.9210	0.9210	0.9210	0.9210	0.9210	0.9210	0.9210	0.9210	0.9210	0.9210	0.9210
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	27	51	12	21	57	14	8	82	27	10	70	26
Total Analysis Volume [veh/h]	106	203	50	83	227	56	34	327	110	38	281	102
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	6 - N/S
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	19	0	11	19	0	11	19	0	11	19	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	C	L	C	C	L	C	C
C, Cycle Length [s]	60	60	60	60	60	60	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	6	26	26	5	25	25	3	10	10	3	10	10
g / C, Green / Cycle	0.10	0.42	0.42	0.09	0.41	0.41	0.05	0.17	0.17	0.06	0.17	0.17
(v / s)_i Volume / Saturation Flow Rate	0.06	0.06	0.03	0.05	0.08	0.08	0.02	0.12	0.12	0.02	0.11	0.11
s, saturation flow rate [veh/h]	1774	3547	1583	1774	1863	1739	1774	1863	1706	1774	1863	1698
c, Capacity [veh/h]	175	1495	667	159	768	717	94	309	283	102	317	289
d1, Uniform Delay [s]	26.04	10.70	10.42	26.20	11.28	11.31	27.55	23.87	23.95	27.37	23.23	23.31
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	3.32	0.19	0.22	2.62	0.54	0.60	2.30	3.33	3.93	2.25	2.01	2.38
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.60	0.14	0.07	0.52	0.19	0.19	0.36	0.73	0.75	0.37	0.62	0.64
d, Delay for Lane Group [s/veh]	29.36	10.89	10.63	28.82	11.82	11.91	29.86	27.20	27.88	29.62	25.24	25.70
Lane Group LOS	C	B	B	C	B	B	C	C	C	C	C	C
Critical Lane Group	Yes	No	No	No	No	Yes	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh]	1.48	0.72	0.37	1.15	1.12	1.09	0.49	3.01	2.87	0.55	2.51	2.38
50th-Percentile Queue Length [ft]	37.12	17.90	9.13	28.78	28.11	27.21	12.34	75.24	71.74	13.66	62.68	59.62
95th-Percentile Queue Length [veh]	2.67	1.29	0.66	2.07	2.02	1.96	0.89	5.42	5.17	0.98	4.51	4.29
95th-Percentile Queue Length [ft]	66.82	32.22	16.43	51.80	50.61	48.98	22.22	135.43	129.13	24.59	112.82	107.31

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	29.36	10.89	10.63	28.82	11.85	11.91	29.86	27.41	27.88	29.62	25.38	25.70
Movement LOS	C	B	B	C	B	B	C	C	C	C	C	C
d_A, Approach Delay [s/veh]	16.31			15.71			27.70			25.84		
Approach LOS	B			B			C			C		
d_I, Intersection Delay [s/veh]	21.97											
Intersection LOS	C											
Intersection V/C	0.388											

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 23: East Palm Canyon Drive / Frank Sinatra Drive

Control Type:	Signalized	Delay (sec / veh):	20.0
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.753

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	1	1	0	0	2	0	1
Pocket Length [ft]	160.00	100.00	45.00	325.00	100.00	250.00	100.00	100.00	100.00	120.00	100.00	1200.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			No			Yes		

Volumes

Name												
Base Volume Input [veh/h]	47	1301	147	214	1244	33	34	18	13	141	24	199
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	122	2	0	126	5	5	0	0	2	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	49	1475	155	223	1420	39	40	19	14	149	25	207
Peak Hour Factor	0.9210	0.9210	0.9210	0.9210	0.9210	0.9210	0.9210	0.9210	0.9210	0.9210	0.9210	0.9210
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	13	400	42	61	385	11	11	5	4	40	7	56
Total Analysis Volume [veh/h]	53	1602	168	242	1542	42	43	21	15	162	27	225
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	6 - N/S
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Overlap	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Overlap
Signal group	5	2	2	1	6	0	3	8	0	7	4	4
Auxiliary Signal Groups			2									4
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	7	7	7	0	7	7	0	7	7	7
Maximum Green [s]	30	30	30	30	30	0	30	30	0	30	30	30
Amber [s]	3.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0
All red [s]	1.0	1.0	1.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	1.0
Split [s]	11	19	19	11	19	0	11	19	0	11	19	19
Vehicle Extension [s]	3.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0
Walk [s]	0	5	5	0	5	0	0	5	0	0	5	5
Pedestrian Clearance [s]	0	10	10	0	10	0	0	10	0	0	10	10
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0
Minimum Recall	No	No	No	No	No		No	No		No	No	No
Maximum Recall	No	No	No	No	No		No	No		No	No	No
Pedestrian Recall	No	No	No	No	No		No	No		No	No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	L	C	R
C, Cycle Length [s]	60	60	60	60	60	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	4	23	23	7	26	26	4	8	7	11	11
g / C, Green / Cycle	0.07	0.38	0.38	0.11	0.43	0.43	0.06	0.13	0.11	0.17	0.17
(v / s)_i Volume / Saturation Flow Rate	0.03	0.32	0.11	0.07	0.30	0.03	0.02	0.02	0.05	0.01	0.14
s, saturation flow rate [veh/h]	1774	5074	1583	3445	5074	1583	1774	1735	3445	1863	1583
c, Capacity [veh/h]	124	1939	605	397	2169	677	109	220	378	327	278
d1, Uniform Delay [s]	26.82	16.77	12.84	25.32	14.16	10.13	27.17	23.41	25.02	20.75	23.84
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.32	4.18	1.14	1.52	2.01	0.18	2.33	0.34	0.77	0.11	5.61
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.43	0.83	0.28	0.61	0.71	0.06	0.40	0.16	0.43	0.08	0.81
d, Delay for Lane Group [s/veh]	29.14	20.96	13.98	26.84	16.17	10.30	29.50	23.76	25.79	20.86	29.44
Lane Group LOS	C	C	B	C	B	B	C	C	C	C	C
Critical Lane Group	No	Yes	No	Yes	No	No	Yes	No	No	No	Yes
50th-Percentile Queue Length [veh]	0.75	6.18	1.50	1.57	4.97	0.30	0.61	0.43	1.02	0.30	3.17
50th-Percentile Queue Length [ft]	18.65	154.41	37.45	39.29	124.35	7.50	15.35	10.86	25.50	7.39	79.21
95th-Percentile Queue Length [veh]	1.34	10.25	2.70	2.83	8.63	0.54	1.11	0.78	1.84	0.53	5.70
95th-Percentile Queue Length [ft]	33.58	256.31	67.41	70.72	215.78	13.50	27.64	19.55	45.90	13.30	142.57

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	29.14	20.96	13.98	26.84	16.17	10.30	29.50	23.76	23.76	25.79	20.86	29.44
Movement LOS	C	C	B	C	B	B	C	C	C	C	C	C
d_A, Approach Delay [s/veh]	20.55			17.45			26.88			27.45		
Approach LOS	C			B			C			C		
d_I, Intersection Delay [s/veh]	19.99											
Intersection LOS	B											
Intersection V/C	0.753											

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 24: East Palm Canyon Drive / Mirage Cove Drive

Control Type:	Signalized	Delay (sec / veh):	8.1
Analysis Method:	HCM 2010	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.468

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	1	1	0	0
Pocket Length [ft]	150.00	100.00	100.00	110.00	100.00	100.00	75.00	100.00	75.00	75.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	40	1394	6	23	1334	43	39	0	21	4	0	23
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	84	0	40	79	9	7	0	0	0	0	33
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	42	1534	6	64	1466	54	48	0	22	4	0	57
Peak Hour Factor	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	11	402	2	17	384	14	13	0	6	1	0	15
Total Analysis Volume [veh/h]	44	1608	6	67	1537	57	50	0	23	4	0	60
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	6 - N/S
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	5	2	0	1	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	7	7	0	7	7	0	0	7	0	0	7	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	11	30	0	11	30	0	0	19	0	0	19	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No	No		No	No			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	L	C	R	L	C
C, Cycle Length [s]	60	60	60	60	60	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.00	0.00	2.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	4	38	38	5	39	39	5	5	5	5	5
g / C, Green / Cycle	0.06	0.63	0.63	0.08	0.65	0.65	0.09	0.09	0.09	0.09	0.09
(v / s)_i Volume / Saturation Flow Rate	0.02	0.30	0.30	0.04	0.30	0.30	0.04	0.00	0.01	0.00	0.04
s, saturation flow rate [veh/h]	1774	3547	1859	1774	3547	1829	1337	1863	1583	1412	1583
c, Capacity [veh/h]	112	2240	1174	143	2303	1187	153	165	140	205	140
d1, Uniform Delay [s]	27.09	5.82	5.82	26.42	5.26	5.26	29.59	0.00	25.37	26.63	25.99
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.25	0.72	1.37	2.37	0.66	1.27	1.23	0.00	0.55	0.04	2.07
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

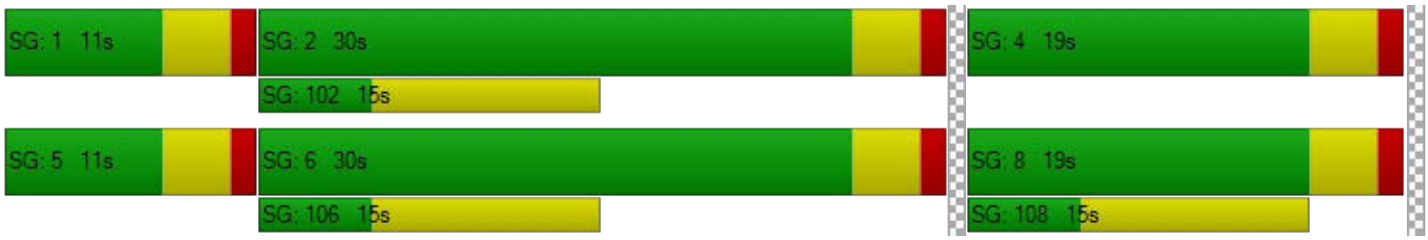
X, volume / capacity	0.39	0.47	0.47	0.47	0.46	0.46	0.33	0.00	0.16	0.02	0.43
d, Delay for Lane Group [s/veh]	29.33	6.54	7.19	28.79	5.91	6.53	30.82	0.00	25.92	26.67	28.06
Lane Group LOS	C	A	A	C	A	A	C	A	C	C	C
Critical Lane Group	No	No	Yes	Yes	No	No	No	No	No	No	Yes
50th-Percentile Queue Length [veh]	0.63	2.33	2.65	0.93	2.07	2.34	0.73	0.00	0.30	0.05	0.82
50th-Percentile Queue Length [ft]	15.64	58.14	66.24	23.28	51.72	58.42	18.13	0.00	7.47	1.29	20.55
95th-Percentile Queue Length [veh]	1.13	4.19	4.77	1.68	3.72	4.21	1.31	0.00	0.54	0.09	1.48
95th-Percentile Queue Length [ft]	28.15	104.64	119.23	41.91	93.10	105.16	32.63	0.00	13.44	2.33	37.00

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	29.33	6.76	7.19	28.79	6.11	6.53	30.82	0.00	25.92	26.67	28.06	28.06
Movement LOS	C	A	A	C	A	A	C	A	C	C	C	C
d_A, Approach Delay [s/veh]	7.36			7.04			29.28			27.97		
Approach LOS	A			A			C			C		
d_I, Intersection Delay [s/veh]	8.05											
Intersection LOS	A											
Intersection V/C	0.468											

Sequence

Ring 1	1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 25: East Palm Canyon Drive / Country Club Drive

Control Type:	Signalized	Delay (sec / veh):	18.8
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.503

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	2	0	0	1	0	0	1	0	0
Pocket Length [ft]	160.00	100.00	45.00	190.00	100.00	100.00	30.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			Yes			Yes			No		

Volumes

Name												
Base Volume Input [veh/h]	6	1285	78	134	1246	8	4	4	5	84	4	146
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	76	0	0	70	9	8	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	6	1412	81	139	1366	17	12	4	5	87	4	152
Peak Hour Factor	0.9380	0.9380	0.9380	0.9380	0.9380	0.9380	0.9380	0.9380	0.9380	0.9380	0.9380	0.9380
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	376	22	37	364	5	3	1	1	23	1	41
Total Analysis Volume [veh/h]	6	1505	86	148	1456	18	13	4	5	93	4	162
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	6 - N/S
Cycle Length [s]	70
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Protecte	Permiss	Overlap	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	5	2	2	1	6	0	0	8	0	0	4	0
Auxiliary Signal Groups			1,2,4,5,									
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	7	7	7	7	7	0	0	7	0	0	7	0
Maximum Green [s]	30	30	30	30	30	0	0	30	0	0	30	0
Amber [s]	3.0	3.0	3.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	1.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	11	40	40	11	40	0	0	19	0	0	19	0
Vehicle Extension [s]	3.0	3.0	3.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	5	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	10	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	2.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	2.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No	No	No	No	No			No			No	
Maximum Recall	No	No	No	No	No			No			No	
Pedestrian Recall	No	No	No	No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	C	L	C	L	C	R
C, Cycle Length [s]	70	70	70	70	70	70	70	70	70	70	70
L, Total Lost Time per Cycle [s]	4.00	4.00	0.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	2.00	0.00	0.00	2.00	0.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	6	27	120	7	28	28	24	24	24	24	24
g / C, Green / Cycle	0.08	0.39	1.71	0.10	0.40	0.40	0.34	0.34	0.34	0.34	0.34
(v / s)_i Volume / Saturation Flow Rate	0.00	0.30	0.05	0.05	0.27	0.27	0.01	0.01	0.07	0.05	0.05
s, saturation flow rate [veh/h]	1774	5074	1583	2741	3547	1851	1215	1696	1400	1595	1583
c, Capacity [veh/h]	149	1958	2715	298	1420	741	445	584	543	549	545
d1, Uniform Delay [s]	29.49	18.78	0.00	31.94	17.33	17.33	18.28	15.14	17.64	15.89	15.89
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.11	0.66	0.00	1.28	0.58	1.12	0.12	0.05	0.68	0.59	0.59
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.04	0.77	0.03	0.50	0.68	0.68	0.03	0.02	0.17	0.15	0.15
d, Delay for Lane Group [s/veh]	29.60	19.44	0.00	33.23	17.91	18.44	18.40	15.19	18.33	16.48	16.48
Lane Group LOS	C	B	A	C	B	B	B	B	B	B	B
Critical Lane Group	No	Yes	No	Yes	No	No	No	No	Yes	No	No
50th-Percentile Queue Length [veh]	0.09	6.26	0.00	1.20	5.65	6.01	0.16	0.09	1.10	0.92	0.91
50th-Percentile Queue Length [ft]	2.29	156.55	0.09	30.10	141.28	150.23	3.88	2.33	27.52	22.93	22.82
95th-Percentile Queue Length [veh]	0.17	10.37	0.01	2.17	9.55	10.03	0.28	0.17	1.98	1.65	1.64
95th-Percentile Queue Length [ft]	4.13	259.15	0.16	54.19	238.74	250.73	6.98	4.19	49.53	41.28	41.07

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	29.60	19.44	0.00	33.23	18.09	18.44	18.40	15.19	15.19	18.33	16.48	16.48
Movement LOS	C	B	A	C	B	B	B	B	B	B	B	B
d_A, Approach Delay [s/veh]	18.43			19.47			17.09			17.15		
Approach LOS	B			B			B			B		
d_I, Intersection Delay [s/veh]	18.81											
Intersection LOS	B											
Intersection V/C	0.503											

Sequence

Ring 1	1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 26: Thompson Road-Morningside Drive / Frank Sinatra Drive

Control Type:	Signalized	Delay (sec / veh):	6.4
Analysis Method:	HCM 2010	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.377

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	150.00	100.00	100.00	90.00	100.00	100.00	90.00	100.00	100.00	130.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	85	16	30	19	36	13	12	459	227	63	457	18
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	88	17	31	20	37	14	12	477	236	66	475	19
Peak Hour Factor	0.8230	0.8230	0.8230	0.8230	0.8230	0.8230	0.8230	0.8230	0.8230	0.8230	0.8230	0.8230
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	27	5	9	6	11	4	4	145	72	20	144	6
Total Analysis Volume [veh/h]	107	21	38	24	45	17	15	580	287	80	577	23
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	7 - E/W
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	0	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	7	0	0	7	0	0	7	0	0	7	0
Maximum Green [s]	0	30	0	0	30	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	21	0	0	21	0	0	39	0	0	39	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No			No			No			No	
Maximum Recall		No			No			No			No	
Pedestrian Recall		No			No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	C	L	C	C	L	C	C
C, Cycle Length [s]	60	60	60	60	60	60	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	0.00	2.00	0.00	0.00	2.00	0.00	0.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	8	8	8	8	8	8	44	44	44	44	44	44
g / C, Green / Cycle	0.13	0.13	0.13	0.13	0.13	0.13	0.74	0.74	0.74	0.74	0.74	0.74
(v / s)_i Volume / Saturation Flow Rate	0.08	0.01	0.02	0.02	0.02	0.02	0.02	0.25	0.25	0.13	0.16	0.16
s, saturation flow rate [veh/h]	1335	1863	1583	1385	1863	1697	815	1863	1657	636	1863	1838
c, Capacity [veh/h]	263	239	203	275	239	218	628	1376	1225	489	1376	1358
d1, Uniform Delay [s]	26.08	23.15	23.45	24.16	23.28	23.31	4.36	2.72	2.73	6.03	2.45	2.45
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.01	0.16	0.44	0.14	0.24	0.29	0.07	0.65	0.73	0.72	0.37	0.37
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.41	0.09	0.19	0.09	0.13	0.14	0.02	0.33	0.33	0.16	0.22	0.22
d, Delay for Lane Group [s/veh]	27.09	23.31	23.89	24.29	23.53	23.61	4.43	3.38	3.46	6.75	2.82	2.82
Lane Group LOS	C	C	C	C	C	C	A	A	A	A	A	A
Critical Lane Group	Yes	No	No	No	No	No	No	No	Yes	No	No	No
50th-Percentile Queue Length [veh]	1.42	0.25	0.46	0.29	0.37	0.37	0.06	0.87	0.80	0.43	0.51	0.50
50th-Percentile Queue Length [ft]	35.50	6.22	11.55	7.28	9.33	9.23	1.44	21.78	20.09	10.80	12.71	12.61
95th-Percentile Queue Length [veh]	2.56	0.45	0.83	0.52	0.67	0.66	0.10	1.57	1.45	0.78	0.92	0.91
95th-Percentile Queue Length [ft]	63.90	11.20	20.79	13.10	16.79	16.62	2.59	39.20	36.16	19.44	22.88	22.69

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	27.09	23.31	23.89	24.29	23.55	23.61	4.43	3.39	3.46	6.75	2.82	2.82
Movement LOS	C	C	C	C	C	C	A	A	A	A	A	A
d_A, Approach Delay [s/veh]	25.88			23.77			3.43			3.28		
Approach LOS	C			C			A			A		
d_I, Intersection Delay [s/veh]	6.40											
Intersection LOS	A											
Intersection V/C	0.377											

Sequence

Ring 1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 27: Van Fleet Street / B Street-West Project Driveway

Control Type:	Two-way stop	Delay (sec / veh):	9.9
Analysis Method:	HCM 2010	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	1	41	0	0	50	15	5	0	3	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	1	43	0	0	52	16	5	0	3	0	0	0
Peak Hour Factor	0.7570	0.7570	0.7570	0.7570	0.7570	0.7570	0.7570	0.7570	0.7570	0.7570	0.7570	0.7570
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	14	0	0	17	5	2	0	1	0	0	0
Total Analysis Volume [veh/h]	1	57	0	0	69	21	7	0	4	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	7.39	0.00	0.00	7.33	0.00	0.00	9.38	9.84	8.72	9.36	9.85	8.57
Movement LOS	A	A	A	A	A	A	A	A	A	A	A	A
95th-Percentile Queue Length [veh]	0.12	0.12	0.12	0.00	0.00	0.00	0.04	0.04	0.04	0.00	0.00	0.00
95th-Percentile Queue Length [ft]	3.00	3.00	3.00	0.00	0.00	0.00	0.95	0.95	0.95	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	0.13			0.00			9.14			9.26		
Approach LOS	A			A			A			A		
d_I, Intersection Delay [s/veh]	0.68											
Intersection LOS	A											

Intersection Level Of Service Report
Intersection 28: Van Fleet Street / D Street

Control Type:	Two-way stop	Delay (sec / veh):	9.7
Analysis Method:	HCM 2010	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.008

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	1	32	2	4	42	5	3	5	2	2	1	2
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	1	33	2	4	44	5	3	5	2	2	1	2
Peak Hour Factor	0.8710	0.8710	0.8710	0.8710	0.8710	0.8710	0.8710	0.8710	0.8710	0.8710	0.8710	0.8710
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	9	1	1	13	1	1	1	1	1	0	1
Total Analysis Volume [veh/h]	1	38	2	5	51	6	3	6	2	2	1	2
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	7.33	0.00	0.00	7.30	0.00	0.00	9.21	9.67	8.61	9.21	9.64	8.51
Movement LOS	A	A	A	A	A	A	A	A	A	A	A	A
95th-Percentile Queue Length [veh]	0.08	0.08	0.08	0.12	0.12	0.12	0.04	0.04	0.04	0.02	0.02	0.02
95th-Percentile Queue Length [ft]	2.04	2.04	2.04	3.08	3.08	3.08	1.00	1.00	1.00	0.42	0.42	0.42
d_A, Approach Delay [s/veh]	0.18			0.59			9.35			9.02		
Approach LOS	A			A			A			A		
d_I, Intersection Delay [s/veh]	1.61											
Intersection LOS	A											

Intersection Level Of Service Report
Intersection 29: South Project Driveway / D Street

Control Type:	Two-way stop	Delay (sec / veh):	8.6
Analysis Method:	HCM 2010	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

Intersection Setup

Name						
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00		40.00		40.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name						
Base Volume Input [veh/h]	0	0	0	5	9	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	5	9	0
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	1	2	0
Total Analysis Volume [veh/h]	0	0	0	5	10	0
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	8.59	8.36	7.24	0.00	0.00	0.00
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	8.47		0.00		0.00	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	0.00					
Intersection LOS	A					

Opening Year Conditions
Alternative A

Traffic Impact Analysis

Vistro File: G:\...\EACP Alt A.vistro
Report File: G:\...\EACP PM ALT A.pdf

Scenario 6 EACP PM ALT A
7/28/2018

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	North Project Driveway 1 / Buddy Rogers Avenue	Two-way stop	HCM 2010	SB Left	0.000	12.0	B
2	Date Palm Drive / Buddy Rogers Avenue	Two-way stop	HCM 2010	EB Left	0.601	55.6	F
3	Date Palm Drive / East Palm Canyon Drive	Signalized	HCM 2010	SB Right	0.741	12.0	B
4	South Project Driveway-Allen Avenue / East Palm Canyon Drive	Signalized	HCM 2010	SB Right	0.550	3.9	A
5	Monty Hall Drive-Van Fleet Avenue / East Palm Canyon Drive	Signalized	HCM 2010	WB Left	0.661	11.0	B
6	Date Palm Drive / East Palm Drive	Two-way stop	HCM 2010	EB Right	0.000	11.6	B
7	North Project Driveway 2 / Buddy Rogers Avenue	Two-way stop	HCM 2010	NB Left	0.000	10.0	B
8	Monty Hall Drive / Buddy Rogers Avenue	All-way stop	HCM 2010	WB Left	0.104	7.6	A
9	Buddy Rogers Avenue/ East Palm Canyon Drive	Signalized	HCM 2010	NB Right	0.533	3.5	A
10	Cathedral Canyon Drive / East Palm Canyon Drive	Signalized	HCM 2010	EB Left	0.682	16.7	B
11	Perez Road / East Palm Canyon Drive	Signalized	HCM 2010	WB Left	0.767	23.0	C
12	Canyon Plaza Drive / East Palm Canyon Drive	Signalized	HCM 2010	WB Left	0.609	10.9	B
14	Cathedral Canyon Drive / Officer David Vasquez Road	Signalized	HCM 2010	SB Left	0.245	4.7	A
15	Cathedral Canyon Drive / Perez Road	Signalized	HCM 2010	SB Left	0.603	25.8	C
16	Cathedral Canyon Drive / Paseo Real	Two-way stop	HCM 2010	WB Thru	0.034	50.4	F
17	Cathedral Canyon Drive / Dinah Shore Drive	Signalized	HCM 2010	SB Left	0.811	29.8	C

18	Date Palm Drive / Gerald Ford Drive	Signalized	HCM 2010	NB Left	0.620	18.3	B
19	Date Palm Drive / Dinah Shore Drive	Signalized	HCM 2010	EB Left	0.650	24.1	C
23	East Palm Canyon Drive / Frank Sinatra Drive	Signalized	HCM 2010	EB Left	0.630	25.6	C
24	East Palm Canyon Drive / Mirage Cove Drive	Signalized	HCM 2010	NB Left	0.468	19.3	B

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. for all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report
Intersection 1: North Project Driveway 1 / Buddy Rogers Avenue

Control Type:	Two-way stop	Delay (sec / veh):	12.0
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			No			No		

Volumes

Name												
Base Volume Input [veh/h]	0	0	0	0	0	0	0	29	0	0	31	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	39	0	99	0	0	0	0	0	38	95	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	39	0	99	0	0	0	0	30	38	95	32	0
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	11	0	27	0	0	0	0	8	10	26	9	0
Total Analysis Volume [veh/h]	42	0	108	0	0	0	0	33	41	103	35	0
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	No	No		
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	No	No		
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.07	0.00	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.07	0.00	0.00
d_M, Delay for Movement [s/veh]	11.19	11.69	8.97	12.02	11.44	8.47	7.28	0.00	0.00	7.53	0.00	0.00
Movement LOS	B	B	A	B	B	A	A	A	A	A	A	A
95th-Percentile Queue Length [veh]	0.22	0.36	0.36	0.00	0.00	0.00	0.00	0.00	0.00	0.30	0.30	0.30
95th-Percentile Queue Length [ft]	5.40	8.91	8.91	0.00	0.00	0.00	0.00	0.00	0.00	7.45	7.45	7.45
d_A, Approach Delay [s/veh]	9.60			10.64			0.00			5.62		
Approach LOS	A			B			A			A		
d_I, Intersection Delay [s/veh]	6.12											
Intersection LOS	B											

Intersection Level Of Service Report
Intersection 2: Date Palm Drive / Buddy Rogers Avenue

Control Type:	Two-way stop	Delay (sec / veh):	55.6
Analysis Method:	HCM 2010	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.601

Intersection Setup

Name						
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	0	0	0
Pocket Length [ft]	150.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00		40.00		40.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

Volumes

Name						
Base Volume Input [veh/h]	4	671	533	27	23	6
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	2.97	1.04	1.04	2.97	1.33	1.33
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	29	54	66	66	69	30
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	41	752	620	146	100	38
Peak Hour Factor	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	11	196	162	38	26	10
Total Analysis Volume [veh/h]	43	785	647	152	104	40
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.09	0.01	0.01	0.00	0.60	0.08
d_M, Delay for Movement [s/veh]	13.07	0.00	0.00	0.00	55.55	41.77
Movement LOS	B	A	A	A	F	E
95th-Percentile Queue Length [veh]	0.29	0.00	0.00	0.00	4.24	4.24
95th-Percentile Queue Length [ft]	7.20	0.00	0.00	0.00	105.89	105.89
d_A, Approach Delay [s/veh]	0.68		0.00		51.73	
Approach LOS	A		A		F	
d_I, Intersection Delay [s/veh]	4.52					
Intersection LOS	F					

Intersection Level Of Service Report
Intersection 3: Date Palm Drive / East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	12.0
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.741

Intersection Setup

Name						
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	1	2	0	0	0
Pocket Length [ft]	230.00	230.00	195.00	100.00	100.00	100.00
Speed [mph]	40.00		40.00		40.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		Yes		No	

Volumes

Name						
Base Volume Input [veh/h]	409	118	143	1125	1247	472
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	50	46	37	88	89	45
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	475	169	186	1258	1386	536
Peak Hour Factor	0.9560	0.9560	0.9560	0.9560	0.9560	0.9560
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	124	44	49	329	362	140
Total Analysis Volume [veh/h]	497	177	195	1316	1450	561
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	1 - E Palm Canyon Drive
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Split	Split	ProtectedPermissi	Permissive	Permissive	Overlap
Signal group	1	0	3	8	4	4
Auxiliary Signal Groups						3,4
Lead / Lag	Lead	-	Lead	-	-	-
Minimum Green [s]	7	0	7	7	7	7
Maximum Green [s]	30	0	7	30	30	30
Amber [s]	3.0	0.0	3.0	3.0	3.0	3.0
All red [s]	1.0	0.0	1.0	1.0	1.0	1.0
Split [s]	22	0	11	38	27	27
Vehicle Extension [s]	3.0	0.0	3.0	3.0	3.0	3.0
Walk [s]	5	0	0	5	5	5
Pedestrian Clearance [s]	10	0	0	10	10	10
Rest In Walk	No			No	No	
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0
Minimum Recall	No		Yes	No	No	No
Maximum Recall	No		No	No	No	No
Pedestrian Recall	No		No	No	No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	R	L	C	C	R
C, Cycle Length [s]	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	2.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	0.00	2.00	2.00	0.00
g_i, Effective Green Time [s]	10	10	42	42	25	42
g / C, Green / Cycle	0.16	0.16	0.70	0.70	0.41	0.70
(v / s)_i Volume / Saturation Flow Rate	0.10	0.11	0.27	0.26	0.29	0.35
s, saturation flow rate [veh/h]	5168	1583	710	5074	5074	1583
c, Capacity [veh/h]	851	261	444	3562	2112	1111
d1, Uniform Delay [s]	23.16	23.57	9.20	3.60	14.32	4.13
k, delay calibration	0.11	0.11	0.11	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.64	3.09	0.69	0.30	1.84	1.64
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

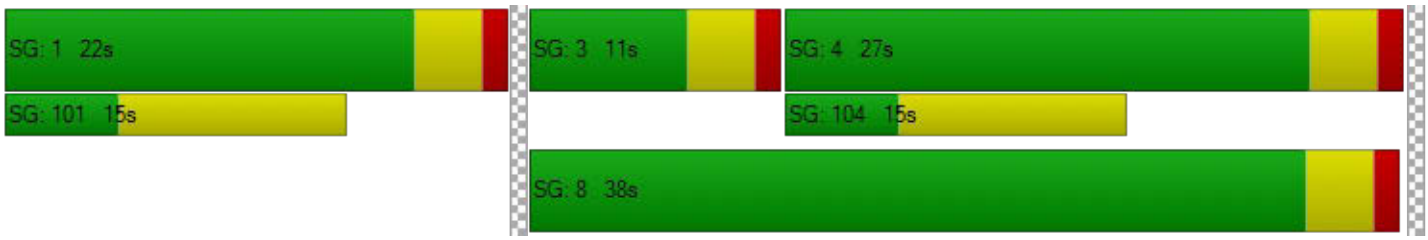
X, volume / capacity	0.58	0.68	0.44	0.37	0.69	0.50
d, Delay for Lane Group [s/veh]	23.80	26.65	9.89	3.89	16.16	5.76
Lane Group LOS	C	C	A	A	B	A
Critical Lane Group	No	Yes	No	No	Yes	Yes
50th-Percentile Queue Length [veh]	1.99	2.33	0.56	1.06	4.70	1.92
50th-Percentile Queue Length [ft]	49.76	58.32	13.90	26.56	117.62	48.03
95th-Percentile Queue Length [veh]	3.58	4.20	1.00	1.91	8.26	3.46
95th-Percentile Queue Length [ft]	89.57	104.98	25.02	47.81	206.56	86.45

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	23.80	26.65	9.89	3.89	16.16	5.76
Movement LOS	C	C	A	A	B	A
d_A, Approach Delay [s/veh]	24.55		4.67		13.26	
Approach LOS	C		A		B	
d_I, Intersection Delay [s/veh]	11.98					
Intersection LOS	B					
Intersection V/C	0.741					

Sequence

Ring 1	1	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 4: South Project Driveway-Allen Avenue / East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	3.9
Analysis Method:	HCM 2010	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.550

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	1	0	1	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	95.00	100.00	185.00	135.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	0	0	0	0	0	1	4	1262	0	0	1341	11
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	23	0	70	66	103	0	0	113	22
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	23	0	71	70	1415	0	0	1508	33
Peak Hour Factor	0.9120	0.9120	0.9120	0.9120	0.9120	0.9120	0.9120	0.9120	0.9120	0.9120	0.9120	0.9120
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	6	0	19	19	388	0	0	413	9
Total Analysis Volume [veh/h]	0	0	0	25	0	78	77	1552	0	0	1654	36
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	1 - E Palm Canyon Drive
Cycle Length [s]	70
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	0	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	7	0	0	7	0	0	7	0	0	7	0
Maximum Green [s]	0	30	0	0	30	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	19	0	0	19	0	0	51	0	0	51	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No			No			No			No	
Maximum Recall		No			No			No			No	
Pedestrian Recall		No			No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	L	C	L	C	R	L	C	R
C, Cycle Length [s]	70	70	70	70	70	70	70	70	70
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	2.00	0.00	2.00	0.00	0.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	6	6	6	56	56	56	56	56	56
g / C, Green / Cycle	0.09	0.09	0.09	0.80	0.80	0.80	0.80	0.80	0.80
(v / s)_i Volume / Saturation Flow Rate	0.00	0.02	0.05	0.26	0.44	0.00	0.00	0.33	0.02
s, saturation flow rate [veh/h]	1613	1412	1583	300	3547	1583	331	5074	1583
c, Capacity [veh/h]	193	192	139	302	2830	1263	302	4049	1263
d1, Uniform Delay [s]	0.00	31.25	30.63	5.36	2.54	0.00	0.00	2.12	1.46
k, delay calibration	0.11	0.11	0.11	0.50	0.50	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.00	0.30	3.51	2.03	0.77	0.00	0.00	0.31	0.04
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

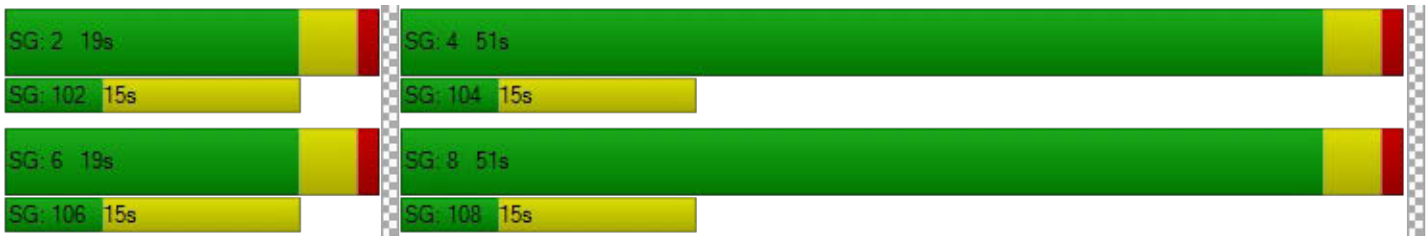
X, volume / capacity	0.00	0.13	0.56	0.26	0.55	0.00	0.00	0.41	0.03
d, Delay for Lane Group [s/veh]	0.00	31.55	34.14	7.39	3.31	0.00	0.00	2.43	1.50
Lane Group LOS	A	C	C	A	A	A	A	A	A
Critical Lane Group	No	No	Yes	No	Yes	No	No	No	No
50th-Percentile Queue Length [veh]	0.00	0.39	1.32	0.50	1.10	0.00	0.00	0.59	0.04
50th-Percentile Queue Length [ft]	0.00	9.87	32.95	12.57	27.54	0.00	0.00	14.72	0.90
95th-Percentile Queue Length [veh]	0.00	0.71	2.37	0.91	1.98	0.00	0.00	1.06	0.06
95th-Percentile Queue Length [ft]	0.00	17.77	59.30	22.63	49.58	0.00	0.00	26.50	1.62

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	31.55	34.14	34.14	7.39	3.31	0.00	0.00	2.43	1.50
Movement LOS	A	A	A	C	C	C	A	A	A	A	A	A
d_A, Approach Delay [s/veh]	0.00			33.51			3.50			2.41		
Approach LOS	A			C			A			A		
d_I, Intersection Delay [s/veh]	3.87											
Intersection LOS	A											
Intersection V/C	0.550											

Sequence

Ring 1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 5: Monty Hall Drive-Van Fleet Avenue / East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	11.0
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.661

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	1	0	1	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	45.00	100.00	100.00	105.00	100.00	130.00	125.00	100.00	180.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	11	7	55	12	6	12	6	1211	9	92	1276	16
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	13	0	0	39	38	156	0	14	169	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	11	7	70	12	6	51	44	1415	9	110	1496	17
Peak Hour Factor	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	2	18	3	2	13	12	371	2	29	392	4
Total Analysis Volume [veh/h]	12	7	73	13	6	53	46	1483	9	115	1568	18
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	1 - E Palm Canyon Drive
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	0	7	7	0	7	7	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	19	0	0	19	0	11	30	0	11	30	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	R	L	C	L	C	R	L	C	R
C, Cycle Length [s]	60	60	60	60	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	6	6	6	6	4	37	37	6	39	39
g / C, Green / Cycle	0.09	0.09	0.09	0.09	0.06	0.61	0.61	0.10	0.64	0.64
(v / s)_i Volume / Saturation Flow Rate	0.02	0.05	0.01	0.04	0.03	0.42	0.01	0.06	0.44	0.01
s, saturation flow rate [veh/h]	870	1583	1403	1608	1774	3547	1583	1774	3547	1583
c, Capacity [veh/h]	179	148	140	150	114	2150	960	179	2279	1017
d1, Uniform Delay [s]	25.03	25.91	29.49	25.66	27.03	8.01	4.69	26.02	6.89	3.89
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.26	2.52	0.28	1.66	2.27	1.84	0.02	3.84	1.72	0.03
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.11	0.49	0.09	0.39	0.40	0.69	0.01	0.64	0.69	0.02
d, Delay for Lane Group [s/veh]	25.29	28.43	29.78	27.32	29.29	9.85	4.71	29.86	8.61	3.92
Lane Group LOS	C	C	C	C	C	A	A	C	A	A
Critical Lane Group	No	Yes	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh]	0.24	1.01	0.18	0.79	0.65	4.64	0.03	1.63	4.20	0.06
50th-Percentile Queue Length [ft]	5.99	25.18	4.58	19.81	16.31	116.04	0.85	40.68	105.00	1.41
95th-Percentile Queue Length [veh]	0.43	1.81	0.33	1.43	1.17	8.18	0.06	2.93	7.56	0.10
95th-Percentile Queue Length [ft]	10.78	45.33	8.25	35.66	29.36	204.38	1.52	73.22	189.01	2.54

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	25.29	25.29	28.43	29.78	27.32	27.32	29.29	9.85	4.71	29.86	8.61	3.92
Movement LOS	C	C	C	C	C	C	C	A	A	C	A	A
d_A, Approach Delay [s/veh]	27.78			27.76			10.40			10.00		
Approach LOS	C			C			B			A		
d_I, Intersection Delay [s/veh]	11.04											
Intersection LOS	B											
Intersection V/C	0.661											

Sequence

Ring 1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 6: Date Palm Drive / East Palm Drive

Control Type:	Two-way stop	Delay (sec / veh):	11.6
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

Intersection Setup

Name						
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00		40.00		40.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

Volumes

Name						
Base Volume Input [veh/h]	0	8	539	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	83	96	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	91	657	0	0	0
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	25	179	0	0	0
Total Analysis Volume [veh/h]	0	99	714	0	0	0
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.01	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	0.00	0.00	11.59
Movement LOS		A	A	A		B
95th-Percentile Queue Length [veh]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	0.00		0.00		11.59	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	0.00					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 7: North Project Driveway 2 / Buddy Rogers Avenue

Control Type:	Two-way stop	Delay (sec / veh):	10.0
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

Intersection Setup

Name						
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00		40.00		40.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name						
Base Volume Input [veh/h]	0	0	29	0	0	31
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.00	1.00	1.04	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	99	0	0	95
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	128	0	0	126
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	35	0	0	34
Total Analysis Volume [veh/h]	0	0	139	0	0	137
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	10.04	8.96	0.00	0.00	7.49	0.00
Movement LOS	B	A	A	A	A	A
95th-Percentile Queue Length [veh]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	9.50		0.00		0.00	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	0.00					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 8: Monty Hall Drive / Buddy Rogers Avenue

Control Type:	All-way stop	Delay (sec / veh):	7.6
Analysis Method:	HCM 2010	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.104

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			No			No		

Volumes

Name												
Base Volume Input [veh/h]	13	7	3	23	12	0	4	15	21	9	11	5
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	38	0	0	0	0	0	0	39	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	14	7	41	24	12	0	4	16	22	48	11	5
Peak Hour Factor	0.7500	0.7500	0.7500	0.7500	0.7500	0.7500	0.7500	0.7500	0.7500	0.7500	0.7500	0.7500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	5	2	14	8	4	0	1	5	7	16	4	2
Total Analysis Volume [veh/h]	19	9	55	32	16	0	5	21	29	64	15	7
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	913	808	898	824
Degree of Utilization, x	0.09	0.06	0.06	0.10

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.30	0.19	0.20	0.35
95th-Percentile Queue Length [ft]	7.48	4.73	4.88	8.71
Approach Delay [s/veh]	7.34	7.74	7.27	7.88
Approach LOS	A	A	A	A
Intersection Delay [s/veh]	7.57			
Intersection LOS	A			

Intersection Level Of Service Report

Intersection 9: Buddy Rogers Avenue/ East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	3.5
Analysis Method:	HCM 2010	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.533

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	13	2	28	10	5	22	23	1186	3	42	1227	15
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	194	0	0	208	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	14	2	29	10	5	23	24	1427	3	44	1484	16
Peak Hour Factor	0.9310	0.9310	0.9310	0.9310	0.9310	0.9310	0.9310	0.9310	0.9310	0.9310	0.9310	0.9310
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	1	8	3	1	6	6	383	1	12	398	4
Total Analysis Volume [veh/h]	15	2	31	11	5	25	26	1533	3	47	1594	17
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	1 - E Palm Canyon Drive
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	7	0	0	7	0	0	7	0	0	7	0
Maximum Green [s]	0	30	0	0	30	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	19	0	0	19	0	0	101	0	0	101	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No			No			No			No	
Maximum Recall		No			No			No			No	
Pedestrian Recall		No			No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	C	L	C	R	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	2.00	2.00	0.00	0.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	6	6	106	106	106	106	106	106
g / C, Green / Cycle	0.05	0.05	0.89	0.89	0.89	0.89	0.89	0.89
(v / s)_i Volume / Saturation Flow Rate	0.03	0.03	0.08	0.43	0.00	0.14	0.45	0.01
s, saturation flow rate [veh/h]	1595	1626	318	3547	1583	338	3547	1583
c, Capacity [veh/h]	114	114	305	3144	1403	322	3144	1403
d1, Uniform Delay [s]	56.11	55.84	3.44	1.36	0.77	3.47	1.40	0.78
k, delay calibration	0.11	0.11	0.50	0.50	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.45	1.89	0.55	0.54	0.00	0.95	0.59	0.02
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.42	0.36	0.09	0.49	0.00	0.15	0.51	0.01
d, Delay for Lane Group [s/veh]	58.56	57.73	3.99	1.91	0.78	4.42	1.99	0.80
Lane Group LOS	E	E	A	A	A	A	A	A
Critical Lane Group	Yes	No	No	No	No	No	Yes	No
50th-Percentile Queue Length [veh]	1.48	1.26	0.17	0.83	0.00	0.31	0.89	0.01
50th-Percentile Queue Length [ft]	37.09	31.38	4.21	20.80	0.06	7.71	22.35	0.34
95th-Percentile Queue Length [veh]	2.67	2.26	0.30	1.50	0.00	0.56	1.61	0.02
95th-Percentile Queue Length [ft]	66.77	56.48	7.57	37.44	0.11	13.88	40.24	0.62

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	58.56	58.56	58.56	57.73	57.73	57.73	3.99	1.91	0.78	4.42	1.99	0.80
Movement LOS	E	E	E	E	E	E	A	A	A	A	A	A
d_A, Approach Delay [s/veh]	58.56			57.73			1.94			2.05		
Approach LOS	E			E			A			A		
d_I, Intersection Delay [s/veh]	3.51											
Intersection LOS	A											
Intersection V/C	0.533											

Sequence

Ring 1	2	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 10: Cathedral Canyon Drive / East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	16.7
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.682

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	0	1	0	0	1	0	1
Pocket Length [ft]	100.00	100.00	70.00	90.00	100.00	100.00	238.00	100.00	100.00	190.00	100.00	270.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	62	124	46	129	147	74	119	1056	74	66	998	157
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	2	0	17	45	0	15	9	132	4	22	140	46
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	66	129	65	179	153	92	133	1230	81	91	1178	209
Peak Hour Factor	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	17	34	17	47	40	24	35	321	21	24	307	54
Total Analysis Volume [veh/h]	69	135	68	187	160	96	139	1283	84	95	1228	218
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	1 - E Palm Canyon Drive
Cycle Length [s]	70
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Overlap	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	6	3	8	0	7	4	0
Auxiliary Signal Groups						3,6						
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	7	7	7	0	7	7	0
Maximum Green [s]	0	30	0	0	30	30	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	1.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	19	0	0	19	19	23	40	0	11	28	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	5	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	10	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No	No	No	No		No	No	
Maximum Recall		No			No	No	No	No		No	No	
Pedestrian Recall		No			No	No	No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	70	70	70	70	70	70	70	70	70	70	70	70
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	0.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	15	15	15	15	15	26	7	37	37	6	36	36
g / C, Green / Cycle	0.21	0.21	0.21	0.21	0.21	0.38	0.10	0.53	0.53	0.08	0.51	0.51
(v / s)_i Volume / Saturation Flow Rate	0.06	0.07	0.04	0.15	0.09	0.06	0.08	0.36	0.05	0.05	0.24	0.14
s, saturation flow rate [veh/h]	1221	1863	1583	1249	1863	1583	1774	3547	1583	1774	5074	1583
c, Capacity [veh/h]	244	401	341	263	401	598	188	1883	841	147	2579	805
d1, Uniform Delay [s]	29.08	23.32	22.61	31.23	23.67	14.47	30.47	12.11	8.16	31.20	11.21	9.85
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.62	0.49	0.28	3.52	0.64	0.12	5.64	2.02	0.24	4.65	0.63	0.83
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.28	0.34	0.20	0.71	0.40	0.16	0.74	0.68	0.10	0.64	0.48	0.27
d, Delay for Lane Group [s/veh]	29.70	23.82	22.89	34.75	24.31	14.59	36.11	14.13	8.40	35.85	11.84	10.68
Lane Group LOS	C	C	C	C	C	B	D	B	A	D	B	B
Critical Lane Group	No	No	No	Yes	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh]	1.06	1.80	0.88	3.26	2.16	0.92	2.42	6.37	0.57	1.65	3.51	1.76
50th-Percentile Queue Length [ft]	26.45	44.88	21.91	81.45	54.12	23.02	60.53	159.15	14.27	41.17	87.70	43.92
95th-Percentile Queue Length [veh]	1.90	3.23	1.58	5.86	3.90	1.66	4.36	10.50	1.03	2.96	6.31	3.16
95th-Percentile Queue Length [ft]	47.62	80.79	39.45	146.60	97.41	41.44	108.95	262.60	25.69	74.11	157.87	79.06

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	29.70	23.82	22.89	34.75	24.31	14.59	36.11	14.13	8.40	35.85	11.84	10.68
Movement LOS	C	C	C	C	C	B	D	B	A	D	B	B
d_A, Approach Delay [s/veh]	25.08			26.61			15.84			13.16		
Approach LOS	C			C			B			B		
d_I, Intersection Delay [s/veh]	16.68											
Intersection LOS	B											
Intersection V/C	0.682											

Sequence

Ring 1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 11: Perez Road / East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	23.0
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.767

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	150.00	100.00	100.00	170.00	100.00	45.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	34	24	15	19	8	347	269	1161	7	7	1128	12
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	2	0	0	0	0	143	0	2	155	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	35	25	18	20	8	361	280	1350	7	9	1328	12
Peak Hour Factor	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	9	7	5	5	2	95	74	357	2	2	351	3
Total Analysis Volume [veh/h]	37	26	19	21	8	382	296	1427	7	10	1404	13
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	0	7	7	0	7	7	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	19	0	0	20	0	11	40	0	11	40	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	R	L	C	C	L	C	R
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	6	6	14	14	14	10	53	53	2	44	44
g / C, Green / Cycle	0.07	0.07	0.15	0.15	0.15	0.11	0.58	0.58	0.02	0.49	0.49
(v / s)_i Volume / Saturation Flow Rate	0.02	0.03	0.01	0.12	0.12	0.09	0.27	0.27	0.01	0.40	0.01
s, saturation flow rate [veh/h]	1774	1734	1774	1593	1583	3445	3547	1858	1774	3547	1583
c, Capacity [veh/h]	122	119	269	242	240	386	2069	1084	33	1737	776
d1, Uniform Delay [s]	39.92	40.13	32.83	36.98	36.98	38.89	10.66	10.66	43.67	19.43	11.83
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.37	1.95	0.12	6.34	6.38	3.21	0.72	1.38	5.04	4.17	0.04
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

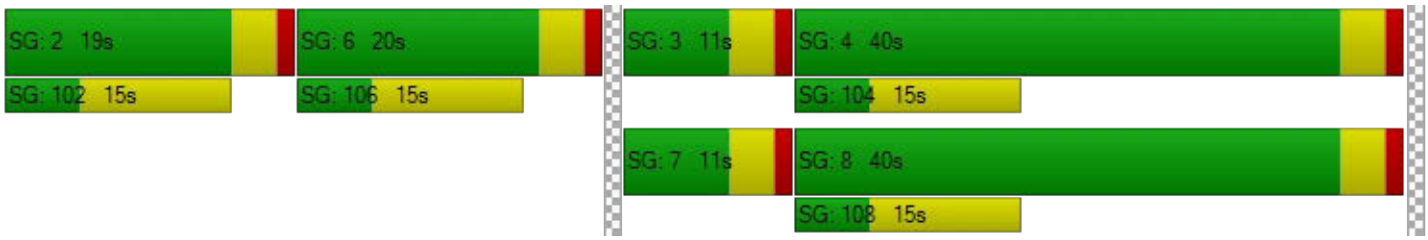
X, volume / capacity	0.30	0.38	0.08	0.81	0.81	0.77	0.45	0.45	0.30	0.81	0.02
d, Delay for Lane Group [s/veh]	41.29	42.08	32.95	43.32	43.36	42.11	11.38	12.04	48.71	23.59	11.87
Lane Group LOS	D	D	C	D	D	D	B	B	D	C	B
Critical Lane Group	No	Yes	No	No	Yes	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh]	0.80	0.99	0.39	4.42	4.39	3.23	4.73	5.15	0.26	11.94	0.13
50th-Percentile Queue Length [ft]	20.04	24.69	9.74	110.40	109.81	80.75	118.17	128.76	6.49	298.47	3.30
95th-Percentile Queue Length [veh]	1.44	1.78	0.70	7.86	7.83	5.81	8.29	8.87	0.47	17.61	0.24
95th-Percentile Queue Length [ft]	36.07	44.45	17.53	196.56	195.73	145.35	207.31	221.81	11.69	440.13	5.93

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	41.29	42.08	42.08	32.95	43.32	43.34	42.11	11.61	12.04	48.71	23.59	11.87
Movement LOS	D	D	D	C	D	D	D	B	B	D	C	B
d_A, Approach Delay [s/veh]	41.73			42.81			16.83			23.66		
Approach LOS	D			D			B			C		
d_I, Intersection Delay [s/veh]	22.98											
Intersection LOS	C											
Intersection V/C	0.767											

Sequence

Ring 1	2	6	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 12: Canyon Plaza Drive / East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	10.9
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.609

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	1	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	95.00	90.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	51	1	74	5	2	12	13	1375	26	51	1443	10
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	4	0	2	22	0	4	6	119	4	2	122	31
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	57	1	79	27	2	16	20	1549	31	55	1623	41
Peak Hour Factor	0.9550	0.9550	0.9550	0.9550	0.9550	0.9550	0.9550	0.9550	0.9550	0.9550	0.9550	0.9550
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	15	0	21	7	1	4	5	405	8	14	425	11
Total Analysis Volume [veh/h]	60	1	83	28	2	17	21	1622	32	58	1699	43
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	110
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	0	7	7	0	7	7	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	19	0	0	19	0	11	76	0	15	80	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	L	C	R	L	C	C
C, Cycle Length [s]	110	110	110	110	110	110	110	110	110	110
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	10	10	10	10	3	82	82	6	85	85
g / C, Green / Cycle	0.09	0.09	0.09	0.09	0.03	0.75	0.75	0.05	0.77	0.77
(v / s)_i Volume / Saturation Flow Rate	0.04	0.05	0.02	0.01	0.01	0.46	0.02	0.03	0.47	0.47
s, saturation flow rate [veh/h]	1388	1586	1308	1609	1774	3547	1583	1774	1863	1847
c, Capacity [veh/h]	148	144	91	146	54	2650	1183	94	1434	1422
d1, Uniform Delay [s]	50.81	48.01	54.00	46.01	52.34	6.47	3.59	51.00	5.47	5.50
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.77	3.71	1.88	0.40	4.59	1.06	0.04	6.46	1.93	1.97
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

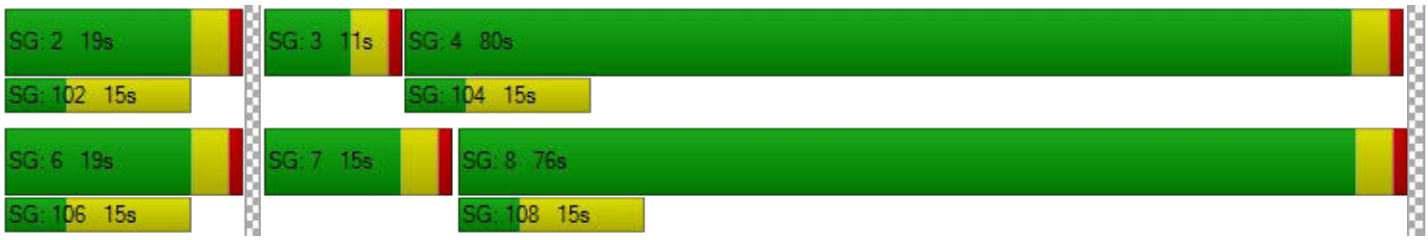
X, volume / capacity	0.40	0.58	0.31	0.13	0.39	0.61	0.03	0.62	0.61	0.61
d, Delay for Lane Group [s/veh]	52.58	51.72	55.88	46.41	56.93	7.54	3.63	57.46	7.40	7.48
Lane Group LOS	D	D	E	D	E	A	A	E	A	A
Critical Lane Group	No	Yes	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh]	1.66	2.32	0.81	0.49	0.63	6.96	0.16	1.70	6.84	6.87
50th-Percentile Queue Length [ft]	41.61	57.88	20.22	12.15	15.68	174.07	3.94	42.59	171.01	171.79
95th-Percentile Queue Length [veh]	3.00	4.17	1.46	0.87	1.13	11.29	0.28	3.07	11.13	11.17
95th-Percentile Queue Length [ft]	74.89	104.19	36.39	21.86	28.22	282.26	7.09	76.66	278.25	279.27

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	52.58	51.72	51.72	55.88	46.41	46.41	56.93	7.54	3.63	57.46	7.44	7.48
Movement LOS	D	D	D	E	D	D	E	A	A	E	A	A
d_A, Approach Delay [s/veh]	52.08			52.05			8.08			9.05		
Approach LOS	D			D			A			A		
d_I, Intersection Delay [s/veh]	10.85											
Intersection LOS	B											
Intersection V/C	0.609											

Sequence

Ring 1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 14: Cathedral Canyon Drive / Officer David Vasquez Road

Control Type:	Signalized	Delay (sec / veh):	4.7
Analysis Method:	HCM 2010	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.245

Intersection Setup

Name						
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	1	0	1	1
Pocket Length [ft]	100.00	100.00	205.00	100.00	120.00	120.00
Speed [mph]	40.00		40.00		40.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		Yes		Yes	

Volumes

Name						
Base Volume Input [veh/h]	417	5	25	404	6	53
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	55	0	0	60	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	489	5	26	480	6	55
Peak Hour Factor	0.9140	0.9140	0.9140	0.9140	0.9140	0.9140
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	134	1	7	131	2	15
Total Analysis Volume [veh/h]	535	5	28	525	7	60
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	2 - N. Cathedral Canyon Drive
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permissive	Permissive	Protected	Permissive	Split	Overlap
Signal group	2	0	1	6	7	7
Auxiliary Signal Groups						1,7
Lead / Lag	-	-	Lead	-	Lead	-
Minimum Green [s]	7	0	7	7	7	7
Maximum Green [s]	30	0	30	30	30	30
Amber [s]	3.0	0.0	3.0	3.0	3.0	3.0
All red [s]	1.0	0.0	1.0	1.0	1.0	1.0
Split [s]	30	0	11	41	19	19
Vehicle Extension [s]	3.0	0.0	3.0	3.0	3.0	3.0
Walk [s]	5	0	0	5	5	5
Pedestrian Clearance [s]	10	0	0	10	10	10
Rest In Walk	No			No	No	
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0
Minimum Recall	No		No	No	No	No
Maximum Recall	No		No	No	No	No
Pedestrian Recall	No		No	No	No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	C	L	C	L	R
C, Cycle Length [s]	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	0.00
g_i, Effective Green Time [s]	41	41	3	47	5	11
g / C, Green / Cycle	0.68	0.68	0.04	0.79	0.08	0.19
(v / s)_i Volume / Saturation Flow Rate	0.14	0.15	0.02	0.15	0.00	0.04
s, saturation flow rate [veh/h]	1863	1857	1774	3547	3445	1583
c, Capacity [veh/h]	1256	1252	81	2789	278	306
d1, Uniform Delay [s]	3.74	3.74	27.83	1.61	25.48	20.36
k, delay calibration	0.50	0.50	0.11	0.50	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.39	0.40	2.50	0.15	0.04	0.31
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

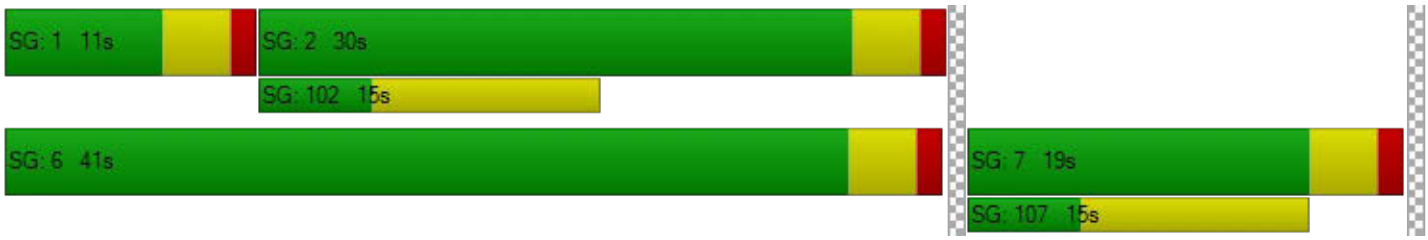
X, volume / capacity	0.22	0.22	0.34	0.19	0.03	0.20
d, Delay for Lane Group [s/veh]	4.13	4.13	30.32	1.76	25.51	20.68
Lane Group LOS	A	A	C	A	C	C
Critical Lane Group	No	Yes	Yes	No	No	Yes
50th-Percentile Queue Length [veh]	0.79	0.79	0.41	0.12	0.04	0.66
50th-Percentile Queue Length [ft]	19.77	19.79	10.37	3.09	1.09	16.51
95th-Percentile Queue Length [veh]	1.42	1.42	0.75	0.22	0.08	1.19
95th-Percentile Queue Length [ft]	35.58	35.62	18.67	5.57	1.96	29.71

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	4.13	4.13	30.32	1.76	25.51	20.68
Movement LOS	A	A	C	A	C	C
d_A, Approach Delay [s/veh]	4.13		3.21		21.18	
Approach LOS	A		A		C	
d_I, Intersection Delay [s/veh]	4.68					
Intersection LOS	A					
Intersection V/C	0.245					

Sequence

Ring 1	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 15: Cathedral Canyon Drive / Perez Road

Control Type:	Signalized	Delay (sec / veh):	25.8
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.603

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	1	1	0	0
Pocket Length [ft]	95.00	100.00	100.00	205.00	100.00	100.00	100.00	100.00	100.00	150.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	38	379	64	148	314	119	152	252	46	63	222	202
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	55	0	0	60	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	40	449	67	154	387	124	158	262	48	66	231	210
Peak Hour Factor	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	10	116	17	40	100	32	41	68	12	17	60	54
Total Analysis Volume [veh/h]	41	464	69	159	400	128	163	271	50	68	239	217
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	2 - N. Cathedral Canyon Drive
Cycle Length [s]	70
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	5.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	27	0	13	29	0	11	19	0	11	19	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	L	C	R	L	C	C
C, Cycle Length [s]	70	70	70	70	70	70	70	70	70	70	70	70
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	4	13	13	8	17	17	8	28	28	5	25	25
g / C, Green / Cycle	0.06	0.18	0.18	0.11	0.24	0.24	0.12	0.40	0.40	0.07	0.36	0.36
(v / s)_i Volume / Saturation Flow Rate	0.02	0.15	0.15	0.09	0.15	0.15	0.09	0.08	0.03	0.04	0.13	0.14
s, saturation flow rate [veh/h]	1774	1863	1780	1774	1863	1710	1774	3547	1583	1774	1863	1583
c, Capacity [veh/h]	101	346	330	201	451	414	209	1413	631	133	663	563
d1, Uniform Delay [s]	31.97	27.28	27.31	30.33	23.68	23.71	30.12	13.76	13.12	31.27	16.73	16.90
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.59	3.96	4.28	6.79	1.33	1.48	6.27	0.30	0.25	3.04	1.52	1.99
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

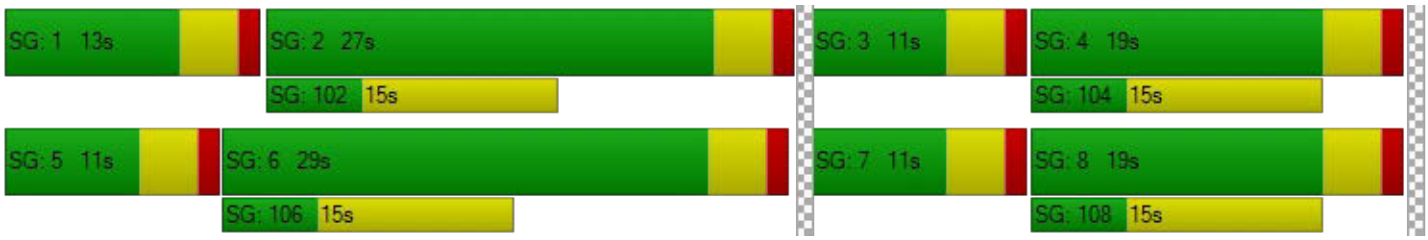
X, volume / capacity	0.40	0.79	0.79	0.79	0.61	0.61	0.78	0.19	0.08	0.51	0.36	0.39
d, Delay for Lane Group [s/veh]	34.56	31.24	31.59	37.12	25.01	25.18	36.39	14.06	13.37	34.31	18.25	18.89
Lane Group LOS	C	C	C	D	C	C	D	B	B	C	B	B
Critical Lane Group	No	No	Yes	Yes	No	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh]	0.70	4.37	4.24	2.82	3.85	3.58	2.85	1.28	0.47	1.15	2.80	2.62
50th-Percentile Queue Length [ft]	17.61	109.20	105.90	70.42	96.22	89.47	71.29	32.07	11.84	28.78	69.90	65.45
95th-Percentile Queue Length [veh]	1.27	7.80	7.61	5.07	6.93	6.44	5.13	2.31	0.85	2.07	5.03	4.71
95th-Percentile Queue Length [ft]	31.70	194.89	190.29	126.75	173.20	161.05	128.32	57.73	21.31	51.81	125.82	117.82

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	34.56	31.39	31.59	37.12	25.06	25.18	36.39	14.06	13.37	34.31	18.25	18.89
Movement LOS	C	C	C	D	C	C	D	B	B	C	B	B
d_A, Approach Delay [s/veh]	31.64			27.88			21.51			20.60		
Approach LOS	C			C			C			C		
d_I, Intersection Delay [s/veh]	25.79											
Intersection LOS	C											
Intersection V/C	0.603											

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 16: Cathedral Canyon Drive / Paseo Real

Control Type:	Two-way stop	Delay (sec / veh):	50.4
Analysis Method:	HCM 2010	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.034

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	0	0	0	0	0	0
Pocket Length [ft]	55.00	100.00	100.00	55.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name												
Base Volume Input [veh/h]	25	749	6	12	578	8	6	1	16	5	3	8
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	48	7	0	53	0	0	0	0	7	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	26	827	13	12	654	8	6	1	17	12	3	8
Peak Hour Factor	0.9370	0.9370	0.9370	0.9370	0.9370	0.9370	0.9370	0.9370	0.9370	0.9370	0.9370	0.9370
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	7	221	3	3	174	2	2	0	5	3	1	2
Total Analysis Volume [veh/h]	28	883	14	13	698	9	6	1	18	13	3	9
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.03	0.01	0.00	0.02	0.01	0.00	0.05	0.01	0.03	0.12	0.03	0.02
d_M, Delay for Movement [s/veh]	9.19	0.00	0.00	9.87	0.00	0.00	35.24	46.64	11.81	43.99	50.37	16.54
Movement LOS	A	A	A	A	A	A	E	E	B	E	F	C
95th-Percentile Queue Length [veh]	0.10	0.00	0.00	0.05	0.00	0.00	0.29	0.29	0.29	0.60	0.60	0.60
95th-Percentile Queue Length [ft]	2.44	0.00	0.00	1.32	0.00	0.00	7.14	7.14	7.14	15.00	15.00	15.00
d_A, Approach Delay [s/veh]	0.28			0.18			18.82			34.87		
Approach LOS	A			A			C			D		
d_I, Intersection Delay [s/veh]	1.02											
Intersection LOS	F											

Intersection Level Of Service Report

Intersection 17: Cathedral Canyon Drive / Dinah Shore Drive

Control Type:	Signalized	Delay (sec / veh):	29.8
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.811

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	130.00	100.00	100.00	75.00	100.00	100.00	100.00	100.00	100.00	150.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	228	474	97	113	260	28	59	775	189	95	652	83
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	12	27	9	0	33	0	0	0	11	9	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	249	520	110	118	303	29	61	806	208	108	678	86
Peak Hour Factor	0.9340	0.9340	0.9340	0.9340	0.9340	0.9340	0.9340	0.9340	0.9340	0.9340	0.9340	0.9340
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	67	139	29	32	81	8	16	216	56	29	181	23
Total Analysis Volume [veh/h]	267	557	118	126	324	31	65	863	223	116	726	92
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	2 - N. Cathedral Canyon Drive
Cycle Length [s]	70
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	104.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	20	28	0	11	19	0	11	20	0	11	20	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	L	C	C	L	C	C
C, Cycle Length [s]	70	70	70	70	70	70	70	70	70	70	70	70
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	12	16	16	6	10	10	5	26	26	6	27	27
g / C, Green / Cycle	0.18	0.23	0.23	0.09	0.14	0.14	0.07	0.36	0.36	0.09	0.38	0.38
(v / s)_i Volume / Saturation Flow Rate	0.15	0.19	0.19	0.07	0.10	0.10	0.04	0.30	0.30	0.07	0.22	0.22
s, saturation flow rate [veh/h]	1774	1863	1751	1774	1863	1806	1774	1863	1733	1774	1863	1790
c, Capacity [veh/h]	318	422	397	165	262	254	129	675	628	160	707	679
d1, Uniform Delay [s]	27.87	25.82	25.82	31.11	28.70	28.72	31.34	20.46	20.48	31.11	17.43	17.43
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	5.96	4.08	4.33	7.12	3.15	3.32	2.99	11.53	12.42	6.11	3.60	3.74
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

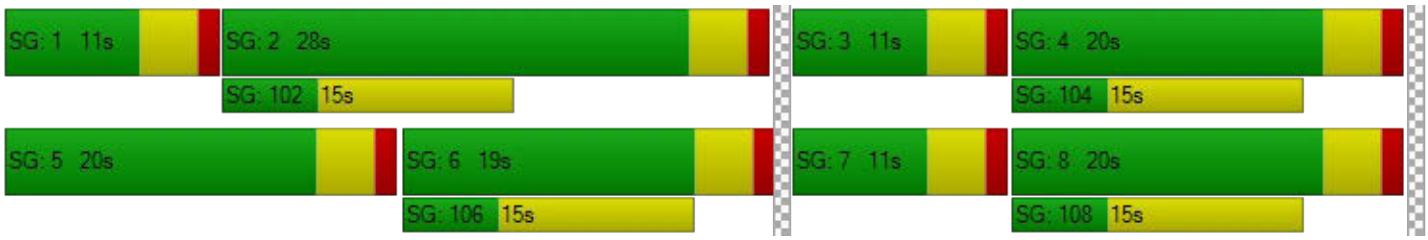
X, volume / capacity	0.84	0.82	0.82	0.76	0.68	0.69	0.50	0.83	0.83	0.73	0.59	0.59
d, Delay for Lane Group [s/veh]	33.83	29.91	30.16	38.23	31.85	32.04	34.33	31.99	32.90	37.23	21.03	21.17
Lane Group LOS	C	C	C	D	C	C	C	C	C	D	C	C
Critical Lane Group	No	No	Yes	Yes	No	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh]	4.51	5.50	5.20	2.27	2.89	2.84	1.10	9.45	8.97	2.06	5.39	5.21
50th-Percentile Queue Length [ft]	112.75	137.54	130.00	56.81	72.34	71.02	27.54	236.27	224.22	51.45	134.78	130.22
95th-Percentile Queue Length [veh]	7.99	9.35	8.94	4.09	5.21	5.11	1.98	14.49	13.88	3.70	9.20	8.95
95th-Percentile Queue Length [ft]	199.82	233.71	223.50	102.26	130.21	127.83	49.57	362.31	347.01	92.60	229.97	223.79

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	33.83	30.00	30.16	38.23	31.93	32.04	34.33	32.31	32.90	37.23	21.09	21.17
Movement LOS	C	C	C	D	C	C	C	C	C	D	C	C
d_A, Approach Delay [s/veh]	31.11			33.59			32.54			23.10		
Approach LOS	C			C			C			C		
d_I, Intersection Delay [s/veh]	29.78											
Intersection LOS	C											
Intersection V/C	0.811											

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 18: Date Palm Drive / Gerald Ford Drive

Control Type:	Signalized	Delay (sec / veh):	18.3
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.620

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	85.00	100.00	85.00	160.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			Yes			Yes			No		

Volumes

Name												
Base Volume Input [veh/h]	20	597	290	119	438	44	58	56	18	167	42	148
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	74	49	0	86	16	16	0	0	46	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	21	695	351	124	542	62	76	58	19	220	44	154
Peak Hour Factor	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	6	183	92	33	143	16	20	15	5	58	12	41
Total Analysis Volume [veh/h]	22	732	370	131	571	65	80	61	20	232	46	162
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	6 - N/S
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Split	Split	Split	Split	Split	Split
Signal group	5	2	0	1	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lag	-	-	Lag	-	-	-	-	-	-	-	-
Minimum Green [s]	7	7	0	7	7	0	0	7	0	0	7	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	11	19	0	11	19	0	0	11	0	0	19	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No	No		No	No			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	C	L	C	C	L	C	R
C, Cycle Length [s]	60	60	60	60	60	60	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	2	23	23	6	27	27	7	7	7	9	9	9
g / C, Green / Cycle	0.04	0.38	0.38	0.10	0.44	0.44	0.11	0.11	0.11	0.14	0.14	0.14
(v / s)_i Volume / Saturation Flow Rate	0.01	0.14	0.23	0.07	0.12	0.12	0.05	0.02	0.02	0.08	0.08	0.10
s, saturation flow rate [veh/h]	1774	5074	1583	1774	3547	1768	1774	1863	1712	1774	1802	1583
c, Capacity [veh/h]	68	1907	595	187	1571	783	193	203	187	256	260	228
d1, Uniform Delay [s]	28.23	13.72	15.32	26.05	10.62	10.64	25.07	24.48	24.51	23.94	23.94	24.59
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.69	0.59	4.83	4.69	0.42	0.86	1.41	0.48	0.57	1.76	1.73	4.03
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

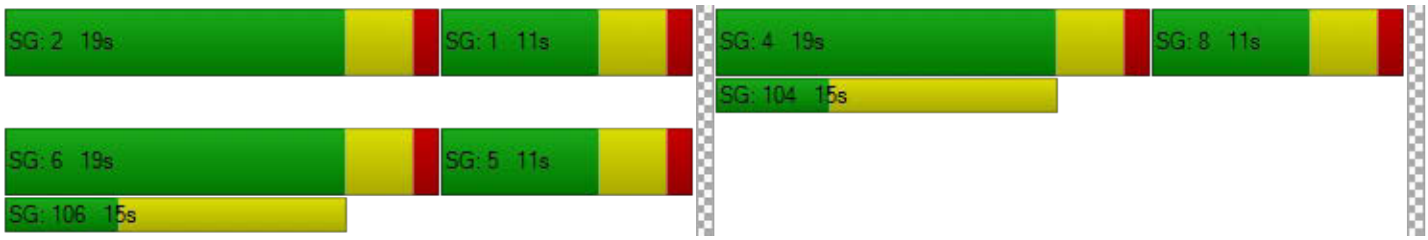
X, volume / capacity	0.32	0.38	0.62	0.70	0.27	0.27	0.41	0.20	0.21	0.54	0.54	0.71
d, Delay for Lane Group [s/veh]	30.92	14.31	20.15	30.73	11.04	11.49	26.48	24.96	25.08	25.70	25.67	28.62
Lane Group LOS	C	B	C	C	B	B	C	C	C	C	C	C
Critical Lane Group	No	No	Yes	Yes	No	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh]	0.34	2.12	4.21	1.89	1.52	1.63	1.04	0.51	0.50	1.77	1.79	2.23
50th-Percentile Queue Length [ft]	8.38	53.02	105.37	47.19	38.00	40.72	26.09	12.80	12.55	44.13	44.78	55.87
95th-Percentile Queue Length [veh]	0.60	3.82	7.58	3.40	2.74	2.93	1.88	0.92	0.90	3.18	3.22	4.02
95th-Percentile Queue Length [ft]	15.08	95.44	189.55	84.94	68.40	73.30	46.96	23.04	22.59	79.44	80.60	100.57

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	30.92	14.31	20.15	30.73	11.16	11.49	26.48	25.00	25.08	25.69	25.67	28.62
Movement LOS	C	B	C	C	B	B	C	C	C	C	C	C
d_A, Approach Delay [s/veh]	16.56			14.53			25.74			26.77		
Approach LOS	B			B			C			C		
d_I, Intersection Delay [s/veh]	18.33											
Intersection LOS	B											
Intersection V/C	0.620											

Sequence

Ring 1	1	2	4	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 19: Date Palm Drive / Dinah Shore Drive

Control Type:	Signalized	Delay (sec / veh):	24.1
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.650

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	2	0	1	2	0	1	1	0	0	1	0	1
Pocket Length [ft]	225.00	100.00	125.00	170.00	100.00	50.00	150.00	100.00	100.00	130.00	100.00	180.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			No		

Volumes

Name												
Base Volume Input [veh/h]	231	614	79	115	586	73	102	576	215	69	537	117
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	95	0	9	103	0	0	0	0	0	0	9
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	240	734	82	129	712	76	106	599	224	72	558	131
Peak Hour Factor	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	65	200	22	35	194	21	29	163	61	20	152	36
Total Analysis Volume [veh/h]	261	799	89	140	775	83	115	652	244	78	607	143
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	1 - E Palm Canyon Drive
Cycle Length [s]	70
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Overlap
Signal group	5	2	0	1	6	0	3	8	0	7	4	4
Auxiliary Signal Groups												1,4
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	7
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	30
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	1.0
Split [s]	11	19	0	11	19	0	20	29	0	11	20	20
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	5
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	10
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0
Minimum Recall	No	No		No	No		No	No		No	No	No
Maximum Recall	No	No		No	No		No	No		No	No	No
Pedestrian Recall	No	No		No	No		No	No		No	No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	70	70	70	70	70	70	70	70	70	70	70	70
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	0.00
g_i, Effective Green Time [s]	7	26	26	7	25	25	6	16	16	6	15	26
g / C, Green / Cycle	0.10	0.37	0.37	0.09	0.36	0.36	0.09	0.23	0.23	0.08	0.22	0.37
(v / s)_i Volume / Saturation Flow Rate	0.08	0.23	0.06	0.04	0.15	0.05	0.06	0.18	0.15	0.04	0.17	0.09
s, saturation flow rate [veh/h]	3445	3547	1583	3445	5074	1583	1774	3547	1583	1774	3547	1583
c, Capacity [veh/h]	348	1297	579	327	1825	569	161	822	367	142	783	590
d1, Uniform Delay [s]	30.72	18.24	14.98	30.00	17.00	15.20	31.04	25.40	24.51	31.11	25.74	15.21
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	3.27	2.20	0.56	0.89	0.73	0.54	5.71	1.78	2.07	3.30	1.69	0.21
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

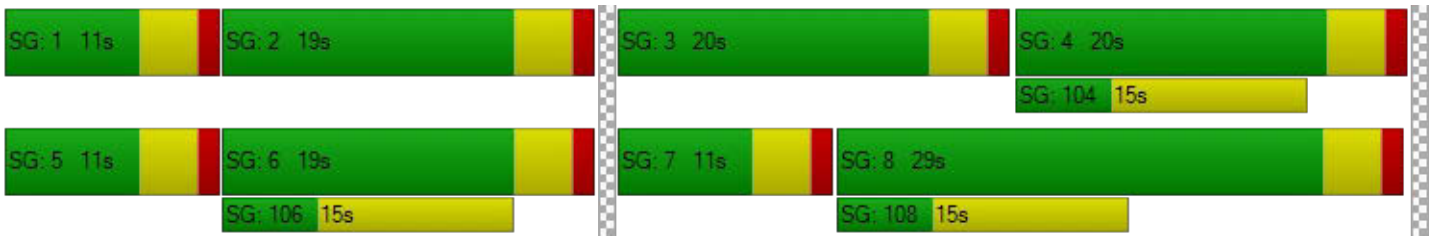
X, volume / capacity	0.75	0.62	0.15	0.43	0.42	0.15	0.71	0.79	0.66	0.55	0.78	0.24
d, Delay for Lane Group [s/veh]	34.00	20.44	15.54	30.89	17.73	15.74	36.75	27.18	26.58	34.41	27.43	15.42
Lane Group LOS	C	C	B	C	B	B	D	C	C	C	C	B
Critical Lane Group	No	Yes	No	Yes	No	No	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh]	2.16	5.03	0.94	1.08	2.90	0.88	2.03	4.85	3.57	1.32	4.53	1.44
50th-Percentile Queue Length [ft]	54.03	125.72	23.45	27.11	72.48	22.07	50.63	121.31	89.22	33.04	113.13	35.89
95th-Percentile Queue Length [veh]	3.89	8.71	1.69	1.95	5.22	1.59	3.65	8.47	6.42	2.38	8.01	2.58
95th-Percentile Queue Length [ft]	97.25	217.66	42.20	48.79	130.46	39.73	91.13	211.63	160.60	59.46	200.35	64.60

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	34.00	20.44	15.54	30.89	17.73	15.74	36.75	27.18	26.58	34.41	27.43	15.42
Movement LOS	C	C	B	C	B	B	D	C	C	C	C	B
d_A, Approach Delay [s/veh]	23.14			19.41			28.12			26.01		
Approach LOS	C			B			C			C		
d_I, Intersection Delay [s/veh]	24.07											
Intersection LOS	C											
Intersection V/C	0.650											

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 23: East Palm Canyon Drive / Frank Sinatra Drive

Control Type:	Signalized	Delay (sec / veh):	25.6
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.630

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	1	1	0	0	2	0	1
Pocket Length [ft]	160.00	100.00	45.00	325.00	100.00	250.00	100.00	100.00	100.00	120.00	100.00	1200.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			No			Yes		

Volumes

Name												
Base Volume Input [veh/h]	43	1314	198	296	1170	20	44	53	19	144	29	302
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	108	2	23	110	6	5	0	0	2	0	22
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	45	1475	208	331	1327	27	51	55	20	152	30	336
Peak Hour Factor	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	12	399	56	89	359	7	14	15	5	41	8	91
Total Analysis Volume [veh/h]	49	1595	225	358	1435	29	55	59	22	164	32	363
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	6 - N/S
Cycle Length [s]	110
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	66.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Overlap	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Overlap
Signal group	5	2	2	1	6	0	3	8	0	7	4	4
Auxiliary Signal Groups			1,2,3,4,									1,2,3,4,
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	7	7	7	0	7	7	0	7	7	7
Maximum Green [s]	30	30	30	30	30	0	30	30	0	30	30	30
Amber [s]	3.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0
All red [s]	1.0	1.0	1.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	1.0
Split [s]	11	58	58	22	69	0	11	19	0	11	19	19
Vehicle Extension [s]	3.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0
Walk [s]	0	5	5	0	5	0	0	5	0	0	5	5
Pedestrian Clearance [s]	0	10	10	0	10	0	0	10	0	0	10	10
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0
Minimum Recall	No	No	No	No	No		No	No		No	No	No
Maximum Recall	No	No	No	No	No		No	No		No	No	No
Pedestrian Recall	No	No	No	No	No		No	No		No	No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	L	C	R
C, Cycle Length [s]	110	110	110	110	110	110	110	110	110	110	110
L, Total Lost Time per Cycle [s]	4.00	4.00	0.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	0.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	2.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	7	43	192	18	54	54	8	24	9	25	192
g / C, Green / Cycle	0.06	0.40	1.75	0.16	0.50	0.50	0.07	0.22	0.08	0.22	1.75
(v / s)_i Volume / Saturation Flow Rate	0.03	0.31	0.14	0.13	0.28	0.02	0.04	0.05	0.05	0.02	0.23
s, saturation flow rate [veh/h]	1774	5074	1583	2741	5074	1583	1412	1778	3445	1863	1583
c, Capacity [veh/h]	113	2007	2764	464	2513	784	137	383	276	420	2764
d1, Uniform Delay [s]	49.59	29.32	0.00	46.23	19.54	14.28	51.57	35.46	48.88	33.57	0.00
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.11	0.50	0.33
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.60	0.74	0.01	2.77	0.21	0.02	1.88	1.25	2.05	0.35	0.07
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.43	0.79	0.08	0.77	0.57	0.04	0.40	0.21	0.59	0.08	0.13
d, Delay for Lane Group [s/veh]	52.19	30.06	0.01	49.00	19.75	14.30	53.45	36.72	50.93	33.93	0.07
Lane Group LOS	D	C	A	D	B	B	D	D	D	C	A
Critical Lane Group	No	Yes	No	Yes	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh]	1.36	11.88	0.01	4.87	8.11	0.36	1.54	1.88	2.21	0.70	0.05
50th-Percentile Queue Length [ft]	33.88	296.88	0.24	121.72	202.69	9.03	38.48	47.11	55.29	17.60	1.26
95th-Percentile Queue Length [veh]	2.44	17.53	0.02	8.49	12.78	0.65	2.77	3.39	3.98	1.27	0.09
95th-Percentile Queue Length [ft]	60.99	438.17	0.43	212.18	319.44	16.25	69.26	84.80	99.52	31.68	2.27

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	52.19	30.06	0.01	49.00	19.75	14.30	53.45	36.72	36.72	50.93	33.93	0.07
Movement LOS	D	C	A	D	B	B	D	D	D	D	C	A
d_A, Approach Delay [s/veh]	27.02			25.41			43.48			16.93		
Approach LOS	C			C			D			B		
d_I, Intersection Delay [s/veh]	25.58											
Intersection LOS	C											
Intersection V/C	0.630											

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 24: East Palm Canyon Drive / Mirage Cove Drive

Control Type:	Signalized	Delay (sec / veh):	19.3
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.468

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	1	1	0	0
Pocket Length [ft]	150.00	100.00	100.00	110.00	100.00	100.00	75.00	100.00	75.00	75.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	16	1475	9	16	1379	15	35	0	20	6	0	26
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	84	0	29	78	4	3	0	0	0	0	23
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	17	1618	9	46	1512	20	39	0	21	6	0	50
Peak Hour Factor	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	5	437	2	12	409	5	11	0	6	2	0	14
Total Analysis Volume [veh/h]	18	1749	10	50	1635	22	42	0	23	6	0	54
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	6 - N/S
Cycle Length [s]	70
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	5	2	0	1	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	7	7	0	7	7	0	0	7	0	0	7	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	11	40	0	11	40	0	0	19	0	0	19	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No	No		No	No			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	L	C	R	L	C
C, Cycle Length [s]	70	70	70	70	70	70	70	70	70	70	70
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.00	0.00	2.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	2	28	28	4	30	30	26	26	26	26	26
g / C, Green / Cycle	0.03	0.40	0.40	0.06	0.43	0.43	0.37	0.37	0.37	0.37	0.37
(v / s)_i Volume / Saturation Flow Rate	0.01	0.33	0.33	0.03	0.31	0.31	0.03	0.00	0.01	0.00	0.03
s, saturation flow rate [veh/h]	1774	3547	1857	1774	3547	1850	1345	1863	1583	1412	1583
c, Capacity [veh/h]	56	1411	739	113	1526	796	529	684	581	582	581
d1, Uniform Delay [s]	33.24	18.85	18.85	31.61	16.42	16.42	16.90	0.00	14.25	15.37	14.54
k, delay calibration	0.11	0.11	0.16	0.11	0.11	0.11	0.50	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	3.31	1.22	3.36	2.67	0.63	1.24	0.29	0.00	0.13	0.03	0.32
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.32	0.82	0.82	0.44	0.71	0.71	0.08	0.00	0.04	0.01	0.09
d, Delay for Lane Group [s/veh]	36.55	20.08	22.21	34.29	17.05	17.66	17.19	0.00	14.38	15.40	14.85
Lane Group LOS	D	C	C	C	B	B	B	A	B	B	B
Critical Lane Group	No	No	Yes	Yes	No	No	No	No	No	No	Yes
50th-Percentile Queue Length [veh]	0.33	7.42	8.21	0.85	6.22	6.63	0.47	0.00	0.23	0.06	0.55
50th-Percentile Queue Length [ft]	8.34	185.40	205.16	21.27	155.59	165.76	11.86	0.00	5.74	1.56	13.80
95th-Percentile Queue Length [veh]	0.60	11.88	12.90	1.53	10.31	10.85	0.85	0.00	0.41	0.11	0.99
95th-Percentile Queue Length [ft]	15.01	297.05	322.61	38.28	257.87	271.33	21.34	0.00	10.34	2.81	24.85

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	36.55	20.80	22.21	34.29	17.25	17.66	17.19	0.00	14.38	15.40	14.85	14.85
Movement LOS	D	C	C	C	B	B	B	A	B	B	B	B
d_A, Approach Delay [s/veh]	20.97			17.76			16.19			14.91		
Approach LOS	C			B			B			B		
d_I, Intersection Delay [s/veh]	19.26											
Intersection LOS	B											
Intersection V/C	0.468											

Sequence

Ring 1	1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 1: North Project Driveway 1 / Buddy Rogers Avenue

Control Type:	Two-way stop	Delay (sec / veh):	13.8
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			No			No		

Volumes

Name												
Base Volume Input [veh/h]	0	0	0	0	0	0	0	29	0	0	31	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	40	0	103	0	0	0	0	15	52	133	12	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	40	0	103	0	0	0	0	45	52	133	44	0
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	11	0	28	0	0	0	0	12	14	36	12	0
Total Analysis Volume [veh/h]	43	0	112	0	0	0	0	49	57	145	48	0
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	No	No		
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	No	No		
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.09	0.00	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.00	0.00
d_M, Delay for Movement [s/veh]	12.78	13.05	9.13	13.76	12.87	8.53	7.31	0.00	0.00	7.69	0.00	0.00
Movement LOS	B	B	A	B	B	A	A	A	A	A	A	A
95th-Percentile Queue Length [veh]	0.28	0.38	0.38	0.00	0.00	0.00	0.00	0.00	0.00	0.45	0.45	0.45
95th-Percentile Queue Length [ft]	6.94	9.61	9.61	0.00	0.00	0.00	0.00	0.00	0.00	11.17	11.17	11.17
d_A, Approach Delay [s/veh]	10.14			11.72			0.00			5.77		
Approach LOS	B			B			A			A		
d_I, Intersection Delay [s/veh]	5.92											
Intersection LOS	B											

Intersection Level Of Service Report
Intersection 2: Date Palm Drive / Buddy Rogers Avenue

Control Type:	Two-way stop	Delay (sec / veh):	58.2
Analysis Method:	HCM 2010	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.631

Intersection Setup

Name						
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00		40.00		40.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

Volumes

Name						
Base Volume Input [veh/h]	4	492	513	25	29	14
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	2.97	1.04	1.04	2.97	1.33	1.33
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	40	87	96	93	72	31
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	52	599	630	167	111	50
Peak Hour Factor	0.9410	0.9410	0.9410	0.9410	0.9410	0.9410
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	14	159	167	44	29	13
Total Analysis Volume [veh/h]	55	637	670	177	118	53
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.12	0.01	0.01	0.00	0.63	0.11
d_M, Delay for Movement [s/veh]	13.81	0.00	0.00	0.00	58.20	46.23
Movement LOS	B	A	A	A	F	E
95th-Percentile Queue Length [veh]	0.40	0.00	0.00	0.00	5.07	5.07
95th-Percentile Queue Length [ft]	10.02	0.00	0.00	0.00	126.64	126.64
d_A, Approach Delay [s/veh]	1.10		0.00		54.49	
Approach LOS	A		A		F	
d_I, Intersection Delay [s/veh]	5.89					
Intersection LOS	F					

Intersection Level Of Service Report
Intersection 3: Date Palm Drive / East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	10.8
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.579

Intersection Setup

Name						
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00		40.00		40.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		Yes		Yes	

Volumes

Name						
Base Volume Input [veh/h]	339	121	149	1198	1174	347
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	59	68	63	124	134	64
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	412	194	218	1370	1355	425
Peak Hour Factor	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	111	52	59	368	364	114
Total Analysis Volume [veh/h]	443	209	234	1473	1457	457
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Split	Split	ProtectedPermissi	Permissive	Permissive	Permissive
Signal group	1	0	3	8	4	4
Auxiliary Signal Groups						3,4
Lead / Lag	Lead	-	Lead	-	-	-
Minimum Green [s]	7	0	7	7	7	7
Maximum Green [s]	30	0	7	30	30	30
Amber [s]	3.0	0.0	3.0	3.0	3.0	3.0
All red [s]	1.0	0.0	1.0	1.0	1.0	1.0
Split [s]	19	0	16	41	25	25
Vehicle Extension [s]	3.0	0.0	3.0	3.0	3.0	3.0
Walk [s]	5	0	0	5	5	5
Pedestrian Clearance [s]	10	0	0	10	10	10
Rest In Walk	No			No	No	
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0
Minimum Recall	No		Yes	No	No	
Maximum Recall	No		No	No	No	
Pedestrian Recall	No		No	No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	R	L	C	C	C
C, Cycle Length [s]	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	0.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	11	11	41	41	31	31
g / C, Green / Cycle	0.18	0.18	0.69	0.69	0.51	0.51
(v / s)_i Volume / Saturation Flow Rate	0.09	0.13	0.21	0.29	0.28	0.30
s, saturation flow rate [veh/h]	5168	1583	1090	5074	5074	1594
c, Capacity [veh/h]	924	283	887	3492	2580	810
d1, Uniform Delay [s]	22.18	23.36	5.99	4.12	10.13	10.39
k, delay calibration	0.11	0.11	0.11	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.39	3.75	0.16	0.38	0.87	3.15
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.48	0.74	0.26	0.42	0.56	0.59
d, Delay for Lane Group [s/veh]	22.57	27.12	6.15	4.50	11.01	13.53
Lane Group LOS	C	C	A	A	B	B
Critical Lane Group	No	Yes	Yes	No	No	Yes
50th-Percentile Queue Length [veh]	1.71	2.80	0.25	1.40	3.45	4.03
50th-Percentile Queue Length [ft]	42.75	69.88	6.29	35.06	86.31	100.82
95th-Percentile Queue Length [veh]	3.08	5.03	0.45	2.52	6.21	7.26
95th-Percentile Queue Length [ft]	76.95	125.78	11.33	63.11	155.35	181.47

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	22.57	27.12	6.15	4.50	11.04	13.53
Movement LOS	C	C	A	A	B	B
d_A, Approach Delay [s/veh]	24.03		4.72		11.64	
Approach LOS	C		A		B	
d_I, Intersection Delay [s/veh]	10.77					
Intersection LOS	B					
Intersection V/C	0.579					

Sequence

Ring 1	1	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 4: South Project Driveway-Allen Avenue / East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	4.8
Analysis Method:	HCM 2010	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.750

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	0	0	0	2	0	3	8	1365	0	0	1343	20
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	21	0	59	76	166	0	0	171	31
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	23	0	62	84	1586	0	0	1568	52
Peak Hour Factor	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	6	0	16	22	418	0	0	413	14
Total Analysis Volume [veh/h]	0	0	0	24	0	65	89	1671	0	0	1652	55
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	1 - E Palm Canyon Drive
Cycle Length [s]	80
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	0	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	7	0	0	7	0	0	7	0	0	7	0
Maximum Green [s]	0	30	0	0	30	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	19	0	0	19	0	0	61	0	0	61	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No			No			No			No	
Maximum Recall		No			No			No			No	
Pedestrian Recall		No			No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	L	C	C	C	L	C	R
C, Cycle Length [s]	80	80	80	80	80	80	80	80
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	2.00	0.00	2.00	0.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	6	6	6	66	66	66	66	66
g / C, Green / Cycle	0.08	0.08	0.08	0.82	0.82	0.82	0.82	0.82
(v / s)_i Volume / Saturation Flow Rate	0.00	0.02	0.04	0.63	0.53	0.00	0.33	0.03
s, saturation flow rate [veh/h]	1646	1412	1583	1362	1695	295	5074	1583
c, Capacity [veh/h]	171	168	121	1171	1396	263	4178	1304
d1, Uniform Delay [s]	0.00	36.31	35.55	2.33	2.64	0.00	1.85	1.29
k, delay calibration	0.11	0.11	0.11	0.50	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.00	0.39	3.65	4.17	2.28	0.00	0.28	0.06
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

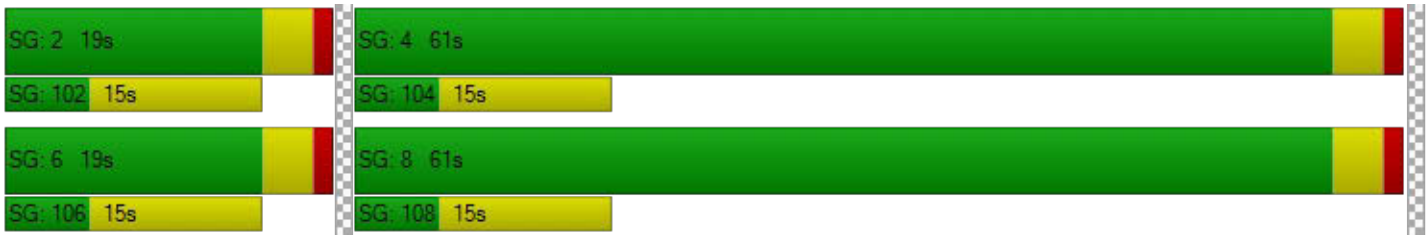
X, volume / capacity	0.00	0.14	0.54	0.74	0.64	0.00	0.40	0.04
d, Delay for Lane Group [s/veh]	0.00	36.70	39.21	6.50	4.92	0.00	2.13	1.35
Lane Group LOS	A	D	D	A	A	A	A	A
Critical Lane Group	No	No	Yes	Yes	No	No	No	No
50th-Percentile Queue Length [veh]	0.00	0.45	1.29	2.28	1.97	0.00	0.58	0.05
50th-Percentile Queue Length [ft]	0.00	11.23	32.20	56.95	49.26	0.00	14.39	1.36
95th-Percentile Queue Length [veh]	0.00	0.81	2.32	4.10	3.55	0.00	1.04	0.10
95th-Percentile Queue Length [ft]	0.00	20.22	57.97	102.50	88.68	0.00	25.90	2.46

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	36.70	39.21	39.21	6.50	5.65	4.92	0.00	2.13	1.35
Movement LOS	A	A	A	D	D	D	A	A	A	A	A	A
d_A, Approach Delay [s/veh]	0.00			38.53			5.70			2.10		
Approach LOS	A			D			A			A		
d_I, Intersection Delay [s/veh]	4.79											
Intersection LOS	A											
Intersection V/C	0.750											

Sequence

Ring 1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 5: Monty Hall Drive-Van Fleet Avenue / East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	12.7
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.645

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	1	0	1	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	45.00	100.00	100.00	105.00	100.00	130.00	125.00	100.00	180.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	11	1	44	10	9	12	13	1322	16	55	1290	10
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	18	0	0	52	67	224	0	14	216	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	11	1	64	10	9	64	81	1599	17	71	1558	10
Peak Hour Factor	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	0	17	3	2	17	21	417	4	19	406	3
Total Analysis Volume [veh/h]	11	1	67	10	9	67	84	1667	18	74	1625	10
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	1 - E Palm Canyon Drive
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	0	7	7	0	7	7	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	19	0	0	19	0	14	60	0	11	57	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	R	L	C	L	C	R	L	C	R
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	10	10	10	10	6	62	62	6	61	61
g / C, Green / Cycle	0.12	0.12	0.12	0.12	0.07	0.69	0.69	0.07	0.68	0.68
(v / s)_i Volume / Saturation Flow Rate	0.02	0.04	0.01	0.05	0.05	0.47	0.01	0.04	0.46	0.01
s, saturation flow rate [veh/h]	560	1583	1410	1612	1774	3547	1583	1774	3547	1583
c, Capacity [veh/h]	141	181	98	184	121	2436	1088	116	2427	1083
d1, Uniform Delay [s]	39.31	36.87	44.20	37.05	41.01	8.32	4.46	41.00	8.28	4.52
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.26	1.26	0.45	1.48	6.92	1.58	0.03	5.66	1.49	0.02
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.09	0.37	0.10	0.41	0.69	0.68	0.02	0.64	0.67	0.01
d, Delay for Lane Group [s/veh]	39.56	38.13	44.66	38.53	47.93	9.91	4.49	46.66	9.77	4.53
Lane Group LOS	D	D	D	D	D	A	A	D	A	A
Critical Lane Group	No	No	No	Yes	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh]	0.26	1.38	0.23	1.57	1.99	7.64	0.09	1.73	7.37	0.05
50th-Percentile Queue Length [ft]	6.44	34.43	5.68	39.34	49.81	190.90	2.27	43.22	184.33	1.27
95th-Percentile Queue Length [veh]	0.46	2.48	0.41	2.83	3.59	12.17	0.16	3.11	11.83	0.09
95th-Percentile Queue Length [ft]	11.60	61.98	10.22	70.81	89.66	304.19	4.08	77.80	295.66	2.28

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	39.56	39.56	38.13	44.66	38.53	38.53	47.93	9.91	4.49	46.66	9.77	4.53
Movement LOS	D	D	D	D	D	D	D	A	A	D	A	A
d_A, Approach Delay [s/veh]	38.35			39.24			11.66			11.34		
Approach LOS	D			D			B			B		
d_I, Intersection Delay [s/veh]	12.74											
Intersection LOS	B											
Intersection V/C	0.645											

Sequence

Ring 1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 6: Date Palm Drive / East Palm Drive

Control Type:	Two-way stop	Delay (sec / veh):	11.8
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

Intersection Setup

Name						
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00		40.00		40.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

Volumes

Name						
Base Volume Input [veh/h]	0	8	539	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	127	127	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	135	688	0	0	0
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	37	187	0	0	0
Total Analysis Volume [veh/h]	0	147	748	0	0	0
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.01	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	0.00	0.00	11.76
Movement LOS		A	A	A		B
95th-Percentile Queue Length [veh]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	0.00		0.00		11.76	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	0.00					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 7: North Project Driveway 2 / Buddy Rogers Avenue

Control Type:	Two-way stop	Delay (sec / veh):	10.5
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.020

Intersection Setup

Name						
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00		40.00		40.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name						
Base Volume Input [veh/h]	0	0	29	0	0	31
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.00	1.00	1.04	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	12	0	103	15	0	133
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	12	0	132	15	0	164
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	0	36	4	0	45
Total Analysis Volume [veh/h]	13	0	143	16	0	178
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.02	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	10.52	9.13	0.00	0.00	7.53	0.00
Movement LOS	B	A	A	A	A	A
95th-Percentile Queue Length [veh]	0.06	0.06	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft]	1.49	1.49	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	10.52		0.00		0.00	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	0.39					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 8: Monty Hall Drive / Buddy Rogers Avenue

Control Type:	All-way stop	Delay (sec / veh):	7.7
Analysis Method:	HCM 2010	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.139

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			No			No		

Volumes

Name												
Base Volume Input [veh/h]	20	5	4	17	6	0	1	13	6	7	25	12
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	67	0	0	0	0	0	0	52	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	21	5	71	18	6	0	1	14	6	59	26	12
Peak Hour Factor	0.8290	0.8290	0.8290	0.8290	0.8290	0.8290	0.8290	0.8290	0.8290	0.8290	0.8290	0.8290
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	6	2	21	5	2	0	0	4	2	18	8	4
Total Analysis Volume [veh/h]	25	6	86	22	7	0	1	17	7	71	31	14
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	927	797	857	834
Degree of Utilization, x	0.13	0.04	0.03	0.14

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.43	0.11	0.09	0.48
95th-Percentile Queue Length [ft]	10.79	2.83	2.25	12.05
Approach Delay [s/veh]	7.45	7.69	7.33	8.01
Approach LOS	A	A	A	A
Intersection Delay [s/veh]	7.69			
Intersection LOS	A			

Intersection Level Of Service Report

Intersection 9: Buddy Rogers Avenue/ East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	4.0
Analysis Method:	HCM 2010	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.596

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	10	1	39	19	2	28	16	1309	2	16	1255	17
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	291	0	0	268	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	10	1	41	20	2	29	17	1652	2	17	1573	18
Peak Hour Factor	0.9360	0.9360	0.9360	0.9360	0.9360	0.9360	0.9360	0.9360	0.9360	0.9360	0.9360	0.9360
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	0	11	5	1	8	5	441	1	5	420	5
Total Analysis Volume [veh/h]	11	1	44	21	2	31	18	1765	2	18	1681	19
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	1 - E Palm Canyon Drive
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	7	0	0	7	0	0	7	0	0	7	0
Maximum Green [s]	0	30	0	0	30	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	29	0	0	29	0	0	91	0	0	91	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No			No			No			No	
Maximum Recall		No			No			No			No	
Pedestrian Recall		No			No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	C	L	C	R	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	2.00	2.00	0.00	0.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	6	6	106	106	106	106	106	106
g / C, Green / Cycle	0.05	0.05	0.88	0.88	0.88	0.88	0.88	0.88
(v / s)_i Volume / Saturation Flow Rate	0.03	0.04	0.06	0.50	0.00	0.07	0.47	0.01
s, saturation flow rate [veh/h]	1651	1390	293	3547	1583	270	3547	1583
c, Capacity [veh/h]	118	111	281	3134	1399	261	3134	1399
d1, Uniform Delay [s]	56.06	56.21	3.84	1.62	0.81	4.20	1.54	0.82
k, delay calibration	0.11	0.11	0.50	0.50	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.95	3.30	0.44	0.74	0.00	0.51	0.66	0.02
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.48	0.49	0.06	0.56	0.00	0.07	0.54	0.01
d, Delay for Lane Group [s/veh]	59.00	59.51	4.27	2.35	0.81	4.71	2.21	0.84
Lane Group LOS	E	E	A	A	A	A	A	A
Critical Lane Group	No	Yes	No	Yes	No	No	No	No
50th-Percentile Queue Length [veh]	1.74	1.69	0.13	1.26	0.00	0.14	1.14	0.02
50th-Percentile Queue Length [ft]	43.47	42.31	3.17	31.42	0.04	3.42	28.48	0.43
95th-Percentile Queue Length [veh]	3.13	3.05	0.23	2.26	0.00	0.25	2.05	0.03
95th-Percentile Queue Length [ft]	78.25	76.15	5.70	56.55	0.08	6.16	51.27	0.77

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	59.00	59.00	59.00	59.51	59.51	59.51	4.27	2.35	0.81	4.71	2.21	0.84
Movement LOS	E	E	E	E	E	E	A	A	A	A	A	A
d_A, Approach Delay [s/veh]	59.00			59.51			2.37			2.22		
Approach LOS	E			E			A			A		
d_I, Intersection Delay [s/veh]	4.03											
Intersection LOS	A											
Intersection V/C	0.596											

Sequence

Ring 1	2	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 10: Cathedral Canyon Drive / East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	18.4
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.727

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	0	1	0	0	1	0	1
Pocket Length [ft]	100.00	100.00	70.00	90.00	100.00	100.00	238.00	100.00	100.00	190.00	100.00	270.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	71	113	50	127	131	92	110	1151	77	61	1111	120
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	4	0	25	61	0	15	12	205	5	24	198	47
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	78	118	77	193	136	111	126	1402	85	87	1353	172
Peak Hour Factor	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	20	31	20	50	35	29	33	362	22	22	350	44
Total Analysis Volume [veh/h]	81	122	80	200	141	115	130	1450	88	90	1399	178
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	1 - E Palm Canyon Drive
Cycle Length [s]	80
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Overlap	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	6	3	8	0	7	4	0
Auxiliary Signal Groups						3,6						
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	7	7	7	0	7	7	0
Maximum Green [s]	0	30	0	0	30	30	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	1.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	22	0	0	22	22	25	47	0	11	33	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	5	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	10	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No	No	No	No		No	No	
Maximum Recall		No			No	No	No	No		No	No	
Pedestrian Recall		No			No	No	No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	80	80	80	80	80	80	80	80	80	80	80	80
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	0.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	18	18	18	18	18	30	8	44	44	6	42	42
g / C, Green / Cycle	0.23	0.23	0.23	0.23	0.23	0.37	0.10	0.55	0.55	0.08	0.53	0.53
(v / s)_i Volume / Saturation Flow Rate	0.07	0.07	0.05	0.16	0.08	0.07	0.07	0.41	0.06	0.05	0.28	0.11
s, saturation flow rate [veh/h]	1243	1863	1583	1264	1863	1583	1774	3547	1583	1774	5074	1583
c, Capacity [veh/h]	264	420	357	278	420	592	175	1949	870	133	2669	833
d1, Uniform Delay [s]	31.73	25.72	25.31	34.46	26.00	16.93	35.15	13.76	8.62	36.12	12.43	10.14
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.65	0.38	0.31	3.48	0.47	0.16	6.13	2.63	0.23	5.82	0.74	0.59
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.31	0.29	0.22	0.72	0.34	0.19	0.74	0.74	0.10	0.67	0.52	0.21
d, Delay for Lane Group [s/veh]	32.38	26.10	25.63	37.93	26.47	17.09	41.28	16.39	8.85	41.94	13.17	10.73
Lane Group LOS	C	C	C	D	C	B	D	B	A	D	B	B
Critical Lane Group	No	No	No	Yes	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh]	1.42	1.86	1.20	3.98	2.17	1.34	2.65	8.91	0.68	1.85	4.81	1.58
50th-Percentile Queue Length [ft]	35.44	46.45	30.05	99.39	54.35	33.55	66.14	222.78	16.98	46.23	120.13	39.39
95th-Percentile Queue Length [veh]	2.55	3.34	2.16	7.16	3.91	2.42	4.76	13.81	1.22	3.33	8.40	2.84
95th-Percentile Queue Length [ft]	63.79	83.62	54.09	178.90	97.84	60.40	119.05	345.18	30.57	83.21	210.01	70.89

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	32.38	26.10	25.63	37.93	26.47	17.09	41.28	16.39	8.85	41.94	13.17	10.73
Movement LOS	C	C	C	D	C	B	D	B	A	D	B	B
d_A, Approach Delay [s/veh]	27.76			29.13			17.93			14.46		
Approach LOS	C			C			B			B		
d_I, Intersection Delay [s/veh]	18.45											
Intersection LOS	B											
Intersection V/C	0.727											

Sequence

Ring 1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 11: Perez Road / East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	17.7
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.740

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	150.00	100.00	100.00	170.00	100.00	45.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	9	9	4	17	10	257	212	1274	4	4	1270	21
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	5	0	0	0	0	216	0	5	211	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	9	9	9	18	10	267	220	1541	4	9	1532	22
Peak Hour Factor	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	2	2	5	3	69	56	396	1	2	393	6
Total Analysis Volume [veh/h]	9	9	9	18	10	274	226	1582	4	9	1573	23
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	0	7	7	0	7	7	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	19	0	0	19	0	11	41	0	11	41	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	R	L	C	C	L	C	R
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	4	4	11	11	11	8	59	59	1	52	52
g / C, Green / Cycle	0.04	0.04	0.12	0.12	0.12	0.09	0.65	0.65	0.02	0.57	0.57
(v / s)_i Volume / Saturation Flow Rate	0.01	0.01	0.01	0.09	0.09	0.07	0.29	0.29	0.01	0.44	0.01
s, saturation flow rate [veh/h]	1774	1712	1774	1600	1583	3445	3547	1860	1774	3547	1583
c, Capacity [veh/h]	70	68	208	188	186	317	2300	1207	30	2034	908
d1, Uniform Delay [s]	41.80	42.03	35.49	38.57	38.57	39.79	7.88	7.88	43.79	14.73	8.32
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.81	2.06	0.18	6.20	6.29	2.98	0.64	1.23	5.34	2.93	0.05
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

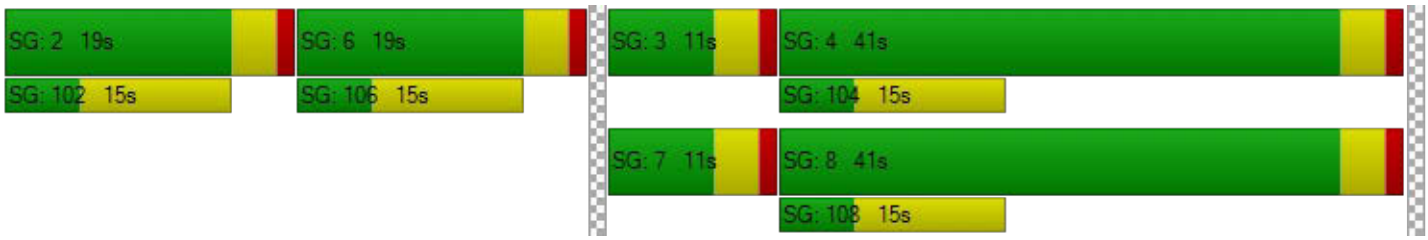
X, volume / capacity	0.13	0.27	0.09	0.76	0.76	0.71	0.45	0.45	0.30	0.77	0.03
d, Delay for Lane Group [s/veh]	42.61	44.09	35.67	44.77	44.86	42.77	8.53	9.11	49.13	17.66	8.37
Lane Group LOS	D	D	D	D	D	D	A	A	D	B	A
Critical Lane Group	No	Yes	No	No	Yes	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh]	0.20	0.42	0.35	3.26	3.24	2.48	4.19	4.59	0.24	11.15	0.18
50th-Percentile Queue Length [ft]	5.08	10.39	8.78	81.54	80.91	61.91	104.83	114.85	5.93	278.74	4.59
95th-Percentile Queue Length [veh]	0.37	0.75	0.63	5.87	5.83	4.46	7.55	8.11	0.43	16.63	0.33
95th-Percentile Queue Length [ft]	9.14	18.70	15.81	146.77	145.63	111.43	188.69	202.73	10.68	415.65	8.25

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	42.61	44.09	44.09	35.67	44.77	44.82	42.77	8.72	9.11	49.13	17.66	8.37
Movement LOS	D	D	D	D	D	D	D	A	A	D	B	A
d_A, Approach Delay [s/veh]	43.60			44.27			12.97			17.70		
Approach LOS	D			D			B			B		
d_I, Intersection Delay [s/veh]	17.74											
Intersection LOS	B											
Intersection V/C	0.740											

Sequence

Ring 1	2	6	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 12: Canyon Plaza Drive / East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	12.0
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.671

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	1	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	95.00	90.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	55	2	83	6	3	14	10	1457	39	56	1457	11
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	11	0	6	31	0	5	6	180	11	6	174	31
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	68	2	92	37	3	20	16	1695	52	64	1689	42
Peak Hour Factor	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	18	1	24	10	1	5	4	442	14	17	440	11
Total Analysis Volume [veh/h]	71	2	96	39	3	21	17	1767	54	67	1761	44
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	110
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	0	7	7	0	7	7	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	19	0	0	19	0	11	79	0	12	80	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	L	C	R	L	C	C
C, Cycle Length [s]	110	110	110	110	110	110	110	110	110	110
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	11	11	11	11	3	81	81	6	84	84
g / C, Green / Cycle	0.10	0.10	0.10	0.10	0.03	0.74	0.74	0.06	0.77	0.77
(v / s)_i Volume / Saturation Flow Rate	0.05	0.06	0.03	0.01	0.01	0.50	0.03	0.04	0.48	0.49
s, saturation flow rate [veh/h]	1381	1588	1292	1614	1774	3547	1583	1774	1863	1847
c, Capacity [veh/h]	160	153	95	156	48	2618	1169	100	1429	1417
d1, Uniform Delay [s]	50.32	47.81	54.02	45.54	52.51	7.51	3.90	50.89	5.79	5.83
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.94	4.37	2.82	0.45	4.29	1.41	0.07	7.62	2.14	2.20
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.44	0.64	0.41	0.15	0.35	0.67	0.05	0.67	0.63	0.64
d, Delay for Lane Group [s/veh]	52.26	52.18	56.83	46.00	56.80	8.93	3.98	58.51	7.93	8.03
Lane Group LOS	D	D	E	D	E	A	A	E	A	A
Critical Lane Group	No	Yes	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh]	1.96	2.72	1.14	0.61	0.51	8.74	0.29	1.99	7.47	7.53
50th-Percentile Queue Length [ft]	49.12	67.94	28.49	15.25	12.77	218.55	7.14	49.67	186.81	188.17
95th-Percentile Queue Length [veh]	3.54	4.89	2.05	1.10	0.92	13.59	0.51	3.58	11.96	12.03
95th-Percentile Queue Length [ft]	88.42	122.29	51.28	27.45	22.98	339.77	12.85	89.41	298.89	300.65

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	52.26	52.18	52.18	56.83	46.00	46.00	56.80	8.93	3.98	58.51	7.98	8.03
Movement LOS	D	D	D	E	D	D	E	A	A	E	A	A
d_A, Approach Delay [s/veh]	52.21			52.70			9.22			9.79		
Approach LOS	D			D			A			A		
d_I, Intersection Delay [s/veh]	12.03											
Intersection LOS	B											
Intersection V/C	0.671											

Sequence

Ring 1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 14: Cathedral Canyon Drive / Officer David Vasquez Road

Control Type:	Signalized	Delay (sec / veh):	3.8
Analysis Method:	HCM 2010	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.215

Intersection Setup

Name						
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	1	0	1	1
Pocket Length [ft]	100.00	100.00	205.00	100.00	120.00	120.00
Speed [mph]	40.00		40.00		40.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		Yes		Yes	

Volumes

Name						
Base Volume Input [veh/h]	344	7	17	370	7	32
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	59	0	0	76	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	417	7	18	461	7	33
Peak Hour Factor	0.8670	0.8670	0.8670	0.8670	0.8670	0.8670
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	120	2	5	133	2	10
Total Analysis Volume [veh/h]	481	8	21	532	8	38
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	2 - N. Cathedral Canyon Drive
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permissive	Permissive	Protected	Permissive	Split	Overlap
Signal group	2	0	1	6	7	7
Auxiliary Signal Groups						1,7
Lead / Lag	-	-	Lead	-	Lead	-
Minimum Green [s]	7	0	7	7	7	7
Maximum Green [s]	30	0	30	30	30	30
Amber [s]	3.0	0.0	3.0	3.0	3.0	3.0
All red [s]	1.0	0.0	1.0	1.0	1.0	1.0
Split [s]	30	0	11	41	19	19
Vehicle Extension [s]	3.0	0.0	3.0	3.0	3.0	3.0
Walk [s]	5	0	0	5	5	5
Pedestrian Clearance [s]	10	0	0	10	10	10
Rest In Walk	No			No	No	
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0
Minimum Recall	No		No	No	No	No
Maximum Recall	No		No	No	No	No
Pedestrian Recall	No		No	No	No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	C	L	C	L	R
C, Cycle Length [s]	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	0.00
g_i, Effective Green Time [s]	42	42	2	48	4	10
g / C, Green / Cycle	0.70	0.70	0.04	0.80	0.06	0.17
(v / s)_i Volume / Saturation Flow Rate	0.13	0.13	0.01	0.15	0.00	0.02
s, saturation flow rate [veh/h]	1863	1852	1774	3547	3445	1583
c, Capacity [veh/h]	1302	1295	65	2845	223	266
d1, Uniform Delay [s]	3.14	3.14	28.25	1.38	26.37	21.34
k, delay calibration	0.50	0.50	0.11	0.50	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.32	0.32	2.82	0.15	0.06	0.24
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

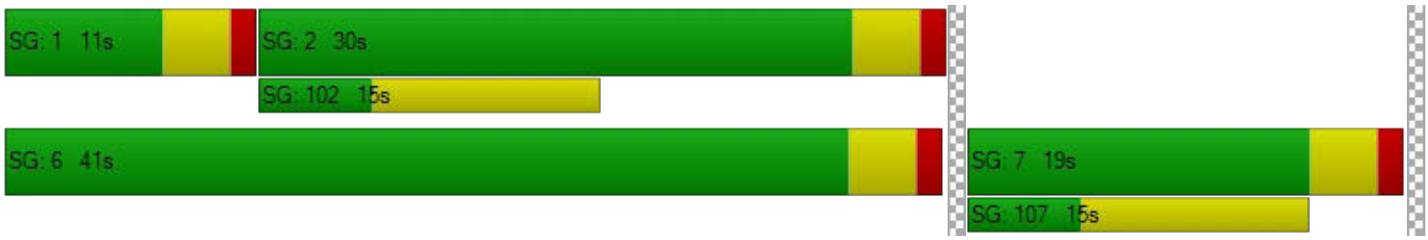
X, volume / capacity	0.19	0.19	0.32	0.19	0.04	0.14
d, Delay for Lane Group [s/veh]	3.46	3.46	31.06	1.53	26.44	21.58
Lane Group LOS	A	A	C	A	C	C
Critical Lane Group	No	No	No	Yes	No	Yes
50th-Percentile Queue Length [veh]	0.58	0.58	0.32	0.06	0.05	0.43
50th-Percentile Queue Length [ft]	14.52	14.55	8.05	1.44	1.28	10.75
95th-Percentile Queue Length [veh]	1.05	1.05	0.58	0.10	0.09	0.77
95th-Percentile Queue Length [ft]	26.13	26.19	14.49	2.59	2.31	19.35

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	3.46	3.46	31.06	1.53	26.44	21.58
Movement LOS	A	A	C	A	C	C
d_A, Approach Delay [s/veh]	3.46		2.65		22.43	
Approach LOS	A		A		C	
d_I, Intersection Delay [s/veh]	3.85					
Intersection LOS	A					
Intersection V/C	0.215					

Sequence

Ring 1	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 15: Cathedral Canyon Drive / Perez Road

Control Type:	Signalized	Delay (sec / veh):	22.4
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.469

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	1	1	0	0
Pocket Length [ft]	95.00	100.00	100.00	205.00	100.00	100.00	100.00	100.00	100.00	150.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	26	297	52	109	282	127	114	192	51	48	207	88
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	59	0	0	76	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	27	368	54	113	369	132	119	200	53	50	215	92
Peak Hour Factor	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	7	94	14	29	95	34	31	51	14	13	55	24
Total Analysis Volume [veh/h]	28	378	55	116	379	136	122	205	54	51	221	94
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	2 - N. Cathedral Canyon Drive
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	19	0	11	19	0	11	19	0	11	19	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	L	C	R	L	C	C
C, Cycle Length [s]	60	60	60	60	60	60	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	3	10	10	6	13	13	6	24	24	4	22	22
g / C, Green / Cycle	0.04	0.16	0.16	0.10	0.21	0.21	0.10	0.41	0.41	0.07	0.37	0.37
(v / s)_i Volume / Saturation Flow Rate	0.02	0.12	0.12	0.07	0.14	0.15	0.07	0.06	0.03	0.03	0.09	0.09
s, saturation flow rate [veh/h]	1774	1863	1782	1774	1863	1698	1774	3547	1583	1774	1863	1680
c, Capacity [veh/h]	82	297	284	181	400	365	181	1436	641	122	692	624
d1, Uniform Delay [s]	27.87	24.16	24.20	26.02	21.70	21.74	26.10	11.33	11.05	26.93	13.06	13.11
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.44	3.64	3.98	3.77	1.94	2.20	4.29	0.21	0.26	2.29	0.80	0.93
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.34	0.74	0.75	0.64	0.67	0.68	0.67	0.14	0.08	0.42	0.24	0.24
d, Delay for Lane Group [s/veh]	30.31	27.80	28.18	29.79	23.64	23.94	30.39	11.54	11.31	29.22	13.85	14.04
Lane Group LOS	C	C	C	C	C	C	C	B	B	C	B	B
Critical Lane Group	No	No	Yes	Yes	No	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh]	0.41	2.97	2.91	1.64	3.28	3.05	1.74	0.76	0.41	0.72	1.43	1.36
50th-Percentile Queue Length [ft]	10.37	74.34	72.65	40.99	81.95	76.25	43.62	18.93	10.34	18.00	35.66	33.99
95th-Percentile Queue Length [veh]	0.75	5.35	5.23	2.95	5.90	5.49	3.14	1.36	0.74	1.30	2.57	2.45
95th-Percentile Queue Length [ft]	18.66	133.82	130.78	73.77	147.51	137.24	78.52	34.08	18.62	32.39	64.19	61.18

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	30.31	27.96	28.18	29.79	23.73	23.94	30.39	11.54	11.31	29.22	13.90	14.04
Movement LOS	C	C	C	C	C	C	C	B	B	C	B	B
d_A, Approach Delay [s/veh]	28.13			24.89			17.54			16.07		
Approach LOS	C			C			B			B		
d_I, Intersection Delay [s/veh]	22.42											
Intersection LOS	C											
Intersection V/C	0.469											

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 16: Cathedral Canyon Drive / Paseo Real

Control Type:	Two-way stop	Delay (sec / veh):	29.9
Analysis Method:	HCM 2010	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.037

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	0	0	0	0	0	0
Pocket Length [ft]	55.00	100.00	100.00	55.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name												
Base Volume Input [veh/h]	11	482	9	16	509	19	11	5	16	9	6	14
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	52	7	0	67	0	0	0	0	9	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	11	553	16	17	596	20	11	5	17	18	6	15
Peak Hour Factor	0.9680	0.9680	0.9680	0.9680	0.9680	0.9680	0.9680	0.9680	0.9680	0.9680	0.9680	0.9680
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	143	4	4	154	5	3	1	4	5	2	4
Total Analysis Volume [veh/h]	11	571	17	18	616	21	11	5	18	19	6	15
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.01	0.00	0.02	0.01	0.00	0.06	0.03	0.03	0.09	0.04	0.02
d_M, Delay for Movement [s/veh]	8.86	0.00	0.00	8.73	0.00	0.00	25.33	28.89	11.89	25.48	29.88	12.62
Movement LOS	A	A	A	A	A	A	D	D	B	D	D	B
95th-Percentile Queue Length [veh]	0.04	0.00	0.00	0.06	0.00	0.00	0.38	0.38	0.38	0.53	0.53	0.53
95th-Percentile Queue Length [ft]	0.89	0.00	0.00	1.40	0.00	0.00	9.62	9.62	9.62	13.35	13.35	13.35
d_A, Approach Delay [s/veh]	0.16			0.24			18.74			21.32		
Approach LOS	A			A			C			C		
d_I, Intersection Delay [s/veh]	1.31											
Intersection LOS	D											

Intersection Level Of Service Report

Intersection 17: Cathedral Canyon Drive / Dinah Shore Drive

Control Type:	Signalized	Delay (sec / veh):	23.9
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.645

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	130.00	100.00	100.00	75.00	100.00	100.00	100.00	100.00	100.00	150.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	156	237	102	119	230	28	31	587	198	102	575	71
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	12	31	9	0	40	0	0	0	15	12	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	174	277	115	124	279	29	32	610	221	118	598	74
Peak Hour Factor	0.9700	0.9700	0.9700	0.9700	0.9700	0.9700	0.9700	0.9700	0.9700	0.9700	0.9700	0.9700
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	45	71	30	32	72	7	8	157	57	30	154	19
Total Analysis Volume [veh/h]	179	286	119	128	288	30	33	629	228	122	616	76
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	2 - N. Cathedral Canyon Drive
Cycle Length [s]	70
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	20	28	0	11	19	0	11	20	0	11	20	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	L	C	C	L	C	C
C, Cycle Length [s]	70	70	70	70	70	70	70	70	70	70	70	70
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	9	11	11	6	9	9	3	30	30	6	33	33
g / C, Green / Cycle	0.13	0.16	0.16	0.09	0.12	0.12	0.05	0.43	0.43	0.09	0.48	0.48
(v / s)_i Volume / Saturation Flow Rate	0.10	0.11	0.12	0.07	0.09	0.09	0.02	0.24	0.24	0.07	0.19	0.19
s, saturation flow rate [veh/h]	1774	1863	1681	1774	1863	1802	1774	1863	1696	1774	1863	1792
c, Capacity [veh/h]	227	292	263	166	228	220	87	801	730	163	881	847
d1, Uniform Delay [s]	29.71	28.17	28.23	31.11	29.62	29.65	32.36	15.02	15.02	31.12	12.04	12.05
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	6.01	3.39	3.96	7.39	3.98	4.24	2.68	2.81	3.09	6.74	1.36	1.41
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

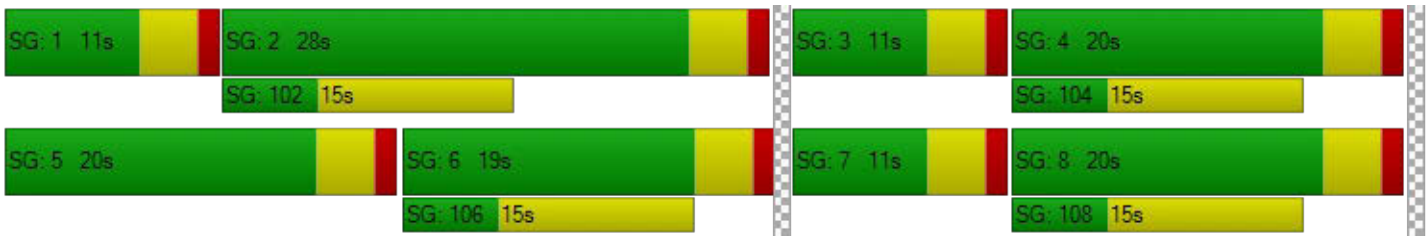
X, volume / capacity	0.79	0.72	0.74	0.77	0.71	0.71	0.38	0.56	0.56	0.75	0.40	0.40
d, Delay for Lane Group [s/veh]	35.72	31.57	32.19	38.51	33.60	33.89	35.04	17.83	18.12	37.86	13.40	13.46
Lane Group LOS	D	C	C	D	C	C	D	B	B	D	B	B
Critical Lane Group	Yes	No	No	No	No	Yes	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh]	3.10	3.40	3.16	2.32	2.68	2.63	0.58	5.19	4.78	2.19	3.33	3.22
50th-Percentile Queue Length [ft]	77.51	84.99	78.98	57.97	66.93	65.77	14.40	129.73	119.59	54.67	83.19	80.44
95th-Percentile Queue Length [veh]	5.58	6.12	5.69	4.17	4.82	4.74	1.04	8.93	8.37	3.94	5.99	5.79
95th-Percentile Queue Length [ft]	139.53	152.98	142.17	104.34	120.47	118.38	25.93	223.13	209.27	98.41	149.74	144.80

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	35.72	31.73	32.19	38.51	33.72	33.89	35.04	17.92	18.12	37.86	13.43	13.46
Movement LOS	D	C	C	D	C	C	D	B	B	D	B	B
d_A, Approach Delay [s/veh]	33.05			35.11			18.60			17.09		
Approach LOS	C			D			B			B		
d_I, Intersection Delay [s/veh]	23.93											
Intersection LOS	C											
Intersection V/C	0.645											

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 18: Date Palm Drive / Gerald Ford Drive

Control Type:	Signalized	Delay (sec / veh):	18.1
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.517

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	85.00	100.00	85.00	160.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			Yes			Yes			No		

Volumes

Name												
Base Volume Input [veh/h]	22	418	198	120	415	61	36	46	46	196	44	127
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	106	53	0	124	37	37	0	0	66	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	23	541	259	125	556	100	74	48	48	270	46	132
Peak Hour Factor	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	6	141	68	33	145	26	19	13	13	70	12	34
Total Analysis Volume [veh/h]	24	565	270	130	580	104	77	50	50	282	48	138
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	6 - N/S
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Split	Split	Split	Split	Split	Split
Signal group	5	2	0	1	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lag	-	-	Lag	-	-	-	-	-	-	-	-
Minimum Green [s]	7	7	0	7	7	0	0	7	0	0	7	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	11	11	0	19	19	0	0	11	0	0	19	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No	No		No	No			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	C	L	C	C	L	C	R
C, Cycle Length [s]	60	60	60	60	60	60	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	2	23	23	6	27	27	7	7	7	8	8	8
g / C, Green / Cycle	0.04	0.38	0.38	0.10	0.44	0.44	0.11	0.11	0.11	0.14	0.14	0.14
(v / s)_i Volume / Saturation Flow Rate	0.01	0.11	0.17	0.07	0.13	0.13	0.04	0.03	0.03	0.09	0.09	0.09
s, saturation flow rate [veh/h]	1774	5074	1583	1774	3547	1723	1774	1863	1583	1774	1799	1583
c, Capacity [veh/h]	73	1917	598	187	1568	762	197	207	176	249	252	222
d1, Uniform Delay [s]	28.10	13.13	14.07	26.03	10.77	10.79	24.90	24.47	24.59	24.56	24.56	24.42
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.59	0.39	2.45	4.58	0.47	0.99	1.26	0.60	0.87	2.97	2.93	2.84
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

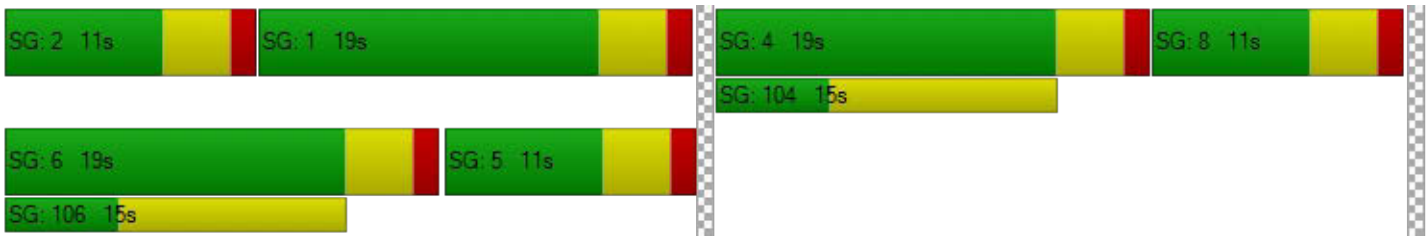
X, volume / capacity	0.33	0.29	0.45	0.69	0.29	0.30	0.39	0.24	0.28	0.66	0.66	0.62
d, Delay for Lane Group [s/veh]	30.69	13.52	16.52	30.62	11.24	11.79	26.15	25.07	25.47	27.53	27.49	27.26
Lane Group LOS	C	B	B	C	B	B	C	C	C	C	C	C
Critical Lane Group	No	No	Yes	Yes	No	No	Yes	No	No	Yes	No	No
50th-Percentile Queue Length [veh]	0.36	1.56	2.70	1.87	1.67	1.76	1.00	0.63	0.64	2.20	2.23	1.84
50th-Percentile Queue Length [ft]	9.04	38.99	67.39	46.72	41.71	43.92	24.90	15.65	15.93	54.98	55.67	46.12
95th-Percentile Queue Length [veh]	0.65	2.81	4.85	3.36	3.00	3.16	1.79	1.13	1.15	3.96	4.01	3.32
95th-Percentile Queue Length [ft]	16.27	70.18	121.30	84.10	75.08	79.06	44.81	28.17	28.68	98.96	100.21	83.01

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	30.69	13.52	16.52	30.62	11.36	11.79	26.15	25.07	25.47	27.51	27.49	27.26
Movement LOS	C	B	B	C	B	B	C	C	C	C	C	C
d_A, Approach Delay [s/veh]	14.94			14.49			25.65			27.44		
Approach LOS	B			B			C			C		
d_I, Intersection Delay [s/veh]	18.12											
Intersection LOS	B											
Intersection V/C	0.517											

Sequence

Ring 1	1	2	4	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 19: Date Palm Drive / Dinah Shore Drive

Control Type:	Signalized	Delay (sec / veh):	20.5
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.554

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	2	0	1	2	0	1	1	0	0	1	0	1
Pocket Length [ft]	225.00	100.00	125.00	170.00	100.00	50.00	150.00	100.00	100.00	130.00	100.00	180.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			No		

Volumes

Name												
Base Volume Input [veh/h]	185	483	58	114	538	75	103	483	173	59	427	115
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	151	0	15	167	0	0	0	0	0	0	16
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	192	653	60	134	727	78	107	502	180	61	444	136
Peak Hour Factor	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	51	173	16	35	193	21	28	133	48	16	118	36
Total Analysis Volume [veh/h]	203	692	64	142	770	83	113	532	191	65	470	144
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	1 - E Palm Canyon Drive
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Overlap
Signal group	5	2	0	1	6	0	3	8	0	7	4	4
Auxiliary Signal Groups												1,4
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	7
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	30
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	1.0
Split [s]	11	19	0	11	19	0	11	19	0	11	19	19
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	5
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	10
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0
Minimum Recall	No	No		No	No		No	No		No	No	No
Maximum Recall	No	No		No	No		No	No		No	No	No
Pedestrian Recall	No	No		No	No		No	No		No	No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	60	60	60	60	60	60	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	0.00
g_i, Effective Green Time [s]	7	21	21	6	21	21	6	12	12	5	11	21
g / C, Green / Cycle	0.11	0.35	0.35	0.11	0.35	0.35	0.10	0.20	0.20	0.08	0.18	0.35
(v / s)_i Volume / Saturation Flow Rate	0.06	0.14	0.04	0.04	0.15	0.05	0.06	0.15	0.12	0.04	0.13	0.09
s, saturation flow rate [veh/h]	3445	5074	1583	3445	5074	1583	1774	3547	1583	1774	3547	1583
c, Capacity [veh/h]	393	1779	555	371	1746	545	179	698	312	142	622	553
d1, Uniform Delay [s]	25.15	14.73	13.25	25.04	15.29	13.69	26.02	22.88	22.12	26.50	23.63	14.04
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.05	0.64	0.42	0.65	0.81	0.59	3.62	1.76	1.96	2.31	1.89	0.25
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.52	0.39	0.12	0.38	0.44	0.15	0.63	0.76	0.61	0.46	0.76	0.26
d, Delay for Lane Group [s/veh]	26.20	15.37	13.68	25.69	16.10	14.28	29.64	24.64	24.08	28.81	25.52	14.28
Lane Group LOS	C	B	B	C	B	B	C	C	C	C	C	B
Critical Lane Group	Yes	No	No	No	Yes	No	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh]	1.30	2.11	0.56	0.89	2.43	0.76	1.59	3.33	2.36	0.90	2.99	1.23
50th-Percentile Queue Length [ft]	32.38	52.66	14.12	22.29	60.78	18.89	39.80	83.15	58.98	22.61	74.81	30.84
95th-Percentile Queue Length [veh]	2.33	3.79	1.02	1.60	4.38	1.36	2.87	5.99	4.25	1.63	5.39	2.22
95th-Percentile Queue Length [ft]	58.28	94.79	25.41	40.12	109.40	34.00	71.65	149.67	106.17	40.70	134.66	55.51

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	26.20	15.37	13.68	25.69	16.10	14.28	29.64	24.64	24.08	28.81	25.52	14.28
Movement LOS	C	B	B	C	B	B	C	C	C	C	C	B
d_A, Approach Delay [s/veh]	17.55			17.32			25.19			23.45		
Approach LOS	B			B			C			C		
d_I, Intersection Delay [s/veh]	20.48											
Intersection LOS	C											
Intersection V/C	0.554											

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 23: East Palm Canyon Drive / Frank Sinatra Drive

Control Type:	Signalized	Delay (sec / veh):	21.1
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.763

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	1	1	0	0	2	0	1
Pocket Length [ft]	160.00	100.00	45.00	325.00	100.00	250.00	100.00	100.00	100.00	120.00	100.00	1200.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			No			Yes		

Volumes

Name												
Base Volume Input [veh/h]	47	1301	147	214	1244	33	34	18	13	141	24	199
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	162	2	24	154	5	5	0	0	2	0	31
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	49	1515	155	247	1448	39	40	19	14	149	25	238
Peak Hour Factor	0.9210	0.9210	0.9210	0.9210	0.9210	0.9210	0.9210	0.9210	0.9210	0.9210	0.9210	0.9210
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	13	411	42	67	393	11	11	5	4	40	7	65
Total Analysis Volume [veh/h]	53	1645	168	268	1572	42	43	21	15	162	27	258
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	6 - N/S
Cycle Length [s]	70
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Overlap	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Overlap
Signal group	5	2	2	1	6	0	3	8	0	7	4	4
Auxiliary Signal Groups			2									4
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	7	7	7	0	7	7	0	7	7	7
Maximum Green [s]	30	30	30	30	30	0	30	30	0	30	30	30
Amber [s]	3.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0
All red [s]	1.0	1.0	1.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	1.0
Split [s]	12	29	29	11	28	0	13	19	0	11	17	17
Vehicle Extension [s]	3.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0
Walk [s]	0	5	5	0	5	0	0	5	0	0	5	5
Pedestrian Clearance [s]	0	10	10	0	10	0	0	10	0	0	10	10
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0
Minimum Recall	No	No	No	No	No		No	No		No	No	No
Maximum Recall	No	No	No	No	No		No	No		No	No	No
Pedestrian Recall	No	No	No	No	No		No	No		No	No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	L	C	R
C, Cycle Length [s]	70	70	70	70	70	70	70	70	70	70	70
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	5	30	30	7	32	32	4	11	7	13	13
g / C, Green / Cycle	0.07	0.42	0.42	0.10	0.46	0.46	0.06	0.15	0.10	0.19	0.19
(v / s)_i Volume / Saturation Flow Rate	0.03	0.32	0.11	0.08	0.31	0.03	0.02	0.02	0.05	0.01	0.16
s, saturation flow rate [veh/h]	1774	5074	1583	3445	5074	1583	1774	1735	3445	1863	1583
c, Capacity [veh/h]	118	2140	668	348	2315	722	104	265	334	356	302
d1, Uniform Delay [s]	31.56	17.39	13.14	30.79	15.05	10.67	31.89	25.75	30.06	23.33	27.47
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.67	2.73	0.90	3.64	1.63	0.15	2.59	0.23	1.09	0.09	6.79
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

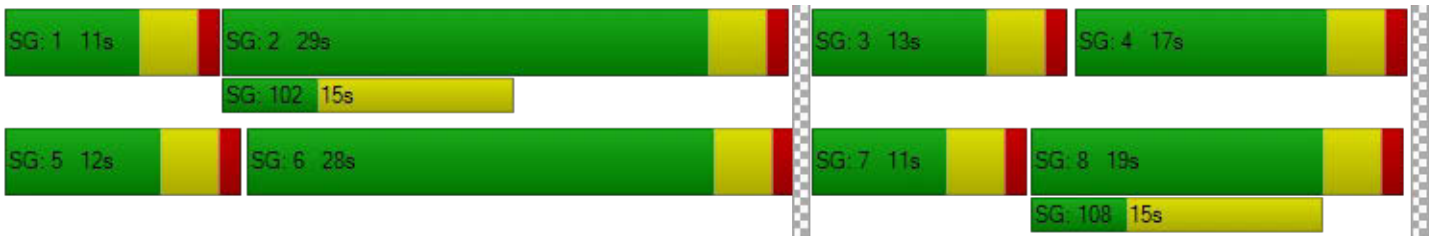
X, volume / capacity	0.45	0.77	0.25	0.77	0.68	0.06	0.41	0.14	0.49	0.08	0.85
d, Delay for Lane Group [s/veh]	34.24	20.11	14.05	34.43	16.68	10.83	34.48	25.98	31.15	23.42	34.27
Lane Group LOS	C	C	B	C	B	B	C	C	C	C	C
Critical Lane Group	No	Yes	No	Yes	No	No	Yes	No	No	No	Yes
50th-Percentile Queue Length [veh]	0.90	6.96	1.65	2.24	5.83	0.34	0.74	0.50	1.26	0.35	4.40
50th-Percentile Queue Length [ft]	22.49	173.89	41.34	55.92	145.84	8.56	18.42	12.53	31.58	8.73	110.01
95th-Percentile Queue Length [veh]	1.62	11.28	2.98	4.03	9.79	0.62	1.33	0.90	2.27	0.63	7.84
95th-Percentile Queue Length [ft]	40.49	282.02	74.42	100.65	244.87	15.41	33.16	22.56	56.84	15.72	196.01

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	34.24	20.11	14.05	34.43	16.68	10.83	34.48	25.98	25.98	31.15	23.42	34.27
Movement LOS	C	C	B	C	B	B	C	C	C	C	C	C
d_A, Approach Delay [s/veh]	19.97			19.08			30.61			32.48		
Approach LOS	B			B			C			C		
d_I, Intersection Delay [s/veh]	21.08											
Intersection LOS	C											
Intersection V/C	0.763											

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 24: East Palm Canyon Drive / Mirage Cove Drive

Control Type:	Signalized	Delay (sec / veh):	8.1
Analysis Method:	HCM 2010	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.477

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	1	1	0	0
Pocket Length [ft]	150.00	100.00	100.00	110.00	100.00	100.00	75.00	100.00	75.00	75.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	40	1394	6	23	1334	43	39	0	21	4	0	23
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	124	0	40	107	9	7	0	0	0	0	33
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	42	1574	6	64	1494	54	48	0	22	4	0	57
Peak Hour Factor	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	11	412	2	17	392	14	13	0	6	1	0	15
Total Analysis Volume [veh/h]	44	1650	6	67	1566	57	50	0	23	4	0	60
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	6 - N/S
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	5	2	0	1	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	7	7	0	7	7	0	0	7	0	0	7	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	11	30	0	11	30	0	0	19	0	0	19	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No	No		No	No			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	L	C	R	L	C
C, Cycle Length [s]	60	60	60	60	60	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.00	0.00	2.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	4	38	38	5	39	39	5	5	5	5	5
g / C, Green / Cycle	0.06	0.63	0.63	0.08	0.65	0.65	0.09	0.09	0.09	0.09	0.09
(v / s)_i Volume / Saturation Flow Rate	0.02	0.31	0.31	0.04	0.30	0.30	0.04	0.00	0.01	0.00	0.04
s, saturation flow rate [veh/h]	1774	3547	1859	1774	3547	1829	1337	1863	1583	1412	1583
c, Capacity [veh/h]	112	2240	1174	143	2303	1188	153	165	140	205	140
d1, Uniform Delay [s]	27.09	5.89	5.89	26.42	5.30	5.30	29.59	0.00	25.37	26.63	25.99
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.25	0.75	1.44	2.37	0.68	1.31	1.23	0.00	0.55	0.04	2.07
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

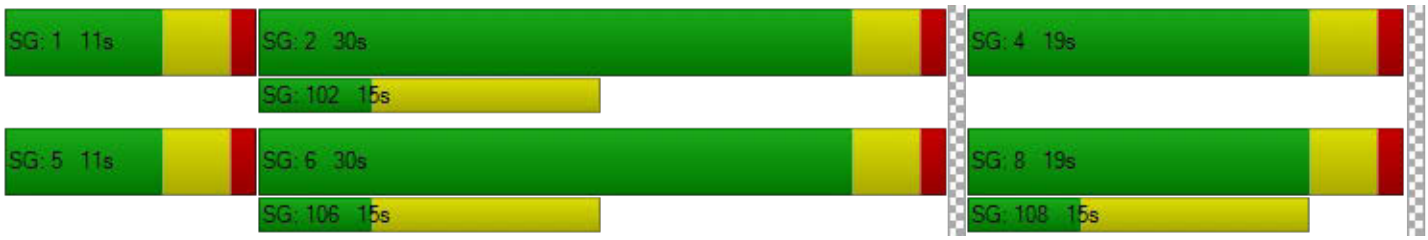
X, volume / capacity	0.39	0.49	0.49	0.47	0.46	0.47	0.33	0.00	0.16	0.02	0.43
d, Delay for Lane Group [s/veh]	29.33	6.64	7.32	28.79	5.98	6.61	30.82	0.00	25.92	26.67	28.06
Lane Group LOS	C	A	A	C	A	A	C	A	C	C	C
Critical Lane Group	No	No	Yes	Yes	No	No	No	No	No	No	Yes
50th-Percentile Queue Length [veh]	0.63	2.42	2.75	0.93	2.12	2.40	0.73	0.00	0.30	0.05	0.82
50th-Percentile Queue Length [ft]	15.64	60.39	68.87	23.28	53.10	60.03	18.13	0.00	7.47	1.29	20.55
95th-Percentile Queue Length [veh]	1.13	4.35	4.96	1.68	3.82	4.32	1.31	0.00	0.54	0.09	1.48
95th-Percentile Queue Length [ft]	28.15	108.69	123.96	41.91	95.58	108.06	32.63	0.00	13.44	2.33	37.00

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	29.33	6.87	7.32	28.79	6.18	6.61	30.82	0.00	25.92	26.67	28.06	28.06
Movement LOS	C	A	A	C	A	A	C	A	C	C	C	C
d_A, Approach Delay [s/veh]	7.46			7.09			29.28			27.97		
Approach LOS	A			A			C			C		
d_I, Intersection Delay [s/veh]	8.10											
Intersection LOS	A											
Intersection V/C	0.477											

Sequence

Ring 1	1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Opening Year Conditions
Alternative B

Intersection Level Of Service Report
Intersection 1: North Project Driveway 1 / Buddy Rogers Avenue

Control Type:	Two-way stop	Delay (sec / veh):	11.2
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			No			No		

Volumes

Name												
Base Volume Input [veh/h]	0	0	0	0	0	0	0	29	0	0	31	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	35	0	80	0	0	0	0	0	33	73	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	35	0	80	0	0	0	0	30	33	73	32	0
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	10	0	22	0	0	0	0	8	9	20	9	0
Total Analysis Volume [veh/h]	38	0	87	0	0	0	0	33	36	79	35	0
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	No	No		
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	No	No		
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.06	0.00	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.00
d_M, Delay for Movement [s/veh]	10.60	11.11	8.87	11.17	10.91	8.47	7.28	0.00	0.00	7.48	0.00	0.00
Movement LOS	B	B	A	B	B	A	A	A	A	A	A	A
95th-Percentile Queue Length [veh]	0.18	0.28	0.28	0.00	0.00	0.00	0.00	0.00	0.00	0.24	0.24	0.24
95th-Percentile Queue Length [ft]	4.42	7.00	7.00	0.00	0.00	0.00	0.00	0.00	0.00	6.02	6.02	6.02
d_A, Approach Delay [s/veh]	9.40			10.18			0.00			5.18		
Approach LOS	A			B			A			A		
d_I, Intersection Delay [s/veh]	5.73											
Intersection LOS	B											

Intersection Level Of Service Report
Intersection 2: Date Palm Drive / Buddy Rogers Avenue

Control Type:	Two-way stop	Delay (sec / veh):	47.5
Analysis Method:	HCM 2010	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.540

Intersection Setup

Name						
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00		40.00		40.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

Volumes

Name						
Base Volume Input [veh/h]	4	671	533	27	23	6
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	2.97	1.04	1.04	2.97	1.33	1.33
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	25	42	51	57	63	27
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	37	740	605	137	94	35
Peak Hour Factor	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	10	193	158	36	25	9
Total Analysis Volume [veh/h]	39	772	632	143	98	37
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.08	0.01	0.01	0.00	0.54	0.07
d_M, Delay for Movement [s/veh]	12.78	0.00	0.00	0.00	47.49	34.55
Movement LOS	B	A	A	A	E	D
95th-Percentile Queue Length [veh]	0.25	0.00	0.00	0.00	3.54	3.54
95th-Percentile Queue Length [ft]	6.29	0.00	0.00	0.00	88.56	88.56
d_A, Approach Delay [s/veh]	0.61		0.00		43.94	
Approach LOS	A		A		E	
d_I, Intersection Delay [s/veh]	3.74					
Intersection LOS	E					

Intersection Level Of Service Report
Intersection 3: Date Palm Drive / East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	10.7
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.601

Intersection Setup

Name						
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00		40.00		40.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		Yes		Yes	

Volumes

Name						
Base Volume Input [veh/h]	409	118	143	1125	1247	472
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	32	46	37	86	82	30
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	457	169	186	1256	1379	521
Peak Hour Factor	0.9560	0.9560	0.9560	0.9560	0.9560	0.9560
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	120	44	49	328	361	136
Total Analysis Volume [veh/h]	478	177	195	1314	1442	545
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Split	Split	ProtectedPermissi	Permissive	Permissive	Permissive
Signal group	1	0	3	8	4	4
Auxiliary Signal Groups						3,4
Lead / Lag	Lead	-	Lead	-	-	-
Minimum Green [s]	7	0	7	7	7	7
Maximum Green [s]	30	0	7	30	30	30
Amber [s]	3.0	0.0	3.0	3.0	3.0	3.0
All red [s]	1.0	0.0	1.0	1.0	1.0	1.0
Split [s]	19	0	16	41	25	25
Vehicle Extension [s]	3.0	0.0	3.0	3.0	3.0	3.0
Walk [s]	5	0	0	5	5	5
Pedestrian Clearance [s]	10	0	0	10	10	10
Rest In Walk	No			No	No	
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0
Minimum Recall	No		Yes	No	No	
Maximum Recall	No		No	No	No	
Pedestrian Recall	No		No	No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	R	L	C	C	R
C, Cycle Length [s]	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	0.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	10	10	42	42	32	32
g / C, Green / Cycle	0.16	0.16	0.71	0.71	0.53	0.53
(v / s)_i Volume / Saturation Flow Rate	0.09	0.11	0.15	0.26	0.28	0.34
s, saturation flow rate [veh/h]	5168	1583	1275	5074	5074	1583
c, Capacity [veh/h]	837	256	996	3577	2675	835
d1, Uniform Delay [s]	23.27	23.78	4.29	3.53	9.39	10.25
k, delay calibration	0.11	0.11	0.11	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.62	3.30	0.10	0.29	0.78	3.95
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.57	0.69	0.20	0.37	0.54	0.65
d, Delay for Lane Group [s/veh]	23.89	27.08	4.39	3.82	10.17	14.20
Lane Group LOS	C	C	A	A	B	B
Critical Lane Group	No	Yes	Yes	No	No	Yes
50th-Percentile Queue Length [veh]	1.92	2.36	0.18	1.02	3.25	4.69
50th-Percentile Queue Length [ft]	48.00	59.00	4.38	25.61	81.15	117.35
95th-Percentile Queue Length [veh]	3.46	4.25	0.32	1.84	5.84	8.25
95th-Percentile Queue Length [ft]	86.41	106.21	7.89	46.11	146.07	206.18

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	23.89	27.08	4.39	3.82	10.17	14.20
Movement LOS	C	C	A	A	B	B
d_A, Approach Delay [s/veh]	24.75		3.90		11.28	
Approach LOS	C		A		B	
d_I, Intersection Delay [s/veh]	10.72					
Intersection LOS	B					
Intersection V/C	0.601					

Sequence

Ring 1	1	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 4: South Project Driveway-Allen Avenue / East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	4.4
Analysis Method:	HCM 2010	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.655

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	0	0	0	0	0	1	4	1262	0	0	1341	11
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	21	0	65	57	103	0	0	109	19
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	21	0	66	61	1415	0	0	1504	30
Peak Hour Factor	0.9120	0.9120	0.9120	0.9120	0.9120	0.9120	0.9120	0.9120	0.9120	0.9120	0.9120	0.9120
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	6	0	18	17	388	0	0	412	8
Total Analysis Volume [veh/h]	0	0	0	23	0	72	67	1552	0	0	1649	33
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	1 - E Palm Canyon Drive
Cycle Length [s]	70
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	0	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	7	0	0	7	0	0	7	0	0	7	0
Maximum Green [s]	0	30	0	0	30	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	33	0	0	33	0	0	37	0	0	37	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No			No			No			No	
Maximum Recall		No			No			No			No	
Pedestrian Recall		No			No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	L	C	C	C	L	C	R
C, Cycle Length [s]	70	70	70	70	70	70	70	70
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	2.00	0.00	2.00	0.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	6	6	6	56	56	56	56	56
g / C, Green / Cycle	0.08	0.08	0.08	0.80	0.80	0.80	0.80	0.80
(v / s)_i Volume / Saturation Flow Rate	0.00	0.02	0.05	0.53	0.49	0.00	0.32	0.02
s, saturation flow rate [veh/h]	1652	1412	1583	1475	1695	331	5074	1583
c, Capacity [veh/h]	193	189	135	1236	1356	289	4060	1267
d1, Uniform Delay [s]	0.00	31.35	30.66	2.43	2.74	0.00	2.07	1.43
k, delay calibration	0.11	0.11	0.11	0.50	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.00	0.28	3.21	2.53	2.07	0.00	0.30	0.04
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.00	0.12	0.53	0.64	0.61	0.00	0.41	0.03
d, Delay for Lane Group [s/veh]	0.00	31.64	33.86	4.95	4.81	0.00	2.37	1.47
Lane Group LOS	A	C	C	A	A	A	A	A
Critical Lane Group	No	No	Yes	Yes	No	No	No	No
50th-Percentile Queue Length [veh]	0.00	0.36	1.21	1.60	1.65	0.00	0.55	0.03
50th-Percentile Queue Length [ft]	0.00	9.10	30.28	39.99	41.28	0.00	13.74	0.79
95th-Percentile Queue Length [veh]	0.00	0.66	2.18	2.88	2.97	0.00	0.99	0.06
95th-Percentile Queue Length [ft]	0.00	16.38	54.50	71.99	74.30	0.00	24.73	1.41

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	31.64	33.86	33.86	4.95	4.88	4.81	0.00	2.37	1.47
Movement LOS	A	A	A	C	C	C	A	A	A	A	A	A
d_A, Approach Delay [s/veh]	0.00			33.33			4.88			2.36		
Approach LOS	A			C			A			A		
d_I, Intersection Delay [s/veh]	4.43											
Intersection LOS	A											
Intersection V/C	0.655											

Sequence

Ring 1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 5: Monty Hall Drive-Van Fleet Avenue / East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	10.8
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.656

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	1	0	1	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	45.00	100.00	100.00	105.00	100.00	130.00	125.00	100.00	180.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	11	7	55	12	6	12	6	1211	9	92	1276	16
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	11	0	0	35	33	149	0	13	161	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	11	7	68	12	6	47	39	1408	9	109	1488	17
Peak Hour Factor	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	2	18	3	2	12	10	369	2	29	390	4
Total Analysis Volume [veh/h]	12	7	71	13	6	49	41	1476	9	114	1560	18
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	1 - E Palm Canyon Drive
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	0	7	7	0	7	7	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	19	0	0	19	0	11	30	0	11	30	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	R	L	C	L	C	R	L	C	R
C, Cycle Length [s]	60	60	60	60	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	6	6	6	6	4	37	37	6	39	39
g / C, Green / Cycle	0.09	0.09	0.09	0.09	0.06	0.61	0.61	0.10	0.65	0.65
(v / s)_i Volume / Saturation Flow Rate	0.02	0.04	0.01	0.03	0.02	0.42	0.01	0.06	0.44	0.01
s, saturation flow rate [veh/h]	904	1583	1403	1610	1774	3547	1583	1774	3547	1583
c, Capacity [veh/h]	181	147	142	149	106	2154	962	178	2298	1026
d1, Uniform Delay [s]	25.07	25.93	29.40	25.64	27.22	7.94	4.66	26.02	6.65	3.77
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.25	2.46	0.28	1.51	2.29	1.80	0.02	3.79	1.64	0.03
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.10	0.48	0.09	0.37	0.39	0.69	0.01	0.64	0.68	0.02
d, Delay for Lane Group [s/veh]	25.32	28.38	29.67	27.15	29.50	9.74	4.68	29.81	8.29	3.80
Lane Group LOS	C	C	C	C	C	A	A	C	A	A
Critical Lane Group	No	Yes	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh]	0.24	0.98	0.18	0.74	0.59	4.57	0.03	1.61	4.02	0.05
50th-Percentile Queue Length [ft]	5.99	24.47	4.57	18.40	14.66	114.34	0.84	40.28	100.39	1.37
95th-Percentile Queue Length [veh]	0.43	1.76	0.33	1.32	1.06	8.08	0.06	2.90	7.23	0.10
95th-Percentile Queue Length [ft]	10.78	44.05	8.23	33.11	26.40	202.02	1.51	72.50	180.71	2.46

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	25.32	25.32	28.38	29.67	27.15	27.15	29.50	9.74	4.68	29.81	8.29	3.80
Movement LOS	C	C	C	C	C	C	C	A	A	C	A	A
d_A, Approach Delay [s/veh]	27.74			27.63			10.24			9.69		
Approach LOS	C			C			B			A		
d_I, Intersection Delay [s/veh]	10.78											
Intersection LOS	B											
Intersection V/C	0.656											

Sequence

Ring 1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 7: North Project Driveway 2 / Buddy Rogers Avenue

Control Type:	Two-way stop	Delay (sec / veh):	10.0
Analysis Method:	HCM 2010	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

Intersection Setup

Name						
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00		40.00		40.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name						
Base Volume Input [veh/h]	0	0	29	0	0	31
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.00	1.00	1.04	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	11	80	0	10	73
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	11	109	0	10	104
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	3	30	0	3	28
Total Analysis Volume [veh/h]	0	12	118	0	11	113
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.01	0.00	0.00	0.01	0.00
d_M, Delay for Movement [s/veh]	9.98	8.91	0.00	0.00	7.47	0.00
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh]	0.04	0.04	0.00	0.00	0.28	0.28
95th-Percentile Queue Length [ft]	0.98	0.98	0.00	0.00	6.90	6.90
d_A, Approach Delay [s/veh]	8.91		0.00		0.66	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	0.74					
Intersection LOS	A					

Intersection Level Of Service Report
Intersection 8: Monty Hall Drive / Buddy Rogers Avenue

Control Type:	All-way stop	Delay (sec / veh):	7.5
Analysis Method:	HCM 2010	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.098

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			No			No		

Volumes

Name												
Base Volume Input [veh/h]	13	7	3	23	12	0	4	15	21	9	11	5
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	33	0	0	0	0	0	0	35	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	14	7	36	24	12	0	4	16	22	44	11	5
Peak Hour Factor	0.7500	0.7500	0.7500	0.7500	0.7500	0.7500	0.7500	0.7500	0.7500	0.7500	0.7500	0.7500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	5	2	12	8	4	0	1	5	7	15	4	2
Total Analysis Volume [veh/h]	19	9	48	32	16	0	5	21	29	59	15	7
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	910	811	903	828
Degree of Utilization, x	0.08	0.06	0.06	0.10

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.27	0.19	0.19	0.32
95th-Percentile Queue Length [ft]	6.81	4.71	4.86	8.11
Approach Delay [s/veh]	7.32	7.72	7.25	7.82
Approach LOS	A	A	A	A
Intersection Delay [s/veh]	7.53			
Intersection LOS	A			

Intersection Level Of Service Report

Intersection 9: Buddy Rogers Avenue/ East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	3.4
Analysis Method:	HCM 2010	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.540

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	13	2	28	10	5	22	23	1186	3	42	1227	15
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	182	0	0	196	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	14	2	29	10	5	23	24	1415	3	44	1472	16
Peak Hour Factor	0.9310	0.9310	0.9310	0.9310	0.9310	0.9310	0.9310	0.9310	0.9310	0.9310	0.9310	0.9310
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	1	8	3	1	6	6	380	1	12	395	4
Total Analysis Volume [veh/h]	15	2	31	11	5	25	26	1520	3	47	1581	17
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	1 - E Palm Canyon Drive
Cycle Length [s]	100
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	7	0	0	7	0	0	7	0	0	7	0
Maximum Green [s]	0	30	0	0	30	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	19	0	0	19	0	0	70	0	0	70	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No			No			No			No	
Maximum Recall		No			No			No			No	
Pedestrian Recall		No			No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	C	L	C	R	L	C	R
C, Cycle Length [s]	100	100	100	100	100	100	100	100
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	2.00	2.00	0.00	0.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	5	5	87	87	87	87	87	87
g / C, Green / Cycle	0.05	0.05	0.87	0.87	0.87	0.87	0.87	0.87
(v / s)_i Volume / Saturation Flow Rate	0.03	0.02	0.08	0.43	0.00	0.14	0.45	0.01
s, saturation flow rate [veh/h]	1635	1663	322	3547	1583	342	3547	1583
c, Capacity [veh/h]	132	132	309	3079	1374	326	3079	1374
d1, Uniform Delay [s]	46.24	46.04	3.83	1.52	0.87	3.86	1.57	0.88
k, delay calibration	0.11	0.11	0.50	0.50	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.67	1.32	0.54	0.57	0.00	0.93	0.62	0.02
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.36	0.31	0.08	0.49	0.00	0.14	0.51	0.01
d, Delay for Lane Group [s/veh]	47.91	47.36	4.36	2.09	0.88	4.79	2.19	0.90
Lane Group LOS	D	D	A	A	A	A	A	A
Critical Lane Group	Yes	No	No	No	No	No	Yes	No
50th-Percentile Queue Length [veh]	1.20	1.01	0.16	0.67	0.00	0.29	0.72	0.01
50th-Percentile Queue Length [ft]	29.94	25.37	3.99	16.76	0.05	7.31	18.03	0.29
95th-Percentile Queue Length [veh]	2.16	1.83	0.29	1.21	0.00	0.53	1.30	0.02
95th-Percentile Queue Length [ft]	53.90	45.67	7.19	30.17	0.09	13.15	32.46	0.53

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	47.91	47.91	47.91	47.36	47.36	47.36	4.36	2.09	0.88	4.79	2.19	0.90
Movement LOS	D	D	D	D	D	D	A	A	A	A	A	A
d_A, Approach Delay [s/veh]	47.91			47.36			2.13			2.25		
Approach LOS	D			D			A			A		
d_I, Intersection Delay [s/veh]	3.42											
Intersection LOS	A											
Intersection V/C	0.540											

Sequence

Ring 1	2	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 10: Cathedral Canyon Drive / East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	16.9
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.697

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	0	1	0	0	1	0	1
Pocket Length [ft]	100.00	100.00	70.00	90.00	100.00	100.00	238.00	100.00	100.00	190.00	100.00	270.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	62	124	46	129	147	74	119	1056	74	66	998	157
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	2	0	15	39	0	15	9	128	4	21	133	42
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	66	129	63	173	153	92	133	1226	81	90	1171	205
Peak Hour Factor	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	17	34	16	45	40	24	35	320	21	23	305	53
Total Analysis Volume [veh/h]	69	135	66	180	160	96	139	1278	84	94	1221	214
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	1 - E Palm Canyon Drive
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Overlap	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	6	3	8	0	7	4	0
Auxiliary Signal Groups						3,6						
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	7	7	7	0	7	7	0
Maximum Green [s]	0	30	0	0	30	30	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	1.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	19	0	0	19	19	11	30	0	11	30	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	5	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	10	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No	No	No	No		No	No	
Maximum Recall		No			No	No	No	No		No	No	
Pedestrian Recall		No			No	No	No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	60	60	60	60	60	60	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	0.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	15	15	15	15	15	25	6	28	28	6	27	27
g / C, Green / Cycle	0.25	0.25	0.25	0.25	0.25	0.42	0.10	0.46	0.46	0.09	0.45	0.45
(v / s)_i Volume / Saturation Flow Rate	0.06	0.07	0.04	0.14	0.09	0.06	0.08	0.36	0.05	0.05	0.24	0.14
s, saturation flow rate [veh/h]	1221	1863	1583	1249	1863	1583	1774	3547	1583	1774	5074	1583
c, Capacity [veh/h]	301	466	396	320	466	666	184	1625	725	164	2266	707
d1, Uniform Delay [s]	23.12	18.23	17.64	24.77	18.50	10.75	26.22	13.81	9.33	26.18	12.14	10.66
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.38	0.34	0.20	1.55	0.44	0.10	6.18	3.92	0.32	3.16	0.92	1.10
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.23	0.29	0.17	0.56	0.34	0.14	0.76	0.79	0.12	0.57	0.54	0.30
d, Delay for Lane Group [s/veh]	23.50	18.57	17.84	26.31	18.93	10.85	32.40	17.74	9.65	29.34	13.06	11.76
Lane Group LOS	C	B	B	C	B	B	C	B	A	C	B	B
Critical Lane Group	No	No	No	Yes	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh]	0.83	1.38	0.65	2.38	1.66	0.66	2.07	6.59	0.57	1.32	3.36	1.68
50th-Percentile Queue Length [ft]	20.69	34.49	16.34	59.57	41.57	16.61	51.66	164.76	14.30	32.90	84.09	41.99
95th-Percentile Queue Length [veh]	1.49	2.48	1.18	4.29	2.99	1.20	3.72	10.80	1.03	2.37	6.05	3.02
95th-Percentile Queue Length [ft]	37.24	62.09	29.41	107.23	74.82	29.89	92.99	270.01	25.74	59.22	151.37	75.59

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	23.50	18.57	17.84	26.31	18.93	10.85	32.40	17.74	9.65	29.34	13.06	11.76
Movement LOS	C	B	B	C	B	B	C	B	A	C	B	B
d_A, Approach Delay [s/veh]	19.65			20.20			18.64			13.88		
Approach LOS	B			C			B			B		
d_I, Intersection Delay [s/veh]	16.95											
Intersection LOS	B											
Intersection V/C	0.697											

Sequence

Ring 1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 11: Perez Road / East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	25.0
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.725

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	150.00	100.00	100.00	170.00	100.00	45.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	34	24	15	19	8	347	269	1161	7	7	1128	12
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	2	0	0	0	0	139	0	2	148	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	35	25	18	20	8	361	280	1346	7	9	1321	12
Peak Hour Factor	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	9	7	5	5	2	95	74	356	2	2	349	3
Total Analysis Volume [veh/h]	37	26	19	21	8	382	296	1423	7	10	1396	13
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	0	7	7	0	7	7	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	19	0	0	19	0	20	71	0	11	62	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	R	L	C	C	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	7	7	17	17	17	13	78	78	2	68	68
g / C, Green / Cycle	0.05	0.05	0.14	0.14	0.14	0.11	0.65	0.65	0.02	0.56	0.56
(v / s)_i Volume / Saturation Flow Rate	0.02	0.03	0.01	0.12	0.12	0.09	0.26	0.26	0.01	0.39	0.01
s, saturation flow rate [veh/h]	1774	1734	1774	1593	1583	3445	3547	1858	1774	3547	1583
c, Capacity [veh/h]	98	96	252	226	225	365	2312	1211	31	1998	892
d1, Uniform Delay [s]	54.72	55.00	44.72	50.37	50.38	52.49	9.89	9.89	58.28	18.87	11.54
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.38	3.53	0.14	9.49	9.54	4.35	0.53	1.01	5.85	2.06	0.03
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

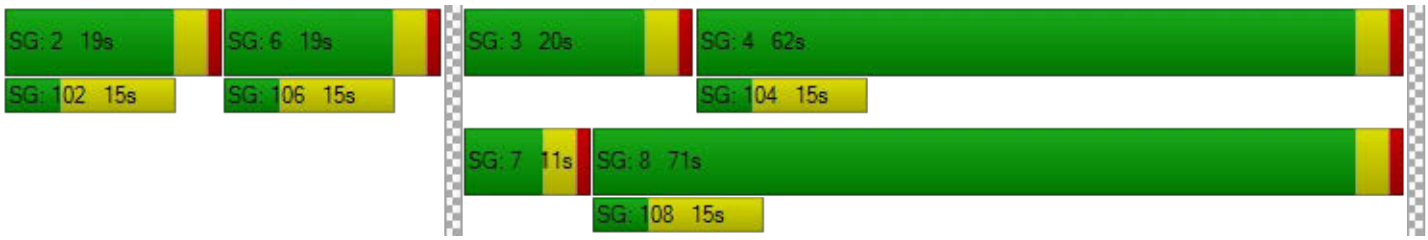
X, volume / capacity	0.38	0.47	0.08	0.86	0.86	0.81	0.41	0.41	0.32	0.70	0.01
d, Delay for Lane Group [s/veh]	57.09	58.54	44.86	59.86	59.92	56.84	10.42	10.90	64.13	20.92	11.57
Lane Group LOS	E	E	D	E	E	E	B	B	E	C	B
Critical Lane Group	No	Yes	No	No	Yes	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh]	1.13	1.40	0.55	6.23	6.19	4.51	5.43	5.85	0.35	13.48	0.15
50th-Percentile Queue Length [ft]	28.24	34.89	13.67	155.71	154.87	112.67	135.82	146.37	8.66	336.88	3.86
95th-Percentile Queue Length [veh]	2.03	2.51	0.98	10.32	10.28	7.99	9.26	9.82	0.62	19.50	0.28
95th-Percentile Queue Length [ft]	50.82	62.81	24.60	258.03	256.91	199.72	231.39	245.58	15.59	487.38	6.95

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	57.09	58.54	58.54	44.86	59.86	59.89	56.84	10.59	10.90	64.13	20.92	11.57
Movement LOS	E	E	E	D	E	E	E	B	B	E	C	B
d_A, Approach Delay [s/veh]	57.89			59.12			18.52			21.14		
Approach LOS	E			E			B			C		
d_I, Intersection Delay [s/veh]	25.02											
Intersection LOS	C											
Intersection V/C	0.725											

Sequence

Ring 1	2	6	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 12: Canyon Plaza Drive / East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	10.6
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.620

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	1	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	95.00	90.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	51	1	74	5	2	12	13	1375	26	51	1443	10
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	4	0	2	10	0	4	6	127	4	2	135	11
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	57	1	79	15	2	16	20	1557	31	55	1636	21
Peak Hour Factor	0.9550	0.9550	0.9550	0.9550	0.9550	0.9550	0.9550	0.9550	0.9550	0.9550	0.9550	0.9550
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	15	0	21	4	1	4	5	408	8	14	428	5
Total Analysis Volume [veh/h]	60	1	83	16	2	17	21	1630	32	58	1713	22
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	100
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	0	7	7	0	7	7	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	23	0	0	23	0	11	66	0	11	66	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	L	C	R	L	C	C
C, Cycle Length [s]	100	100	100	100	100	100	100	100	100	100
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	10	10	10	10	3	73	73	6	75	75
g / C, Green / Cycle	0.10	0.10	0.10	0.10	0.03	0.73	0.73	0.06	0.75	0.75
(v / s)_i Volume / Saturation Flow Rate	0.04	0.05	0.01	0.01	0.01	0.46	0.02	0.03	0.47	0.47
s, saturation flow rate [veh/h]	1388	1586	1308	1609	1774	3547	1583	1774	1863	1854
c, Capacity [veh/h]	158	150	101	153	55	2586	1154	100	1405	1398
d1, Uniform Delay [s]	45.98	43.26	48.41	41.46	47.51	6.79	3.75	46.05	5.66	5.68
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.50	3.22	0.73	0.36	4.28	1.18	0.04	5.30	2.05	2.07
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.38	0.56	0.16	0.12	0.38	0.63	0.03	0.58	0.62	0.62
d, Delay for Lane Group [s/veh]	47.48	46.48	49.14	41.82	51.79	7.97	3.79	51.35	7.71	7.75
Lane Group LOS	D	D	D	D	D	A	A	D	A	A
Critical Lane Group	No	Yes	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh]	1.49	2.07	0.41	0.43	0.57	6.75	0.15	1.52	6.49	6.50
50th-Percentile Queue Length [ft]	37.25	51.70	10.15	10.86	14.17	168.76	3.78	37.97	162.18	162.55
95th-Percentile Queue Length [veh]	2.68	3.72	0.73	0.78	1.02	11.01	0.27	2.73	10.66	10.68
95th-Percentile Queue Length [ft]	67.05	93.05	18.28	19.55	25.50	275.28	6.81	68.34	266.60	267.09

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	47.48	46.48	46.48	49.14	41.82	41.82	51.79	7.97	3.79	51.35	7.73	7.75
Movement LOS	D	D	D	D	D	D	D	A	A	D	A	A
d_A, Approach Delay [s/veh]	46.89			45.17			8.44			9.14		
Approach LOS	D			D			A			A		
d_I, Intersection Delay [s/veh]	10.65											
Intersection LOS	B											
Intersection V/C	0.620											

Sequence

Ring 1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 14: Cathedral Canyon Drive / Officer David Vasquez Road

Control Type:	Signalized	Delay (sec / veh):	6.2
Analysis Method:	HCM 2010	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.218

Intersection Setup

Name						
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	1	0	1	1
Pocket Length [ft]	100.00	100.00	205.00	100.00	120.00	120.00
Speed [mph]	40.00		40.00		40.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		Yes		Yes	

Volumes

Name						
Base Volume Input [veh/h]	417	5	25	404	6	53
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	51	0	0	54	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	485	5	26	474	6	55
Peak Hour Factor	0.9140	0.9140	0.9140	0.9140	0.9140	0.9140
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	133	1	7	130	2	15
Total Analysis Volume [veh/h]	531	5	28	519	7	60
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	2 - N. Cathedral Canyon Drive
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permissive	Permissive	Protected	Permissive	Split	Overlap
Signal group	2	0	1	6	7	7
Auxiliary Signal Groups						1,7
Lead / Lag	-	-	Lead	-	Lead	-
Minimum Green [s]	7	0	7	7	7	7
Maximum Green [s]	30	0	30	30	30	30
Amber [s]	3.0	0.0	3.0	3.0	3.0	3.0
All red [s]	1.0	0.0	1.0	1.0	1.0	1.0
Split [s]	86	0	15	101	19	19
Vehicle Extension [s]	3.0	0.0	3.0	3.0	3.0	3.0
Walk [s]	5	0	0	5	5	5
Pedestrian Clearance [s]	10	0	0	10	10	10
Rest In Walk	No			No	No	
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0
Minimum Recall	No		No	No	No	No
Maximum Recall	No		No	No	No	No
Pedestrian Recall	No		No	No	No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	C	L	C	L	R
C, Cycle Length [s]	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	0.00
g_i, Effective Green Time [s]	97	97	4	106	6	15
g / C, Green / Cycle	0.81	0.81	0.04	0.88	0.05	0.12
(v / s)_i Volume / Saturation Flow Rate	0.14	0.14	0.02	0.15	0.00	0.04
s, saturation flow rate [veh/h]	1863	1857	1774	3547	3445	1583
c, Capacity [veh/h]	1512	1507	63	3124	181	192
d1, Uniform Delay [s]	2.48	2.48	56.66	1.00	53.96	48.11
k, delay calibration	0.50	0.50	0.11	0.50	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.26	0.26	4.75	0.11	0.09	0.91
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.18	0.18	0.44	0.17	0.04	0.31
d, Delay for Lane Group [s/veh]	2.74	2.74	61.41	1.11	54.05	49.02
Lane Group LOS	A	A	E	A	D	D
Critical Lane Group	No	Yes	Yes	No	No	Yes
50th-Percentile Queue Length [veh]	1.02	1.02	0.90	0.24	0.10	1.67
50th-Percentile Queue Length [ft]	25.57	25.59	22.58	6.00	2.53	41.68
95th-Percentile Queue Length [veh]	1.84	1.84	1.63	0.43	0.18	3.00
95th-Percentile Queue Length [ft]	46.02	46.07	40.64	10.81	4.56	75.03

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	2.74	2.74	61.41	1.11	54.05	49.02
Movement LOS	A	A	E	A	D	D
d_A, Approach Delay [s/veh]	2.74		4.20		49.55	
Approach LOS	A		A		D	
d_I, Intersection Delay [s/veh]	6.16					
Intersection LOS	A					
Intersection V/C	0.218					

Sequence

Ring 1	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	7	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 15: Cathedral Canyon Drive / Perez Road

Control Type:	Signalized	Delay (sec / veh):	40.9
Analysis Method:	HCM 2010	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.536

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	1	1	0	0
Pocket Length [ft]	95.00	100.00	100.00	205.00	100.00	100.00	100.00	100.00	100.00	150.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	38	379	64	148	314	119	152	252	46	63	222	202
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	51	0	0	54	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	40	445	67	154	381	124	158	262	48	66	231	210
Peak Hour Factor	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	10	115	17	40	99	32	41	68	12	17	60	54
Total Analysis Volume [veh/h]	41	460	69	159	394	128	163	271	50	68	239	217
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	2 - N. Cathedral Canyon Drive
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	5.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	34	0	25	48	0	25	47	0	14	36	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	L	C	R	L	C	C
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	5	20	20	13	28	28	13	65	65	6	58	58
g / C, Green / Cycle	0.04	0.17	0.17	0.11	0.23	0.23	0.11	0.54	0.54	0.05	0.48	0.48
(v / s)_i Volume / Saturation Flow Rate	0.02	0.14	0.15	0.09	0.15	0.15	0.09	0.08	0.03	0.04	0.13	0.14
s, saturation flow rate [veh/h]	1774	1863	1779	1774	1863	1709	1774	3547	1583	1774	1863	1583
c, Capacity [veh/h]	79	314	300	189	429	394	194	1912	853	94	898	764
d1, Uniform Delay [s]	56.13	48.52	48.59	52.67	41.61	41.66	52.41	13.81	13.17	55.99	18.45	18.64
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	5.26	6.80	7.42	9.75	1.54	1.71	9.21	0.16	0.13	10.08	0.72	0.93
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

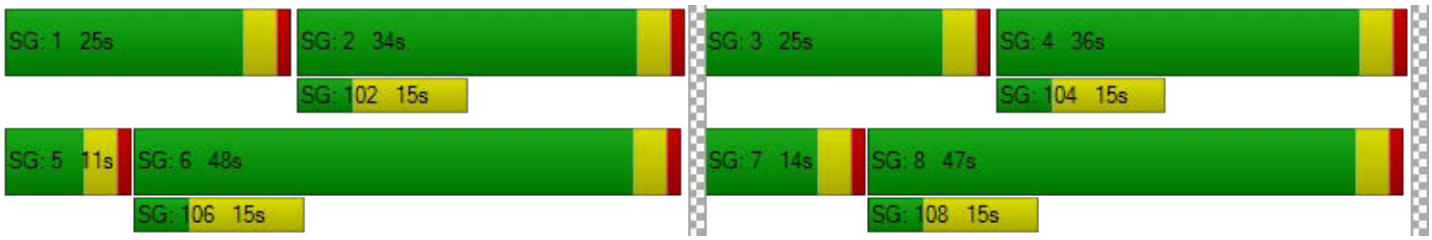
X, volume / capacity	0.52	0.86	0.87	0.84	0.63	0.64	0.84	0.14	0.06	0.72	0.27	0.28
d, Delay for Lane Group [s/veh]	61.39	55.32	56.01	62.42	43.15	43.37	61.62	13.97	13.30	66.07	19.18	19.57
Lane Group LOS	E	E	E	E	D	D	E	B	B	E	B	B
Critical Lane Group	No	No	Yes	Yes	No	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh]	1.31	8.28	8.03	5.13	7.27	6.75	5.23	1.80	0.65	2.26	3.99	3.69
50th-Percentile Queue Length [ft]	32.82	206.99	200.67	128.33	181.75	168.63	130.71	45.08	16.28	56.51	99.82	92.35
95th-Percentile Queue Length [veh]	2.36	13.00	12.67	8.85	11.69	11.00	8.98	3.25	1.17	4.07	7.19	6.65
95th-Percentile Queue Length [ft]	59.07	324.96	316.83	221.23	292.30	275.11	224.46	81.15	29.30	101.71	179.67	166.23

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	61.39	55.61	56.01	62.42	43.22	43.37	61.62	13.97	13.30	66.07	19.18	19.57
Movement LOS	E	E	E	E	D	D	E	B	B	E	B	B
d_A, Approach Delay [s/veh]	56.07			47.73			29.95			25.43		
Approach LOS	E			D			C			C		
d_I, Intersection Delay [s/veh]	40.85											
Intersection LOS	D											
Intersection V/C	0.536											

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 16: Cathedral Canyon Drive / Paseo Real

Control Type:	Two-way stop	Delay (sec / veh):	49.3
Analysis Method:	HCM 2010	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.033

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	0	0	0	0	0	0
Pocket Length [ft]	55.00	100.00	100.00	55.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name												
Base Volume Input [veh/h]	25	749	6	12	578	8	6	1	16	5	3	8
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	45	6	0	48	0	0	0	0	6	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	26	824	12	12	649	8	6	1	17	11	3	8
Peak Hour Factor	0.9370	0.9370	0.9370	0.9370	0.9370	0.9370	0.9370	0.9370	0.9370	0.9370	0.9370	0.9370
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	7	220	3	3	173	2	2	0	5	3	1	2
Total Analysis Volume [veh/h]	28	879	13	13	693	9	6	1	18	12	3	9
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.03	0.01	0.00	0.02	0.01	0.00	0.05	0.01	0.03	0.11	0.03	0.02
d_M, Delay for Movement [s/veh]	9.17	0.00	0.00	9.85	0.00	0.00	34.85	46.04	11.76	43.05	49.31	16.00
Movement LOS	A	A	A	A	A	A	D	E	B	E	E	C
95th-Percentile Queue Length [veh]	0.10	0.00	0.00	0.05	0.00	0.00	0.28	0.28	0.28	0.56	0.56	0.56
95th-Percentile Queue Length [ft]	2.43	0.00	0.00	1.31	0.00	0.00	7.06	7.06	7.06	13.88	13.88	13.88
d_A, Approach Delay [s/veh]	0.28			0.18			18.68			33.69		
Approach LOS	A			A			C			D		
d_I, Intersection Delay [s/veh]	0.99											
Intersection LOS	E											

Intersection Level Of Service Report
Intersection 17: Cathedral Canyon Drive / Dinah Shore Drive

Control Type:	Signalized	Delay (sec / veh):	40.1
Analysis Method:	HCM 2010	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.720

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	130.00	100.00	100.00	75.00	100.00	100.00	100.00	100.00	100.00	150.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	228	474	97	113	260	28	59	775	189	95	652	83
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	11	26	8	0	30	0	0	0	10	8	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	248	519	109	118	300	29	61	806	207	107	678	86
Peak Hour Factor	0.9340	0.9340	0.9340	0.9340	0.9340	0.9340	0.9340	0.9340	0.9340	0.9340	0.9340	0.9340
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	66	139	29	32	80	8	16	216	55	29	181	23
Total Analysis Volume [veh/h]	266	556	117	126	321	31	65	863	222	115	726	92
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	2 - N. Cathedral Canyon Drive
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	104.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	29	34	0	16	21	0	11	55	0	15	59	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	L	C	C	L	C	C
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	20	25	25	10	15	15	6	59	59	10	63	63
g / C, Green / Cycle	0.17	0.21	0.21	0.09	0.13	0.13	0.05	0.49	0.49	0.08	0.52	0.52
(v / s)_i Volume / Saturation Flow Rate	0.15	0.19	0.19	0.07	0.10	0.10	0.04	0.30	0.30	0.06	0.22	0.22
s, saturation flow rate [veh/h]	1774	1863	1752	1774	1863	1806	1774	1863	1733	1774	1863	1790
c, Capacity [veh/h]	296	387	364	154	238	230	93	917	853	142	968	931
d1, Uniform Delay [s]	49.04	46.32	46.32	53.93	50.55	50.59	55.98	22.18	22.20	54.34	17.84	17.84
k, delay calibration	0.16	0.24	0.24	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	13.13	14.67	15.42	10.19	4.69	4.98	9.07	3.05	3.29	10.30	1.40	1.46
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.90	0.90	0.90	0.82	0.75	0.76	0.70	0.61	0.61	0.81	0.43	0.43
d, Delay for Lane Group [s/veh]	62.17	60.99	61.74	64.12	55.24	55.57	65.05	25.23	25.49	64.64	19.24	19.30
Lane Group LOS	E	E	E	E	E	E	E	C	C	E	B	B
Critical Lane Group	No	No	Yes	Yes	No	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh]	8.73	11.41	10.81	4.12	5.38	5.28	2.14	11.69	10.96	3.77	7.17	6.91
50th-Percentile Queue Length [ft]	218.33	285.37	270.30	102.91	134.55	131.99	53.56	292.14	274.08	94.25	179.29	172.69
95th-Percentile Queue Length [veh]	13.58	16.96	16.20	7.41	9.19	9.05	3.86	17.29	16.39	6.79	11.56	11.22
95th-Percentile Queue Length [ft]	339.49	423.89	405.12	185.23	229.66	226.19	96.41	432.30	409.84	169.64	289.09	280.45

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	62.17	61.27	61.74	64.12	55.39	55.57	65.05	25.32	25.49	64.64	19.26	19.30
Movement LOS	E	E	E	E	E	E	E	C	C	E	B	B
d_A, Approach Delay [s/veh]	61.58			57.70			27.60			24.86		
Approach LOS	E			E			C			C		
d_I, Intersection Delay [s/veh]	40.10											
Intersection LOS	D											
Intersection V/C	0.720											

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	



Intersection Level Of Service Report
Intersection 18: Date Palm Drive / Gerald Ford Drive

Control Type:	Signalized	Delay (sec / veh):	21.6
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.481

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	85.00	100.00	85.00	160.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			Yes			Yes			No		

Volumes

Name												
Base Volume Input [veh/h]	20	597	290	119	438	44	58	56	18	167	42	148
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	60	45	0	68	16	16	0	0	40	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	21	681	347	124	524	62	76	58	19	214	44	154
Peak Hour Factor	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	6	179	91	33	138	16	20	15	5	56	12	41
Total Analysis Volume [veh/h]	22	718	366	131	552	65	80	61	20	226	46	162
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	6 - N/S
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Split	Split	Split	Split	Split	Split
Signal group	5	2	0	1	6	0	3	8	0	7	4	4
Auxiliary Signal Groups												1,4
Lead / Lag	-	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	0	7	0	7	7	0	0	7	0	0	7	7
Maximum Green [s]	0	30	0	30	30	0	0	30	0	0	30	30
Amber [s]	0.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	3.0
All red [s]	0.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	1.0
Split [s]	0	67	0	18	72	0	0	35	0	0	35	35
Vehicle Extension [s]	0.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	3.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	5
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	10
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	2.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	2.0
Minimum Recall		No		No	No			No			No	
Maximum Recall		No		No	No			No			No	
Pedestrian Recall		No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	R	L	C	C	R	L	C	C	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.00	0.00	2.00	2.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	71	71	11	86	86	86	26	26	26	26	26	26
g / C, Green / Cycle	0.59	0.59	0.09	0.71	0.71	0.71	0.22	0.22	0.22	0.22	0.22	0.22
(v / s)_i Volume / Saturation Flow Rate	0.14	0.23	0.07	0.12	0.18	0.04	0.06	0.02	0.02	0.10	0.11	0.10
s, saturation flow rate [veh/h]	5074	1583	1774	1863	1863	1583	1354	1863	1712	1312	1250	1583
c, Capacity [veh/h]	3002	937	157	1330	1330	1130	163	409	376	294	325	348
d1, Uniform Delay [s]	11.65	13.01	53.79	5.56	6.00	5.12	54.42	37.37	37.42	45.04	43.27	40.71
k, delay calibration	0.50	0.50	0.11	0.50	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.19	1.23	10.71	0.26	0.46	0.10	2.27	0.11	0.12	1.08	0.90	0.97
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

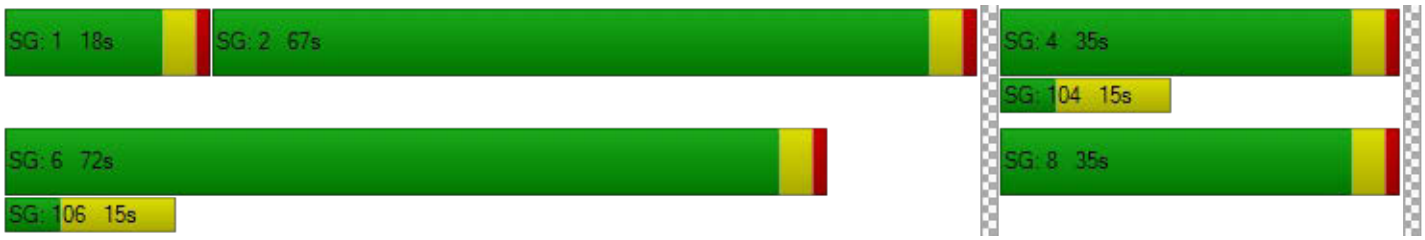
X, volume / capacity	0.24	0.39	0.83	0.16	0.25	0.06	0.49	0.10	0.11	0.45	0.43	0.47
d, Delay for Lane Group [s/veh]	11.84	14.24	64.50	5.82	6.45	5.22	56.69	37.48	37.54	46.12	44.18	41.69
Lane Group LOS	B	B	E	A	A	A	E	D	D	D	D	D
Critical Lane Group	No	Yes	Yes	No	No	No	No	No	No	No	Yes	No
50th-Percentile Queue Length [veh]	2.92	5.21	4.29	1.61	2.71	0.45	2.44	0.96	0.94	3.62	3.75	4.19
50th-Percentile Queue Length [ft]	72.89	130.20	107.3	40.29	67.77	11.27	60.93	24.09	23.52	90.55	93.75	104.67
95th-Percentile Queue Length [veh]	5.25	8.95	7.69	2.90	4.88	0.81	4.39	1.73	1.69	6.52	6.75	7.54
95th-Percentile Queue Length [ft]	131.20	223.77	192.2	72.52	121.9	20.28	109.68	43.37	42.34	162.99	168.75	188.40

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	11.84	14.24	64.50	6.21	5.22	56.69	37.50	37.54	45.32	44.18	41.69
Movement LOS		B	B	E	A	A	E	D	D	D	D	D
d_A, Approach Delay [s/veh]	12.65			16.33			47.04			43.84		
Approach LOS	B			B			D			D		
d_I, Intersection Delay [s/veh]	21.64											
Intersection LOS	C											
Intersection V/C	0.481											

Sequence

Ring 1	1	2	-	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	-	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 19: Date Palm Drive / Dinah Shore Drive

Control Type:	Signalized	Delay (sec / veh):	36.0
Analysis Method:	HCM 2010	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.537

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	2	0	1	2	0	1	1	0	0	1	0	1
Pocket Length [ft]	225.00	100.00	125.00	170.00	100.00	50.00	150.00	100.00	100.00	130.00	100.00	180.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			No		

Volumes

Name												
Base Volume Input [veh/h]	231	614	79	115	586	73	102	576	215	69	537	117
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	70	0	9	74	11	12	0	0	0	0	9
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	240	709	82	129	683	87	118	599	224	72	558	131
Peak Hour Factor	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	65	193	22	35	186	24	32	163	61	20	152	36
Total Analysis Volume [veh/h]	261	771	89	140	743	95	128	652	244	78	607	143
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	1 - E Palm Canyon Drive
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Overlap
Signal group	5	2	0	1	6	0	3	8	0	7	4	4
Auxiliary Signal Groups												1,4
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	7
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	30
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	1.0
Split [s]	22	49	0	11	38	0	18	46	0	14	42	42
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	5
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	10
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0
Minimum Recall	No	No		No	No		No	No		No	No	No
Maximum Recall	No	No		No	No		No	No		No	No	No
Pedestrian Recall	No	No		No	No		No	No		No	No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	0.00
g_i, Effective Green Time [s]	11	63	63	7	59	59	10	27	27	7	24	35
g / C, Green / Cycle	0.09	0.52	0.52	0.06	0.49	0.49	0.09	0.23	0.23	0.06	0.20	0.29
(v / s)_i Volume / Saturation Flow Rate	0.08	0.15	0.06	0.04	0.15	0.06	0.07	0.18	0.15	0.04	0.17	0.09
s, saturation flow rate [veh/h]	3445	5074	1583	3445	5074	1583	1774	3547	1583	1774	3547	1583
c, Capacity [veh/h]	327	2653	828	203	2471	771	155	810	362	100	700	459
d1, Uniform Delay [s]	53.22	16.12	14.49	55.40	18.51	16.81	53.86	43.79	42.25	55.89	46.66	33.29
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	4.50	0.28	0.26	4.10	0.31	0.33	10.36	1.94	2.20	12.10	3.43	0.38
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.80	0.29	0.11	0.69	0.30	0.12	0.82	0.80	0.67	0.78	0.87	0.31
d, Delay for Lane Group [s/veh]	57.72	16.40	14.75	59.50	18.82	17.14	64.22	45.73	44.45	68.00	50.10	33.68
Lane Group LOS	E	B	B	E	B	B	E	D	D	E	D	C
Critical Lane Group	Yes	No	No	No	Yes	No	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh]	4.00	3.87	1.24	2.16	4.06	1.46	4.18	9.16	6.68	2.63	8.91	3.25
50th-Percentile Queue Length [ft]	99.89	96.78	31.09	54.06	101.50	36.49	104.62	229.05	167.00	65.81	222.82	81.24
95th-Percentile Queue Length [veh]	7.19	6.97	2.24	3.89	7.31	2.63	7.53	14.13	10.92	4.74	13.81	5.85
95th-Percentile Queue Length [ft]	179.80	174.21	55.96	97.30	182.70	65.67	188.31	353.16	272.96	118.45	345.23	146.23

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	57.72	16.40	14.75	59.50	18.82	17.14	64.22	45.73	44.45	68.00	50.10	33.68
Movement LOS	E	B	B	E	B	B	E	D	D	E	D	C
d_A, Approach Delay [s/veh]	25.89			24.48			47.74			48.95		
Approach LOS	C			C			D			D		
d_I, Intersection Delay [s/veh]	36.04											
Intersection LOS	D											
Intersection V/C	0.537											

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 23: East Palm Canyon Drive / Frank Sinatra Drive

Control Type:	Signalized	Delay (sec / veh):	22.9
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.727

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	1	1	0	0	2	0	1
Pocket Length [ft]	160.00	100.00	45.00	325.00	100.00	250.00	100.00	100.00	100.00	120.00	100.00	1200.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			No			Yes		

Volumes

Name												
Base Volume Input [veh/h]	43	1314	198	296	1170	20	44	53	19	144	29	302
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	88	2	21	92	6	5	0	0	2	0	19
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	45	1455	208	329	1309	27	51	55	20	152	30	333
Peak Hour Factor	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	12	393	56	89	354	7	14	15	5	41	8	90
Total Analysis Volume [veh/h]	49	1573	225	356	1415	29	55	59	22	164	32	360
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	6 - N/S
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	66.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Overlap	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Overlap
Signal group	5	2	2	1	6	0	3	8	0	7	4	4
Auxiliary Signal Groups			1,2,3,4,									1,2,3,4,
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	7	7	7	0	7	7	0	7	7	7
Maximum Green [s]	30	30	30	30	30	0	30	30	0	30	30	30
Amber [s]	3.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0
All red [s]	1.0	1.0	1.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	1.0
Split [s]	13	63	63	27	77	0	11	19	0	11	19	19
Vehicle Extension [s]	3.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0
Walk [s]	0	5	5	0	5	0	0	5	0	0	5	5
Pedestrian Clearance [s]	0	10	10	0	10	0	0	10	0	0	10	10
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0
Minimum Recall	No	No	No	No	No		No	No		No	No	No
Maximum Recall	No	No	No	No	No		No	No		No	No	No
Pedestrian Recall	No	No	No	No	No		No	No		No	No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	L	C	R
C, Cycle Length [s]	71	71	71	71	71	71	71	71	71	71	71
L, Total Lost Time per Cycle [s]	4.00	4.00	0.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	0.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	0.00	2.00	0.00	0.00	2.00	0.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	8	33	116	16	41	41	6	67	10	0	116
g / C, Green / Cycle	0.11	0.46	1.63	0.22	0.58	0.58	0.08	0.94	0.15	0.00	1.63
(v / s)_i Volume / Saturation Flow Rate	0.04	0.31	0.14	0.14	0.28	0.02	0.04	0.05	0.06	0.02	0.23
s, saturation flow rate [veh/h]	1275	5074	1583	2475	5074	1583	1372	1778	2548	1863	1583
c, Capacity [veh/h]	191	2357	2543	561	2943	918	168	1678	392	9	2543
d1, Uniform Delay [s]	31.93	14.77	0.00	27.54	8.70	6.39	33.51	0.12	29.80	35.37	0.00
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.11	0.50	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.70	0.33	0.01	1.20	0.12	0.01	1.12	0.05	0.71	1345.36	0.03
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.26	0.67	0.09	0.64	0.48	0.03	0.33	0.05	0.42	3.48	0.14
d, Delay for Lane Group [s/veh]	32.63	15.10	0.01	28.74	8.82	6.40	34.63	0.17	30.51	1380.73	0.03
Lane Group LOS	C	B	A	C	A	A	C	A	C	F	A
Critical Lane Group	No	Yes	No	Yes	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh]	0.80	5.59	0.01	2.75	3.28	0.15	0.94	0.03	1.28	3.58	0.02
50th-Percentile Queue Length [ft]	20.09	139.66	0.26	68.65	82.05	3.76	23.47	0.63	32.04	89.62	0.46
95th-Percentile Queue Length [veh]	1.45	9.46	0.02	4.94	5.91	0.27	1.69	0.05	2.31	6.45	0.03
95th-Percentile Queue Length [ft]	36.16	236.57	0.47	123.57	147.68	6.76	42.24	1.14	57.67	161.32	0.83

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	32.63	15.10	0.01	28.74	8.82	6.40	34.63	0.17	0.17	30.51	1380.73	0.03
Movement LOS	C	B	A	C	A	A	C	A	A	C	F	A
d_A, Approach Delay [s/veh]	13.73			12.72			14.11			88.48		
Approach LOS	B			B			B			F		
d_I, Intersection Delay [s/veh]	22.90											
Intersection LOS	C											
Intersection V/C	0.727											

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 24: East Palm Canyon Drive / Mirage Cove Drive

Control Type:	Signalized	Delay (sec / veh):	15.4
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.468

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	1	1	0	0
Pocket Length [ft]	150.00	100.00	100.00	110.00	100.00	100.00	75.00	100.00	75.00	75.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	16	1475	9	16	1379	15	35	0	20	6	0	26
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	76	0	15	75	4	3	0	0	0	0	12
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	17	1610	9	32	1509	20	39	0	21	6	0	39
Peak Hour Factor	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	5	435	2	9	408	5	11	0	6	2	0	11
Total Analysis Volume [veh/h]	18	1741	10	35	1631	22	42	0	23	6	0	42
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	6 - N/S
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	5	2	0	1	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	7	7	0	7	7	0	0	7	0	0	7	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	11	90	0	11	90	0	0	19	0	0	19	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No	No		No	No			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	L	C	R	L	C
C, Cycle Length [s]	60	60	60	60	60	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.00	0.00	2.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	2	25	25	3	27	27	20	20	20	20	20
g / C, Green / Cycle	0.03	0.42	0.42	0.05	0.44	0.44	0.33	0.33	0.33	0.33	0.33
(v / s)_i Volume / Saturation Flow Rate	0.01	0.32	0.32	0.02	0.31	0.31	0.03	0.00	0.01	0.00	0.03
s, saturation flow rate [veh/h]	1774	3547	1857	1774	3547	1850	1359	1863	1583	1412	1583
c, Capacity [veh/h]	58	1494	783	96	1570	819	485	606	515	526	515
d1, Uniform Delay [s]	28.44	14.90	14.90	27.46	13.46	13.46	16.60	0.00	13.90	15.32	14.07
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	3.02	0.86	1.63	2.32	0.55	1.06	0.35	0.00	0.16	0.04	0.31
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.31	0.77	0.77	0.37	0.69	0.69	0.09	0.00	0.04	0.01	0.08
d, Delay for Lane Group [s/veh]	31.46	15.76	16.53	29.78	14.02	14.52	16.95	0.00	14.06	15.36	14.38
Lane Group LOS	C	B	B	C	B	B	B	A	B	B	B
Critical Lane Group	No	No	Yes	Yes	No	No	Yes	No	No	No	No
50th-Percentile Queue Length [veh]	0.28	5.56	5.99	0.51	4.80	5.12	0.43	0.00	0.21	0.06	0.39
50th-Percentile Queue Length [ft]	7.04	139.01	149.81	12.67	119.97	128.06	10.76	0.00	5.19	1.43	9.63
95th-Percentile Queue Length [veh]	0.51	9.43	10.01	0.91	8.39	8.83	0.78	0.00	0.37	0.10	0.69
95th-Percentile Queue Length [ft]	12.68	235.69	250.17	22.81	209.79	220.86	19.38	0.00	9.35	2.57	17.33

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	31.46	16.02	16.53	29.78	14.19	14.52	16.95	0.00	14.06	15.36	14.38	14.38
Movement LOS	C	B	B	C	B	B	B	A	B	B	B	B
d_A, Approach Delay [s/veh]	16.18			14.51			15.93			14.50		
Approach LOS	B			B			B			B		
d_I, Intersection Delay [s/veh]	15.37											
Intersection LOS	B											
Intersection V/C	0.468											

Sequence

Ring 1	1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 1: North Project Driveway 1 / Buddy Rogers Avenue

Control Type:	Two-way stop	Delay (sec / veh):	12.2
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			No			No		

Volumes

Name												
Base Volume Input [veh/h]	0	0	0	0	0	0	0	29	0	0	31	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	35	0	80	0	0	0	0	13	44	99	11	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	35	0	80	0	0	0	0	43	44	99	43	0
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	10	0	22	0	0	0	0	12	12	27	12	0
Total Analysis Volume [veh/h]	38	0	87	0	0	0	0	47	48	108	47	0
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	No	No		
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	No	No		
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.07	0.00	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.07	0.00	0.00
d_M, Delay for Movement [s/veh]	11.59	11.98	8.98	12.21	11.84	8.52	7.31	0.00	0.00	7.59	0.00	0.00
Movement LOS	B	B	A	B	B	A	A	A	A	A	A	A
95th-Percentile Queue Length [veh]	0.21	0.29	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.35	0.35	0.35
95th-Percentile Queue Length [ft]	5.20	7.20	7.20	0.00	0.00	0.00	0.00	0.00	0.00	8.63	8.63	8.63
d_A, Approach Delay [s/veh]	9.77			10.86			0.00			5.29		
Approach LOS	A			B			A			A		
d_I, Intersection Delay [s/veh]	5.44											
Intersection LOS	B											

Intersection Level Of Service Report
Intersection 2: Date Palm Drive / Buddy Rogers Avenue

Control Type:	Two-way stop	Delay (sec / veh):	50.9
Analysis Method:	HCM 2010	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.575

Intersection Setup

Name						
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00		40.00		40.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

Volumes

Name						
Base Volume Input [veh/h]	4	492	513	25	29	14
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	2.97	1.04	1.04	2.97	1.33	1.33
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	34	70	76	78	63	27
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	46	582	610	152	102	46
Peak Hour Factor	0.9410	0.9410	0.9410	0.9410	0.9410	0.9410
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	12	155	162	40	27	12
Total Analysis Volume [veh/h]	49	618	648	162	108	49
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.10	0.01	0.01	0.00	0.58	0.10
d_M, Delay for Movement [s/veh]	13.29	0.00	0.00	0.00	50.88	38.78
Movement LOS	B	A	A	A	F	E
95th-Percentile Queue Length [veh]	0.34	0.00	0.00	0.00	4.25	4.25
95th-Percentile Queue Length [ft]	8.42	0.00	0.00	0.00	106.34	106.34
d_A, Approach Delay [s/veh]	0.98		0.00		47.10	
Approach LOS	A		A		E	
d_I, Intersection Delay [s/veh]	4.92					
Intersection LOS	F					

Intersection Level Of Service Report
Intersection 3: Date Palm Drive / East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	10.5
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.556

Intersection Setup

Name						
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00		40.00		40.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		Yes		Yes	

Volumes

Name						
Base Volume Input [veh/h]	339	121	149	1198	1174	347
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	35	68	63	118	109	42
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	388	194	218	1364	1330	403
Peak Hour Factor	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	104	52	59	367	358	108
Total Analysis Volume [veh/h]	417	209	234	1467	1430	433
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Split	Split	ProtectedPermissi	Permissive	Permissive	Permissive
Signal group	1	0	3	8	4	4
Auxiliary Signal Groups						3,4
Lead / Lag	Lead	-	Lead	-	-	-
Minimum Green [s]	7	0	7	7	7	7
Maximum Green [s]	30	0	7	30	30	30
Amber [s]	3.0	0.0	3.0	3.0	3.0	3.0
All red [s]	1.0	0.0	1.0	1.0	1.0	1.0
Split [s]	19	0	16	41	25	25
Vehicle Extension [s]	3.0	0.0	3.0	3.0	3.0	3.0
Walk [s]	5	0	0	5	5	5
Pedestrian Clearance [s]	10	0	0	10	10	10
Rest In Walk	No			No	No	
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0
Minimum Recall	No		Yes	No	No	
Maximum Recall	No		No	No	No	
Pedestrian Recall	No		No	No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	R	L	C	C	R
C, Cycle Length [s]	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	0.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	11	11	41	41	31	31
g / C, Green / Cycle	0.18	0.18	0.69	0.69	0.51	0.51
(v / s)_i Volume / Saturation Flow Rate	0.08	0.13	0.18	0.29	0.28	0.27
s, saturation flow rate [veh/h]	5168	1583	1303	5074	5074	1583
c, Capacity [veh/h]	920	282	990	3496	2584	806
d1, Uniform Delay [s]	22.10	23.41	4.82	4.09	10.09	9.97
k, delay calibration	0.11	0.11	0.11	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.35	3.83	0.12	0.37	0.86	2.56
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.45	0.74	0.24	0.42	0.55	0.54
d, Delay for Lane Group [s/veh]	22.45	27.24	4.95	4.47	10.95	12.53
Lane Group LOS	C	C	A	A	B	B
Critical Lane Group	No	Yes	Yes	No	Yes	No
50th-Percentile Queue Length [veh]	1.60	2.80	0.25	1.39	3.42	3.46
50th-Percentile Queue Length [ft]	40.04	70.07	6.19	34.63	85.60	86.58
95th-Percentile Queue Length [veh]	2.88	5.04	0.45	2.49	6.16	6.23
95th-Percentile Queue Length [ft]	72.07	126.12	11.14	62.34	154.09	155.84

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	22.45	27.24	4.95	4.47	10.95	12.53
Movement LOS	C	C	A	A	B	B
d_A, Approach Delay [s/veh]	24.05		4.53		11.32	
Approach LOS	C		A		B	
d_I, Intersection Delay [s/veh]	10.46					
Intersection LOS	B					
Intersection V/C	0.556					

Sequence

Ring 1	1	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 4: South Project Driveway-Allen Avenue / East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	4.3
Analysis Method:	HCM 2010	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.705

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	0	0	0	2	0	3	8	1365	0	0	1343	20
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	21	0	54	66	160	0	0	151	26
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	23	0	57	74	1580	0	0	1548	47
Peak Hour Factor	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	6	0	15	19	416	0	0	408	12
Total Analysis Volume [veh/h]	0	0	0	24	0	60	78	1665	0	0	1631	50
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	1 - E Palm Canyon Drive
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	0	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	7	0	0	7	0	0	7	0	0	7	0
Maximum Green [s]	0	30	0	0	30	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	19	0	0	19	0	0	101	0	0	101	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No			No			No			No	
Maximum Recall		No			No			No			No	
Pedestrian Recall		No			No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	L	C	C	C	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	2.00	0.00	2.00	0.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	7	7	7	105	105	105	105	105
g / C, Green / Cycle	0.05	0.05	0.05	0.88	0.88	0.88	0.88	0.88
(v / s)_i Volume / Saturation Flow Rate	0.00	0.02	0.04	0.62	0.52	0.00	0.32	0.03
s, saturation flow rate [veh/h]	1397	1412	1583	1381	1695	297	5074	1583
c, Capacity [veh/h]	107	116	87	1245	1489	274	4456	1390
d1, Uniform Delay [s]	0.00	56.23	55.63	1.65	1.87	0.00	1.31	0.92
k, delay calibration	0.11	0.11	0.11	0.50	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.00	0.87	9.19	3.11	1.77	0.00	0.23	0.05
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.00	0.21	0.69	0.69	0.60	0.00	0.37	0.04
d, Delay for Lane Group [s/veh]	0.00	57.10	64.81	4.75	3.63	0.00	1.55	0.97
Lane Group LOS	A	E	E	A	A	A	A	A
Critical Lane Group	No	No	Yes	Yes	No	No	No	No
50th-Percentile Queue Length [veh]	0.00	0.73	1.98	2.21	2.06	0.00	0.67	0.06
50th-Percentile Queue Length [ft]	0.00	18.20	49.46	55.20	51.57	0.00	16.74	1.39
95th-Percentile Queue Length [veh]	0.00	1.31	3.56	3.97	3.71	0.00	1.21	0.10
95th-Percentile Queue Length [ft]	0.00	32.75	89.03	99.35	92.83	0.00	30.13	2.50

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	57.10	64.81	64.81	4.75	4.16	3.63	0.00	1.55	0.97
Movement LOS	A	A	A	E	E	E	A	A	A	A	A	A
d_A, Approach Delay [s/veh]	0.00			62.61			4.18			1.53		
Approach LOS	A			E			A			A		
d_I, Intersection Delay [s/veh]	4.31											
Intersection LOS	A											
Intersection V/C	0.705											

Sequence

Ring 1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 5: Monty Hall Drive-Van Fleet Avenue / East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	11.4
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.687

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	1	0	1	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	45.00	100.00	100.00	105.00	100.00	130.00	125.00	100.00	180.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	11	1	44	10	9	12	13	1322	16	55	1290	10
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	16	0	0	46	57	210	0	13	192	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	11	1	62	10	9	58	71	1585	17	70	1534	10
Peak Hour Factor	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	0	16	3	2	15	19	413	4	18	400	3
Total Analysis Volume [veh/h]	11	1	65	10	9	60	74	1653	18	73	1600	10
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	1 - E Palm Canyon Drive
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	0	7	7	0	7	7	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	24	0	0	24	0	14	53	0	13	52	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	R	L	C	L	C	R	L	C	R
C, Cycle Length [s]	60	60	60	60	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	5	5	5	5	5	38	38	5	38	38
g / C, Green / Cycle	0.09	0.09	0.09	0.09	0.08	0.63	0.63	0.08	0.63	0.63
(v / s)_i Volume / Saturation Flow Rate	0.03	0.04	0.01	0.04	0.04	0.47	0.01	0.04	0.45	0.01
s, saturation flow rate [veh/h]	375	1583	1410	1615	1774	3547	1583	1774	3547	1583
c, Capacity [veh/h]	148	139	132	141	150	2231	996	149	2229	995
d1, Uniform Delay [s]	27.10	26.12	29.77	26.16	26.31	7.75	4.19	26.33	7.57	4.18
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.23	2.45	0.24	2.59	2.50	2.26	0.03	2.48	2.02	0.02
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.08	0.47	0.08	0.49	0.49	0.74	0.02	0.49	0.72	0.01
d, Delay for Lane Group [s/veh]	27.33	28.56	30.01	28.75	28.81	10.02	4.22	28.81	9.59	4.20
Lane Group LOS	C	C	C	C	C	B	A	C	A	A
Critical Lane Group	No	No	No	Yes	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh]	0.17	0.90	0.14	0.96	1.03	5.12	0.06	1.01	4.80	0.03
50th-Percentile Queue Length [ft]	4.16	22.49	3.54	23.95	25.68	128.03	1.53	25.34	120.03	0.85
95th-Percentile Queue Length [veh]	0.30	1.62	0.26	1.72	1.85	8.83	0.11	1.82	8.39	0.06
95th-Percentile Queue Length [ft]	7.48	40.48	6.38	43.11	46.23	220.81	2.75	45.62	209.87	1.53

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	27.33	27.33	28.56	30.01	28.75	28.75	28.81	10.02	4.22	28.81	9.59	4.20
Movement LOS	C	C	C	C	C	C	C	B	A	C	A	A
d_A, Approach Delay [s/veh]	28.37			28.91			10.76			10.39		
Approach LOS	C			C			B			B		
d_I, Intersection Delay [s/veh]	11.36											
Intersection LOS	B											
Intersection V/C	0.687											

Sequence

Ring 1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 7: North Project Driveway 2 / Buddy Rogers Avenue

Control Type:	Two-way stop	Delay (sec / veh):	10.4
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.017

Intersection Setup

Name						
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00		40.00		40.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name						
Base Volume Input [veh/h]	0	0	29	0	0	31
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.00	1.00	1.04	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	11	11	80	13	13	99
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	11	11	109	13	13	130
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	3	30	4	4	35
Total Analysis Volume [veh/h]	12	12	118	14	14	141
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.02	0.01	0.00	0.00	0.01	0.00
d_M, Delay for Movement [s/veh]	10.36	9.03	0.00	0.00	7.50	0.00
Movement LOS	B	A	A	A	A	A
95th-Percentile Queue Length [veh]	0.09	0.09	0.00	0.00	0.36	0.36
95th-Percentile Queue Length [ft]	2.35	2.35	0.00	0.00	8.94	8.94
d_A, Approach Delay [s/veh]	9.70		0.00		0.68	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	1.09					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 8: Monty Hall Drive / Buddy Rogers Avenue

Control Type:	All-way stop	Delay (sec / veh):	7.6
Analysis Method:	HCM 2010	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.130

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			No			No		

Volumes

Name												
Base Volume Input [veh/h]	20	5	4	17	6	0	1	13	6	7	25	12
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	57	0	0	0	0	0	0	46	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	21	5	61	18	6	0	1	14	6	53	26	12
Peak Hour Factor	0.8290	0.8290	0.8290	0.8290	0.8290	0.8290	0.8290	0.8290	0.8290	0.8290	0.8290	0.8290
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	6	2	18	5	2	0	0	4	2	16	8	4
Total Analysis Volume [veh/h]	25	6	74	22	7	0	1	17	7	64	31	14
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	925	802	864	841
Degree of Utilization, x	0.11	0.04	0.03	0.13

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.38	0.11	0.09	0.44
95th-Percentile Queue Length [ft]	9.56	2.81	2.23	11.12
Approach Delay [s/veh]	7.39	7.65	7.29	7.92
Approach LOS	A	A	A	A
Intersection Delay [s/veh]	7.62			
Intersection LOS	A			

Intersection Level Of Service Report

Intersection 9: Buddy Rogers Avenue/ East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	4.0
Analysis Method:	HCM 2010	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.593

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	10	1	39	19	2	28	16	1309	2	16	1255	17
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	267	0	0	238	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	10	1	41	20	2	29	17	1628	2	17	1543	18
Peak Hour Factor	0.9360	0.9360	0.9360	0.9360	0.9360	0.9360	0.9360	0.9360	0.9360	0.9360	0.9360	0.9360
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	0	11	5	1	8	5	435	1	5	412	5
Total Analysis Volume [veh/h]	11	1	44	21	2	31	18	1739	2	18	1649	19
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	1 - E Palm Canyon Drive
Cycle Length [s]	110
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	7	0	0	7	0	0	7	0	0	7	0
Maximum Green [s]	0	30	0	0	30	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	28	0	0	28	0	0	82	0	0	82	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No			No			No			No	
Maximum Recall		No			No			No			No	
Pedestrian Recall		No			No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	C	L	C	R	L	C	R
C, Cycle Length [s]	110	110	110	110	110	110	110	110
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	2.00	2.00	0.00	0.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	6	6	96	96	96	96	96	96
g / C, Green / Cycle	0.05	0.05	0.87	0.87	0.87	0.87	0.87	0.87
(v / s)_i Volume / Saturation Flow Rate	0.03	0.04	0.06	0.49	0.00	0.07	0.46	0.01
s, saturation flow rate [veh/h]	1660	1432	302	3547	1583	277	3547	1583
c, Capacity [veh/h]	126	121	289	3102	1385	267	3102	1385
d1, Uniform Delay [s]	51.08	51.17	3.94	1.69	0.86	4.33	1.61	0.87
k, delay calibration	0.11	0.11	0.50	0.50	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.43	2.58	0.41	0.74	0.00	0.49	0.66	0.02
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.44	0.45	0.06	0.56	0.00	0.07	0.53	0.01
d, Delay for Lane Group [s/veh]	53.51	53.75	4.35	2.43	0.87	4.82	2.27	0.89
Lane Group LOS	D	D	A	A	A	A	A	A
Critical Lane Group	No	Yes	No	Yes	No	No	No	No
50th-Percentile Queue Length [veh]	1.57	1.52	0.12	1.14	0.00	0.13	1.03	0.02
50th-Percentile Queue Length [ft]	39.24	38.07	3.02	28.51	0.04	3.28	25.64	0.41
95th-Percentile Queue Length [veh]	2.83	2.74	0.22	2.05	0.00	0.24	1.85	0.03
95th-Percentile Queue Length [ft]	70.63	68.52	5.44	51.31	0.08	5.91	46.16	0.73

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	53.51	53.51	53.51	53.75	53.75	53.75	4.35	2.43	0.87	4.82	2.27	0.89
Movement LOS	D	D	D	D	D	D	A	A	A	A	A	A
d_A, Approach Delay [s/veh]	53.51			53.75			2.45			2.28		
Approach LOS	D			D			A			A		
d_I, Intersection Delay [s/veh]	3.95											
Intersection LOS	A											
Intersection V/C	0.593											

Sequence

Ring 1	2	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 10: Cathedral Canyon Drive / East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	18.5
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.756

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	0	1	0	0	1	0	1
Pocket Length [ft]	100.00	100.00	70.00	90.00	100.00	100.00	238.00	100.00	100.00	190.00	100.00	270.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	71	113	50	127	131	92	110	1151	77	61	1111	120
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	4	0	23	52	0	15	12	192	5	23	174	42
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	78	118	75	184	136	111	126	1389	85	86	1329	167
Peak Hour Factor	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	20	31	19	48	35	29	33	359	22	22	344	43
Total Analysis Volume [veh/h]	81	122	78	190	141	115	130	1436	88	89	1374	173
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	1 - E Palm Canyon Drive
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Overlap	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	6	3	8	0	7	4	0
Auxiliary Signal Groups						3,6						
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	7	7	7	0	7	7	0
Maximum Green [s]	0	30	0	0	30	30	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	1.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	19	0	0	19	19	19	30	0	11	22	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	5	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	10	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No	No	No	No		No	No	
Maximum Recall		No			No	No	No	No		No	No	
Pedestrian Recall		No			No	No	No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	60	60	60	60	60	60	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	0.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	15	15	15	15	15	25	6	28	28	5	27	27
g / C, Green / Cycle	0.25	0.25	0.25	0.25	0.25	0.42	0.10	0.46	0.46	0.09	0.45	0.45
(v / s)_i Volume / Saturation Flow Rate	0.07	0.07	0.05	0.15	0.08	0.07	0.07	0.40	0.06	0.05	0.27	0.11
s, saturation flow rate [veh/h]	1243	1863	1583	1264	1863	1583	1774	3547	1583	1774	5074	1583
c, Capacity [veh/h]	316	466	396	330	466	667	186	1632	728	160	2261	705
d1, Uniform Delay [s]	22.83	18.09	17.78	24.58	18.29	10.86	26.02	14.74	9.29	26.21	12.68	10.38
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.42	0.30	0.24	1.58	0.36	0.12	4.72	7.15	0.34	3.00	1.23	0.83
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

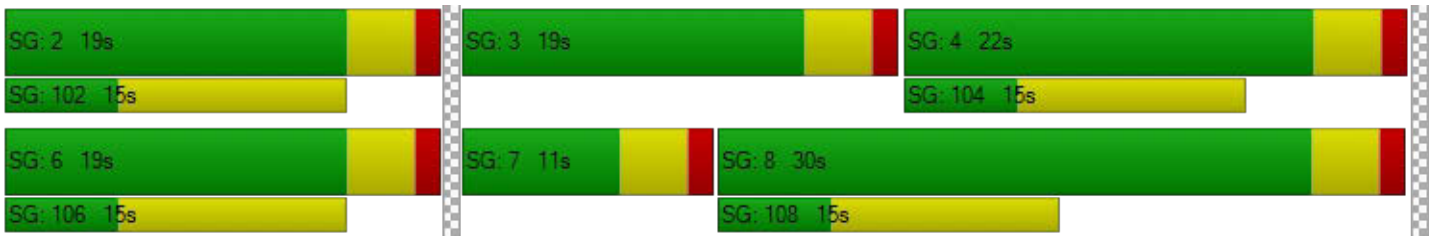
X, volume / capacity	0.26	0.26	0.20	0.58	0.30	0.17	0.70	0.88	0.12	0.56	0.61	0.25
d, Delay for Lane Group [s/veh]	23.25	18.39	18.02	26.16	18.65	10.98	30.74	21.89	9.63	29.21	13.91	11.21
Lane Group LOS	C	B	B	C	B	B	C	C	A	C	B	B
Critical Lane Group	No	No	No	Yes	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh]	0.97	1.24	0.78	2.51	1.45	0.81	1.87	8.47	0.60	1.24	3.97	1.31
50th-Percentile Queue Length [ft]	24.16	30.91	19.48	62.74	36.17	20.18	46.82	211.73	14.94	31.08	99.16	32.73
95th-Percentile Queue Length [veh]	1.74	2.23	1.40	4.52	2.60	1.45	3.37	13.24	1.08	2.24	7.14	2.36
95th-Percentile Queue Length [ft]	43.49	55.63	35.07	112.93	65.10	36.33	84.28	331.05	26.89	55.95	178.48	58.92

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	23.25	18.39	18.02	26.16	18.65	10.98	30.74	21.89	9.63	29.21	13.91	11.21
Movement LOS	C	B	B	C	B	B	C	C	A	C	B	B
d_A, Approach Delay [s/veh]	19.69			19.87			21.93			14.45		
Approach LOS	B			B			C			B		
d_I, Intersection Delay [s/veh]	18.50											
Intersection LOS	B											
Intersection V/C	0.756											

Sequence

Ring 1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 11: Perez Road / East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	18.1
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.780

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	150.00	100.00	100.00	170.00	100.00	45.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	9	9	4	17	10	257	212	1274	4	4	1270	21
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	5	0	0	0	0	204	0	5	187	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	9	9	9	18	10	267	220	1529	4	9	1508	22
Peak Hour Factor	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	2	2	5	3	69	56	392	1	2	387	6
Total Analysis Volume [veh/h]	9	9	9	18	10	274	226	1570	4	9	1548	23
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	70
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	0	7	7	0	7	7	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	19	0	0	19	0	11	21	0	11	21	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	R	L	C	C	L	C	R
C, Cycle Length [s]	70	70	70	70	70	70	70	70	70	70	70
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	3	3	9	9	9	7	41	41	1	35	35
g / C, Green / Cycle	0.04	0.04	0.13	0.13	0.13	0.10	0.59	0.59	0.02	0.51	0.51
(v / s)_i Volume / Saturation Flow Rate	0.01	0.01	0.01	0.09	0.09	0.07	0.29	0.29	0.01	0.44	0.01
s, saturation flow rate [veh/h]	1774	1712	1774	1600	1583	3445	3547	1860	1774	3547	1583
c, Capacity [veh/h]	76	74	223	202	199	344	2076	1089	32	1786	797
d1, Uniform Delay [s]	32.34	32.52	27.11	29.46	29.47	30.46	8.52	8.52	34.05	15.37	8.79
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.68	1.70	0.15	4.51	4.58	2.13	0.85	1.62	4.73	5.97	0.07
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

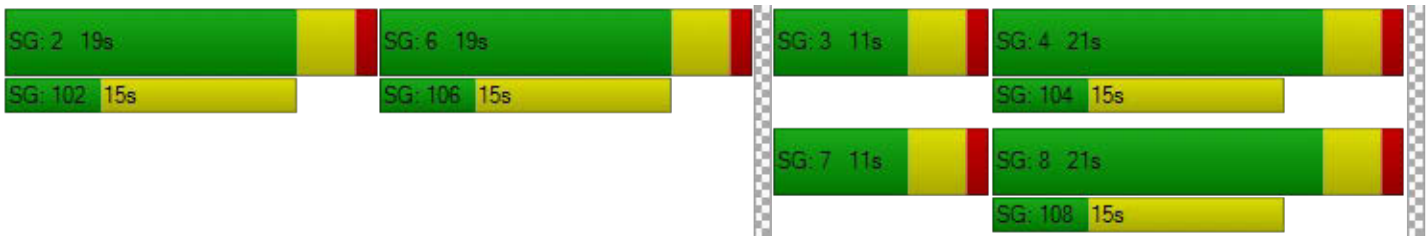
X, volume / capacity	0.12	0.24	0.08	0.71	0.71	0.66	0.50	0.50	0.28	0.87	0.03
d, Delay for Lane Group [s/veh]	33.02	34.22	27.26	33.98	34.05	32.59	9.38	10.14	38.78	21.35	8.86
Lane Group LOS	C	C	C	C	C	C	A	B	D	C	A
Critical Lane Group	No	Yes	No	No	Yes	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh]	0.15	0.31	0.26	2.40	2.38	1.82	3.67	4.08	0.18	10.13	0.16
50th-Percentile Queue Length [ft]	3.83	7.84	6.47	59.97	59.51	45.50	91.64	101.96	4.62	253.31	4.05
95th-Percentile Queue Length [veh]	0.28	0.56	0.47	4.32	4.28	3.28	6.60	7.34	0.33	15.35	0.29
95th-Percentile Queue Length [ft]	6.89	14.11	11.64	107.95	107.12	81.91	164.96	183.54	8.32	383.82	7.28

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	33.02	34.22	34.22	27.26	33.98	34.01	32.59	9.64	10.14	38.78	21.35	8.86
Movement LOS	C	C	C	C	C	C	C	A	B	D	C	A
d_A, Approach Delay [s/veh]	33.82			33.61			12.52			21.26		
Approach LOS	C			C			B			C		
d_I, Intersection Delay [s/veh]	18.12											
Intersection LOS	B											
Intersection V/C	0.780											

Sequence

Ring 1	2	6	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 12: Canyon Plaza Drive / East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	11.6
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.674

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	1	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	95.00	90.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	55	2	83	6	3	14	10	1457	39	56	1457	11
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	5	0	0	13	0	5	6	191	5	0	176	11
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	62	2	86	19	3	20	16	1706	46	58	1691	22
Peak Hour Factor	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	16	1	22	5	1	5	4	445	12	15	441	6
Total Analysis Volume [veh/h]	65	2	90	20	3	21	17	1779	48	60	1763	23
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	100
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	0	7	7	0	7	7	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	70	0	0	70	0	11	19	0	11	19	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	L	C	R	L	C	C
C, Cycle Length [s]	100	100	100	100	100	100	100	100	100	100
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	10	10	10	10	3	72	72	6	75	75
g / C, Green / Cycle	0.10	0.10	0.10	0.10	0.03	0.72	0.72	0.06	0.75	0.75
(v / s)_i Volume / Saturation Flow Rate	0.05	0.06	0.02	0.01	0.01	0.50	0.03	0.03	0.48	0.48
s, saturation flow rate [veh/h]	1381	1589	1299	1614	1774	3547	1583	1774	1863	1854
c, Capacity [veh/h]	165	164	105	167	47	2553	1140	101	1397	1391
d1, Uniform Delay [s]	45.67	42.68	48.25	40.82	47.83	7.88	4.05	46.02	6.00	6.02
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.53	2.99	0.87	0.39	4.56	1.60	0.07	5.44	2.25	2.29
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.39	0.56	0.19	0.14	0.36	0.70	0.04	0.59	0.64	0.64
d, Delay for Lane Group [s/veh]	47.21	45.67	49.12	41.21	52.39	9.48	4.12	51.46	8.25	8.30
Lane Group LOS	D	D	D	D	D	A	A	D	A	A
Critical Lane Group	No	Yes	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh]	1.61	2.24	0.51	0.54	0.47	8.54	0.24	1.57	7.09	7.11
50th-Percentile Queue Length [ft]	40.22	56.02	12.68	13.58	11.67	213.40	6.07	39.31	177.21	177.82
95th-Percentile Queue Length [veh]	2.90	4.03	0.91	0.98	0.84	13.33	0.44	2.83	11.45	11.49
95th-Percentile Queue Length [ft]	72.39	100.83	22.82	24.44	21.00	333.19	10.93	70.76	286.37	287.16

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	47.21	45.67	45.67	49.12	41.21	41.21	52.39	9.48	4.12	51.46	8.28	8.30
Movement LOS	D	D	D	D	D	D	D	A	A	D	A	A
d_A, Approach Delay [s/veh]	46.30			44.80			9.74			9.68		
Approach LOS	D			D			A			A		
d_I, Intersection Delay [s/veh]	11.58											
Intersection LOS	B											
Intersection V/C	0.674											

Sequence

Ring 1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 14: Cathedral Canyon Drive / Officer David Vasquez Road

Control Type:	Signalized	Delay (sec / veh):	3.9
Analysis Method:	HCM 2010	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.211

Intersection Setup

Name						
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	1	0	1	1
Pocket Length [ft]	100.00	100.00	205.00	100.00	120.00	120.00
Speed [mph]	40.00		40.00		40.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		Yes		Yes	

Volumes

Name						
Base Volume Input [veh/h]	344	7	17	370	7	32
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	54	0	0	67	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	412	7	18	452	7	33
Peak Hour Factor	0.8670	0.8670	0.8670	0.8670	0.8670	0.8670
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	119	2	5	130	2	10
Total Analysis Volume [veh/h]	475	8	21	521	8	38
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	2 - N. Cathedral Canyon Drive
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permissive	Permissive	Protected	Permissive	Split	Overlap
Signal group	2	0	1	6	7	7
Auxiliary Signal Groups						1,7
Lead / Lag	-	-	Lead	-	Lead	-
Minimum Green [s]	7	0	7	7	7	7
Maximum Green [s]	30	0	30	30	30	30
Amber [s]	3.0	0.0	3.0	3.0	3.0	3.0
All red [s]	1.0	0.0	1.0	1.0	1.0	1.0
Split [s]	30	0	11	41	19	19
Vehicle Extension [s]	3.0	0.0	3.0	3.0	3.0	3.0
Walk [s]	5	0	0	5	5	5
Pedestrian Clearance [s]	10	0	0	10	10	10
Rest In Walk	No			No	No	
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0
Minimum Recall	No		No	No	No	No
Maximum Recall	No		No	No	No	No
Pedestrian Recall	No		No	No	No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	C	L	C	L	R
C, Cycle Length [s]	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	0.00
g_i, Effective Green Time [s]	42	42	2	48	4	10
g / C, Green / Cycle	0.70	0.70	0.04	0.80	0.06	0.17
(v / s)_i Volume / Saturation Flow Rate	0.13	0.13	0.01	0.15	0.00	0.02
s, saturation flow rate [veh/h]	1863	1852	1774	3547	3445	1583
c, Capacity [veh/h]	1302	1295	65	2845	223	266
d1, Uniform Delay [s]	3.13	3.13	28.25	1.38	26.37	21.34
k, delay calibration	0.50	0.50	0.11	0.50	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.31	0.32	2.82	0.14	0.06	0.24
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

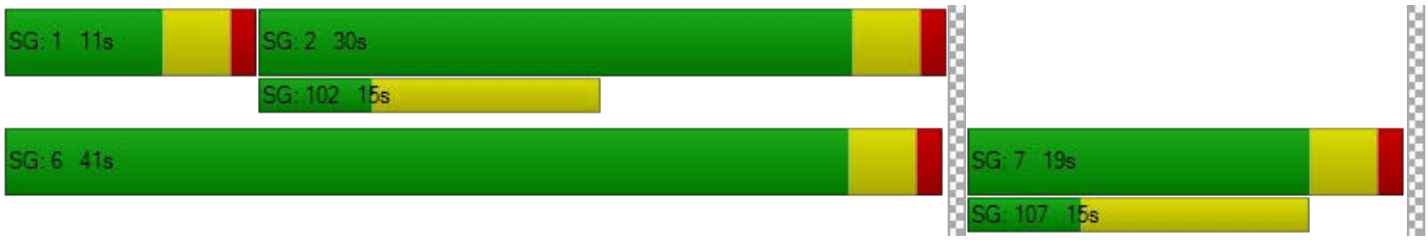
X, volume / capacity	0.19	0.19	0.32	0.18	0.04	0.14
d, Delay for Lane Group [s/veh]	3.44	3.45	31.06	1.52	26.44	21.58
Lane Group LOS	A	A	C	A	C	C
Critical Lane Group	No	No	No	Yes	No	Yes
50th-Percentile Queue Length [veh]	0.57	0.57	0.32	0.06	0.05	0.43
50th-Percentile Queue Length [ft]	14.31	14.34	8.05	1.40	1.28	10.75
95th-Percentile Queue Length [veh]	1.03	1.03	0.58	0.10	0.09	0.77
95th-Percentile Queue Length [ft]	25.76	25.81	14.49	2.52	2.31	19.35

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	3.45	3.45	31.06	1.52	26.44	21.58
Movement LOS	A	A	C	A	C	C
d_A, Approach Delay [s/veh]	3.45		2.67		22.43	
Approach LOS	A		A		C	
d_I, Intersection Delay [s/veh]	3.87					
Intersection LOS	A					
Intersection V/C	0.211					

Sequence

Ring 1	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 15: Cathedral Canyon Drive / Perez Road

Control Type:	Signalized	Delay (sec / veh):	22.4
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.467

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	1	1	0	0
Pocket Length [ft]	95.00	100.00	100.00	205.00	100.00	100.00	100.00	100.00	100.00	150.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	26	297	52	109	282	127	114	192	51	48	207	88
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	54	0	0	67	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	27	363	54	113	360	132	119	200	53	50	215	92
Peak Hour Factor	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	7	93	14	29	92	34	31	51	14	13	55	24
Total Analysis Volume [veh/h]	28	373	55	116	370	136	122	205	54	51	221	94
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	2 - N. Cathedral Canyon Drive
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	19	0	11	19	0	11	19	0	11	19	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	L	C	R	L	C	C
C, Cycle Length [s]	60	60	60	60	60	60	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	3	9	9	6	13	13	6	25	25	4	22	22
g / C, Green / Cycle	0.04	0.16	0.16	0.10	0.21	0.21	0.10	0.41	0.41	0.07	0.37	0.37
(v / s)_i Volume / Saturation Flow Rate	0.02	0.12	0.12	0.07	0.14	0.14	0.07	0.06	0.03	0.03	0.09	0.09
s, saturation flow rate [veh/h]	1774	1863	1781	1774	1863	1695	1774	3547	1583	1774	1863	1680
c, Capacity [veh/h]	82	294	281	181	398	362	181	1441	643	122	694	626
d1, Uniform Delay [s]	27.87	24.20	24.24	26.02	21.71	21.76	26.10	11.28	11.00	26.93	13.00	13.05
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.44	3.63	3.97	3.77	1.89	2.15	4.29	0.21	0.26	2.29	0.79	0.92
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.34	0.74	0.75	0.64	0.66	0.67	0.67	0.14	0.08	0.42	0.23	0.24
d, Delay for Lane Group [s/veh]	30.31	27.83	28.21	29.79	23.60	23.90	30.39	11.49	11.26	29.22	13.79	13.97
Lane Group LOS	C	C	C	C	C	C	C	B	B	C	B	B
Critical Lane Group	No	No	Yes	Yes	No	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh]	0.41	2.94	2.87	1.64	3.22	2.99	1.74	0.75	0.41	0.72	1.42	1.36
50th-Percentile Queue Length [ft]	10.37	73.53	71.86	40.99	80.43	74.78	43.62	18.87	10.31	18.00	35.54	33.88
95th-Percentile Queue Length [veh]	0.75	5.29	5.17	2.95	5.79	5.38	3.14	1.36	0.74	1.30	2.56	2.44
95th-Percentile Queue Length [ft]	18.66	132.35	129.34	73.77	144.77	134.60	78.52	33.96	18.56	32.39	63.98	60.98

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	30.31	27.99	28.21	29.79	23.69	23.90	30.39	11.49	11.26	29.22	13.84	13.97
Movement LOS	C	C	C	C	C	C	C	B	B	C	B	B
d_A, Approach Delay [s/veh]	28.16			24.87			17.51			16.02		
Approach LOS	C			C			B			B		
d_I, Intersection Delay [s/veh]	22.38											
Intersection LOS	C											
Intersection V/C	0.467											

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 16: Cathedral Canyon Drive / Paseo Real

Control Type:	Two-way stop	Delay (sec / veh):	29.2
Analysis Method:	HCM 2010	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.037

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	0	0	0	0	0	0
Pocket Length [ft]	55.00	100.00	100.00	55.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name												
Base Volume Input [veh/h]	11	482	9	16	509	19	11	5	16	9	6	14
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	48	6	0	59	0	0	0	0	8	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	11	549	15	17	588	20	11	5	17	17	6	15
Peak Hour Factor	0.9680	0.9680	0.9680	0.9680	0.9680	0.9680	0.9680	0.9680	0.9680	0.9680	0.9680	0.9680
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	142	4	4	152	5	3	1	4	4	2	4
Total Analysis Volume [veh/h]	11	567	15	18	607	21	11	5	18	18	6	15
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.01	0.00	0.02	0.01	0.00	0.06	0.03	0.03	0.09	0.04	0.02
d_M, Delay for Movement [s/veh]	8.83	0.00	0.00	8.71	0.00	0.00	24.91	28.38	11.80	24.99	29.25	12.40
Movement LOS	A	A	A	A	A	A	C	D	B	C	D	B
95th-Percentile Queue Length [veh]	0.04	0.00	0.00	0.06	0.00	0.00	0.38	0.38	0.38	0.51	0.51	0.51
95th-Percentile Queue Length [ft]	0.88	0.00	0.00	1.39	0.00	0.00	9.44	9.44	9.44	12.63	12.63	12.63
d_A, Approach Delay [s/veh]	0.16			0.24			18.48			20.80		
Approach LOS	A			A			C			C		
d_I, Intersection Delay [s/veh]	1.29											
Intersection LOS	D											

Intersection Level Of Service Report

Intersection 17: Cathedral Canyon Drive / Dinah Shore Drive

Control Type:	Signalized	Delay (sec / veh):	23.8
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.641

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	130.00	100.00	100.00	75.00	100.00	100.00	100.00	100.00	100.00	150.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	156	237	102	119	230	28	31	587	198	102	575	71
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	11	29	8	0	36	0	0	0	13	10	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	173	275	114	124	275	29	32	610	219	116	598	74
Peak Hour Factor	0.9700	0.9700	0.9700	0.9700	0.9700	0.9700	0.9700	0.9700	0.9700	0.9700	0.9700	0.9700
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	45	71	29	32	71	7	8	157	56	30	154	19
Total Analysis Volume [veh/h]	178	284	118	128	284	30	33	629	226	120	616	76
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	2 - N. Cathedral Canyon Drive
Cycle Length [s]	70
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	21	19	0	21	19	0	11	19	0	11	19	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	L	C	C	L	C	C
C, Cycle Length [s]	70	70	70	70	70	70	70	70	70	70	70	70
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	9	11	11	7	8	8	3	30	30	6	33	33
g / C, Green / Cycle	0.13	0.15	0.15	0.09	0.12	0.12	0.05	0.43	0.43	0.09	0.48	0.48
(v / s)_i Volume / Saturation Flow Rate	0.10	0.11	0.11	0.07	0.09	0.09	0.02	0.24	0.24	0.07	0.19	0.19
s, saturation flow rate [veh/h]	1774	1863	1681	1774	1863	1801	1774	1863	1697	1774	1863	1792
c, Capacity [veh/h]	224	285	257	167	225	217	86	808	736	161	887	854
d1, Uniform Delay [s]	29.74	28.35	28.41	31.00	29.64	29.67	32.35	14.79	14.79	31.08	11.86	11.86
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	6.23	3.70	4.33	7.12	4.05	4.32	2.80	2.72	2.99	6.64	1.33	1.39
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

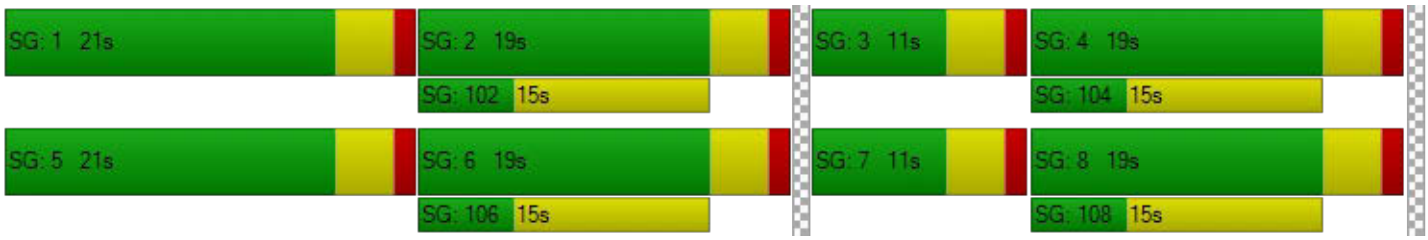
X, volume / capacity	0.79	0.74	0.75	0.77	0.71	0.71	0.38	0.55	0.55	0.74	0.40	0.40
d, Delay for Lane Group [s/veh]	35.96	32.05	32.75	38.12	33.70	34.00	35.16	17.51	17.78	37.72	13.19	13.25
Lane Group LOS	D	C	C	D	C	C	D	B	B	D	B	B
Critical Lane Group	No	No	Yes	Yes	No	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh]	3.09	3.40	3.17	2.30	2.65	2.60	0.58	5.12	4.72	2.15	3.30	3.19
50th-Percentile Queue Length [ft]	77.34	85.05	79.15	57.59	66.18	65.03	14.44	128.02	118.07	53.64	82.44	79.72
95th-Percentile Queue Length [veh]	5.57	6.12	5.70	4.15	4.76	4.68	1.04	8.83	8.29	3.86	5.94	5.74
95th-Percentile Queue Length [ft]	139.21	153.08	142.47	103.66	119.12	117.05	25.99	220.80	207.17	96.56	148.39	143.50

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	35.96	32.23	32.75	38.12	33.83	34.00	35.16	17.59	17.78	37.72	13.22	13.25
Movement LOS	D	C	C	D	C	C	D	B	B	D	B	B
d_A, Approach Delay [s/veh]	33.48			35.08			18.29			16.84		
Approach LOS	C			D			B			B		
d_I, Intersection Delay [s/veh]	23.82											
Intersection LOS	C											
Intersection V/C	0.641											

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	



Intersection Level Of Service Report
Intersection 18: Date Palm Drive / Gerald Ford Drive

Control Type:	Signalized	Delay (sec / veh):	14.4
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.527

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	85.00	100.00	85.00	160.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			Yes			Yes			No		

Volumes

Name												
Base Volume Input [veh/h]	22	418	198	120	415	61	36	46	46	196	44	127
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	87	47	0	99	0	0	0	0	56	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	23	522	253	125	531	63	37	48	48	260	46	132
Peak Hour Factor	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	6	136	66	33	139	16	10	13	13	68	12	34
Total Analysis Volume [veh/h]	24	545	264	130	554	66	39	50	50	271	48	138
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	6 - N/S
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Split	Split	Split	Split	Split	Split
Signal group	5	2	0	1	6	0	3	8	0	7	4	4
Auxiliary Signal Groups												1,4
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	7	7	0	7	7	0	0	7	0	0	7	7
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	30
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	3.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	1.0
Split [s]	11	25	0	11	30	0	0	24	0	0	24	24
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	3.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	5
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	10
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	2.0
Minimum Recall	No	No		No	No			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	C	L	C	C	L	C	R
C, Cycle Length [s]	60	60	60	60	60	60	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.00	0.00	2.00	2.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	2	28	28	6	32	32	14	14	14	14	14	14
g / C, Green / Cycle	0.04	0.47	0.47	0.10	0.53	0.53	0.23	0.23	0.23	0.23	0.23	0.23
(v / s)_i Volume / Saturation Flow Rate	0.01	0.11	0.17	0.07	0.12	0.12	0.03	0.03	0.03	0.12	0.15	0.09
s, saturation flow rate [veh/h]	1774	5074	1583	1774	3547	1764	1352	1863	1583	1290	1144	1583
c, Capacity [veh/h]	68	2380	743	183	1893	942	171	424	360	335	363	360
d1, Uniform Delay [s]	28.11	9.48	10.15	26.03	7.38	7.39	28.61	18.39	18.48	23.61	22.24	19.61
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	3.04	0.22	1.33	4.98	0.26	0.54	0.67	0.12	0.17	0.96	0.91	0.67
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

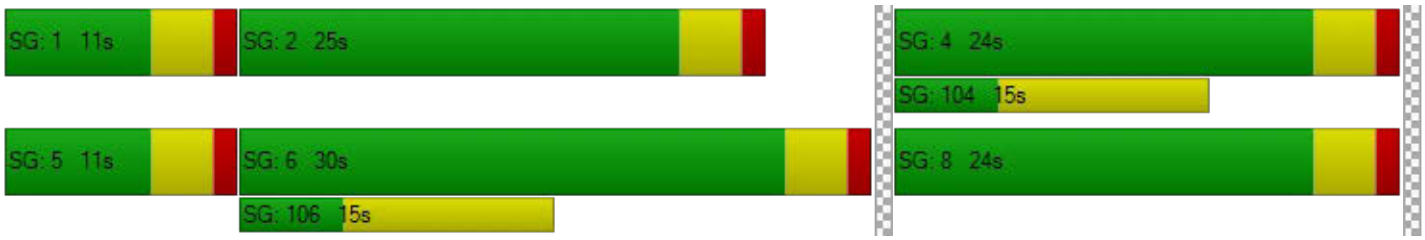
X, volume / capacity	0.35	0.23	0.36	0.71	0.22	0.22	0.23	0.12	0.14	0.45	0.46	0.38
d, Delay for Lane Group [s/veh]	31.16	9.70	11.48	31.00	7.64	7.93	29.28	18.51	18.66	24.57	23.16	20.28
Lane Group LOS	C	A	B	C	A	A	C	B	B	C	C	C
Critical Lane Group	No	No	Yes	Yes	No	No	No	No	No	No	Yes	No
50th-Percentile Queue Length [veh]	0.37	1.17	2.02	1.88	1.11	1.19	0.54	0.50	0.51	1.90	2.04	1.51
50th-Percentile Queue Length [ft]	9.16	29.33	50.59	47.04	27.64	29.66	13.54	12.60	12.73	47.48	50.99	37.68
95th-Percentile Queue Length [veh]	0.66	2.11	3.64	3.39	1.99	2.14	0.97	0.91	0.92	3.42	3.67	2.71
95th-Percentile Queue Length [ft]	16.49	52.79	91.07	84.68	49.74	53.39	24.37	22.68	22.92	85.46	91.79	67.82

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	31.16	9.70	11.48	31.00	7.72	7.93	29.28	18.51	18.66	23.95	23.16	20.28
Movement LOS	C	A	B	C	A	A	C	B	B	C	C	C
d_A, Approach Delay [s/veh]	10.88			11.77			21.59			22.76		
Approach LOS	B			B			C			C		
d_I, Intersection Delay [s/veh]	14.36											
Intersection LOS	B											
Intersection V/C	0.527											

Sequence

Ring 1	1	2	-	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 19: Date Palm Drive / Dinah Shore Drive

Control Type:	Signalized	Delay (sec / veh):	20.6
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.555

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	2	0	1	2	0	1	1	0	0	1	0	1
Pocket Length [ft]	225.00	100.00	125.00	170.00	100.00	50.00	150.00	100.00	100.00	130.00	100.00	180.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			No		

Volumes

Name												
Base Volume Input [veh/h]	185	483	58	114	538	75	103	483	173	59	427	115
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	116	0	15	126	15	15	0	0	0	0	16
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	192	618	60	134	686	93	122	502	180	61	444	136
Peak Hour Factor	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	51	164	16	35	182	25	32	133	48	16	118	36
Total Analysis Volume [veh/h]	203	655	64	142	727	99	129	532	191	65	470	144
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	1 - E Palm Canyon Drive
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Overlap
Signal group	5	2	0	1	6	0	3	8	0	7	4	4
Auxiliary Signal Groups												1,4
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	7
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	30
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	1.0
Split [s]	11	19	0	11	19	0	11	19	0	11	19	19
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	5
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	10
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0
Minimum Recall	No	No		No	No		No	No		No	No	No
Maximum Recall	No	No		No	No		No	No		No	No	No
Pedestrian Recall	No	No		No	No		No	No		No	No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	60	60	60	60	60	60	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	0.00
g_i, Effective Green Time [s]	7	21	21	6	21	21	6	12	12	5	11	21
g / C, Green / Cycle	0.11	0.35	0.35	0.11	0.34	0.34	0.10	0.20	0.20	0.08	0.17	0.35
(v / s)_i Volume / Saturation Flow Rate	0.06	0.13	0.04	0.04	0.14	0.06	0.07	0.15	0.12	0.04	0.13	0.09
s, saturation flow rate [veh/h]	3445	5074	1583	3445	5074	1583	1774	3547	1583	1774	3547	1583
c, Capacity [veh/h]	393	1760	549	371	1727	539	186	711	317	142	621	553
d1, Uniform Delay [s]	25.15	14.77	13.40	25.04	15.31	13.99	26.04	22.68	21.92	26.50	23.64	14.05
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.05	0.60	0.43	0.65	0.76	0.75	4.54	1.60	1.83	2.31	1.91	0.25
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.52	0.37	0.12	0.38	0.42	0.18	0.69	0.75	0.60	0.46	0.76	0.26
d, Delay for Lane Group [s/veh]	26.20	15.37	13.84	25.69	16.07	14.74	30.58	24.28	23.75	28.81	25.56	14.30
Lane Group LOS	C	B	B	C	B	B	C	C	C	C	C	B
Critical Lane Group	Yes	No	No	No	Yes	No	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh]	1.30	1.99	0.57	0.89	2.29	0.92	1.85	3.29	2.34	0.90	3.00	1.23
50th-Percentile Queue Length [ft]	32.38	49.80	14.24	22.29	57.22	23.04	46.33	82.35	58.45	22.61	74.88	30.86
95th-Percentile Queue Length [veh]	2.33	3.59	1.03	1.60	4.12	1.66	3.34	5.93	4.21	1.63	5.39	2.22
95th-Percentile Queue Length [ft]	58.28	89.64	25.63	40.12	102.99	41.47	83.39	148.24	105.21	40.70	134.78	55.55

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	26.20	15.37	13.84	25.69	16.07	14.74	30.58	24.28	23.75	28.81	25.56	14.30
Movement LOS	C	B	B	C	B	B	C	C	C	C	C	B
d_A, Approach Delay [s/veh]	17.65			17.34			25.12			23.48		
Approach LOS	B			B			C			C		
d_I, Intersection Delay [s/veh]	20.58											
Intersection LOS	C											
Intersection V/C	0.555											

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 23: East Palm Canyon Drive / Frank Sinatra Drive

Control Type:	Signalized	Delay (sec / veh):	23.9
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.589

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	1	1	0	0	2	0	1
Pocket Length [ft]	160.00	100.00	45.00	325.00	100.00	250.00	100.00	100.00	100.00	120.00	100.00	1200.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			No			Yes		

Volumes

Name												
Base Volume Input [veh/h]	47	1301	147	214	1244	33	34	18	13	141	24	199
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	120	2	21	128	5	5	0	0	2	0	26
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	49	1473	155	244	1422	39	40	19	14	149	25	233
Peak Hour Factor	0.9210	0.9210	0.9210	0.9210	0.9210	0.9210	0.9210	0.9210	0.9210	0.9210	0.9210	0.9210
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	13	400	42	66	386	11	11	5	4	40	7	63
Total Analysis Volume [veh/h]	53	1599	168	265	1544	42	43	21	15	162	27	253
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	6 - N/S
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Overlap	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Overlap
Signal group	5	2	2	1	6	0	3	8	0	7	4	4
Auxiliary Signal Groups			1,2,3,4,									1,2,3,4,
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	7	7	7	0	7	7	0	7	7	7
Maximum Green [s]	30	30	30	30	30	0	30	30	0	30	30	30
Amber [s]	3.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0
All red [s]	1.0	1.0	1.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	1.0
Split [s]	11	47	47	13	36	0	11	19	0	11	19	19
Vehicle Extension [s]	3.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0
Walk [s]	0	5	5	0	5	0	0	5	0	0	5	5
Pedestrian Clearance [s]	0	10	10	0	10	0	0	10	0	0	10	10
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0
Minimum Recall	No	No	No	No	No		No	No		No	No	No
Maximum Recall	No	No	No	No	No		No	No		No	No	No
Pedestrian Recall	No	No	No	No	No		No	No		No	No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	L	C	R
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	0.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	0.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	2.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	7	36	152	9	38	38	5	22	7	24	152
g / C, Green / Cycle	0.08	0.40	1.69	0.10	0.42	0.42	0.05	0.24	0.08	0.27	1.69
(v / s)_i Volume / Saturation Flow Rate	0.03	0.32	0.11	0.10	0.30	0.03	0.03	0.02	0.05	0.01	0.16
s, saturation flow rate [veh/h]	1774	5074	1583	2741	5074	1583	1412	1735	3445	1863	1583
c, Capacity [veh/h]	139	2017	2675	303	2129	664	129	422	279	506	2675
d1, Uniform Delay [s]	39.46	23.91	0.00	42.01	21.84	15.61	43.32	26.36	39.96	24.27	0.00
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.11	0.50	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.70	0.73	0.01	7.93	0.48	0.04	1.50	0.40	1.91	0.20	0.02
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.38	0.79	0.06	0.88	0.73	0.06	0.33	0.09	0.58	0.05	0.09
d, Delay for Lane Group [s/veh]	41.16	24.64	0.01	49.94	22.32	15.65	44.82	26.75	41.87	24.48	0.02
Lane Group LOS	D	C	A	D	C	B	D	C	D	C	A
Critical Lane Group	No	Yes	No	Yes	No	No	No	No	Yes	No	Yes
50th-Percentile Queue Length [veh]	1.14	9.27	0.01	3.22	8.37	0.49	0.98	0.62	1.75	0.44	0.01
50th-Percentile Queue Length [ft]	28.59	231.79	0.18	80.44	209.19	12.24	24.42	15.49	43.64	10.90	0.28
95th-Percentile Queue Length [veh]	2.06	14.27	0.01	5.79	13.11	0.88	1.76	1.12	3.14	0.78	0.02
95th-Percentile Queue Length [ft]	51.47	356.63	0.33	144.79	327.79	22.04	43.96	27.88	78.56	19.62	0.51

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	41.16	24.64	0.01	49.94	22.32	15.65	44.82	26.75	26.75	41.87	24.48	0.02
Movement LOS	D	C	A	D	C	B	D	C	C	D	C	A
d_A, Approach Delay [s/veh]	22.85			26.12			36.59			16.85		
Approach LOS	C			C			D			B		
d_I, Intersection Delay [s/veh]	23.92											
Intersection LOS	C											
Intersection V/C	0.589											

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 24: East Palm Canyon Drive / Mirage Cove Drive

Control Type:	Signalized	Delay (sec / veh):	19.0
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.455

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	1	1	0	0
Pocket Length [ft]	150.00	100.00	100.00	110.00	100.00	100.00	75.00	100.00	75.00	75.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	40	1394	6	23	1334	43	39	0	21	4	0	23
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	98	0	20	101	9	7	0	0	0	0	17
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	42	1548	6	44	1488	54	48	0	22	4	0	41
Peak Hour Factor	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	11	406	2	12	390	14	13	0	6	1	0	11
Total Analysis Volume [veh/h]	44	1623	6	46	1560	57	50	0	23	4	0	43
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	6 - N/S
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	5	2	0	1	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	7	7	0	7	7	0	0	7	0	0	7	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	11	30	0	11	30	0	0	19	0	0	19	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No	No		No	No			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	L	C	R	L	C
C, Cycle Length [s]	60	60	60	60	60	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.00	0.00	2.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	4	22	22	4	22	22	22	22	22	22	22
g / C, Green / Cycle	0.06	0.37	0.37	0.06	0.37	0.37	0.36	0.36	0.36	0.36	0.36
(v / s)_i Volume / Saturation Flow Rate	0.02	0.30	0.30	0.03	0.30	0.30	0.04	0.00	0.01	0.00	0.03
s, saturation flow rate [veh/h]	1774	3547	1859	1774	3547	1829	1358	1863	1583	1412	1583
c, Capacity [veh/h]	112	1319	691	115	1325	684	552	678	576	594	576
d1, Uniform Delay [s]	27.09	16.99	16.99	27.01	16.88	16.88	14.52	0.00	12.35	13.30	12.51
k, delay calibration	0.11	0.11	0.16	0.11	0.11	0.16	0.50	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.25	1.24	3.43	2.24	1.19	3.34	0.32	0.00	0.13	0.02	0.25
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

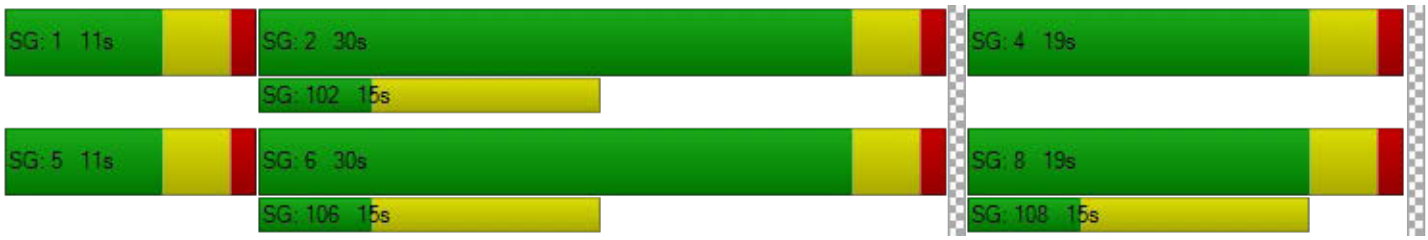
X, volume / capacity	0.39	0.81	0.81	0.40	0.80	0.81	0.09	0.00	0.04	0.01	0.07
d, Delay for Lane Group [s/veh]	29.33	18.23	20.42	29.25	18.07	20.22	14.84	0.00	12.48	13.32	12.76
Lane Group LOS	C	B	C	C	B	C	B	A	B	B	B
Critical Lane Group	No	No	Yes	Yes	No	No	Yes	No	No	No	No
50th-Percentile Queue Length [veh]	0.63	5.69	6.39	0.65	5.65	6.23	0.47	0.00	0.19	0.03	0.36
50th-Percentile Queue Length [ft]	15.64	142.29	159.69	16.30	141.13	155.86	11.67	0.00	4.76	0.86	9.04
95th-Percentile Queue Length [veh]	1.13	9.60	10.53	1.17	9.54	10.33	0.84	0.00	0.34	0.06	0.65
95th-Percentile Queue Length [ft]	28.15	240.10	263.31	29.33	238.55	258.23	21.00	0.00	8.57	1.55	16.27

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	29.33	18.98	20.42	29.25	18.75	20.22	14.84	0.00	12.48	13.32	12.76	12.76
Movement LOS	C	B	C	C	B	C	B	A	B	B	B	B
d_A, Approach Delay [s/veh]	19.26			19.09			14.10			12.81		
Approach LOS	B			B			B			B		
d_I, Intersection Delay [s/veh]	18.98											
Intersection LOS	B											
Intersection V/C	0.455											

Sequence

Ring 1	1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Opening Year Conditions
Alternative C

Intersection Level Of Service Report

Intersection 1: North Project Driveway 1 / Buddy Rogers Avenue

Control Type:	Two-way stop	Delay (sec / veh):	12.1
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			No			No		

Volumes

Name												
Base Volume Input [veh/h]	0	0	0	0	0	0	0	29	0	0	31	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	44	0	73	0	0	0	0	0	63	104	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	44	0	73	0	0	0	0	30	63	104	32	0
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	12	0	20	0	0	0	0	8	17	28	9	0
Total Analysis Volume [veh/h]	48	0	79	0	0	0	0	33	68	113	35	0
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	No	No		
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	No	No		
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.08	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.00	0.00
d_M, Delay for Movement [s/veh]	11.66	11.92	8.92	12.06	11.90	8.47	7.28	0.00	0.00	7.61	0.00	0.00
Movement LOS	B	B	A	B	B	A	A	A	A	A	A	A
95th-Percentile Queue Length [veh]	0.27	0.26	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.33	0.33	0.33
95th-Percentile Queue Length [ft]	6.64	6.44	6.44	0.00	0.00	0.00	0.00	0.00	0.00	8.25	8.25	8.25
d_A, Approach Delay [s/veh]	9.96			10.81			0.00			5.81		
Approach LOS	A			B			A			A		
d_I, Intersection Delay [s/veh]	5.65											
Intersection LOS	B											

Intersection Level Of Service Report
Intersection 2: Date Palm Drive / Buddy Rogers Avenue

Control Type:	Two-way stop	Delay (sec / veh):	44.4
Analysis Method:	HCM 2010	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.546

Intersection Setup

Name						
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00		40.00		40.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

Volumes

Name						
Base Volume Input [veh/h]	4	671	533	27	23	6
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	11	52	59	111	78	8
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	15	750	613	139	102	14
Peak Hour Factor	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	196	160	36	27	4
Total Analysis Volume [veh/h]	16	783	640	145	106	15
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.03	0.01	0.01	0.00	0.55	0.03
d_M, Delay for Movement [s/veh]	12.49	0.00	0.00	0.00	44.43	32.83
Movement LOS	B	A	A	A	E	D
95th-Percentile Queue Length [veh]	0.10	0.00	0.00	0.00	3.16	3.16
95th-Percentile Queue Length [ft]	2.49	0.00	0.00	0.00	79.11	79.11
d_A, Approach Delay [s/veh]	0.25		0.00		42.99	
Approach LOS	A		A		E	
d_I, Intersection Delay [s/veh]	3.17					
Intersection LOS	E					

Intersection Level Of Service Report
Intersection 3: Date Palm Drive / East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	10.9
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.596

Intersection Setup

Name						
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00		40.00		40.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		Yes		Yes	

Volumes

Name						
Base Volume Input [veh/h]	409	118	143	1125	1247	472
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	44	48	42	121	162	21
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	469	171	191	1291	1459	512
Peak Hour Factor	0.9560	0.9560	0.9560	0.9560	0.9560	0.9560
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	123	45	50	338	382	134
Total Analysis Volume [veh/h]	491	179	200	1350	1526	536
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Split	Split	ProtectedPermissi	Permissive	Permissive	Permissive
Signal group	1	0	3	8	4	4
Auxiliary Signal Groups						4
Lead / Lag	Lead	-	Lead	-	-	-
Minimum Green [s]	7	0	7	7	7	7
Maximum Green [s]	30	0	7	30	30	30
Amber [s]	3.0	0.0	3.0	3.0	3.0	3.0
All red [s]	1.0	0.0	1.0	1.0	1.0	1.0
Split [s]	19	0	16	41	25	25
Vehicle Extension [s]	3.0	0.0	3.0	3.0	3.0	3.0
Walk [s]	5	0	0	5	5	5
Pedestrian Clearance [s]	10	0	0	10	10	10
Rest In Walk	No			No	No	
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0
Minimum Recall	No		Yes	No	No	
Maximum Recall	No		No	No	No	
Pedestrian Recall	No		No	No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	R	L	C	C	R
C, Cycle Length [s]	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	0.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	10	10	42	42	32	32
g / C, Green / Cycle	0.16	0.16	0.70	0.70	0.53	0.53
(v / s)_i Volume / Saturation Flow Rate	0.10	0.11	0.16	0.27	0.30	0.34
s, saturation flow rate [veh/h]	5168	1583	1233	5074	5074	1583
c, Capacity [veh/h]	845	259	964	3569	2666	832
d1, Uniform Delay [s]	23.25	23.72	4.68	3.60	9.69	10.24
k, delay calibration	0.11	0.11	0.11	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.64	3.29	0.11	0.31	0.90	3.83
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.58	0.69	0.21	0.38	0.57	0.64
d, Delay for Lane Group [s/veh]	23.89	27.01	4.79	3.91	10.59	14.07
Lane Group LOS	C	C	A	A	B	B
Critical Lane Group	No	Yes	Yes	No	No	Yes
50th-Percentile Queue Length [veh]	1.97	2.38	0.18	1.08	3.55	4.59
50th-Percentile Queue Length [ft]	49.34	59.58	4.59	26.99	88.79	114.84
95th-Percentile Queue Length [veh]	3.55	4.29	0.33	1.94	6.39	8.11
95th-Percentile Queue Length [ft]	88.81	107.25	8.26	48.59	159.82	202.71

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	23.89	27.01	4.79	3.91	10.59	14.07
Movement LOS	C	C	A	A	B	B
d_A, Approach Delay [s/veh]	24.72		4.02		11.49	
Approach LOS	C		A		B	
d_I, Intersection Delay [s/veh]	10.86					
Intersection LOS	B					
Intersection V/C	0.596					

Sequence

Ring 1	1	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 4: South Project Driveway-Allen Avenue / East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	6.1
Analysis Method:	HCM 2010	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.836

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	0	0	0	0	0	1	4	1262	0	0	1341	11
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	26	0	77	111	137	0	0	137	74
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	26	0	78	115	1449	0	0	1532	85
Peak Hour Factor	0.9120	0.9120	0.9120	0.9120	0.9120	0.9120	0.9120	0.9120	0.9120	0.9120	0.9120	0.9120
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	7	0	21	32	397	0	0	420	23
Total Analysis Volume [veh/h]	0	0	0	29	0	86	126	1589	0	0	1680	93
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	1 - E Palm Canyon Drive
Cycle Length [s]	70
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	0	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	7	0	0	7	0	0	7	0	0	7	0
Maximum Green [s]	0	30	0	0	30	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	33	0	0	33	0	0	37	0	0	37	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No			No			No			No	
Maximum Recall		No			No			No			No	
Pedestrian Recall		No			No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	L	C	C	C	L	C	R
C, Cycle Length [s]	70	70	70	70	70	70	70	70
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	2.00	0.00	2.00	0.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	6	6	6	56	56	56	56	56
g / C, Green / Cycle	0.09	0.09	0.09	0.80	0.80	0.80	0.80	0.80
(v / s)_i Volume / Saturation Flow Rate	0.00	0.02	0.05	0.69	0.55	0.00	0.33	0.06
s, saturation flow rate [veh/h]	1709	1412	1583	1152	1695	320	5074	1583
c, Capacity [veh/h]	209	202	146	974	1345	251	4028	1257
d1, Uniform Delay [s]	0.00	30.87	30.51	2.62	3.28	0.00	2.23	1.58
k, delay calibration	0.11	0.11	0.11	0.50	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.00	0.32	3.78	7.31	2.88	0.00	0.32	0.11
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.00	0.14	0.59	0.81	0.69	0.00	0.42	0.07
d, Delay for Lane Group [s/veh]	0.00	31.19	34.29	9.94	6.16	0.00	2.55	1.70
Lane Group LOS	A	C	C	A	A	A	A	A
Critical Lane Group	No	No	Yes	Yes	No	No	No	No
50th-Percentile Queue Length [veh]	0.00	0.46	1.46	2.86	2.39	0.00	0.66	0.10
50th-Percentile Queue Length [ft]	0.00	11.38	36.43	71.62	59.87	0.00	16.51	2.60
95th-Percentile Queue Length [veh]	0.00	0.82	2.62	5.16	4.31	0.00	1.19	0.19
95th-Percentile Queue Length [ft]	0.00	20.48	65.57	128.92	107.77	0.00	29.72	4.67

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	31.19	34.29	34.29	9.94	7.74	6.16	0.00	2.55	1.70
Movement LOS	A	A	A	C	C	C	A	A	A	A	A	A
d_A, Approach Delay [s/veh]	0.00			33.51			7.90			2.50		
Approach LOS	A			C			A			A		
d_I, Intersection Delay [s/veh]	6.06											
Intersection LOS	A											
Intersection V/C	0.836											

Sequence

Ring 1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 5: Monty Hall Drive-Van Fleet Avenue / East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	12.2
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.695

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	1	0	1	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	45.00	100.00	100.00	105.00	100.00	130.00	125.00	100.00	180.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	11	7	55	12	6	12	6	1211	9	92	1276	16
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	22	0	0	44	63	225	0	15	199	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	11	7	79	12	6	56	69	1484	9	111	1526	17
Peak Hour Factor	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	2	21	3	2	15	18	389	2	29	400	4
Total Analysis Volume [veh/h]	12	7	83	13	6	59	72	1556	9	116	1600	18
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	1 - E Palm Canyon Drive
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	0	7	7	0	7	7	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	19	0	0	19	0	11	30	0	11	30	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	R	L	C	L	C	R	L	C	R
C, Cycle Length [s]	60	60	60	60	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	6	6	6	6	5	36	36	6	37	37
g / C, Green / Cycle	0.10	0.10	0.10	0.10	0.08	0.60	0.60	0.10	0.62	0.62
(v / s)_i Volume / Saturation Flow Rate	0.02	0.05	0.01	0.04	0.04	0.44	0.01	0.07	0.45	0.01
s, saturation flow rate [veh/h]	839	1583	1403	1606	1774	3547	1583	1774	3547	1583
c, Capacity [veh/h]	179	154	140	156	148	2136	954	179	2199	982
d1, Uniform Delay [s]	24.83	25.86	29.49	25.54	26.35	8.48	4.79	26.02	7.91	4.39
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.26	2.90	0.28	1.76	2.48	2.22	0.02	3.90	2.15	0.03
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.11	0.54	0.09	0.42	0.49	0.73	0.01	0.65	0.73	0.02
d, Delay for Lane Group [s/veh]	25.09	28.77	29.78	27.30	28.84	10.70	4.81	29.91	10.06	4.43
Lane Group LOS	C	C	C	C	C	B	A	C	B	A
Critical Lane Group	No	Yes	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh]	0.24	1.15	0.18	0.87	1.00	5.21	0.03	1.64	5.00	0.06
50th-Percentile Queue Length [ft]	5.96	28.82	4.58	21.80	25.01	130.16	0.86	41.07	125.00	1.59
95th-Percentile Queue Length [veh]	0.43	2.08	0.33	1.57	1.80	8.95	0.06	2.96	8.67	0.11
95th-Percentile Queue Length [ft]	10.72	51.88	8.25	39.23	45.03	223.71	1.55	73.93	216.68	2.86

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	25.09	25.09	28.77	29.78	27.30	27.30	28.84	10.70	4.81	29.91	10.06	4.43
Movement LOS	C	C	C	C	C	C	C	B	A	C	B	A
d_A, Approach Delay [s/veh]	28.08			27.71			11.47			11.33		
Approach LOS	C			C			B			B		
d_I, Intersection Delay [s/veh]	12.24											
Intersection LOS	B											
Intersection V/C	0.695											

Sequence

Ring 1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 6: Date Palm Drive / East Palm Drive

Control Type:	Two-way stop	Delay (sec / veh):	11.8
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.050

Intersection Setup

Name						
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00		40.00		40.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

Volumes

Name						
Base Volume Input [veh/h]	0	8	539	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	63	66	0	0	26
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	71	627	0	0	26
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	19	170	0	0	7
Total Analysis Volume [veh/h]	0	77	682	0	0	28
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.01	0.00	0.00	0.05
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	0.00	0.00	11.78
Movement LOS		A	A	A		B
95th-Percentile Queue Length [veh]	0.00	0.00	0.00	0.00	0.00	0.16
95th-Percentile Queue Length [ft]	0.00	0.00	0.00	0.00	0.00	3.95
d_A, Approach Delay [s/veh]	0.00		0.00		11.78	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	0.42					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 7: North Project Driveway 2 / Buddy Rogers Avenue

Control Type:	Two-way stop	Delay (sec / veh):	10.4
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

Intersection Setup

Name						
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00		40.00		40.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name						
Base Volume Input [veh/h]	0	0	29	0	0	31
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	13	73	0	19	104
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	13	103	0	19	136
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	4	28	0	5	37
Total Analysis Volume [veh/h]	0	14	112	0	21	148
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.01	0.00	0.00	0.01	0.00
d_M, Delay for Movement [s/veh]	10.36	8.88	0.00	0.00	7.47	0.00
Movement LOS	B	A	A	A	A	A
95th-Percentile Queue Length [veh]	0.05	0.05	0.00	0.00	0.39	0.39
95th-Percentile Queue Length [ft]	1.13	1.13	0.00	0.00	9.66	9.66
d_A, Approach Delay [s/veh]	8.88		0.00		0.93	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	0.95					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 8: Monty Hall Drive / Buddy Rogers Avenue

Control Type:	All-way stop	Delay (sec / veh):	7.7
Analysis Method:	HCM 2010	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.126

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			No			No		

Volumes

Name												
Base Volume Input [veh/h]	13	7	3	23	12	0	4	15	21	9	11	5
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	63	0	0	0	0	0	0	44	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	14	7	66	24	12	0	4	16	22	53	11	5
Peak Hour Factor	0.7500	0.7500	0.7500	0.7500	0.7500	0.7500	0.7500	0.7500	0.7500	0.7500	0.7500	0.7500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	5	2	22	8	4	0	1	5	7	18	4	2
Total Analysis Volume [veh/h]	19	9	88	32	16	0	5	21	29	71	15	7
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	925	798	881	810
Degree of Utilization, x	0.13	0.06	0.06	0.11

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.43	0.19	0.20	0.39
95th-Percentile Queue Length [ft]	10.72	4.79	4.98	9.68
Approach Delay [s/veh]	7.45	7.80	7.36	8.02
Approach LOS	A	A	A	A
Intersection Delay [s/veh]	7.66			
Intersection LOS	A			

Intersection Level Of Service Report

Intersection 9: Buddy Rogers Avenue/ East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	3.5
Analysis Method:	HCM 2010	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.557

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	13	2	28	10	5	22	23	1186	3	42	1227	15
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	288	0	0	243	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	14	2	29	10	5	23	24	1521	3	44	1519	16
Peak Hour Factor	0.9310	0.9310	0.9310	0.9310	0.9310	0.9310	0.9310	0.9310	0.9310	0.9310	0.9310	0.9310
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	1	8	3	1	6	6	408	1	12	408	4
Total Analysis Volume [veh/h]	15	2	31	11	5	25	26	1634	3	47	1632	17
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	1 - E Palm Canyon Drive
Cycle Length [s]	100
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	7	0	0	7	0	0	7	0	0	7	0
Maximum Green [s]	0	30	0	0	30	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	19	0	0	19	0	0	70	0	0	70	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No			No			No			No	
Maximum Recall		No			No			No			No	
Pedestrian Recall		No			No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	C	L	C	R	L	C	R
C, Cycle Length [s]	100	100	100	100	100	100	100	100
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	2.00	2.00	0.00	0.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	5	5	87	87	87	87	87	87
g / C, Green / Cycle	0.05	0.05	0.87	0.87	0.87	0.87	0.87	0.87
(v / s)_i Volume / Saturation Flow Rate	0.03	0.02	0.08	0.46	0.00	0.15	0.46	0.01
s, saturation flow rate [veh/h]	1635	1663	307	3547	1583	306	3547	1583
c, Capacity [veh/h]	132	132	295	3079	1374	295	3079	1374
d1, Uniform Delay [s]	46.24	46.04	4.04	1.61	0.87	4.37	1.61	0.88
k, delay calibration	0.11	0.11	0.50	0.50	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.67	1.32	0.59	0.66	0.00	1.15	0.66	0.02
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.36	0.31	0.09	0.53	0.00	0.16	0.53	0.01
d, Delay for Lane Group [s/veh]	47.91	47.36	4.62	2.27	0.88	5.53	2.27	0.90
Lane Group LOS	D	D	A	A	A	A	A	A
Critical Lane Group	Yes	No	No	Yes	No	No	No	No
50th-Percentile Queue Length [veh]	1.20	1.01	0.17	0.77	0.00	0.33	0.77	0.01
50th-Percentile Queue Length [ft]	29.94	25.37	4.19	19.21	0.05	8.21	19.17	0.29
95th-Percentile Queue Length [veh]	2.16	1.83	0.30	1.38	0.00	0.59	1.38	0.02
95th-Percentile Queue Length [ft]	53.90	45.67	7.54	34.58	0.09	14.78	34.50	0.53

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	47.91	47.91	47.91	47.36	47.36	47.36	4.62	2.27	0.88	5.53	2.27	0.90
Movement LOS	D	D	D	D	D	D	A	A	A	A	A	A
d_A, Approach Delay [s/veh]	47.91			47.36			2.31			2.35		
Approach LOS	D			D			A			A		
d_I, Intersection Delay [s/veh]	3.50											
Intersection LOS	A											
Intersection V/C	0.557											

Sequence

Ring 1	2	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 10: Cathedral Canyon Drive / East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	17.7
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.757

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	0	1	0	0	1	0	1
Pocket Length [ft]	100.00	100.00	70.00	90.00	100.00	100.00	238.00	100.00	100.00	190.00	100.00	270.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	62	124	46	129	147	74	119	1056	74	66	998	157
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	2	0	26	74	0	15	9	188	4	23	167	52
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	66	129	74	208	153	92	133	1286	81	92	1205	215
Peak Hour Factor	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	17	34	19	54	40	24	35	335	21	24	314	56
Total Analysis Volume [veh/h]	69	135	77	217	160	96	139	1341	84	96	1257	224
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	1 - E Palm Canyon Drive
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Overlap	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	6	3	8	0	7	4	0
Auxiliary Signal Groups						3,6						
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	7	7	7	0	7	7	0
Maximum Green [s]	0	30	0	0	30	30	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	1.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	19	0	0	19	19	11	30	0	11	30	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	5	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	10	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No	No	No	No		No	No	
Maximum Recall		No			No	No	No	No		No	No	
Pedestrian Recall		No			No	No	No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	60	60	60	60	60	60	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	0.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	15	15	15	15	15	25	6	27	27	6	27	27
g / C, Green / Cycle	0.25	0.25	0.25	0.25	0.25	0.42	0.10	0.46	0.46	0.09	0.45	0.45
(v / s)_i Volume / Saturation Flow Rate	0.06	0.07	0.05	0.17	0.09	0.06	0.08	0.38	0.05	0.05	0.25	0.14
s, saturation flow rate [veh/h]	1221	1863	1583	1249	1863	1583	1774	3547	1583	1774	5074	1583
c, Capacity [veh/h]	301	466	396	320	466	666	184	1622	724	165	2266	707
d1, Uniform Delay [s]	23.12	18.23	17.77	25.62	18.50	10.75	26.22	14.24	9.35	26.17	12.25	10.73
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.38	0.34	0.24	2.51	0.44	0.10	6.18	4.98	0.33	3.24	0.99	1.18
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.23	0.29	0.19	0.68	0.34	0.14	0.76	0.83	0.12	0.58	0.55	0.32
d, Delay for Lane Group [s/veh]	23.50	18.57	18.01	28.12	18.93	10.85	32.40	19.22	9.68	29.40	13.24	11.91
Lane Group LOS	C	B	B	C	B	B	C	B	A	C	B	B
Critical Lane Group	No	No	No	Yes	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh]	0.83	1.38	0.77	3.03	1.66	0.66	2.07	7.29	0.57	1.35	3.50	1.77
50th-Percentile Queue Length [ft]	20.69	34.49	19.22	75.67	41.57	16.61	51.66	182.31	14.33	33.64	87.52	44.35
95th-Percentile Queue Length [veh]	1.49	2.48	1.38	5.45	2.99	1.20	3.72	11.72	1.03	2.42	6.30	3.19
95th-Percentile Queue Length [ft]	37.24	62.09	34.60	136.21	74.82	29.89	92.99	293.02	25.80	60.55	157.53	79.83

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	23.50	18.57	18.01	28.12	18.93	10.85	32.40	19.22	9.68	29.40	13.24	11.91
Movement LOS	C	B	B	C	B	B	C	B	A	C	B	B
d_A, Approach Delay [s/veh]	19.63			21.51			19.88			14.03		
Approach LOS	B			C			B			B		
d_I, Intersection Delay [s/veh]	17.69											
Intersection LOS	B											
Intersection V/C	0.757											

Sequence

Ring 1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 11: Perez Road / East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	24.9
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.736

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	150.00	100.00	100.00	170.00	100.00	45.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	34	24	15	19	8	347	269	1161	7	7	1128	12
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	2	0	0	0	0	0	0	201	2	0	185	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	37	25	16	20	8	361	280	1408	9	7	1358	12
Peak Hour Factor	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	10	7	4	5	2	95	74	372	2	2	359	3
Total Analysis Volume [veh/h]	39	26	17	21	8	382	296	1488	10	7	1436	13
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	0	7	7	0	7	7	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	19	0	0	19	0	20	71	0	11	62	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	R	L	C	C	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	7	7	17	17	17	13	79	79	2	68	68
g / C, Green / Cycle	0.05	0.05	0.14	0.14	0.14	0.11	0.66	0.66	0.01	0.56	0.56
(v / s)_i Volume / Saturation Flow Rate	0.02	0.02	0.01	0.12	0.12	0.09	0.28	0.28	0.00	0.40	0.01
s, saturation flow rate [veh/h]	1774	1741	1774	1593	1583	3445	3547	1856	1774	3547	1583
c, Capacity [veh/h]	98	96	252	226	225	365	2328	1218	23	1998	892
d1, Uniform Delay [s]	54.78	54.93	44.72	50.37	50.38	52.49	9.81	9.81	58.70	19.22	11.54
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.59	3.22	0.14	9.49	9.54	4.35	0.56	1.08	7.05	2.26	0.03
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

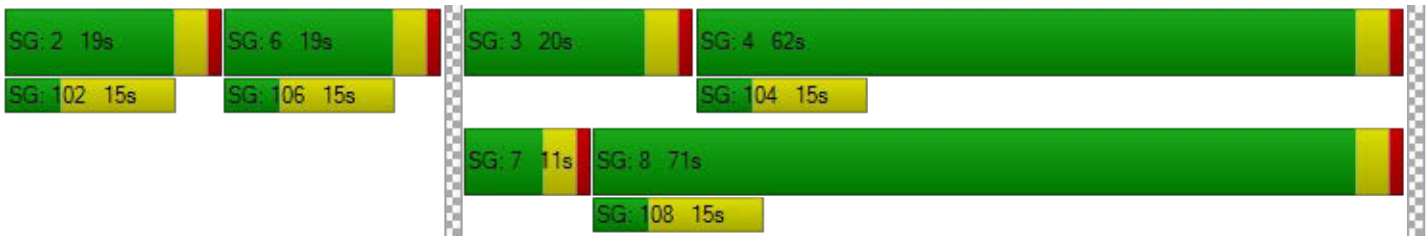
X, volume / capacity	0.40	0.45	0.08	0.86	0.86	0.81	0.42	0.42	0.30	0.72	0.01
d, Delay for Lane Group [s/veh]	57.37	58.15	44.86	59.86	59.92	56.84	10.38	10.89	65.75	21.48	11.57
Lane Group LOS	E	E	D	E	E	E	B	B	E	C	B
Critical Lane Group	No	Yes	No	No	Yes	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh]	1.19	1.33	0.55	6.23	6.19	4.51	5.69	6.14	0.25	14.15	0.15
50th-Percentile Queue Length [ft]	29.85	33.20	13.67	155.71	154.87	112.67	142.34	153.38	6.34	353.82	3.86
95th-Percentile Queue Length [veh]	2.15	2.39	0.98	10.32	10.28	7.99	9.61	10.20	0.46	20.32	0.28
95th-Percentile Queue Length [ft]	53.73	59.77	24.60	258.03	256.91	199.72	240.18	254.93	11.40	508.06	6.95

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	57.37	58.15	58.15	44.86	59.86	59.89	56.84	10.55	10.89	65.75	21.48	11.57
Movement LOS	E	E	E	D	E	E	E	B	B	E	C	B
d_A, Approach Delay [s/veh]	57.78			59.12			18.19			21.61		
Approach LOS	E			E			B			C		
d_I, Intersection Delay [s/veh]	24.88											
Intersection LOS	C											
Intersection V/C	0.736											

Sequence

Ring 1	2	6	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 12: Canyon Plaza Drive / East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	10.9
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.641

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	1	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	95.00	90.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	51	1	74	5	2	12	13	1375	26	51	1443	10
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	2	0	4	19	0	4	6	181	2	4	170	13
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	55	1	81	24	2	16	20	1611	29	57	1671	23
Peak Hour Factor	0.9550	0.9550	0.9550	0.9550	0.9550	0.9550	0.9550	0.9550	0.9550	0.9550	0.9550	0.9550
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	14	0	21	6	1	4	5	422	8	15	437	6
Total Analysis Volume [veh/h]	58	1	85	25	2	17	21	1687	30	60	1750	24
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	100
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	0	7	7	0	7	7	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	23	0	0	23	0	11	66	0	11	66	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	L	C	R	L	C	C
C, Cycle Length [s]	100	100	100	100	100	100	100	100	100	100
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	9	9	9	9	3	73	73	6	76	76
g / C, Green / Cycle	0.09	0.09	0.09	0.09	0.03	0.73	0.73	0.06	0.76	0.76
(v / s)_i Volume / Saturation Flow Rate	0.04	0.05	0.02	0.01	0.01	0.48	0.02	0.03	0.48	0.48
s, saturation flow rate [veh/h]	1388	1586	1306	1609	1774	3547	1583	1774	1863	1854
c, Capacity [veh/h]	156	148	97	150	55	2589	1156	101	1408	1401
d1, Uniform Delay [s]	46.07	43.47	49.05	41.61	47.51	6.95	3.72	46.03	5.70	5.72
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.47	3.59	1.39	0.38	4.28	1.29	0.04	5.49	2.15	2.18
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.37	0.58	0.26	0.13	0.38	0.65	0.03	0.59	0.63	0.63
d, Delay for Lane Group [s/veh]	47.54	47.07	50.44	41.98	51.79	8.24	3.76	51.52	7.85	7.90
Lane Group LOS	D	D	D	D	D	A	A	D	A	A
Critical Lane Group	No	Yes	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh]	1.44	2.13	0.65	0.44	0.57	7.18	0.14	1.57	6.70	6.72
50th-Percentile Queue Length [ft]	36.02	53.34	16.16	10.89	14.17	179.47	3.52	39.34	167.53	168.08
95th-Percentile Queue Length [veh]	2.59	3.84	1.16	0.78	1.02	11.57	0.25	2.83	10.95	10.98
95th-Percentile Queue Length [ft]	64.84	96.00	29.09	19.60	25.50	289.32	6.34	70.81	273.66	274.39

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	47.54	47.07	47.07	50.44	41.98	41.98	51.79	8.24	3.76	51.52	7.87	7.90
Movement LOS	D	D	D	D	D	D	D	A	A	D	A	A
d_A, Approach Delay [s/veh]	47.26			46.79			8.69			9.30		
Approach LOS	D			D			A			A		
d_I, Intersection Delay [s/veh]	10.91											
Intersection LOS	B											
Intersection V/C	0.641											

Sequence

Ring 1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 13: Golf Club Drive / East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	13.3
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.762

Intersection Setup

Name						
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	0	0	0
Pocket Length [ft]	100.00	100.00	90.00	100.00	100.00	100.00
Speed [mph]	40.00		40.00		40.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		Yes		No	

Volumes

Name						
Base Volume Input [veh/h]	146	51	83	1246	1366	113
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	36	0	0	153	135	41
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	188	53	86	1449	1556	159
Peak Hour Factor	0.9240	0.9240	0.9240	0.9240	0.9240	0.9240
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	51	14	23	392	421	43
Total Analysis Volume [veh/h]	203	57	93	1568	1684	172
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Split	Split	ProtectedPermissi	Permissive	Permissive	Permissive
Signal group	1	0	3	8	4	0
Auxiliary Signal Groups						
Lead / Lag	Lead	-	Lead	-	-	-
Minimum Green [s]	7	0	7	7	7	0
Maximum Green [s]	30	0	7	30	30	0
Amber [s]	3.0	0.0	3.0	3.0	3.0	0.0
All red [s]	1.0	0.0	1.0	1.0	1.0	0.0
Split [s]	19	0	11	101	90	0
Vehicle Extension [s]	3.0	0.0	3.0	3.0	3.0	0.0
Walk [s]	5	0	0	5	5	0
Pedestrian Clearance [s]	10	0	0	10	10	0
Rest In Walk	No			No	No	
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	2.0	0.0
Minimum Recall	No		Yes	No	No	
Maximum Recall	No		No	No	No	
Pedestrian Recall	No		No	No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	C	C
C, Cycle Length [s]	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	0.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	7	7	45	45	36	36
g / C, Green / Cycle	0.12	0.12	0.75	0.75	0.59	0.59
(v / s)_i Volume / Saturation Flow Rate	0.07	0.08	0.19	0.44	0.50	0.51
s, saturation flow rate [veh/h]	1774	1683	501	3547	1863	1804
c, Capacity [veh/h]	207	197	447	2660	1103	1068
d1, Uniform Delay [s]	25.32	25.35	10.88	3.36	9.96	10.29
k, delay calibration	0.11	0.11	0.23	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	3.28	3.55	0.50	0.97	7.80	9.60
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.64	0.65	0.21	0.59	0.84	0.87
d, Delay for Lane Group [s/veh]	28.60	28.90	11.38	4.33	17.76	19.89
Lane Group LOS	C	C	B	A	B	B
Critical Lane Group	No	Yes	Yes	No	No	Yes
50th-Percentile Queue Length [veh]	1.82	1.76	0.14	1.51	8.78	9.46
50th-Percentile Queue Length [ft]	45.62	44.11	3.55	37.69	219.61	236.44
95th-Percentile Queue Length [veh]	3.28	3.18	0.26	2.71	13.65	14.50
95th-Percentile Queue Length [ft]	82.11	79.40	6.39	67.83	341.13	362.53

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	28.71	28.90	11.38	4.33	18.72	19.89
Movement LOS	C	C	B	A	B	B
d_A, Approach Delay [s/veh]	28.75		4.73		18.83	
Approach LOS	C		A		B	
d_I, Intersection Delay [s/veh]	13.31					
Intersection LOS	B					
Intersection V/C	0.762					

Sequence

Ring 1	1	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 14: Cathedral Canyon Drive / Officer David Vasquez Road

Control Type:	Signalized	Delay (sec / veh):	6.0
Analysis Method:	HCM 2010	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.221

Intersection Setup

Name						
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	1	0	1	1
Pocket Length [ft]	100.00	100.00	205.00	100.00	120.00	120.00
Speed [mph]	40.00		40.00		40.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		Yes		Yes	

Volumes

Name						
Base Volume Input [veh/h]	417	5	25	404	6	53
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	61	0	0	89	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	495	5	26	509	6	55
Peak Hour Factor	0.9140	0.9140	0.9140	0.9140	0.9140	0.9140
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	135	1	7	139	2	15
Total Analysis Volume [veh/h]	542	5	28	557	7	60
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	2 - N. Cathedral Canyon Drive
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permissive	Permissive	Protected	Permissive	Split	Overlap
Signal group	2	0	1	6	7	7
Auxiliary Signal Groups						1,7
Lead / Lag	-	-	Lead	-	Lead	-
Minimum Green [s]	7	0	7	7	7	7
Maximum Green [s]	30	0	30	30	30	30
Amber [s]	3.0	0.0	3.0	3.0	3.0	3.0
All red [s]	1.0	0.0	1.0	1.0	1.0	1.0
Split [s]	86	0	15	101	19	19
Vehicle Extension [s]	3.0	0.0	3.0	3.0	3.0	3.0
Walk [s]	5	0	0	5	5	5
Pedestrian Clearance [s]	10	0	0	10	10	10
Rest In Walk	No			No	No	
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0
Minimum Recall	No		No	No	No	No
Maximum Recall	No		No	No	No	No
Pedestrian Recall	No		No	No	No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	C	L	C	L	R
C, Cycle Length [s]	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	0.00
g_i, Effective Green Time [s]	97	97	4	106	6	15
g / C, Green / Cycle	0.81	0.81	0.04	0.88	0.05	0.12
(v / s)_i Volume / Saturation Flow Rate	0.15	0.15	0.02	0.16	0.00	0.04
s, saturation flow rate [veh/h]	1863	1857	1774	3547	3445	1583
c, Capacity [veh/h]	1512	1507	63	3124	181	192
d1, Uniform Delay [s]	2.49	2.49	56.66	1.01	53.96	48.11
k, delay calibration	0.50	0.50	0.11	0.50	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.26	0.26	4.75	0.12	0.09	0.91
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.18	0.18	0.44	0.18	0.04	0.31
d, Delay for Lane Group [s/veh]	2.75	2.76	61.41	1.13	54.05	49.02
Lane Group LOS	A	A	E	A	D	D
Critical Lane Group	No	Yes	Yes	No	No	Yes
50th-Percentile Queue Length [veh]	1.05	1.05	0.90	0.26	0.10	1.67
50th-Percentile Queue Length [ft]	26.19	26.21	22.58	6.53	2.53	41.68
95th-Percentile Queue Length [veh]	1.89	1.89	1.63	0.47	0.18	3.00
95th-Percentile Queue Length [ft]	47.14	47.18	40.64	11.75	4.56	75.03

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	2.76	2.76	61.41	1.13	54.05	49.02
Movement LOS	A	A	E	A	D	D
d_A, Approach Delay [s/veh]	2.76		4.02		49.55	
Approach LOS	A		A		D	
d_I, Intersection Delay [s/veh]	5.99					
Intersection LOS	A					
Intersection V/C	0.221					

Sequence

Ring 1	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	7	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 15: Cathedral Canyon Drive / Perez Road

Control Type:	Signalized	Delay (sec / veh):	41.1
Analysis Method:	HCM 2010	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.539

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	1	1	0	0
Pocket Length [ft]	95.00	100.00	100.00	205.00	100.00	100.00	100.00	100.00	100.00	150.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	38	379	64	148	314	119	152	252	46	63	222	202
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	61	0	0	89	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	40	455	67	154	416	124	158	262	48	66	231	210
Peak Hour Factor	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	10	118	17	40	108	32	41	68	12	17	60	54
Total Analysis Volume [veh/h]	41	471	69	159	430	128	163	271	50	68	239	217
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	2 - N. Cathedral Canyon Drive
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	5.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	34	0	25	48	0	25	47	0	14	36	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	L	C	R	L	C	C
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	5	21	21	13	28	28	13	64	64	6	58	58
g / C, Green / Cycle	0.04	0.17	0.17	0.11	0.23	0.23	0.11	0.54	0.54	0.05	0.48	0.48
(v / s)_i Volume / Saturation Flow Rate	0.02	0.15	0.15	0.09	0.16	0.16	0.09	0.08	0.03	0.04	0.13	0.14
s, saturation flow rate [veh/h]	1774	1863	1781	1774	1863	1718	1774	3547	1583	1774	1863	1583
c, Capacity [veh/h]	79	320	305	189	435	401	194	1901	849	94	893	759
d1, Uniform Delay [s]	56.13	48.34	48.40	52.67	41.76	41.80	52.41	13.99	13.35	55.99	18.67	18.86
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	5.26	6.80	7.40	9.75	1.76	1.94	9.22	0.16	0.13	10.08	0.74	0.95
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

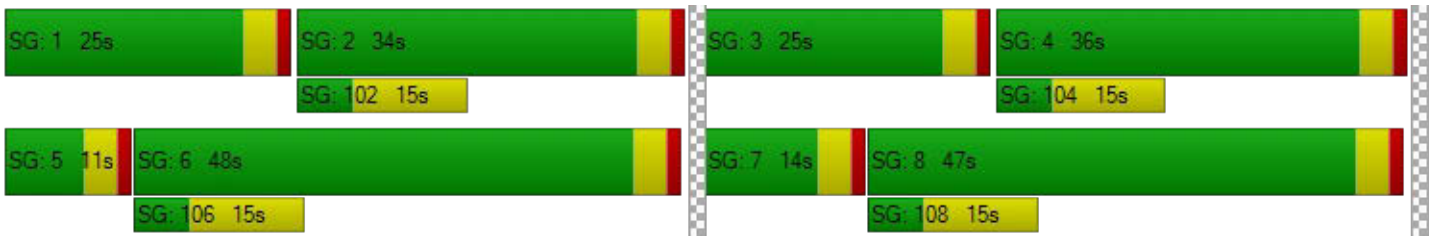
X, volume / capacity	0.52	0.86	0.87	0.84	0.67	0.67	0.84	0.14	0.06	0.72	0.27	0.29
d, Delay for Lane Group [s/veh]	61.39	55.14	55.80	62.42	43.52	43.74	61.63	14.15	13.48	66.07	19.40	19.81
Lane Group LOS	E	E	E	E	D	D	E	B	B	E	B	B
Critical Lane Group	No	No	Yes	Yes	No	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh]	1.31	8.44	8.19	5.13	7.83	7.29	5.23	1.82	0.66	2.26	4.02	3.72
50th-Percentile Queue Length [ft]	32.82	211.09	204.66	128.33	195.72	182.15	130.72	45.46	16.41	56.51	100.54	93.02
95th-Percentile Queue Length [veh]	2.36	13.21	12.88	8.85	12.42	11.71	8.98	3.27	1.18	4.07	7.24	6.70
95th-Percentile Queue Length [ft]	59.07	330.23	321.97	221.23	310.43	292.81	224.47	81.82	29.54	101.71	180.97	167.44

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	61.39	55.42	55.80	62.42	43.59	43.74	61.63	14.15	13.48	66.07	19.40	19.81
Movement LOS	E	E	E	E	D	D	E	B	B	E	B	B
d_A, Approach Delay [s/veh]	55.88			47.79			30.07			25.63		
Approach LOS	E			D			C			C		
d_I, Intersection Delay [s/veh]	41.07											
Intersection LOS	D											
Intersection V/C	0.539											

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	



Intersection Level Of Service Report
Intersection 16: Cathedral Canyon Drive / Paseo Real

Control Type:	Two-way stop	Delay (sec / veh):	54.6
Analysis Method:	HCM 2010	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.035

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	0	0	0	0	0	0
Pocket Length [ft]	55.00	100.00	100.00	55.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name												
Base Volume Input [veh/h]	25	749	6	12	578	8	6	1	16	5	3	8
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	53	8	0	78	0	0	0	0	11	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	26	832	14	12	679	8	6	1	17	16	3	8
Peak Hour Factor	0.9370	0.9370	0.9370	0.9370	0.9370	0.9370	0.9370	0.9370	0.9370	0.9370	0.9370	0.9370
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	7	222	4	3	181	2	2	0	5	4	1	2
Total Analysis Volume [veh/h]	28	888	15	13	725	9	6	1	18	17	3	9
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.03	0.01	0.00	0.02	0.01	0.00	0.05	0.01	0.03	0.17	0.04	0.02
d_M, Delay for Movement [s/veh]	9.29	0.00	0.00	9.89	0.00	0.00	36.90	48.73	12.03	47.40	54.55	18.80
Movement LOS	A	A	A	A	A	A	E	E	B	E	F	C
95th-Percentile Queue Length [veh]	0.10	0.00	0.00	0.05	0.00	0.00	0.30	0.30	0.30	0.78	0.78	0.78
95th-Percentile Queue Length [ft]	2.50	0.00	0.00	1.32	0.00	0.00	7.47	7.47	7.47	19.62	19.62	19.62
d_A, Approach Delay [s/veh]	0.28			0.17			19.47			39.26		
Approach LOS	A			A			C			E		
d_I, Intersection Delay [s/veh]	1.16											
Intersection LOS	F											

Intersection Level Of Service Report
Intersection 17: Cathedral Canyon Drive / Dinah Shore Drive

Control Type:	Signalized	Delay (sec / veh):	40.6
Analysis Method:	HCM 2010	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.730

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	130.00	100.00	100.00	75.00	100.00	100.00	100.00	100.00	100.00	150.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	228	474	97	113	260	28	59	775	189	95	652	83
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	13	30	10	0	45	0	0	0	18	15	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	250	523	111	118	315	29	61	806	215	114	678	86
Peak Hour Factor	0.9340	0.9340	0.9340	0.9340	0.9340	0.9340	0.9340	0.9340	0.9340	0.9340	0.9340	0.9340
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	67	140	30	32	84	8	16	216	58	31	181	23
Total Analysis Volume [veh/h]	268	560	119	126	337	31	65	863	230	122	726	92
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	2 - N. Cathedral Canyon Drive
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	104.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	29	34	0	16	21	0	11	55	0	15	59	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	L	C	C	L	C	C
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	20	25	25	10	15	15	6	58	58	10	62	62
g / C, Green / Cycle	0.17	0.21	0.21	0.09	0.13	0.13	0.05	0.49	0.49	0.08	0.52	0.52
(v / s)_i Volume / Saturation Flow Rate	0.15	0.19	0.19	0.07	0.10	0.10	0.04	0.30	0.30	0.07	0.22	0.22
s, saturation flow rate [veh/h]	1774	1863	1751	1774	1863	1808	1774	1863	1730	1774	1863	1790
c, Capacity [veh/h]	298	390	367	154	239	232	93	906	841	150	965	928
d1, Uniform Delay [s]	48.98	46.22	46.22	53.93	50.72	50.76	55.98	22.76	22.79	54.08	17.96	17.96
k, delay calibration	0.16	0.25	0.25	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	13.37	14.92	15.69	10.19	5.46	5.79	9.08	3.25	3.51	10.26	1.41	1.47
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.90	0.90	0.90	0.82	0.78	0.79	0.70	0.62	0.63	0.82	0.43	0.43
d, Delay for Lane Group [s/veh]	62.34	61.15	61.91	64.12	56.19	56.55	65.06	26.01	26.30	64.35	19.37	19.43
Lane Group LOS	E	E	E	E	E	E	E	C	C	E	B	B
Critical Lane Group	No	No	Yes	Yes	No	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh]	8.82	11.54	10.93	4.12	5.69	5.58	2.14	12.01	11.25	3.99	7.20	6.94
50th-Percentile Queue Length [ft]	220.41	288.55	273.20	102.91	142.13	139.52	53.56	300.29	281.35	99.77	180.08	173.45
95th-Percentile Queue Length [veh]	13.69	17.11	16.35	7.41	9.60	9.46	3.86	17.70	16.76	7.18	11.60	11.26
95th-Percentile Queue Length [ft]	342.15	427.85	408.73	185.23	239.88	236.38	96.41	442.39	418.90	179.59	290.12	281.44

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	62.34	61.43	61.91	64.12	56.35	56.55	65.06	26.11	26.30	64.35	19.40	19.43
Movement LOS	E	E	E	E	E	E	E	C	C	E	B	B
d_A, Approach Delay [s/veh]	61.75			58.34			28.33			25.24		
Approach LOS	E			E			C			C		
d_I, Intersection Delay [s/veh]	40.64											
Intersection LOS	D											
Intersection V/C	0.730											

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	



Intersection Level Of Service Report
Intersection 18: Date Palm Drive / Gerald Ford Drive

Control Type:	Signalized	Delay (sec / veh):	24.6
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.501

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	85.00	100.00	85.00	160.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			Yes			Yes			No		

Volumes

Name												
Base Volume Input [veh/h]	20	597	290	119	438	44	58	56	18	167	42	148
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	97	33	0	130	0	0	0	0	40	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	21	718	335	124	586	46	60	58	19	214	44	154
Peak Hour Factor	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	6	189	88	33	154	12	16	15	5	56	12	41
Total Analysis Volume [veh/h]	22	757	353	131	617	48	63	61	20	226	46	162
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	6 - N/S
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Split	Split	Split	Split	Split	Split
Signal group	5	2	0	1	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	7	7	0	7	7	0	0	7	0	0	7	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	13	66	0	18	71	0	0	11	0	0	25	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No	No		No	No			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	C	L	C	C	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	4	72	72	11	79	79	7	7	7	15	15	15
g / C, Green / Cycle	0.03	0.60	0.60	0.09	0.66	0.66	0.06	0.06	0.06	0.12	0.12	0.12
(v / s)_i Volume / Saturation Flow Rate	0.01	0.15	0.22	0.07	0.12	0.13	0.04	0.02	0.02	0.08	0.08	0.10
s, saturation flow rate [veh/h]	1774	5074	1583	1774	3547	1795	1774	1863	1712	1774	1803	1583
c, Capacity [veh/h]	55	3026	944	158	2321	1175	103	109	100	218	221	194
d1, Uniform Delay [s]	57.05	11.49	12.58	53.76	8.18	8.19	55.20	54.43	54.51	50.01	50.00	51.47
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	4.55	0.20	1.13	10.34	0.18	0.36	5.68	2.15	2.58	2.86	2.82	8.97
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.40	0.25	0.37	0.83	0.19	0.19	0.61	0.38	0.40	0.62	0.62	0.83
d, Delay for Lane Group [s/veh]	61.59	11.69	13.72	64.10	8.36	8.55	60.88	56.59	57.10	52.87	52.82	60.44
Lane Group LOS	E	B	B	E	A	A	E	E	E	D	D	E
Critical Lane Group	No	No	Yes	Yes	No	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh]	0.72	3.05	4.88	4.28	2.11	2.21	2.00	1.24	1.22	3.96	4.02	5.16
50th-Percentile Queue Length [ft]	17.89	76.25	122.09	106.98	52.71	55.28	49.91	31.03	30.54	98.95	100.47	129.04
95th-Percentile Queue Length [veh]	1.29	5.49	8.51	7.67	3.80	3.98	3.59	2.23	2.20	7.12	7.23	8.89
95th-Percentile Queue Length [ft]	32.20	137.24	212.70	191.79	94.88	99.50	89.84	55.85	54.98	178.11	180.84	222.19

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	61.59	11.69	13.72	64.10	8.42	8.55	60.88	56.75	57.10	52.85	52.82	60.44
Movement LOS	E	B	B	E	A	A	E	E	E	D	D	E
d_A, Approach Delay [s/veh]	13.29			17.59			58.60			55.68		
Approach LOS	B			B			E			E		
d_I, Intersection Delay [s/veh]	24.60											
Intersection LOS	C											
Intersection V/C	0.501											

Sequence

Ring 1	1	2	4	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 19: Date Palm Drive / Dinah Shore Drive

Control Type:	Signalized	Delay (sec / veh):	37.1
Analysis Method:	HCM 2010	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.550

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	2	0	1	2	0	1	1	0	0	1	0	1
Pocket Length [ft]	225.00	100.00	125.00	170.00	100.00	50.00	150.00	100.00	100.00	130.00	100.00	180.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			No		

Volumes

Name												
Base Volume Input [veh/h]	231	614	79	115	586	73	102	576	215	69	537	117
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	65	26	9	83	27	27	0	0	37	0	9
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	240	704	108	129	692	103	133	599	224	109	558	131
Peak Hour Factor	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	65	192	29	35	188	28	36	163	61	30	152	36
Total Analysis Volume [veh/h]	261	766	118	140	753	112	145	652	244	119	607	143
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	1 - E Palm Canyon Drive
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Overlap
Signal group	5	2	0	1	6	0	3	8	0	7	4	4
Auxiliary Signal Groups												1,4
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	7
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	30
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	1.0
Split [s]	22	49	0	11	38	0	18	46	0	14	42	42
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	5
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	10
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0
Minimum Recall	No	No		No	No		No	No		No	No	No
Maximum Recall	No	No		No	No		No	No		No	No	No
Pedestrian Recall	No	No		No	No		No	No		No	No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	0.00
g_i, Effective Green Time [s]	11	62	62	7	57	57	12	26	26	10	24	35
g / C, Green / Cycle	0.09	0.51	0.51	0.06	0.48	0.48	0.10	0.21	0.21	0.08	0.20	0.29
(v / s)_i Volume / Saturation Flow Rate	0.08	0.15	0.07	0.04	0.15	0.07	0.08	0.18	0.15	0.07	0.17	0.09
s, saturation flow rate [veh/h]	3445	5074	1583	3445	5074	1583	1774	3547	1583	1774	3547	1583
c, Capacity [veh/h]	327	2604	812	203	2422	756	173	755	337	145	699	459
d1, Uniform Delay [s]	53.22	16.76	15.38	55.40	19.26	17.65	53.27	45.58	43.98	54.26	46.68	33.30
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	4.50	0.29	0.38	4.10	0.33	0.41	10.33	3.11	2.96	10.81	3.45	0.38
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.80	0.29	0.15	0.69	0.31	0.15	0.84	0.86	0.72	0.82	0.87	0.31
d, Delay for Lane Group [s/veh]	57.72	17.05	15.75	59.50	19.59	18.06	63.60	48.70	46.94	65.06	50.12	33.69
Lane Group LOS	E	B	B	E	B	B	E	D	D	E	D	C
Critical Lane Group	Yes	No	No	No	Yes	No	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh]	4.00	3.94	1.73	2.16	4.22	1.78	4.72	9.48	6.89	3.92	8.92	3.25
50th-Percentile Queue Length [ft]	99.89	98.50	43.15	54.06	105.53	44.56	118.06	236.96	172.16	97.90	222.89	81.26
95th-Percentile Queue Length [veh]	7.19	7.09	3.11	3.89	7.59	3.21	8.29	14.53	11.19	7.05	13.81	5.85
95th-Percentile Queue Length [ft]	179.80	177.31	77.67	97.30	189.77	80.21	207.16	363.19	279.75	176.23	345.31	146.26

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	57.72	17.05	15.75	59.50	19.59	18.06	63.60	48.70	46.94	65.06	50.12	33.69
Movement LOS	E	B	B	E	B	B	E	D	D	E	D	C
d_A, Approach Delay [s/veh]	26.18			24.98			50.36			49.47		
Approach LOS	C			C			D			D		
d_I, Intersection Delay [s/veh]	37.07											
Intersection LOS	D											
Intersection V/C	0.550											

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 20: Date Palm Drive / Ramon Road

Control Type:	Signalized	Delay (sec / veh):	43.3
Analysis Method:	HCM 2010	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.674

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	215.00	100.00	80.00	180.00	100.00	100.00	350.00	100.00	100.00	230.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			No		

Volumes

Name												
Base Volume Input [veh/h]	241	564	82	189	486	156	192	754	157	136	717	147
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	15	51	35	41	65	18	14	39	15	38	54	40
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	266	638	120	238	570	180	214	823	178	179	800	193
Peak Hour Factor	0.9770	0.9770	0.9770	0.9770	0.9770	0.9770	0.9770	0.9770	0.9770	0.9770	0.9770	0.9770
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	68	163	31	61	146	46	55	211	46	46	205	49
Total Analysis Volume [veh/h]	272	653	123	244	583	184	219	842	182	183	819	198
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	7 - E/W
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	22	35	0	24	37	0	25	42	0	19	36	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	C	L	C	C
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	12	42	42	18	49	49	17	29	29	14	27	27
g / C, Green / Cycle	0.10	0.35	0.35	0.15	0.41	0.41	0.14	0.24	0.24	0.12	0.22	0.22
(v / s)_i Volume / Saturation Flow Rate	0.08	0.13	0.08	0.14	0.11	0.12	0.12	0.20	0.20	0.10	0.19	0.19
s, saturation flow rate [veh/h]	3445	5074	1583	1774	5074	1583	1774	3547	1698	1774	3547	1683
c, Capacity [veh/h]	339	1774	554	272	2052	640	249	868	416	211	793	376
d1, Uniform Delay [s]	52.99	29.16	27.55	49.91	24.07	24.10	50.65	42.56	42.58	51.98	44.94	44.97
k, delay calibration	0.11	0.50	0.50	0.12	0.50	0.50	0.11	0.11	0.17	0.11	0.11	0.20
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	4.40	0.59	0.93	11.17	0.35	1.13	9.74	1.73	5.50	10.22	3.09	10.84
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

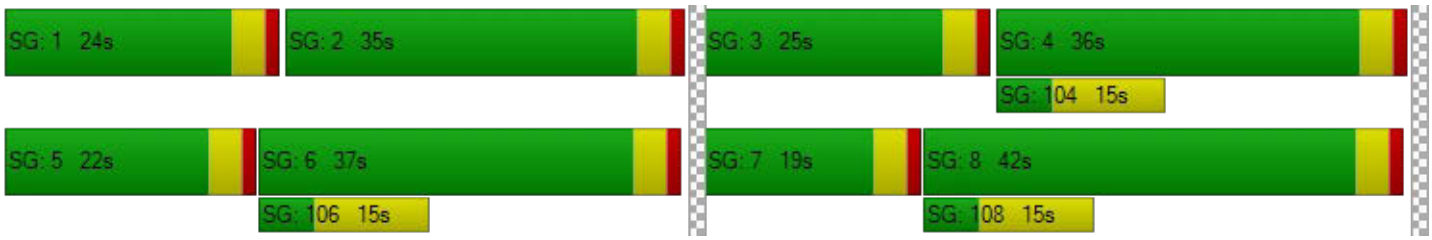
X, volume / capacity	0.80	0.37	0.22	0.90	0.28	0.29	0.88	0.80	0.80	0.87	0.87	0.87
d, Delay for Lane Group [s/veh]	57.40	29.75	28.47	61.08	24.41	25.23	60.40	44.29	48.08	62.20	48.03	55.81
Lane Group LOS	E	C	C	E	C	C	E	D	D	E	D	E
Critical Lane Group	No	Yes	No	Yes	No	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh]	4.16	4.67	2.59	7.89	3.69	3.63	7.01	9.60	9.65	5.92	9.99	10.33
50th-Percentile Queue Length [ft]	103.91	116.87	64.66	197.29	92.17	90.85	175.17	240.05	241.34	147.92	249.66	258.13
95th-Percentile Queue Length [veh]	7.48	8.22	4.66	12.50	6.64	6.54	11.35	14.68	14.75	9.91	15.17	15.60
95th-Percentile Queue Length [ft]	187.04	205.52	116.38	312.46	165.90	163.53	283.70	367.10	368.73	247.65	379.22	389.88

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	57.40	29.75	28.47	61.08	24.41	25.23	60.40	44.97	48.08	62.20	49.26	55.81
Movement LOS	E	C	C	E	C	C	E	D	D	E	D	E
d_A, Approach Delay [s/veh]	36.78			33.41			48.14			52.32		
Approach LOS	D			C			D			D		
d_I, Intersection Delay [s/veh]	43.30											
Intersection LOS	D											
Intersection V/C	0.674											

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	



Intersection Level Of Service Report
Intersection 21: Da Vall Drive / Dinah Shore Drive

Control Type:	Signalized	Delay (sec / veh):	21.1
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.642

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	0	1	0	1	1	0	0
Pocket Length [ft]	120.00	100.00	120.00	130.00	100.00	100.00	175.00	100.00	215.00	185.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	173	327	44	48	197	85	60	533	174	59	544	107
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	2	0	0	19	13	22	0	2	27	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	180	340	48	50	205	107	75	576	181	63	593	111
Peak Hour Factor	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	49	93	13	14	56	29	21	158	50	17	163	30
Total Analysis Volume [veh/h]	198	374	53	55	225	118	82	633	199	69	652	122
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	6 - N/S
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	30	44	0	12	19	0	13	51	0	13	51	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	C	L	C	R	L	C	C
C, Cycle Length [s]	60	60	60	60	60	60	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	9	13	13	4	8	8	5	22	22	5	22	22
g / C, Green / Cycle	0.14	0.21	0.21	0.07	0.14	0.14	0.09	0.37	0.37	0.08	0.36	0.36
(v / s)_i Volume / Saturation Flow Rate	0.11	0.11	0.03	0.03	0.10	0.10	0.05	0.18	0.13	0.04	0.21	0.21
s, saturation flow rate [veh/h]	1774	3547	1583	1774	1863	1654	1774	3547	1583	1774	1863	1762
c, Capacity [veh/h]	255	760	339	127	265	235	156	1302	581	144	671	634
d1, Uniform Delay [s]	24.82	20.75	19.20	26.76	24.48	24.58	26.22	14.66	13.78	26.43	15.66	15.66
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	5.04	0.49	0.21	2.32	2.97	3.77	2.71	1.30	1.60	2.48	3.83	4.05
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.78	0.49	0.16	0.43	0.67	0.70	0.52	0.49	0.34	0.48	0.59	0.59
d, Delay for Lane Group [s/veh]	29.85	21.24	19.42	29.08	27.44	28.35	28.94	15.96	15.38	28.91	19.49	19.72
Lane Group LOS	C	C	B	C	C	C	C	B	B	C	B	B
Critical Lane Group	Yes	No	No	No	No	Yes	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh]	2.80	2.10	0.56	0.77	2.38	2.26	1.14	3.01	1.90	0.96	4.41	4.21
50th-Percentile Queue Length [ft]	70.01	52.45	13.91	19.31	59.62	56.42	28.50	75.17	47.41	24.02	110.25	105.37
95th-Percentile Queue Length [veh]	5.04	3.78	1.00	1.39	4.29	4.06	2.05	5.41	3.41	1.73	7.85	7.58
95th-Percentile Queue Length [ft]	126.02	94.40	25.05	34.76	107.32	101.55	51.30	135.31	85.33	43.24	196.34	189.55

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	29.85	21.24	19.42	29.08	27.63	28.35	28.94	15.96	15.38	28.91	19.58	19.72
Movement LOS	C	C	B	C	C	C	C	B	B	C	B	B
d_A, Approach Delay [s/veh]	23.82			28.05			17.00			20.36		
Approach LOS	C			C			B			C		
d_I, Intersection Delay [s/veh]	21.13											
Intersection LOS	C											
Intersection V/C	0.642											

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 22: Da Vall Drive / Gerald Ford Drive

Control Type:	Signalized	Delay (sec / veh):	22.2
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.485

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	200.00	100.00	175.00	140.00	100.00	100.00	175.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	125	374	36	96	268	64	40	349	83	42	295	120
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	11	2	0	0	2	7	5	20	8	0	22	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	141	391	37	100	281	74	47	383	94	44	329	125
Peak Hour Factor	0.9480	0.9480	0.9480	0.9480	0.9480	0.9480	0.9480	0.9480	0.9480	0.9480	0.9480	0.9480
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	37	103	10	26	74	20	12	101	25	12	87	33
Total Analysis Volume [veh/h]	149	412	39	105	296	78	50	404	99	46	347	132
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	6 - N/S
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	28	41	0	22	35	0	12	45	0	12	45	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	C	L	C	C	L	C	C
C, Cycle Length [s]	60	60	60	60	60	60	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	7	23	23	6	22	22	4	11	11	4	11	11
g / C, Green / Cycle	0.11	0.39	0.39	0.10	0.37	0.37	0.07	0.19	0.19	0.06	0.18	0.18
(v / s)_i Volume / Saturation Flow Rate	0.08	0.12	0.02	0.06	0.10	0.11	0.03	0.14	0.14	0.03	0.13	0.14
s, saturation flow rate [veh/h]	1774	3547	1583	1774	1863	1732	1774	1863	1738	1774	1863	1692
c, Capacity [veh/h]	197	1366	610	173	692	643	120	349	326	114	342	311
d1, Uniform Delay [s]	25.94	12.87	11.66	26.03	13.24	13.27	26.91	23.07	23.12	27.05	23.12	23.20
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	5.79	0.57	0.20	3.39	1.00	1.10	2.31	3.11	3.49	2.31	2.95	3.47
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

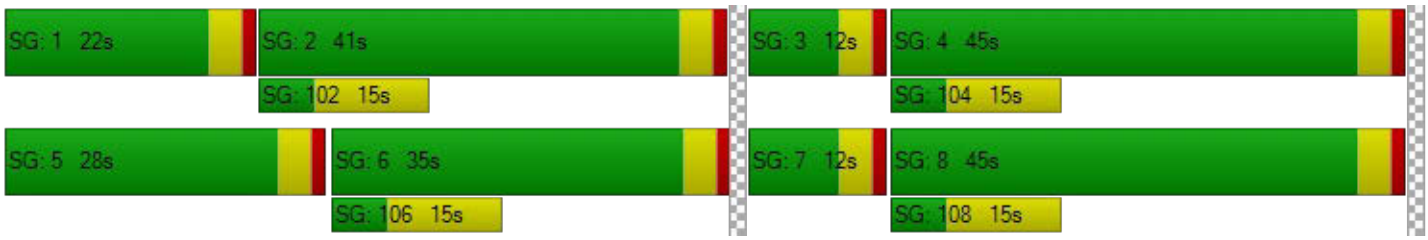
X, volume / capacity	0.76	0.30	0.06	0.61	0.28	0.28	0.42	0.74	0.75	0.41	0.73	0.74
d, Delay for Lane Group [s/veh]	31.72	13.43	11.86	29.42	14.24	14.37	29.22	26.18	26.61	29.36	26.07	26.67
Lane Group LOS	C	B	B	C	B	B	C	C	C	C	C	C
Critical Lane Group	Yes	No	No	No	No	Yes	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh]	2.19	1.71	0.31	1.47	1.72	1.64	0.71	3.38	3.23	0.65	3.24	3.05
50th-Percentile Queue Length [ft]	54.72	42.87	7.75	36.81	42.89	41.07	17.66	84.40	80.67	16.34	80.88	76.13
95th-Percentile Queue Length [veh]	3.94	3.09	0.56	2.65	3.09	2.96	1.27	6.08	5.81	1.18	5.82	5.48
95th-Percentile Queue Length [ft]	98.50	77.16	13.94	66.25	77.21	73.92	31.78	151.93	145.21	29.41	145.58	137.03

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	31.72	13.43	11.86	29.42	14.28	14.37	29.22	26.34	26.61	29.36	26.24	26.67
Movement LOS	C	B	B	C	B	B	C	C	C	C	C	C
d_A, Approach Delay [s/veh]	17.87			17.62			26.64			26.62		
Approach LOS	B			B			C			C		
d_I, Intersection Delay [s/veh]	22.19											
Intersection LOS	C											
Intersection V/C	0.485											

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 23: East Palm Canyon Drive / Frank Sinatra Drive

Control Type:	Signalized	Delay (sec / veh):	24.0
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.733

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	1	1	0	0	2	0	1
Pocket Length [ft]	160.00	100.00	45.00	325.00	100.00	250.00	100.00	100.00	100.00	120.00	100.00	1200.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			No			Yes		

Volumes

Name												
Base Volume Input [veh/h]	43	1314	198	296	1170	20	44	53	19	144	29	302
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	137	2	28	132	6	5	0	0	2	0	41
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	45	1504	208	336	1349	27	51	55	20	152	30	355
Peak Hour Factor	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	12	406	56	91	365	7	14	15	5	41	8	96
Total Analysis Volume [veh/h]	49	1626	225	363	1458	29	55	59	22	164	32	384
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	6 - N/S
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	66.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Overlap	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Overlap
Signal group	5	2	2	1	6	0	3	8	0	7	4	4
Auxiliary Signal Groups			1,2,3,4,									1,2,3,4,
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	7	7	7	0	7	7	0	7	7	7
Maximum Green [s]	30	30	30	30	30	0	30	30	0	30	30	30
Amber [s]	3.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0
All red [s]	1.0	1.0	1.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	1.0
Split [s]	13	63	63	27	77	0	11	19	0	11	19	19
Vehicle Extension [s]	3.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0
Walk [s]	0	5	5	0	5	0	0	5	0	0	5	5
Pedestrian Clearance [s]	0	10	10	0	10	0	0	10	0	0	10	10
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0
Minimum Recall	No	No	No	No	No		No	No		No	No	No
Maximum Recall	No	No	No	No	No		No	No		No	No	No
Pedestrian Recall	No	No	No	No	No		No	No		No	No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	L	C	R
C, Cycle Length [s]	75	75	75	75	75	75	75	75	75	75	75
L, Total Lost Time per Cycle [s]	4.00	4.00	0.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	0.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	0.00	2.00	0.00	0.00	2.00	0.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	8	36	125	17	45	45	6	71	11	0	125
g / C, Green / Cycle	0.10	0.48	1.65	0.22	0.60	0.60	0.08	0.95	0.14	0.00	1.65
(v / s)_i Volume / Saturation Flow Rate	0.04	0.32	0.14	0.15	0.29	0.02	0.04	0.05	0.06	0.02	0.24
s, saturation flow rate [veh/h]	1275	5074	1583	2475	5074	1583	1372	1778	2548	1863	1583
c, Capacity [veh/h]	183	2430	2577	556	3028	945	165	1683	382	8	2577
d1, Uniform Delay [s]	33.93	15.03	0.00	29.21	8.58	6.23	35.33	0.11	31.68	37.45	0.00
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.11	0.50	0.16
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.77	0.32	0.01	1.30	0.12	0.01	1.17	0.05	0.76	1499.98	0.04
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.27	0.67	0.09	0.65	0.48	0.03	0.33	0.05	0.43	3.79	0.15
d, Delay for Lane Group [s/veh]	34.71	15.35	0.01	30.52	8.70	6.24	36.50	0.17	32.44	1537.43	0.04
Lane Group LOS	C	B	A	C	A	A	D	A	C	F	A
Critical Lane Group	No	Yes	No	Yes	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh]	0.86	6.11	0.01	3.01	3.51	0.15	1.00	0.03	1.38	3.66	0.03
50th-Percentile Queue Length [ft]	21.56	152.83	0.26	75.30	87.79	3.85	25.02	0.63	34.41	91.57	0.71
95th-Percentile Queue Length [veh]	1.55	10.17	0.02	5.42	6.32	0.28	1.80	0.05	2.48	6.59	0.05
95th-Percentile Queue Length [ft]	38.81	254.20	0.46	135.55	158.02	6.93	45.03	1.14	61.94	164.83	1.28

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	34.71	15.35	0.01	30.52	8.70	6.24	36.50	0.17	0.17	32.44	1537.43	0.04
Movement LOS	C	B	A	C	A	A	D	A	A	C	F	A
d_A, Approach Delay [s/veh]	14.04			12.94			14.86			94.02		
Approach LOS	B			B			B			F		
d_I, Intersection Delay [s/veh]	24.00											
Intersection LOS	C											
Intersection V/C	0.733											

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 24: East Palm Canyon Drive / Mirage Cove Drive

Control Type:	Signalized	Delay (sec / veh):	15.0
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.499

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	1	1	0	0
Pocket Length [ft]	150.00	100.00	100.00	110.00	100.00	100.00	75.00	100.00	75.00	75.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	16	1475	9	16	1379	15	35	0	20	6	0	26
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	94	0	29	82	22	18	0	0	0	0	27
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	17	1628	9	46	1516	38	54	0	21	6	0	54
Peak Hour Factor	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	5	440	2	12	410	10	15	0	6	2	0	15
Total Analysis Volume [veh/h]	18	1760	10	50	1639	41	58	0	23	6	0	58
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	6 - N/S
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	5	2	0	1	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	7	7	0	7	7	0	0	7	0	0	7	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	11	90	0	11	90	0	0	19	0	0	19	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No	No		No	No			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	L	C	R	L	C
C, Cycle Length [s]	60	60	60	60	60	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.00	0.00	2.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	2	26	26	4	28	28	18	18	18	18	18
g / C, Green / Cycle	0.03	0.43	0.43	0.07	0.46	0.46	0.31	0.31	0.31	0.31	0.31
(v / s)_i Volume / Saturation Flow Rate	0.01	0.33	0.33	0.03	0.31	0.31	0.04	0.00	0.01	0.00	0.04
s, saturation flow rate [veh/h]	1774	3547	1857	1774	3547	1840	1340	1863	1583	1412	1583
c, Capacity [veh/h]	58	1512	792	121	1639	850	443	570	484	499	484
d1, Uniform Delay [s]	28.44	14.72	14.72	26.87	12.65	12.65	18.11	0.00	14.71	16.15	15.04
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	3.02	0.85	1.61	2.23	0.49	0.94	0.61	0.00	0.19	0.04	0.50
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.31	0.77	0.77	0.41	0.67	0.68	0.13	0.00	0.05	0.01	0.12
d, Delay for Lane Group [s/veh]	31.46	15.57	16.33	29.10	13.14	13.60	18.72	0.00	14.89	16.20	15.55
Lane Group LOS	C	B	B	C	B	B	B	A	B	B	B
Critical Lane Group	No	No	Yes	Yes	No	No	Yes	No	No	No	No
50th-Percentile Queue Length [veh]	0.28	5.58	6.01	0.70	4.65	4.94	0.64	0.00	0.22	0.06	0.56
50th-Percentile Queue Length [ft]	7.04	139.39	150.20	17.61	116.37	123.47	15.98	0.00	5.42	1.48	14.07
95th-Percentile Queue Length [veh]	0.51	9.45	10.03	1.27	8.19	8.58	1.15	0.00	0.39	0.11	1.01
95th-Percentile Queue Length [ft]	12.68	236.20	250.70	31.70	204.83	214.58	28.76	0.00	9.75	2.67	25.32

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	31.46	15.83	16.33	29.10	13.29	13.60	18.72	0.00	14.89	16.20	15.55	15.55
Movement LOS	C	B	B	C	B	B	B	A	B	B	B	B
d_A, Approach Delay [s/veh]	15.99			13.75			17.63			15.61		
Approach LOS	B			B			B			B		
d_I, Intersection Delay [s/veh]	14.96											
Intersection LOS	B											
Intersection V/C	0.499											

Sequence

Ring 1	1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 25: East Palm Canyon Drive / Country Club Drive

Control Type:	Signalized	Delay (sec / veh):	13.6
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.566

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	2	0	0	1	0	0	1	0	0
Pocket Length [ft]	160.00	100.00	45.00	190.00	100.00	100.00	30.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			Yes			Yes			No		

Volumes

Name												
Base Volume Input [veh/h]	8	1344	49	145	1218	3	3	8	9	41	4	207
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	63	0	15	49	19	11	0	0	0	0	21
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	8	1461	51	166	1316	22	14	8	9	43	4	236
Peak Hour Factor	0.9370	0.9370	0.9370	0.9370	0.9370	0.9370	0.9370	0.9370	0.9370	0.9370	0.9370	0.9370
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	390	14	44	351	6	4	2	2	11	1	63
Total Analysis Volume [veh/h]	9	1559	54	177	1404	23	15	9	10	46	4	252
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	6 - N/S
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	61.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Protecte	Permiss	Overlap	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	5	2	2	1	6	0	0	8	0	0	4	0
Auxiliary Signal Groups			1,2,4,5,									
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	7	7	7	7	7	0	0	7	0	0	7	0
Maximum Green [s]	30	30	30	30	30	0	0	30	0	0	30	0
Amber [s]	3.0	3.0	3.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	1.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	11	78	78	19	86	0	0	23	0	0	23	0
Vehicle Extension [s]	3.0	3.0	3.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	5	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	10	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	2.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	2.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No	No	No	No	No			No			No	
Maximum Recall	No	No	No	No	No			No			No	
Pedestrian Recall	No	No	No	No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	C	L	C	L	C	R
C, Cycle Length [s]	60	60	60	60	60	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	0.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	2.00	0.00	0.00	2.00	0.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	5	27	100	8	30	30	13	13	13	13	13
g / C, Green / Cycle	0.08	0.45	1.67	0.13	0.50	0.50	0.22	0.22	0.22	0.22	0.22
(v / s)_i Volume / Saturation Flow Rate	0.01	0.31	0.03	0.06	0.26	0.26	0.01	0.01	0.03	0.08	0.08
s, saturation flow rate [veh/h]	1774	5074	1583	2741	3547	1847	1119	1704	1388	1591	1583
c, Capacity [veh/h]	135	2292	2639	368	1777	926	258	380	374	355	353
d1, Uniform Delay [s]	25.75	13.02	0.00	26.54	10.15	10.15	23.37	18.32	20.73	19.71	19.71
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.21	0.36	0.00	0.98	0.24	0.47	0.43	0.25	0.68	2.85	2.86
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.07	0.68	0.02	0.48	0.53	0.53	0.06	0.05	0.12	0.36	0.36
d, Delay for Lane Group [s/veh]	25.95	13.38	0.00	27.52	10.40	10.62	23.79	18.57	21.40	22.56	22.57
Lane Group LOS	C	B	A	C	B	B	C	B	C	C	C
Critical Lane Group	No	Yes	No	Yes	No	No	No	No	No	No	Yes
50th-Percentile Queue Length [veh]	0.12	4.43	0.00	1.17	3.23	3.42	0.20	0.21	0.56	1.62	1.62
50th-Percentile Queue Length [ft]	2.92	110.75	0.06	29.18	80.65	85.47	5.06	5.28	14.00	40.60	40.47
95th-Percentile Queue Length [veh]	0.21	7.88	0.00	2.10	5.81	6.15	0.36	0.38	1.01	2.92	2.91
95th-Percentile Queue Length [ft]	5.26	197.04	0.10	52.52	145.18	153.85	9.11	9.51	25.20	73.07	72.84

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	25.95	13.38	0.00	27.52	10.47	10.62	23.79	18.57	18.57	21.40	22.56	22.56
Movement LOS	C	B	A	C	B	B	C	B	B	C	C	C
d_A, Approach Delay [s/veh]	13.01			12.36			20.88			22.39		
Approach LOS	B			B			C			C		
d_I, Intersection Delay [s/veh]	13.59											
Intersection LOS	B											
Intersection V/C	0.566											

Sequence

Ring 1	1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 26: Thompson Road-Morningside Drive / Frank Sinatra Drive

Control Type:	Signalized	Delay (sec / veh):	8.3
Analysis Method:	HCM 2010	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.366

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	150.00	100.00	100.00	90.00	100.00	100.00	90.00	100.00	100.00	130.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	163	22	37	11	15	8	10	434	102	46	476	19
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	4	2	13	13	0	37	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	170	23	38	11	16	12	12	464	119	48	532	20
Peak Hour Factor	0.9030	0.9030	0.9030	0.9030	0.9030	0.9030	0.9030	0.9030	0.9030	0.9030	0.9030	0.9030
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	47	6	11	3	4	3	3	128	33	13	147	6
Total Analysis Volume [veh/h]	188	25	42	12	18	13	13	514	132	53	589	22
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	7 - E/W
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	0	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	7	0	0	7	0	0	7	0	0	7	0
Maximum Green [s]	0	30	0	0	30	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	31	0	0	31	0	0	29	0	0	29	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No			No			No			No	
Maximum Recall		No			No			No			No	
Pedestrian Recall		No			No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	C	L	C	C	L	C	C
C, Cycle Length [s]	60	60	60	60	60	60	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	0.00	2.00	0.00	0.00	2.00	0.00	0.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	13	13	13	13	13	13	39	39	39	39	39	39
g / C, Green / Cycle	0.21	0.21	0.21	0.21	0.21	0.21	0.65	0.65	0.65	0.65	0.65	0.65
(v / s)_i Volume / Saturation Flow Rate	0.14	0.01	0.03	0.01	0.01	0.01	0.02	0.18	0.18	0.07	0.16	0.17
s, saturation flow rate [veh/h]	1373	1863	1583	1380	1863	1621	807	1863	1734	781	1863	1839
c, Capacity [veh/h]	354	399	340	351	399	348	568	1215	1131	548	1215	1200
d1, Uniform Delay [s]	23.94	18.77	19.02	21.00	18.67	18.69	6.04	4.42	4.43	6.59	4.35	4.35
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.24	0.06	0.16	0.04	0.04	0.05	0.07	0.56	0.61	0.35	0.50	0.51
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.53	0.06	0.12	0.03	0.04	0.04	0.02	0.27	0.28	0.10	0.25	0.25
d, Delay for Lane Group [s/veh]	25.18	18.83	19.18	21.04	18.71	18.74	6.11	4.98	5.03	6.94	4.85	4.85
Lane Group LOS	C	B	B	C	B	B	A	A	A	A	A	A
Critical Lane Group	Yes	No	No	No	No	No	No	No	Yes	No	No	No
50th-Percentile Queue Length [veh]	2.41	0.25	0.44	0.13	0.16	0.16	0.07	1.19	1.13	0.29	1.07	1.06
50th-Percentile Queue Length [ft]	60.19	6.36	10.90	3.29	3.95	3.92	1.64	29.67	28.20	7.31	26.83	26.59
95th-Percentile Queue Length [veh]	4.33	0.46	0.79	0.24	0.28	0.28	0.12	2.14	2.03	0.53	1.93	1.91
95th-Percentile Queue Length [ft]	108.35	11.45	19.63	5.92	7.10	7.05	2.95	53.41	50.75	13.16	48.30	47.86

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	25.18	18.83	19.18	21.04	18.72	18.74	6.11	5.00	5.03	6.94	4.85	4.85
Movement LOS	C	B	B	C	B	B	A	A	A	A	A	A
d_A, Approach Delay [s/veh]	23.57			19.37			5.03			5.02		
Approach LOS	C			B			A			A		
d_I, Intersection Delay [s/veh]	8.32											
Intersection LOS	A											
Intersection V/C	0.366											

Sequence

Ring 1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 1: North Project Driveway 1 / Buddy Rogers Avenue

Control Type:	Two-way stop	Delay (sec / veh):	14.5
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			No			No		

Volumes

Name												
Base Volume Input [veh/h]	0	0	0	0	0	0	0	29	0	0	31	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	48	0	112	0	0	0	0	25	60	140	20	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	48	0	112	0	0	0	0	55	60	140	52	0
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	13	0	30	0	0	0	0	15	16	38	14	0
Total Analysis Volume [veh/h]	52	0	122	0	0	0	0	60	65	152	57	0
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	No	No		
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	No	No		
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.11	0.00	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.00	0.00
d_M, Delay for Movement [s/veh]	13.53	13.57	9.27	14.54	13.38	8.57	7.33	0.00	0.00	7.75	0.00	0.00
Movement LOS	B	B	A	B	B	A	A	A	A	A	A	A
95th-Percentile Queue Length [veh]	0.37	0.43	0.43	0.00	0.00	0.00	0.00	0.00	0.00	0.50	0.50	0.50
95th-Percentile Queue Length [ft]	9.18	10.81	10.81	0.00	0.00	0.00	0.00	0.00	0.00	12.47	12.47	12.47
d_A, Approach Delay [s/veh]	10.54			12.16			0.00			5.64		
Approach LOS	B			B			A			A		
d_I, Intersection Delay [s/veh]	5.93											
Intersection LOS	B											

Intersection Level Of Service Report
Intersection 2: Date Palm Drive / Buddy Rogers Avenue

Control Type:	Two-way stop	Delay (sec / veh):	51.1
Analysis Method:	HCM 2010	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.683

Intersection Setup

Name						
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00		40.00		40.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

Volumes

Name						
Base Volume Input [veh/h]	4	492	513	25	29	14
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	2.97	1.04	1.04	2.97	1.33	1.33
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	15	69	75	150	120	12
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	27	581	609	224	159	31
Peak Hour Factor	0.9410	0.9410	0.9410	0.9410	0.9410	0.9410
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	7	154	162	60	42	8
Total Analysis Volume [veh/h]	29	617	647	238	169	33
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.07	0.01	0.01	0.00	0.68	0.07
d_M, Delay for Movement [s/veh]	13.66	0.00	0.00	0.00	51.14	44.07
Movement LOS	B	A	A	A	F	E
95th-Percentile Queue Length [veh]	0.21	0.00	0.00	0.00	5.48	5.48
95th-Percentile Queue Length [ft]	5.21	0.00	0.00	0.00	136.97	136.97
d_A, Approach Delay [s/veh]	0.61		0.00		49.98	
Approach LOS	A		A		E	
d_I, Intersection Delay [s/veh]	6.05					
Intersection LOS	F					

Intersection Level Of Service Report
Intersection 3: Date Palm Drive / East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	10.7
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.579

Intersection Setup

Name						
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00		40.00		40.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		Yes		Yes	

Volumes

Name						
Base Volume Input [veh/h]	339	121	149	1198	1174	347
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	64	67	62	137	198	23
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	417	193	217	1383	1419	384
Peak Hour Factor	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	112	52	58	372	381	103
Total Analysis Volume [veh/h]	448	208	233	1487	1526	413
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Split	Split	ProtectedPermissi	Permissive	Permissive	Permissive
Signal group	1	0	3	8	4	4
Auxiliary Signal Groups						3,4
Lead / Lag	Lead	-	Lead	-	-	-
Minimum Green [s]	7	0	7	7	7	7
Maximum Green [s]	30	0	7	30	30	30
Amber [s]	3.0	0.0	3.0	3.0	3.0	3.0
All red [s]	1.0	0.0	1.0	1.0	1.0	1.0
Split [s]	19	0	16	41	25	25
Vehicle Extension [s]	3.0	0.0	3.0	3.0	3.0	3.0
Walk [s]	5	0	0	5	5	5
Pedestrian Clearance [s]	10	0	0	10	10	10
Rest In Walk	No			No	No	
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0
Minimum Recall	No		Yes	No	No	
Maximum Recall	No		No	No	No	
Pedestrian Recall	No		No	No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	R	L	C	C	R
C, Cycle Length [s]	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	0.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	11	11	41	41	31	31
g / C, Green / Cycle	0.18	0.18	0.69	0.69	0.51	0.51
(v / s)_i Volume / Saturation Flow Rate	0.09	0.13	0.19	0.29	0.30	0.26
s, saturation flow rate [veh/h]	5168	1583	1253	5074	5074	1583
c, Capacity [veh/h]	922	282	955	3494	2582	806
d1, Uniform Delay [s]	22.23	23.37	5.27	4.13	10.37	9.81
k, delay calibration	0.11	0.11	0.11	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.40	3.73	0.13	0.38	1.00	2.33
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.49	0.74	0.24	0.43	0.59	0.51
d, Delay for Lane Group [s/veh]	22.63	27.10	5.40	4.51	11.38	12.14
Lane Group LOS	C	C	A	A	B	B
Critical Lane Group	No	Yes	Yes	No	Yes	No
50th-Percentile Queue Length [veh]	1.73	2.78	0.25	1.42	3.77	3.23
50th-Percentile Queue Length [ft]	43.32	69.51	6.20	35.42	94.27	80.81
95th-Percentile Queue Length [veh]	3.12	5.00	0.45	2.55	6.79	5.82
95th-Percentile Queue Length [ft]	77.97	125.12	11.16	63.75	169.68	145.47

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	22.63	27.10	5.40	4.51	11.38	12.14
Movement LOS	C	C	A	A	B	B
d_A, Approach Delay [s/veh]	24.04		4.63		11.54	
Approach LOS	C		A		B	
d_I, Intersection Delay [s/veh]	10.69					
Intersection LOS	B					
Intersection V/C	0.579					

Sequence

Ring 1	1	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 4: South Project Driveway-Allen Avenue / East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	15.2
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.069

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	0	0	0	2	0	3	8	1365	0	0	1343	20
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	40	0	120	150	159	0	0	164	100
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	42	0	123	158	1579	0	0	1561	121
Peak Hour Factor	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	11	0	32	42	416	0	0	411	32
Total Analysis Volume [veh/h]	0	0	0	44	0	130	166	1664	0	0	1645	128
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	1 - E Palm Canyon Drive
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	0	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	7	0	0	7	0	0	7	0	0	7	0
Maximum Green [s]	0	30	0	0	30	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	19	0	0	19	0	0	41	0	0	41	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No			No			No			No	
Maximum Recall		No			No			No			No	
Pedestrian Recall		No			No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	L	C	C	C	L	C	R
C, Cycle Length [s]	60	60	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	2.00	0.00	2.00	0.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	7	7	7	45	45	45	45	45
g / C, Green / Cycle	0.11	0.11	0.11	0.75	0.75	0.75	0.75	0.75
(v / s)_i Volume / Saturation Flow Rate	0.00	0.03	0.08	0.84	0.58	0.00	0.32	0.08
s, saturation flow rate [veh/h]	1491	1412	1583	1005	1695	297	5074	1583
c, Capacity [veh/h]	229	245	180	829	1277	217	3823	1193
d1, Uniform Delay [s]	0.00	25.75	25.72	7.73	4.34	0.00	2.70	1.99
k, delay calibration	0.11	0.11	0.11	0.50	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.00	0.35	5.44	37.50	4.49	0.00	0.36	0.18
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

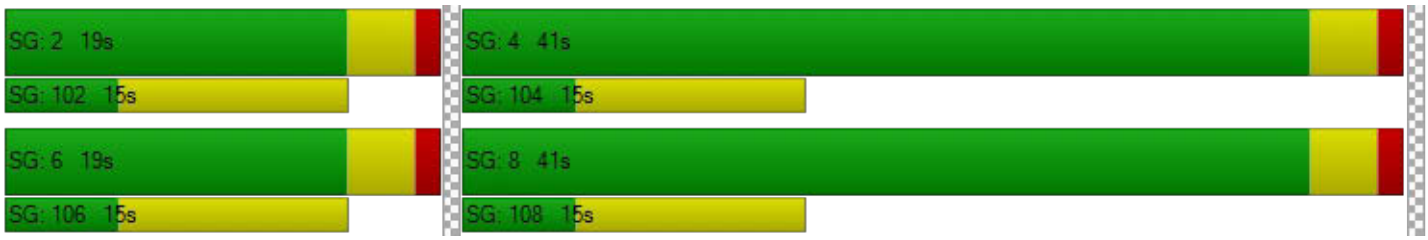
X, volume / capacity	0.00	0.18	0.72	1.02	0.77	0.00	0.43	0.11
d, Delay for Lane Group [s/veh]	0.00	26.10	31.16	45.23	8.82	0.00	3.06	2.17
Lane Group LOS	A	C	C	F	A	A	A	A
Critical Lane Group	No	No	Yes	Yes	No	No	No	No
50th-Percentile Queue Length [veh]	0.00	0.56	1.90	15.41	3.34	0.00	0.73	0.16
50th-Percentile Queue Length [ft]	0.00	14.09	47.41	385.35	83.48	0.00	18.35	4.11
95th-Percentile Queue Length [veh]	0.00	1.01	3.41	22.30	6.01	0.00	1.32	0.30
95th-Percentile Queue Length [ft]	0.00	25.36	85.33	557.44	150.27	0.00	33.04	7.40

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	26.10	31.16	31.16	45.23	23.76	8.82	0.00	3.06	2.17
Movement LOS	A	A	A	C	C	C	D	C	A	A	A	A
d_A, Approach Delay [s/veh]	0.00			29.88			25.71			2.99		
Approach LOS	A			C			C			A		
d_I, Intersection Delay [s/veh]	15.24											
Intersection LOS	B											
Intersection V/C	1.069											

Sequence

Ring 1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 5: Monty Hall Drive-Van Fleet Avenue / East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	16.0
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.739

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	1	0	1	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	45.00	100.00	100.00	105.00	100.00	130.00	125.00	100.00	180.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	11	1	44	10	9	12	13	1322	16	55	1290	10
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	30	0	0	68	85	279	0	24	260	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	11	1	76	10	9	80	99	1654	17	81	1602	10
Peak Hour Factor	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	0	20	3	2	21	26	431	4	21	418	3
Total Analysis Volume [veh/h]	11	1	79	10	9	83	103	1725	18	84	1670	10
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	1 - E Palm Canyon Drive
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	0	7	7	0	7	7	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	19	0	0	19	0	52	60	0	11	19	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	R	L	C	L	C	R	L	C	R
C, Cycle Length [s]	60	60	60	60	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	8	8	8	8	6	34	34	5	34	34
g / C, Green / Cycle	0.14	0.14	0.14	0.14	0.10	0.57	0.57	0.09	0.57	0.57
(v / s)_i Volume / Saturation Flow Rate	0.02	0.05	0.01	0.06	0.06	0.49	0.01	0.05	0.47	0.01
s, saturation flow rate [veh/h]	509	1583	1410	1607	1774	3547	1583	1774	3547	1583
c, Capacity [veh/h]	184	215	130	218	170	2044	912	156	2016	900
d1, Uniform Delay [s]	24.82	23.58	29.77	23.76	26.04	10.49	5.45	26.20	10.56	5.62
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.15	1.05	0.25	1.29	3.46	4.48	0.04	2.87	4.09	0.02
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.07	0.37	0.08	0.42	0.61	0.84	0.02	0.54	0.83	0.01
d, Delay for Lane Group [s/veh]	24.97	24.62	30.02	25.05	29.51	14.97	5.49	29.07	14.65	5.65
Lane Group LOS	C	C	C	C	C	B	A	C	B	A
Critical Lane Group	No	No	No	Yes	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh]	0.16	0.98	0.14	1.16	1.45	7.57	0.08	1.17	7.27	0.04
50th-Percentile Queue Length [ft]	3.95	24.50	3.54	28.88	36.16	189.32	1.96	29.26	181.82	1.12
95th-Percentile Queue Length [veh]	0.28	1.76	0.26	2.08	2.60	12.09	0.14	2.11	11.70	0.08
95th-Percentile Queue Length [ft]	7.12	44.11	6.38	51.99	65.09	302.15	3.53	52.67	292.38	2.01

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	24.97	24.97	24.62	30.02	25.05	25.05	29.51	14.97	5.49	29.07	14.65	5.65
Movement LOS	C	C	C	C	C	C	C	B	A	C	B	A
d_A, Approach Delay [s/veh]	24.67			25.54			15.69			15.29		
Approach LOS	C			C			B			B		
d_I, Intersection Delay [s/veh]	15.98											
Intersection LOS	B											
Intersection V/C	0.739											

Sequence

Ring 1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 6: Date Palm Drive / East Palm Drive

Control Type:	Two-way stop	Delay (sec / veh):	12.2
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.087

Intersection Setup

Name						
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00		40.00		40.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

Volumes

Name						
Base Volume Input [veh/h]	0	8	539	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	84	87	0	0	44
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	92	648	0	0	44
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	25	176	0	0	12
Total Analysis Volume [veh/h]	0	100	704	0	0	48
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.01	0.00	0.00	0.09
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	0.00	0.00	12.17
Movement LOS		A	A	A		B
95th-Percentile Queue Length [veh]	0.00	0.00	0.00	0.00	0.00	0.29
95th-Percentile Queue Length [ft]	0.00	0.00	0.00	0.00	0.00	7.14
d_A, Approach Delay [s/veh]	0.00		0.00		12.17	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	0.69					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 7: North Project Driveway 2 / Buddy Rogers Avenue

Control Type:	Two-way stop	Delay (sec / veh):	11.5
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.037

Intersection Setup

Name						
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00		40.00		40.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name						
Base Volume Input [veh/h]	0	0	29	0	0	31
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.00	1.00	1.04	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	20	20	112	25	25	140
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	20	20	141	25	25	171
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	5	5	38	7	7	46
Total Analysis Volume [veh/h]	22	22	153	27	27	186
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.04	0.03	0.00	0.00	0.02	0.00
d_M, Delay for Movement [s/veh]	11.47	9.44	0.00	0.00	7.63	0.00
Movement LOS	B	A	A	A	A	A
95th-Percentile Queue Length [veh]	0.20	0.20	0.00	0.00	0.54	0.54
95th-Percentile Queue Length [ft]	4.99	4.99	0.00	0.00	13.46	13.46
d_A, Approach Delay [s/veh]	10.45		0.00		0.97	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	1.52					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 8: Monty Hall Drive / Buddy Rogers Avenue

Control Type:	All-way stop	Delay (sec / veh):	7.9
Analysis Method:	HCM 2010	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.165

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			No			No		

Volumes

Name												
Base Volume Input [veh/h]	20	5	4	17	6	0	1	13	6	7	25	12
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	85	0	0	0	0	0	0	68	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	21	5	89	18	6	0	1	14	6	75	26	12
Peak Hour Factor	0.8290	0.8290	0.8290	0.8290	0.8290	0.8290	0.8290	0.8290	0.8290	0.8290	0.8290	0.8290
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	6	2	27	5	2	0	0	4	2	23	8	4
Total Analysis Volume [veh/h]	25	6	107	22	7	0	1	17	7	90	31	14
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	921	784	841	820
Degree of Utilization, x	0.15	0.04	0.03	0.16

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.53	0.12	0.09	0.59
95th-Percentile Queue Length [ft]	13.15	2.88	2.30	14.68
Approach Delay [s/veh]	7.60	7.77	7.41	8.25
Approach LOS	A	A	A	A
Intersection Delay [s/veh]	7.87			
Intersection LOS	A			

Intersection Level Of Service Report

Intersection 9: Buddy Rogers Avenue/ East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	4.1
Analysis Method:	HCM 2010	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.621

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	10	1	39	19	2	28	16	1309	2	16	1255	17
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	364	0	0	328	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	10	1	41	20	2	29	17	1725	2	17	1633	18
Peak Hour Factor	0.9360	0.9360	0.9360	0.9360	0.9360	0.9360	0.9360	0.9360	0.9360	0.9360	0.9360	0.9360
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	0	11	5	1	8	5	461	1	5	436	5
Total Analysis Volume [veh/h]	11	1	44	21	2	31	18	1843	2	18	1745	19
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	1 - E Palm Canyon Drive
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	7	0	0	7	0	0	7	0	0	7	0
Maximum Green [s]	0	30	0	0	30	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	19	0	0	19	0	0	101	0	0	101	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No			No			No			No	
Maximum Recall		No			No			No			No	
Pedestrian Recall		No			No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	C	L	C	R	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	2.00	2.00	0.00	0.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	6	6	106	106	106	106	106	106
g / C, Green / Cycle	0.05	0.05	0.88	0.88	0.88	0.88	0.88	0.88
(v / s)_i Volume / Saturation Flow Rate	0.03	0.04	0.07	0.52	0.00	0.07	0.49	0.01
s, saturation flow rate [veh/h]	1651	1387	275	3547	1583	250	3547	1583
c, Capacity [veh/h]	118	111	266	3134	1399	244	3134	1399
d1, Uniform Delay [s]	56.06	56.22	4.10	1.69	0.81	4.58	1.60	0.82
k, delay calibration	0.11	0.11	0.50	0.50	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.95	3.31	0.49	0.82	0.00	0.59	0.72	0.02
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.48	0.49	0.07	0.59	0.00	0.07	0.56	0.01
d, Delay for Lane Group [s/veh]	59.01	59.53	4.59	2.51	0.81	5.17	2.32	0.84
Lane Group LOS	E	E	A	A	A	A	A	A
Critical Lane Group	No	Yes	No	Yes	No	No	No	No
50th-Percentile Queue Length [veh]	1.74	1.69	0.13	1.38	0.00	0.15	1.23	0.02
50th-Percentile Queue Length [ft]	43.48	42.32	3.35	34.42	0.04	3.67	30.69	0.43
95th-Percentile Queue Length [veh]	3.13	3.05	0.24	2.48	0.00	0.26	2.21	0.03
95th-Percentile Queue Length [ft]	78.26	76.17	6.03	61.96	0.08	6.61	55.24	0.77

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	59.01	59.01	59.01	59.53	59.53	59.53	4.59	2.51	0.81	5.17	2.32	0.84
Movement LOS	E	E	E	E	E	E	A	A	A	A	A	A
d_A, Approach Delay [s/veh]	59.01			59.53			2.52			2.33		
Approach LOS	E			E			A			A		
d_I, Intersection Delay [s/veh]	4.09											
Intersection LOS	A											
Intersection V/C	0.621											

Sequence

Ring 1	2	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 10: Cathedral Canyon Drive / East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	24.7
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.742

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	0	1	0	0	1	0	1
Pocket Length [ft]	100.00	100.00	70.00	90.00	100.00	100.00	238.00	100.00	100.00	190.00	100.00	270.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	71	113	50	127	131	92	110	1151	77	61	1111	120
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	4	0	36	100	0	4	3	228	5	32	216	80
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	78	118	88	232	136	100	117	1425	85	95	1371	205
Peak Hour Factor	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	20	31	23	60	35	26	30	368	22	25	354	53
Total Analysis Volume [veh/h]	81	122	91	240	141	103	121	1474	88	98	1418	212
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	1 - E Palm Canyon Drive
Cycle Length [s]	110
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Overlap	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	6	3	8	0	7	4	0
Auxiliary Signal Groups						3,6						
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	7	7	7	0	7	7	0
Maximum Green [s]	0	30	0	0	30	30	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	1.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	36	0	0	36	36	15	63	0	11	59	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	5	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	10	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No	No	No	No		No	No	
Maximum Recall		No			No	No	No	No		No	No	
Pedestrian Recall		No			No	No	No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	110	110	110	110	110	110	110	110	110	110	110	110
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	0.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	30	30	30	30	30	44	9	60	60	8	58	58
g / C, Green / Cycle	0.28	0.28	0.28	0.28	0.28	0.40	0.08	0.54	0.54	0.07	0.53	0.53
(v / s)_i Volume / Saturation Flow Rate	0.07	0.07	0.06	0.19	0.08	0.07	0.07	0.42	0.06	0.06	0.28	0.13
s, saturation flow rate [veh/h]	1243	1863	1583	1264	1863	1583	1774	3547	1583	1774	5074	1583
c, Capacity [veh/h]	310	515	438	325	515	631	152	1929	861	124	2682	837
d1, Uniform Delay [s]	37.92	30.77	30.51	42.83	31.11	21.27	49.34	19.56	12.10	50.31	16.95	14.10
k, delay calibration	0.11	0.11	0.11	0.20	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.44	0.23	0.23	5.85	0.28	0.12	9.20	2.94	0.24	10.48	0.75	0.73
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

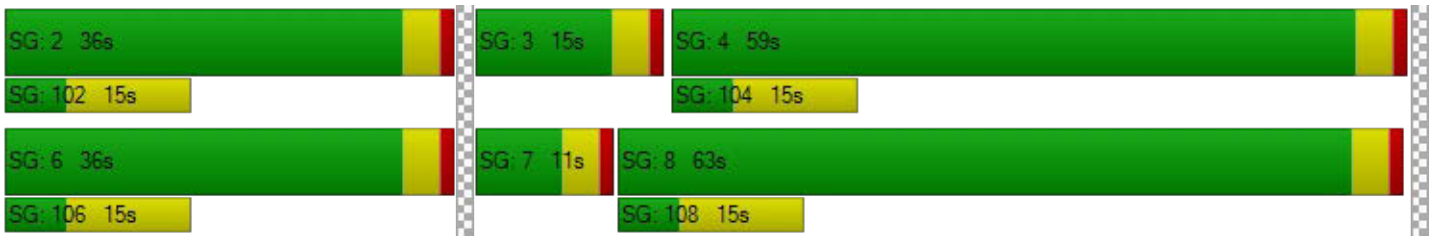
X, volume / capacity	0.26	0.24	0.21	0.74	0.27	0.16	0.80	0.76	0.10	0.79	0.53	0.25
d, Delay for Lane Group [s/veh]	38.36	31.00	30.74	48.68	31.39	21.39	58.54	22.49	12.34	60.79	17.70	14.83
Lane Group LOS	D	C	C	D	C	C	E	C	B	E	B	B
Critical Lane Group	No	No	No	Yes	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh]	1.87	2.48	1.84	6.72	2.90	1.68	3.58	14.14	1.04	2.96	7.44	2.88
50th-Percentile Queue Length [ft]	46.82	61.99	45.94	168.10	72.48	41.93	89.60	353.60	26.09	74.10	186.06	71.92
95th-Percentile Queue Length [veh]	3.37	4.46	3.31	10.98	5.22	3.02	6.45	20.31	1.88	5.34	11.92	5.18
95th-Percentile Queue Length [ft]	84.28	111.59	82.68	274.42	130.46	75.47	161.28	507.79	46.97	133.38	297.92	129.46

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	38.36	31.00	30.74	48.68	31.39	21.39	58.54	22.49	12.34	60.79	17.70	14.83
Movement LOS	D	C	C	D	C	C	E	C	B	E	B	B
d_A, Approach Delay [s/veh]	32.95			37.84			24.55			19.79		
Approach LOS	C			D			C			B		
d_I, Intersection Delay [s/veh]	24.71											
Intersection LOS	C											
Intersection V/C	0.742											

Sequence

Ring 1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 11: Perez Road / East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	18.9
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.704

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	150.00	100.00	100.00	170.00	100.00	45.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	9	9	4	17	10	257	212	1274	4	4	1270	21
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	5	0	0	0	0	0	0	236	5	0	224	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	14	9	4	18	10	267	220	1561	9	4	1545	22
Peak Hour Factor	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	2	1	5	3	69	56	401	2	1	397	6
Total Analysis Volume [veh/h]	14	9	4	18	10	274	226	1603	9	4	1586	23
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	0	7	7	0	7	7	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	19	0	0	19	0	11	71	0	11	71	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	R	L	C	C	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	4	4	13	13	13	10	86	86	1	77	77
g / C, Green / Cycle	0.04	0.04	0.11	0.11	0.11	0.08	0.71	0.71	0.01	0.64	0.64
(v / s)_i Volume / Saturation Flow Rate	0.01	0.01	0.01	0.09	0.09	0.07	0.30	0.30	0.00	0.45	0.01
s, saturation flow rate [veh/h]	1774	1767	1774	1600	1583	3445	3547	1857	1774	3547	1583
c, Capacity [veh/h]	63	63	194	175	173	291	2531	1325	15	2261	1009
d1, Uniform Delay [s]	56.29	56.26	48.10	52.27	52.27	53.86	7.02	7.02	59.18	14.28	8.01
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.75	1.61	0.20	8.81	8.95	4.47	0.51	0.97	9.70	1.85	0.04
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

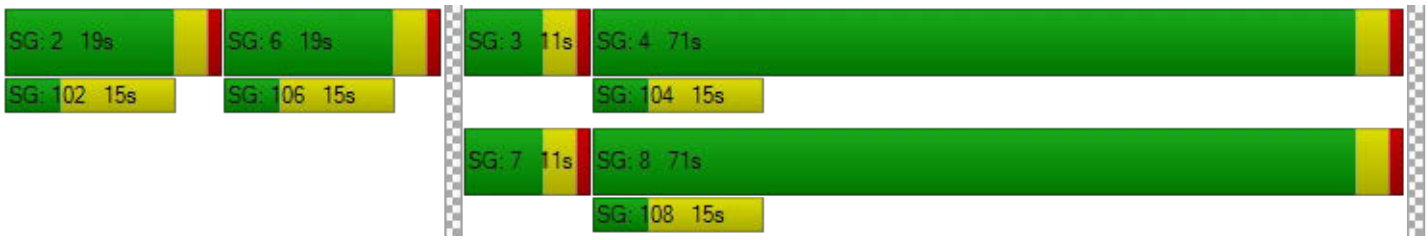
X, volume / capacity	0.22	0.21	0.09	0.81	0.82	0.78	0.42	0.42	0.27	0.70	0.02
d, Delay for Lane Group [s/veh]	58.04	57.87	48.30	61.08	61.23	58.33	7.53	7.99	68.88	16.13	8.05
Lane Group LOS	E	E	D	E	E	E	A	A	E	B	A
Critical Lane Group	Yes	No	No	No	Yes	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh]	0.44	0.41	0.49	4.56	4.52	3.47	4.84	5.24	0.16	13.11	0.22
50th-Percentile Queue Length [ft]	10.94	10.14	12.26	113.92	113.04	86.72	120.99	131.01	3.97	327.85	5.39
95th-Percentile Queue Length [veh]	0.79	0.73	0.88	8.06	8.01	6.24	8.45	8.99	0.29	19.05	0.39
95th-Percentile Queue Length [ft]	19.69	18.26	22.06	201.44	200.22	156.09	211.18	224.87	7.14	476.32	9.70

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	58.04	57.87	57.87	48.30	61.08	61.16	58.33	7.69	7.99	68.88	16.13	8.05
Movement LOS	E	E	E	D	E	E	E	A	A	E	B	A
d_A, Approach Delay [s/veh]	57.96			60.39			13.92			16.14		
Approach LOS	E			E			B			B		
d_I, Intersection Delay [s/veh]	18.89											
Intersection LOS	B											
Intersection V/C	0.704											

Sequence

Ring 1	2	6	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 12: Canyon Plaza Drive / East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	13.2
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.757

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	1	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	95.00	90.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	55	2	83	6	3	14	10	1457	39	56	1457	11
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	5	25	0	5	6	211	0	5	204	20
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	57	2	91	31	3	20	16	1726	41	63	1719	31
Peak Hour Factor	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	15	1	24	8	1	5	4	450	11	16	448	8
Total Analysis Volume [veh/h]	59	2	95	32	3	21	17	1800	43	66	1792	32
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	0	7	7	0	7	7	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	19	0	0	19	0	11	90	0	11	90	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	L	C	R	L	C	C
C, Cycle Length [s]	60	60	60	60	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	7	7	7	7	2	37	37	5	40	40
g / C, Green / Cycle	0.11	0.11	0.11	0.11	0.03	0.61	0.61	0.08	0.66	0.66
(v / s)_i Volume / Saturation Flow Rate	0.04	0.06	0.02	0.01	0.01	0.51	0.03	0.04	0.49	0.49
s, saturation flow rate [veh/h]	1381	1588	1293	1614	1774	3547	1583	1774	1863	1851
c, Capacity [veh/h]	218	175	154	178	55	2167	967	141	1228	1221
d1, Uniform Delay [s]	27.10	25.35	29.23	24.16	28.53	9.25	4.68	26.49	6.84	6.88
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.66	2.71	0.66	0.34	3.18	3.88	0.09	2.43	4.09	4.20
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.27	0.55	0.21	0.13	0.31	0.83	0.04	0.47	0.74	0.75
d, Delay for Lane Group [s/veh]	27.76	28.06	29.89	24.50	31.71	13.13	4.77	28.92	10.93	11.08
Lane Group LOS	C	C	C	C	C	B	A	C	B	B
Critical Lane Group	No	Yes	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh]	0.79	1.32	0.45	0.30	0.27	6.90	0.16	0.92	5.55	5.60
50th-Percentile Queue Length [ft]	19.76	33.06	11.31	7.44	6.72	172.50	4.05	23.00	138.71	139.90
95th-Percentile Queue Length [veh]	1.42	2.38	0.81	0.54	0.48	11.21	0.29	1.66	9.41	9.48
95th-Percentile Queue Length [ft]	35.56	59.50	20.36	13.39	12.10	280.20	7.29	41.40	235.29	236.88

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	27.76	28.06	28.06	29.89	24.50	24.50	31.71	13.13	4.77	28.92	11.01	11.08
Movement LOS	C	C	C	C	C	C	C	B	A	C	B	B
d_A, Approach Delay [s/veh]	27.94			27.58			13.11			11.63		
Approach LOS	C			C			B			B		
d_I, Intersection Delay [s/veh]	13.19											
Intersection LOS	B											
Intersection V/C	0.757											

Sequence

Ring 1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 13: Golf Club Drive / East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	15.0
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.793

Intersection Setup

Name						
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	0	0	0
Pocket Length [ft]	100.00	100.00	90.00	100.00	100.00	100.00
Speed [mph]	40.00		40.00		40.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		Yes		No	

Volumes

Name						
Base Volume Input [veh/h]	179	70	73	1477	1407	141
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	49	0	0	168	159	50
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	235	73	76	1704	1622	197
Peak Hour Factor	0.9660	0.9660	0.9660	0.9660	0.9660	0.9660
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	61	19	20	441	420	51
Total Analysis Volume [veh/h]	243	76	79	1764	1679	204
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Split	Split	ProtectedPermissi	Permissive	Permissive	Permissive
Signal group	1	0	3	8	4	0
Auxiliary Signal Groups						
Lead / Lag	Lead	-	Lead	-	-	-
Minimum Green [s]	7	0	7	7	7	0
Maximum Green [s]	30	0	7	30	30	0
Amber [s]	3.0	0.0	3.0	3.0	3.0	0.0
All red [s]	1.0	0.0	1.0	1.0	1.0	0.0
Split [s]	20	0	11	100	89	0
Vehicle Extension [s]	3.0	0.0	3.0	3.0	3.0	0.0
Walk [s]	5	0	0	5	5	0
Pedestrian Clearance [s]	10	0	0	10	10	0
Rest In Walk	No			No	No	
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	2.0	0.0
Minimum Recall	No		Yes	No	No	
Maximum Recall	No		No	No	No	
Pedestrian Recall	No		No	No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	C	C
C, Cycle Length [s]	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	0.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	8	8	44	44	35	35
g / C, Green / Cycle	0.13	0.13	0.74	0.74	0.58	0.58
(v / s)_i Volume / Saturation Flow Rate	0.09	0.09	0.16	0.50	0.51	0.52
s, saturation flow rate [veh/h]	1774	1675	486	3547	1863	1794
c, Capacity [veh/h]	236	223	424	2603	1086	1046
d1, Uniform Delay [s]	24.91	24.92	11.57	4.23	10.56	10.99
k, delay calibration	0.11	0.11	0.17	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	3.64	3.92	0.33	1.44	9.32	12.16
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.69	0.70	0.19	0.68	0.87	0.90
d, Delay for Lane Group [s/veh]	28.54	28.84	11.91	5.67	19.88	23.15
Lane Group LOS	C	C	B	A	B	C
Critical Lane Group	No	Yes	Yes	No	No	Yes
50th-Percentile Queue Length [veh]	2.25	2.15	0.13	2.41	9.68	10.68
50th-Percentile Queue Length [ft]	56.20	53.85	3.22	60.36	241.99	267.04
95th-Percentile Queue Length [veh]	4.05	3.88	0.23	4.35	14.78	16.04
95th-Percentile Queue Length [ft]	101.16	96.92	5.79	108.64	369.55	401.04

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	28.64	28.84	11.91	5.67	21.32	23.15
Movement LOS	C	C	B	A	C	C
d_A, Approach Delay [s/veh]	28.69		5.94		21.52	
Approach LOS	C		A		C	
d_I, Intersection Delay [s/veh]	14.98					
Intersection LOS	B					
Intersection V/C	0.793					

Sequence

Ring 1	1	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 14: Cathedral Canyon Drive / Officer David Vasquez Road

Control Type:	Signalized	Delay (sec / veh):	3.8
Analysis Method:	HCM 2010	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.227

Intersection Setup

Name						
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	1	0	1	1
Pocket Length [ft]	100.00	100.00	205.00	100.00	120.00	120.00
Speed [mph]	40.00		40.00		40.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		Yes		Yes	

Volumes

Name						
Base Volume Input [veh/h]	344	7	17	370	7	32
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	83	0	0	104	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	441	7	18	489	7	33
Peak Hour Factor	0.8670	0.8670	0.8670	0.8670	0.8670	0.8670
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	127	2	5	141	2	10
Total Analysis Volume [veh/h]	509	8	21	564	8	38
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	2 - N. Cathedral Canyon Drive
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permissive	Permissive	Protected	Permissive	Split	Overlap
Signal group	2	0	1	6	7	7
Auxiliary Signal Groups						1,7
Lead / Lag	-	-	Lead	-	Lead	-
Minimum Green [s]	7	0	7	7	7	7
Maximum Green [s]	30	0	30	30	30	30
Amber [s]	3.0	0.0	3.0	3.0	3.0	3.0
All red [s]	1.0	0.0	1.0	1.0	1.0	1.0
Split [s]	30	0	11	41	19	19
Vehicle Extension [s]	3.0	0.0	3.0	3.0	3.0	3.0
Walk [s]	5	0	0	5	5	5
Pedestrian Clearance [s]	10	0	0	10	10	10
Rest In Walk	No			No	No	
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0
Minimum Recall	No		No	No	No	No
Maximum Recall	No		No	No	No	No
Pedestrian Recall	No		No	No	No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	C	L	C	L	R
C, Cycle Length [s]	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	0.00
g_i, Effective Green Time [s]	42	42	2	48	4	10
g / C, Green / Cycle	0.70	0.70	0.04	0.80	0.06	0.17
(v / s)_i Volume / Saturation Flow Rate	0.14	0.14	0.01	0.16	0.00	0.02
s, saturation flow rate [veh/h]	1863	1853	1774	3547	3445	1583
c, Capacity [veh/h]	1302	1295	65	2845	223	266
d1, Uniform Delay [s]	3.16	3.17	28.25	1.40	26.37	21.34
k, delay calibration	0.50	0.50	0.11	0.50	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.34	0.35	2.82	0.16	0.06	0.24
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

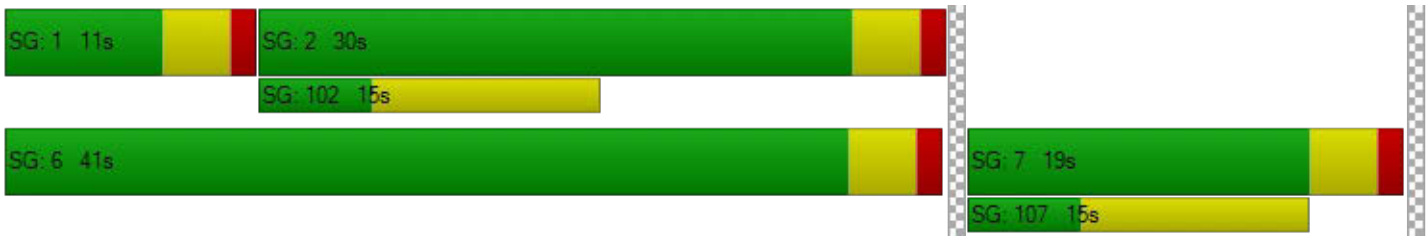
X, volume / capacity	0.20	0.20	0.32	0.20	0.04	0.14
d, Delay for Lane Group [s/veh]	3.51	3.51	31.06	1.55	26.44	21.58
Lane Group LOS	A	A	C	A	C	C
Critical Lane Group	No	No	No	Yes	No	Yes
50th-Percentile Queue Length [veh]	0.62	0.62	0.32	0.06	0.05	0.43
50th-Percentile Queue Length [ft]	15.50	15.53	8.05	1.54	1.28	10.75
95th-Percentile Queue Length [veh]	1.12	1.12	0.58	0.11	0.09	0.77
95th-Percentile Queue Length [ft]	27.89	27.95	14.49	2.78	2.31	19.35

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	3.51	3.51	31.06	1.55	26.44	21.58
Movement LOS	A	A	C	A	C	C
d_A, Approach Delay [s/veh]	3.51		2.61		22.43	
Approach LOS	A		A		C	
d_I, Intersection Delay [s/veh]	3.81					
Intersection LOS	A					
Intersection V/C	0.227					

Sequence

Ring 1	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 15: Cathedral Canyon Drive / Perez Road

Control Type:	Signalized	Delay (sec / veh):	25.8
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.455

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	1	1	0	0
Pocket Length [ft]	95.00	100.00	100.00	205.00	100.00	100.00	100.00	100.00	100.00	150.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	26	297	52	109	282	127	114	192	51	48	207	88
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	83	0	0	104	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	27	392	54	113	397	132	119	200	53	50	215	92
Peak Hour Factor	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	7	101	14	29	102	34	31	51	14	13	55	24
Total Analysis Volume [veh/h]	28	402	55	116	408	136	122	205	54	51	221	94
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	2 - N. Cathedral Canyon Drive
Cycle Length [s]	70
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	27	0	13	29	0	11	19	0	11	19	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	L	C	R	L	C	C
C, Cycle Length [s]	70	70	70	70	70	70	70	70	70	70	70	70
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	3	11	11	6	15	15	6	32	32	4	30	30
g / C, Green / Cycle	0.04	0.16	0.16	0.09	0.21	0.21	0.09	0.45	0.45	0.06	0.43	0.43
(v / s)_i Volume / Saturation Flow Rate	0.02	0.12	0.13	0.07	0.15	0.15	0.07	0.06	0.03	0.03	0.09	0.09
s, saturation flow rate [veh/h]	1774	1863	1786	1774	1863	1706	1774	3547	1583	1774	1863	1680
c, Capacity [veh/h]	78	306	293	162	393	360	163	1604	716	115	792	714
d1, Uniform Delay [s]	32.61	28.04	28.08	31.04	25.77	25.81	31.11	11.19	10.91	31.64	12.72	12.77
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.74	3.87	4.20	5.83	2.48	2.78	6.70	0.16	0.20	2.68	0.59	0.68
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

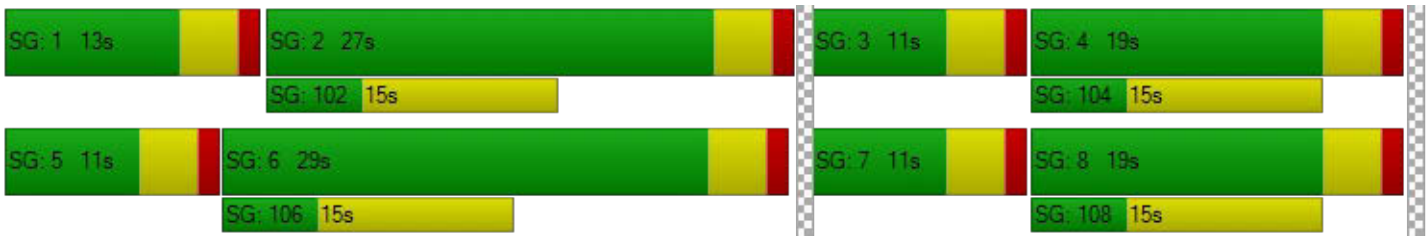
X, volume / capacity	0.36	0.76	0.77	0.72	0.72	0.72	0.75	0.13	0.08	0.44	0.21	0.21
d, Delay for Lane Group [s/veh]	35.35	31.91	32.28	36.87	28.24	28.59	37.80	11.35	11.12	34.32	13.31	13.46
Lane Group LOS	D	C	C	D	C	C	D	B	B	C	B	B
Critical Lane Group	No	No	Yes	Yes	No	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh]	0.49	3.77	3.68	2.05	4.28	3.99	2.18	0.83	0.45	0.87	1.52	1.45
50th-Percentile Queue Length [ft]	12.37	94.14	91.91	51.17	107.10	99.81	54.62	20.75	11.21	21.70	38.08	36.20
95th-Percentile Queue Length [veh]	0.89	6.78	6.62	3.68	7.68	7.19	3.93	1.49	0.81	1.56	2.74	2.61
95th-Percentile Queue Length [ft]	22.27	169.45	165.44	92.11	191.97	179.66	98.32	37.35	20.18	39.05	68.55	65.16

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	35.35	32.06	32.28	36.87	28.35	28.59	37.80	11.35	11.12	34.32	13.35	13.46
Movement LOS	D	C	C	D	C	C	D	B	B	C	B	B
d_A, Approach Delay [s/veh]	32.28			29.90			19.79			16.30		
Approach LOS	C			C			B			B		
d_I, Intersection Delay [s/veh]	25.84											
Intersection LOS	C											
Intersection V/C	0.455											

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 16: Cathedral Canyon Drive / Paseo Real

Control Type:	Two-way stop	Delay (sec / veh):	32.4
Analysis Method:	HCM 2010	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.040

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	0	0	0	0	0	0
Pocket Length [ft]	55.00	100.00	100.00	55.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name												
Base Volume Input [veh/h]	11	482	9	16	509	19	11	5	16	9	6	14
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	71	12	0	89	0	0	0	0	15	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	11	572	21	17	618	20	11	5	17	24	6	15
Peak Hour Factor	0.9680	0.9680	0.9680	0.9680	0.9680	0.9680	0.9680	0.9680	0.9680	0.9680	0.9680	0.9680
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	148	5	4	160	5	3	1	4	6	2	4
Total Analysis Volume [veh/h]	11	591	22	18	638	21	11	5	18	25	6	15
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.01	0.00	0.02	0.01	0.00	0.06	0.03	0.03	0.13	0.04	0.02
d_M, Delay for Movement [s/veh]	8.94	0.00	0.00	8.81	0.00	0.00	26.60	30.59	12.15	27.70	32.44	13.84
Movement LOS	A	A	A	A	A	A	D	D	B	D	D	B
95th-Percentile Queue Length [veh]	0.04	0.00	0.00	0.06	0.00	0.00	0.41	0.41	0.41	0.70	0.70	0.70
95th-Percentile Queue Length [ft]	0.90	0.00	0.00	1.43	0.00	0.00	10.17	10.17	10.17	17.54	17.54	17.54
d_A, Approach Delay [s/veh]	0.16			0.23			19.54			23.80		
Approach LOS	A			A			C			C		
d_I, Intersection Delay [s/veh]	1.46											
Intersection LOS	D											

Intersection Level Of Service Report

Intersection 17: Cathedral Canyon Drive / Dinah Shore Drive

Control Type:	Signalized	Delay (sec / veh):	28.2
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.622

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	130.00	100.00	100.00	75.00	100.00	100.00	100.00	100.00	100.00	150.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	156	237	102	119	230	28	31	587	198	102	575	71
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	20	35	16	0	44	0	0	0	25	20	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	182	281	122	124	283	29	32	610	231	126	598	74
Peak Hour Factor	0.9700	0.9700	0.9700	0.9700	0.9700	0.9700	0.9700	0.9700	0.9700	0.9700	0.9700	0.9700
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	47	72	31	32	73	7	8	157	60	32	154	19
Total Analysis Volume [veh/h]	188	290	126	128	292	30	33	629	238	130	616	76
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	2 - N. Cathedral Canyon Drive
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	41	46	0	14	19	0	11	19	0	11	19	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	L	C	C	L	C	C
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	12	14	14	8	10	10	4	44	44	8	48	48
g / C, Green / Cycle	0.13	0.16	0.16	0.09	0.12	0.12	0.04	0.48	0.48	0.09	0.53	0.53
(v / s)_i Volume / Saturation Flow Rate	0.11	0.12	0.12	0.07	0.09	0.09	0.02	0.24	0.24	0.07	0.19	0.19
s, saturation flow rate [veh/h]	1774	1863	1675	1774	1863	1803	1774	1863	1691	1774	1863	1792
c, Capacity [veh/h]	231	290	261	161	217	210	80	897	815	167	989	952
d1, Uniform Delay [s]	38.18	36.40	36.47	40.16	38.56	38.59	41.91	16.01	16.02	39.92	12.23	12.23
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	6.88	3.90	4.56	8.48	5.13	5.48	3.40	2.04	2.25	7.58	1.00	1.05
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.82	0.75	0.76	0.79	0.75	0.76	0.41	0.51	0.51	0.78	0.36	0.36
d, Delay for Lane Group [s/veh]	45.06	40.29	41.03	48.64	43.69	44.08	45.31	18.05	18.26	47.50	13.23	13.28
Lane Group LOS	D	D	D	D	D	D	D	B	B	D	B	B
Critical Lane Group	Yes	No	No	No	No	Yes	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh]	4.32	4.70	4.34	3.06	3.66	3.60	0.77	6.27	5.74	3.07	3.91	3.78
50th-Percentile Queue Length [ft]	108.01	117.47	108.49	76.51	91.56	89.96	19.18	156.83	143.61	76.63	97.76	94.42
95th-Percentile Queue Length [veh]	7.73	8.25	7.76	5.51	6.59	6.48	1.38	10.38	9.68	5.52	7.04	6.80
95th-Percentile Queue Length [ft]	193.23	206.34	193.90	137.71	164.80	161.93	34.53	259.53	241.88	137.93	175.97	169.95

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	45.06	40.48	41.03	48.64	43.86	44.08	45.31	18.11	18.26	47.50	13.25	13.28
Movement LOS	D	D	D	D	D	D	D	B	B	D	B	B
d_A, Approach Delay [s/veh]	42.02			45.24			19.15			18.67		
Approach LOS	D			D			B			B		
d_I, Intersection Delay [s/veh]	28.21											
Intersection LOS	C											
Intersection V/C	0.622											

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	



Intersection Level Of Service Report
Intersection 18: Date Palm Drive / Gerald Ford Drive

Control Type:	Signalized	Delay (sec / veh):	22.9
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.437

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	85.00	100.00	85.00	160.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			Yes			Yes			No		

Volumes

Name												
Base Volume Input [veh/h]	22	418	198	120	415	61	36	46	46	196	44	127
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	145	45	0	171	0	0	0	0	54	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	23	580	251	125	603	63	37	48	48	258	46	132
Peak Hour Factor	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	6	151	66	33	157	16	10	13	13	67	12	34
Total Analysis Volume [veh/h]	24	605	262	130	629	66	39	50	50	269	48	138
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	6 - N/S
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Split	Split	Split	Split	Split	Split
Signal group	5	2	0	1	6	0	3	8	0	7	4	4
Auxiliary Signal Groups												1,4
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	7	7	0	7	7	0	0	7	0	0	7	7
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	30
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	3.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	1.0
Split [s]	13	47	0	35	69	0	0	38	0	0	38	38
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	3.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	5
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	10
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	2.0
Minimum Recall	No	No		No	No			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	C	L	C	C	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.00	0.00	2.00	2.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	4	71	71	11	78	78	26	26	26	26	26	26
g / C, Green / Cycle	0.03	0.59	0.59	0.09	0.65	0.65	0.22	0.22	0.22	0.22	0.22	0.22
(v / s)_i Volume / Saturation Flow Rate	0.01	0.12	0.17	0.07	0.13	0.13	0.03	0.03	0.03	0.12	0.14	0.09
s, saturation flow rate [veh/h]	1774	5074	1583	1774	3547	1774	1352	1863	1583	1290	1165	1583
c, Capacity [veh/h]	57	3018	942	159	2313	1157	120	402	342	277	302	342
d1, Uniform Delay [s]	56.97	11.19	11.81	53.68	8.35	8.36	56.40	37.92	38.10	47.17	45.50	40.42
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	4.86	0.15	0.74	9.90	0.19	0.39	1.55	0.14	0.20	1.76	1.49	0.77
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.42	0.20	0.28	0.82	0.20	0.20	0.32	0.12	0.15	0.56	0.54	0.40
d, Delay for Lane Group [s/veh]	61.83	11.34	12.54	63.57	8.55	8.75	57.94	38.05	38.30	48.93	46.99	41.19
Lane Group LOS	E	B	B	E	A	A	E	D	D	D	D	D
Critical Lane Group	No	No	Yes	Yes	No	No	No	No	No	No	Yes	No
50th-Percentile Queue Length [veh]	0.78	2.37	3.38	4.23	2.25	2.34	1.20	1.19	1.20	4.41	4.55	3.52
50th-Percentile Queue Length [ft]	19.52	59.23	84.59	105.64	56.35	58.54	29.92	29.68	29.90	110.28	113.81	88.02
95th-Percentile Queue Length [veh]	1.41	4.26	6.09	7.60	4.06	4.21	2.15	2.14	2.15	7.86	8.05	6.34
95th-Percentile Queue Length [ft]	35.13	106.62	152.26	189.92	101.43	105.37	53.85	53.42	53.82	196.40	201.30	158.44

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	61.83	11.34	12.54	63.57	8.60	8.75	57.94	38.05	38.30	48.11	46.99	41.19
Movement LOS	E	B	B	E	A	A	E	D	D	D	D	D
d_A, Approach Delay [s/veh]	13.05			17.28			43.72			45.89		
Approach LOS	B			B			D			D		
d_I, Intersection Delay [s/veh]	22.87											
Intersection LOS	C											
Intersection V/C	0.437											

Sequence

Ring 1	1	2	-	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 19: Date Palm Drive / Dinah Shore Drive

Control Type:	Signalized	Delay (sec / veh):	28.2
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.519

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	2	0	1	2	0	1	1	0	0	1	0	1
Pocket Length [ft]	225.00	100.00	125.00	170.00	100.00	50.00	150.00	100.00	100.00	130.00	100.00	180.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			No		

Volumes

Name												
Base Volume Input [veh/h]	185	483	58	114	538	75	103	483	173	59	427	115
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	97	40	15	112	53	53	0	0	50	0	16
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	192	599	100	134	672	131	160	502	180	111	444	136
Peak Hour Factor	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	51	159	26	35	178	35	42	133	48	29	118	36
Total Analysis Volume [veh/h]	203	635	106	142	712	139	169	532	191	118	470	144
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	1 - E Palm Canyon Drive
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Overlap
Signal group	5	2	0	1	6	0	3	8	0	7	4	4
Auxiliary Signal Groups												1,4
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	7
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	30
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	1.0
Split [s]	18	26	0	11	19	0	24	39	0	14	29	29
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	5
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	10
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0
Minimum Recall	No	No		No	No		No	No		No	No	No
Maximum Recall	No	No		No	No		No	No		No	No	No
Pedestrian Recall	No	No		No	No		No	No		No	No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	0.00
g_i, Effective Green Time [s]	7	42	42	7	41	41	11	18	18	8	15	26
g / C, Green / Cycle	0.08	0.46	0.46	0.08	0.46	0.46	0.12	0.20	0.20	0.08	0.17	0.29
(v / s)_i Volume / Saturation Flow Rate	0.06	0.13	0.07	0.04	0.14	0.09	0.10	0.15	0.12	0.07	0.13	0.09
s, saturation flow rate [veh/h]	3445	5074	1583	3445	5074	1583	1774	3547	1583	1774	3547	1583
c, Capacity [veh/h]	288	2336	729	271	2311	721	208	705	315	150	589	458
d1, Uniform Delay [s]	40.24	15.01	14.07	39.92	15.55	14.66	38.82	34.05	32.91	40.46	36.14	25.07
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	3.16	0.29	0.42	1.57	0.35	0.59	7.39	1.67	1.89	8.68	2.53	0.39
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

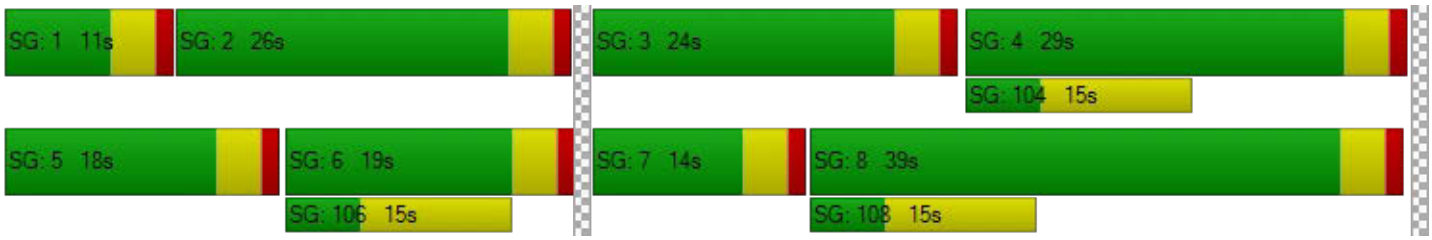
X, volume / capacity	0.71	0.27	0.15	0.52	0.31	0.19	0.81	0.75	0.61	0.79	0.80	0.31
d, Delay for Lane Group [s/veh]	43.40	15.29	14.49	41.50	15.90	15.25	46.21	35.72	34.80	49.14	38.67	25.46
Lane Group LOS	D	B	B	D	B	B	D	D	C	D	D	C
Critical Lane Group	Yes	No	No	No	Yes	No	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh]	2.24	2.51	1.24	1.52	2.90	1.68	3.93	5.40	3.80	2.84	4.96	2.34
50th-Percentile Queue Length [ft]	56.04	62.83	30.90	38.00	72.60	42.03	98.31	134.93	94.94	70.94	123.99	58.56
95th-Percentile Queue Length [veh]	4.03	4.52	2.22	2.74	5.23	3.03	7.08	9.21	6.84	5.11	8.61	4.22
95th-Percentile Queue Length [ft]	100.86	113.09	55.61	68.41	130.67	75.65	176.96	230.18	170.89	127.69	215.30	105.41

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	43.40	15.29	14.49	41.50	15.90	15.25	46.21	35.72	34.80	49.14	38.67	25.46
Movement LOS	D	B	B	D	B	B	D	D	C	D	D	C
d_A, Approach Delay [s/veh]	21.25			19.47			37.51			37.76		
Approach LOS	C			B			D			D		
d_I, Intersection Delay [s/veh]	28.22											
Intersection LOS	C											
Intersection V/C	0.519											

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 20: Date Palm Drive / Ramon Road

Control Type:	Signalized	Delay (sec / veh):	41.6
Analysis Method:	HCM 2010	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.724

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	215.00	100.00	80.00	180.00	100.00	100.00	350.00	100.00	100.00	230.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			No		

Volumes

Name												
Base Volume Input [veh/h]	215	474	82	221	460	139	193	684	133	104	610	117
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	22	78	65	79	88	24	23	53	24	68	53	79
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	246	571	150	309	566	169	224	764	162	176	687	201
Peak Hour Factor	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	65	151	40	82	150	45	59	202	43	47	182	53
Total Analysis Volume [veh/h]	261	605	159	327	600	179	237	809	172	186	728	213
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	7 - E/W
Cycle Length [s]	110
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	21	29	0	27	35	0	25	38	0	16	29	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	C	L	C	C
C, Cycle Length [s]	110	110	110	110	110	110	110	110	110	110	110	110
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	11	32	32	22	44	44	17	28	28	12	23	23
g / C, Green / Cycle	0.10	0.29	0.29	0.20	0.40	0.40	0.15	0.25	0.25	0.11	0.21	0.21
(v / s)_i Volume / Saturation Flow Rate	0.08	0.12	0.10	0.18	0.12	0.11	0.13	0.19	0.19	0.10	0.18	0.18
s, saturation flow rate [veh/h]	3445	5074	1583	1774	5074	1583	1774	3547	1701	1774	3547	1656
c, Capacity [veh/h]	335	1480	462	357	2007	626	270	893	428	195	744	347
d1, Uniform Delay [s]	48.58	31.38	30.72	43.12	22.83	22.70	45.71	37.93	37.95	48.74	41.99	42.04
k, delay calibration	0.11	0.50	0.50	0.21	0.50	0.50	0.11	0.11	0.17	0.11	0.11	0.21
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	3.93	0.84	2.03	16.50	0.38	1.15	8.88	1.24	3.98	20.28	3.08	11.57
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

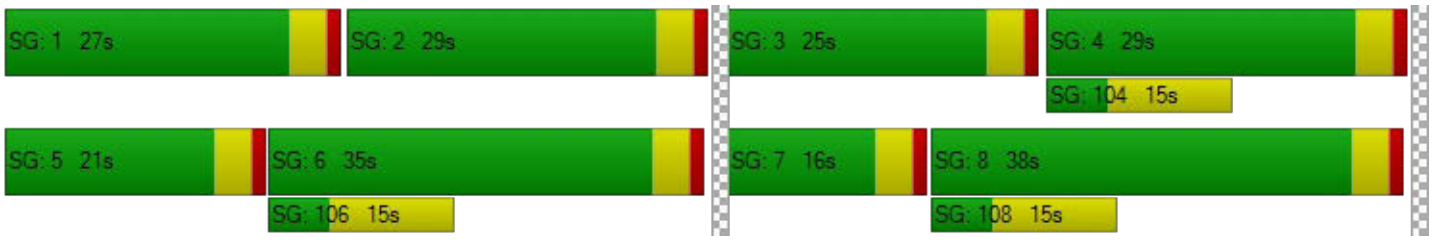
X, volume / capacity	0.78	0.41	0.34	0.92	0.30	0.29	0.88	0.74	0.74	0.95	0.86	0.87
d, Delay for Lane Group [s/veh]	52.51	32.22	32.76	59.62	23.22	23.85	54.59	39.17	41.93	69.02	45.07	53.62
Lane Group LOS	D	C	C	E	C	C	D	D	D	E	D	D
Critical Lane Group	No	Yes	No	Yes	No	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh]	3.61	4.30	3.49	10.10	3.50	3.25	6.85	8.12	8.13	6.07	8.46	8.77
50th-Percentile Queue Length [ft]	90.32	107.56	87.33	252.47	87.47	81.23	171.27	202.93	203.33	151.64	211.46	219.26
95th-Percentile Queue Length [veh]	6.50	7.70	6.29	15.31	6.30	5.85	11.14	12.79	12.81	10.10	13.23	13.63
95th-Percentile Queue Length [ft]	162.57	192.61	157.20	382.76	157.44	146.21	278.58	319.74	320.26	252.62	330.70	340.69

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	52.51	32.22	32.76	59.62	23.22	23.85	54.59	39.67	41.93	69.02	46.10	53.62
Movement LOS	D	C	C	E	C	C	D	D	D	E	D	D
d_A, Approach Delay [s/veh]	37.47			34.08			42.89			51.30		
Approach LOS	D			C			D			D		
d_I, Intersection Delay [s/veh]	41.59											
Intersection LOS	D											
Intersection V/C	0.724											

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 21: Da Vall Drive / Dinah Shore Drive

Control Type:	Signalized	Delay (sec / veh):	19.4
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.464

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	0	1	0	1	1	0	0
Pocket Length [ft]	120.00	100.00	120.00	130.00	100.00	100.00	175.00	100.00	215.00	185.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	127	128	47	52	160	41	43	448	134	50	469	59
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	2	0	0	25	20	35	0	2	41	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	132	133	51	54	166	68	65	501	139	54	529	61
Peak Hour Factor	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	35	35	13	14	44	18	17	132	37	14	139	16
Total Analysis Volume [veh/h]	139	140	54	57	175	72	68	528	146	57	557	64
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	6 - N/S
Cycle Length [s]	70
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	21	22	0	18	19	0	11	19	0	11	19	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	C	L	C	R	L	C	C
C, Cycle Length [s]	70	70	70	70	70	70	70	70	70	70	70	70
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	7	10	10	5	7	7	5	35	35	5	34	34
g / C, Green / Cycle	0.10	0.14	0.14	0.07	0.10	0.10	0.07	0.50	0.50	0.07	0.49	0.49
(v / s)_i Volume / Saturation Flow Rate	0.08	0.04	0.03	0.03	0.07	0.07	0.04	0.15	0.09	0.03	0.17	0.17
s, saturation flow rate [veh/h]	1774	3547	1583	1774	1863	1685	1774	3547	1583	1774	1863	1796
c, Capacity [veh/h]	182	493	220	122	196	177	133	1758	785	122	912	879
d1, Uniform Delay [s]	30.69	27.12	26.97	31.46	30.18	30.28	31.26	10.50	9.84	31.48	11.02	11.03
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	6.48	0.31	0.57	2.73	3.55	4.47	3.03	0.44	0.52	2.78	1.04	1.09
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.76	0.28	0.25	0.47	0.65	0.68	0.51	0.30	0.19	0.47	0.35	0.35
d, Delay for Lane Group [s/veh]	37.17	27.43	27.54	34.19	33.73	34.75	34.29	10.94	10.37	34.26	12.07	12.12
Lane Group LOS	D	C	C	C	C	C	C	B	B	C	B	B
Critical Lane Group	Yes	No	No	No	No	Yes	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh]	2.46	1.00	0.79	0.97	2.11	2.05	1.15	2.11	1.15	0.97	2.76	2.68
50th-Percentile Queue Length [ft]	61.60	25.05	19.68	24.14	52.85	51.14	28.78	52.65	28.76	24.17	68.98	67.02
95th-Percentile Queue Length [veh]	4.44	1.80	1.42	1.74	3.81	3.68	2.07	3.79	2.07	1.74	4.97	4.83
95th-Percentile Queue Length [ft]	110.89	45.09	35.43	43.45	95.13	92.04	51.80	94.76	51.77	43.50	124.16	120.64

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	37.17	27.43	27.54	34.19	34.01	34.75	34.29	10.94	10.37	34.26	12.09	12.12
Movement LOS	D	C	C	C	C	C	C	B	B	C	B	B
d_A, Approach Delay [s/veh]	31.52			34.22			12.97			13.95		
Approach LOS	C			C			B			B		
d_I, Intersection Delay [s/veh]	19.44											
Intersection LOS	B											
Intersection V/C	0.464											

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	



Intersection Level Of Service Report
Intersection 22: Da Vall Drive / Gerald Ford Drive

Control Type:	Signalized	Delay (sec / veh):	28.9
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.385

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	200.00	100.00	175.00	140.00	100.00	100.00	175.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	94	178	44	73	199	50	30	285	97	34	245	90
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	15	2	0	0	2	10	8	25	12	0	29	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	113	187	46	76	209	62	39	321	113	35	284	94
Peak Hour Factor	0.9210	0.9210	0.9210	0.9210	0.9210	0.9210	0.9210	0.9210	0.9210	0.9210	0.9210	0.9210
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	31	51	12	21	57	17	11	87	31	10	77	26
Total Analysis Volume [veh/h]	123	203	50	83	227	67	42	349	123	38	308	102
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	6 - N/S
Cycle Length [s]	80
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	16	19	0	16	19	0	12	34	0	11	33	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	C	L	C	C	L	C	C
C, Cycle Length [s]	80	80	80	80	80	80	80	80	80	80	80	80
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	7	41	41	6	40	40	4	13	13	4	13	13
g / C, Green / Cycle	0.09	0.51	0.51	0.07	0.49	0.49	0.05	0.17	0.17	0.05	0.16	0.16
(v / s)_i Volume / Saturation Flow Rate	0.07	0.06	0.03	0.05	0.08	0.08	0.02	0.13	0.13	0.02	0.11	0.12
s, saturation flow rate [veh/h]	1774	3547	1583	1774	1863	1721	1774	1863	1701	1774	1863	1708
c, Capacity [veh/h]	158	1800	803	132	918	848	96	312	285	90	306	281
d1, Uniform Delay [s]	35.73	10.31	10.03	36.00	11.20	11.23	36.72	31.95	32.04	36.88	31.55	31.65
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	8.11	0.13	0.15	4.85	0.38	0.43	3.13	4.30	5.12	3.11	2.77	3.27
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.78	0.11	0.06	0.63	0.16	0.17	0.44	0.78	0.80	0.42	0.69	0.71
d, Delay for Lane Group [s/veh]	43.85	10.43	10.18	40.85	11.58	11.66	39.85	36.25	37.16	39.99	34.32	34.91
Lane Group LOS	D	B	B	D	B	B	D	D	D	D	C	C
Critical Lane Group	Yes	No	No	No	No	Yes	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh]	2.59	0.85	0.43	1.68	1.40	1.34	0.85	4.64	4.39	0.77	3.87	3.68
50th-Percentile Queue Length [ft]	64.83	21.23	10.63	42.00	34.88	33.45	21.13	116.11	109.83	19.21	96.82	92.07
95th-Percentile Queue Length [veh]	4.67	1.53	0.77	3.02	2.51	2.41	1.52	8.18	7.83	1.38	6.97	6.63
95th-Percentile Queue Length [ft]	116.69	38.21	19.13	75.60	62.78	60.22	38.03	204.47	195.77	34.57	174.27	165.72

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	43.85	10.43	10.18	40.85	11.61	11.66	39.85	36.52	37.16	39.99	34.51	34.91
Movement LOS	D	B	B	D	B	B	D	D	D	D	C	C
d_A, Approach Delay [s/veh]	21.33			18.06			36.94			35.06		
Approach LOS	C			B			D			D		
d_I, Intersection Delay [s/veh]	28.88											
Intersection LOS	C											
Intersection V/C	0.385											

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 23: East Palm Canyon Drive / Frank Sinatra Drive

Control Type:	Signalized	Delay (sec / veh):	12.3
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.679

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	1	1	0	0	2	0	1
Pocket Length [ft]	160.00	100.00	45.00	325.00	100.00	250.00	100.00	100.00	100.00	120.00	100.00	1200.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			No			Yes		

Volumes

Name												
Base Volume Input [veh/h]	47	1301	147	214	1244	33	34	18	13	141	24	199
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	165	2	48	154	0	0	0	0	2	0	55
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	49	1518	155	271	1448	34	35	19	14	149	25	262
Peak Hour Factor	0.9210	0.9210	0.9210	0.9210	0.9210	0.9210	0.9210	0.9210	0.9210	0.9210	0.9210	0.9210
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	13	412	42	74	393	9	10	5	4	40	7	71
Total Analysis Volume [veh/h]	53	1648	168	294	1572	37	38	21	15	162	27	284
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	6 - N/S
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Overlap	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Overlap
Signal group	5	2	2	1	6	0	3	8	0	7	4	4
Auxiliary Signal Groups			1,2,3,4,									1,2,3,4,
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	7	7	7	0	7	7	0	7	7	7
Maximum Green [s]	30	30	30	30	30	0	30	30	0	30	30	30
Amber [s]	3.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0
All red [s]	1.0	1.0	1.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	1.0
Split [s]	12	67	67	23	78	0	11	19	0	11	19	19
Vehicle Extension [s]	3.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0
Walk [s]	0	5	5	0	5	0	0	5	0	0	5	5
Pedestrian Clearance [s]	0	10	10	0	10	0	0	10	0	0	10	10
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0
Minimum Recall	No	No	No	No	No		No	No		No	No	No
Maximum Recall	No	No	No	No	No		No	No		No	No	No
Pedestrian Recall	No	No	No	No	No		No	No		No	No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	L	C	R
C, Cycle Length [s]	67	67	67	67	67	67	67	67	67	67	67
L, Total Lost Time per Cycle [s]	4.00	4.00	0.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	0.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	0.00	2.00	0.00	0.00	2.00	0.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	7	34	109	12	39	39	4	63	9	2	109
g / C, Green / Cycle	0.10	0.50	1.61	0.18	0.58	0.58	0.05	0.94	0.14	0.02	1.61
(v / s)_i Volume / Saturation Flow Rate	0.04	0.32	0.11	0.11	0.31	0.02	0.03	0.02	0.06	0.01	0.18
s, saturation flow rate [veh/h]	1367	5074	1583	2654	5074	1583	1412	1735	2654	1863	1583
c, Capacity [veh/h]	207	2548	2508	512	2950	921	141	1632	388	44	2508
d1, Uniform Delay [s]	30.06	12.35	0.00	27.18	8.54	6.04	32.94	0.12	28.65	32.56	0.00
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.11	0.50	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.64	0.28	0.01	1.02	0.15	0.02	1.02	0.02	0.71	50.34	0.02
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.26	0.65	0.07	0.57	0.53	0.04	0.27	0.02	0.42	0.61	0.11
d, Delay for Lane Group [s/veh]	30.70	12.63	0.01	28.20	8.69	6.06	33.96	0.15	29.36	82.90	0.02
Lane Group LOS	C	B	A	C	A	A	C	A	C	F	A
Critical Lane Group	No	Yes	No	Yes	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh]	0.81	4.93	0.01	2.14	3.46	0.18	0.62	0.01	1.19	1.02	0.01
50th-Percentile Queue Length [ft]	20.21	123.27	0.19	53.55	86.60	4.38	15.56	0.28	29.77	25.59	0.34
95th-Percentile Queue Length [veh]	1.45	8.57	0.01	3.86	6.24	0.32	1.12	0.02	2.14	1.84	0.02
95th-Percentile Queue Length [ft]	36.37	214.32	0.35	96.39	155.89	7.89	28.00	0.51	53.59	46.06	0.62

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	30.70	12.63	0.01	28.20	8.69	6.06	33.96	0.15	0.15	29.36	82.90	0.02
Movement LOS	C	B	A	C	A	A	C	A	A	C	F	A
d_A, Approach Delay [s/veh]	12.01			11.66			17.51			14.80		
Approach LOS	B			B			B			B		
d_I, Intersection Delay [s/veh]	12.25											
Intersection LOS	B											
Intersection V/C	0.679											

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 24: East Palm Canyon Drive / Mirage Cove Drive

Control Type:	Signalized	Delay (sec / veh):	16.8
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.477

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	1	1	0	0
Pocket Length [ft]	150.00	100.00	100.00	110.00	100.00	100.00	75.00	100.00	75.00	75.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	40	1394	6	23	1334	43	39	0	21	4	0	23
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	123	0	37	110	10	9	0	0	0	0	35
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	42	1573	6	61	1497	55	50	0	22	4	0	59
Peak Hour Factor	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	11	412	2	16	392	14	13	0	6	1	0	15
Total Analysis Volume [veh/h]	44	1649	6	64	1569	58	52	0	23	4	0	62
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	6 - N/S
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	5	2	0	1	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	7	7	0	7	7	0	0	7	0	0	7	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	11	72	0	29	90	0	0	19	0	0	19	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No	No		No	No			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	L	C	R	L	C
C, Cycle Length [s]	60	60	60	60	60	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.00	0.00	2.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	4	24	24	5	25	25	20	20	20	20	20
g / C, Green / Cycle	0.06	0.40	0.40	0.08	0.41	0.41	0.33	0.33	0.33	0.33	0.33
(v / s)_i Volume / Saturation Flow Rate	0.02	0.31	0.31	0.04	0.30	0.30	0.04	0.00	0.01	0.00	0.04
s, saturation flow rate [veh/h]	1774	3547	1859	1774	3547	1829	1335	1863	1583	1412	1583
c, Capacity [veh/h]	112	1408	738	140	1464	755	465	605	514	525	514
d1, Uniform Delay [s]	27.08	15.77	15.77	26.48	14.88	14.88	17.21	0.00	13.92	15.32	14.27
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.24	0.92	1.75	2.32	0.73	1.40	0.49	0.00	0.16	0.03	0.48
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.39	0.77	0.77	0.46	0.73	0.73	0.11	0.00	0.04	0.01	0.12
d, Delay for Lane Group [s/veh]	29.32	16.69	17.52	28.81	15.60	16.28	17.70	0.00	14.08	15.35	14.75
Lane Group LOS	C	B	B	C	B	B	B	A	B	B	B
Critical Lane Group	No	No	Yes	Yes	No	No	No	No	No	No	Yes
50th-Percentile Queue Length [veh]	0.63	5.45	5.89	0.89	5.13	5.44	0.55	0.00	0.21	0.04	0.58
50th-Percentile Queue Length [ft]	15.63	136.36	147.21	22.27	128.28	135.93	13.76	0.00	5.20	0.95	14.46
95th-Percentile Queue Length [veh]	1.13	9.28	9.87	1.60	8.85	9.26	0.99	0.00	0.37	0.07	1.04
95th-Percentile Queue Length [ft]	28.14	232.12	246.70	40.08	221.15	231.53	24.77	0.00	9.35	1.71	26.03

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	29.32	16.97	17.52	28.81	15.82	16.28	17.70	0.00	14.08	15.35	14.75	14.75
Movement LOS	C	B	B	C	B	B	B	A	B	B	B	B
d_A, Approach Delay [s/veh]	17.29			16.33			16.59			14.79		
Approach LOS	B			B			B			B		
d_I, Intersection Delay [s/veh]	16.77											
Intersection LOS	B											
Intersection V/C	0.477											

Sequence

Ring 1	1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 25: East Palm Canyon Drive / Country Club Drive

Control Type:	Signalized	Delay (sec / veh):	29.0
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.480

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	2	0	0	1	0	0	1	0	0
Pocket Length [ft]	160.00	100.00	45.00	190.00	100.00	100.00	30.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			Yes			Yes			No		

Volumes

Name												
Base Volume Input [veh/h]	6	1285	78	134	1246	8	4	4	5	84	4	146
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	90	0	20	81	9	8	0	0	0	0	25
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	6	1426	81	159	1377	17	12	4	5	87	4	177
Peak Hour Factor	0.9380	0.9380	0.9380	0.9380	0.9380	0.9380	0.9380	0.9380	0.9380	0.9380	0.9380	0.9380
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	380	22	42	367	5	3	1	1	23	1	47
Total Analysis Volume [veh/h]	6	1520	86	170	1468	18	13	4	5	93	4	189
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	6 - N/S
Cycle Length [s]	110
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Protecte	Permiss	Overlap	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	5	2	2	1	6	0	0	8	0	0	4	0
Auxiliary Signal Groups			1,2,4,5,									
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	7	7	7	7	7	0	0	7	0	0	7	0
Maximum Green [s]	30	30	30	30	30	0	0	30	0	0	30	0
Amber [s]	3.0	3.0	3.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	1.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	11	41	41	50	80	0	0	19	0	0	19	0
Vehicle Extension [s]	3.0	3.0	3.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	5	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	10	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	2.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	2.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No	No	No	No	No			No			No	
Maximum Recall	No	No	No	No	No			No			No	
Pedestrian Recall	No	No	No	No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	C	L	C	L	C	R
C, Cycle Length [s]	110	110	110	110	110	110	110	110	110	110	110
L, Total Lost Time per Cycle [s]	4.00	4.00	0.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	2.00	0.00	0.00	2.00	0.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	7	41	200	11	45	45	46	46	46	46	46
g / C, Green / Cycle	0.06	0.37	1.82	0.10	0.41	0.41	0.42	0.42	0.42	0.42	0.42
(v / s)_i Volume / Saturation Flow Rate	0.00	0.30	0.05	0.06	0.28	0.28	0.01	0.01	0.07	0.06	0.06
s, saturation flow rate [veh/h]	1774	5074	1583	2741	3547	1851	1185	1696	1400	1593	1583
c, Capacity [veh/h]	106	1888	2879	287	1464	764	497	709	623	666	662
d1, Uniform Delay [s]	48.76	30.96	0.00	49.54	26.16	26.16	22.49	18.73	21.33	19.83	19.83
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.22	0.84	0.00	1.95	0.53	1.01	0.10	0.03	0.51	0.46	0.46
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

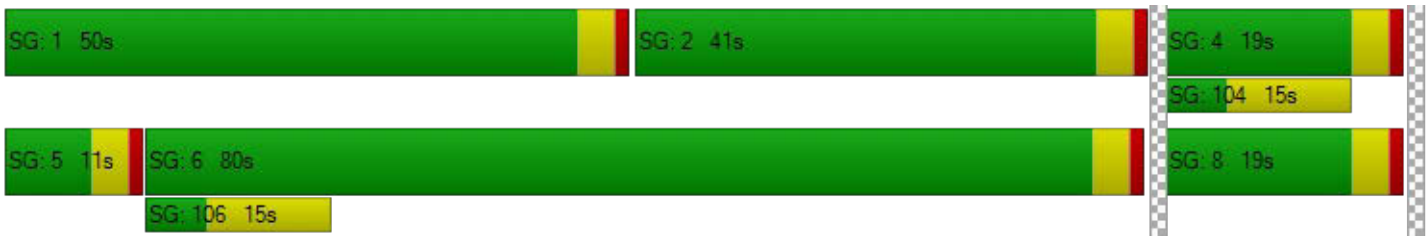
X, volume / capacity	0.06	0.81	0.03	0.59	0.67	0.67	0.03	0.01	0.15	0.15	0.15
d, Delay for Lane Group [s/veh]	48.98	31.80	0.00	51.48	26.69	27.17	22.59	18.76	21.83	20.29	20.30
Lane Group LOS	D	C	A	D	C	C	C	B	C	C	C
Critical Lane Group	No	Yes	No	Yes	No	No	No	No	Yes	No	No
50th-Percentile Queue Length [veh]	0.16	11.61	0.00	2.32	9.93	10.47	0.23	0.14	1.59	1.57	1.57
50th-Percentile Queue Length [ft]	3.98	290.30	0.08	57.97	248.31	261.81	5.63	3.43	39.69	39.35	39.16
95th-Percentile Queue Length [veh]	0.29	17.20	0.01	4.17	15.10	15.78	0.41	0.25	2.86	2.83	2.82
95th-Percentile Queue Length [ft]	7.17	430.01	0.15	104.35	377.52	394.49	10.13	6.18	71.45	70.84	70.49

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	48.98	31.80	0.00	51.48	26.85	27.17	22.59	18.76	18.76	21.83	20.29	20.29
Movement LOS	D	C	A	D	C	C	C	B	B	C	C	C
d_A, Approach Delay [s/veh]	30.17			29.38			21.02			20.79		
Approach LOS	C			C			C			C		
d_I, Intersection Delay [s/veh]	29.00											
Intersection LOS	C											
Intersection V/C	0.480											

Sequence

Ring 1	1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 26: Thompson Road-Morningside Drive / Frank Sinatra Drive

Control Type:	Signalized	Delay (sec / veh):	6.8
Analysis Method:	HCM 2010	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.395

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	150.00	100.00	100.00	90.00	100.00	100.00	90.00	100.00	100.00	130.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	85	16	30	19	36	13	12	459	227	63	457	18
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	5	4	22	22	0	50	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	88	17	31	20	37	19	16	499	258	66	525	19
Peak Hour Factor	0.8230	0.8230	0.8230	0.8230	0.8230	0.8230	0.8230	0.8230	0.8230	0.8230	0.8230	0.8230
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	27	5	9	6	11	6	5	152	78	20	159	6
Total Analysis Volume [veh/h]	107	21	38	24	45	23	19	606	313	80	638	23
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	7 - E/W
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	0	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	7	0	0	7	0	0	7	0	0	7	0
Maximum Green [s]	0	30	0	0	30	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	21	0	0	21	0	0	39	0	0	39	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No			No			No			No	
Maximum Recall		No			No			No			No	
Pedestrian Recall		No			No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	C	L	C	C	L	C	C
C, Cycle Length [s]	60	60	60	60	60	60	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	0.00	2.00	0.00	0.00	2.00	0.00	0.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	10	10	10	10	10	10	43	43	43	43	43	43
g / C, Green / Cycle	0.16	0.16	0.16	0.16	0.16	0.16	0.71	0.71	0.71	0.71	0.71	0.71
(v / s)_i Volume / Saturation Flow Rate	0.08	0.01	0.02	0.02	0.02	0.02	0.02	0.26	0.26	0.13	0.18	0.18
s, saturation flow rate [veh/h]	1328	1863	1583	1385	1863	1662	771	1863	1652	605	1863	1840
c, Capacity [veh/h]	258	295	251	275	295	263	595	1320	1170	470	1320	1303
d1, Uniform Delay [s]	26.18	21.50	21.78	24.07	21.66	21.70	4.53	3.45	3.45	6.17	3.11	3.11
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.06	0.10	0.28	0.13	0.17	0.22	0.10	0.80	0.90	0.79	0.46	0.46
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.41	0.07	0.15	0.09	0.12	0.13	0.03	0.37	0.37	0.17	0.25	0.25
d, Delay for Lane Group [s/veh]	27.24	21.60	22.06	24.20	21.83	21.91	4.63	4.25	4.35	6.96	3.56	3.57
Lane Group LOS	C	C	C	C	C	C	A	A	A	A	A	A
Critical Lane Group	Yes	No	No	No	No	No	No	No	Yes	No	No	No
50th-Percentile Queue Length [veh]	1.42	0.24	0.44	0.29	0.39	0.38	0.08	1.30	1.18	0.44	0.78	0.78
50th-Percentile Queue Length [ft]	35.62	5.88	10.89	7.25	9.71	9.57	1.90	32.42	29.57	11.11	19.62	19.45
95th-Percentile Queue Length [veh]	2.56	0.42	0.78	0.52	0.70	0.69	0.14	2.33	2.13	0.80	1.41	1.40
95th-Percentile Queue Length [ft]	64.11	10.59	19.60	13.06	17.48	17.23	3.42	58.35	53.23	19.99	35.31	35.00

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	27.24	21.60	22.06	24.20	21.85	21.91	4.63	4.27	4.35	6.96	3.57	3.57
Movement LOS	C	C	C	C	C	C	A	A	A	A	A	A
d_A, Approach Delay [s/veh]	25.34			22.48			4.30			3.93		
Approach LOS	C			C			A			A		
d_I, Intersection Delay [s/veh]	6.83											
Intersection LOS	A											
Intersection V/C	0.395											

Sequence

Ring 1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Opening Year Conditions
Alternative D

Intersection Level Of Service Report
Intersection 2: Date Palm Drive / Buddy Rogers Avenue

Control Type:	Two-way stop	Delay (sec / veh):	20.3
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.120

Intersection Setup

Name						
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00		40.00		40.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

Volumes

Name						
Base Volume Input [veh/h]	4	671	533	27	23	6
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	2.97	1.04	1.04	2.97	1.33	1.33
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	111	117	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	12	809	671	80	31	8
Peak Hour Factor	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	211	175	21	8	2
Total Analysis Volume [veh/h]	13	844	700	84	32	8
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.03	0.01	0.01	0.00	0.12	0.02
d_M, Delay for Movement [s/veh]	12.44	0.00	0.00	0.00	20.35	13.83
Movement LOS	B	A	A	A	C	B
95th-Percentile Queue Length [veh]	0.08	0.00	0.00	0.00	0.46	0.46
95th-Percentile Queue Length [ft]	2.01	0.00	0.00	0.00	11.55	11.55
d_A, Approach Delay [s/veh]	0.19		0.00		19.05	
Approach LOS	A		A		C	
d_I, Intersection Delay [s/veh]	0.55					
Intersection LOS	C					

Intersection Level Of Service Report
Intersection 3: Date Palm Drive / East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	13.5
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.792

Intersection Setup

Name						
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	1	2	0	0	0
Pocket Length [ft]	230.00	230.00	195.00	100.00	100.00	100.00
Speed [mph]	40.00		40.00		40.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		Yes		No	

Volumes

Name						
Base Volume Input [veh/h]	409	118	143	1125	1247	472
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	5	112	107	118	118	5
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	430	235	256	1288	1415	496
Peak Hour Factor	0.9560	0.9560	0.9560	0.9560	0.9560	0.9560
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	112	61	67	337	370	130
Total Analysis Volume [veh/h]	450	246	268	1347	1480	519
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	1 - E Palm Canyon Drive
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Split	Split	Protected	Permissive	Permissive	Overlap
Signal group	1	0	3	8	4	4
Auxiliary Signal Groups						3,4
Lead / Lag	Lead	-	Lead	-	-	-
Minimum Green [s]	7	0	7	7	7	7
Maximum Green [s]	30	0	30	30	30	30
Amber [s]	3.0	0.0	3.0	3.0	3.0	3.0
All red [s]	1.0	0.0	1.0	1.0	1.0	1.0
Split [s]	22	0	11	38	27	27
Vehicle Extension [s]	3.0	0.0	3.0	3.0	3.0	3.0
Walk [s]	5	0	0	5	5	5
Pedestrian Clearance [s]	10	0	0	10	10	10
Rest In Walk	No			No	No	
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0
Minimum Recall	No		No	No	No	No
Maximum Recall	No		No	No	No	No
Pedestrian Recall	No		No	No	No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	R	L	C	C	R
C, Cycle Length [s]	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	2.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	0.00
g_i, Effective Green Time [s]	12	12	12	40	24	40
g / C, Green / Cycle	0.20	0.20	0.20	0.66	0.40	0.66
(v / s)_i Volume / Saturation Flow Rate	0.09	0.16	0.10	0.27	0.29	0.33
s, saturation flow rate [veh/h]	5168	1583	2741	5074	5074	1583
c, Capacity [veh/h]	1054	323	559	3363	2023	1050
d1, Uniform Delay [s]	20.85	22.54	23.49	4.65	15.34	5.08
k, delay calibration	0.11	0.11	0.11	0.50	0.50	0.20
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.27	3.72	0.64	0.36	2.38	0.66
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

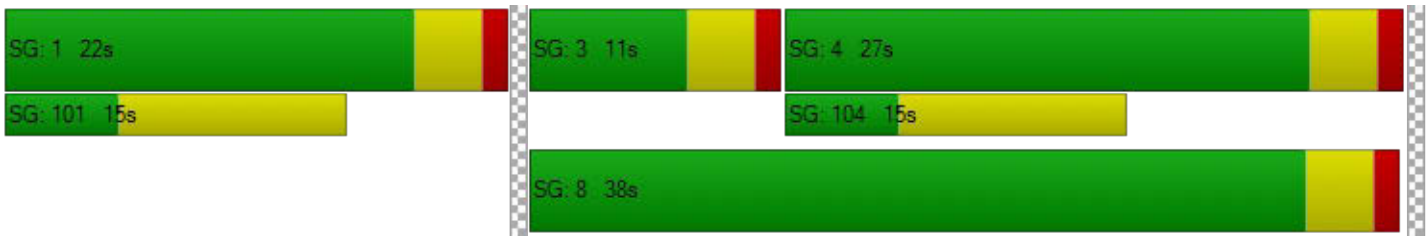
X, volume / capacity	0.43	0.76	0.48	0.40	0.73	0.49
d, Delay for Lane Group [s/veh]	21.13	26.26	24.13	5.01	17.72	5.74
Lane Group LOS	C	C	C	A	B	A
Critical Lane Group	No	Yes	No	No	Yes	Yes
50th-Percentile Queue Length [veh]	1.66	3.23	1.63	1.50	5.12	1.95
50th-Percentile Queue Length [ft]	41.52	80.76	40.80	37.61	127.88	48.84
95th-Percentile Queue Length [veh]	2.99	5.81	2.94	2.71	8.82	3.52
95th-Percentile Queue Length [ft]	74.74	145.36	73.44	67.70	220.62	87.91

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	21.13	26.26	24.13	5.01	17.72	5.74
Movement LOS	C	C	C	A	B	A
d_A, Approach Delay [s/veh]	22.94		8.18		14.61	
Approach LOS	C		A		B	
d_I, Intersection Delay [s/veh]	13.55					
Intersection LOS	B					
Intersection V/C	0.792					

Sequence

Ring 1	1	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 4: South Project Driveway-Allen Avenue / East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	5.0
Analysis Method:	HCM 2010	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.613

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	1	0	1	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	95.00	100.00	185.00	135.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	0	0	0	0	0	1	4	1262	0	0	1341	11
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	23	0	99	0	0	0	0	126	22	117	113	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	23	0	99	0	0	1	4	1438	22	117	1508	11
Peak Hour Factor	0.9120	0.9120	0.9120	0.9120	0.9120	0.9120	0.9120	0.9120	0.9120	0.9120	0.9120	0.9120
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	6	0	27	0	0	0	1	394	6	32	413	3
Total Analysis Volume [veh/h]	25	0	109	0	0	1	4	1577	24	128	1654	12
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	1 - E Palm Canyon Drive
Cycle Length [s]	80
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	0	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	7	0	0	7	0	0	7	0	0	7	0
Maximum Green [s]	0	30	0	0	30	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	20	0	0	20	0	0	60	0	0	60	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No			No			No			No	
Maximum Recall		No			No			No			No	
Pedestrian Recall		No			No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	L	C	L	C	R	L	C	R
C, Cycle Length [s]	80	80	80	80	80	80	80	80	80
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	2.00	0.00	2.00	0.00	0.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	8	8	8	64	64	64	64	64	64
g / C, Green / Cycle	0.10	0.10	0.10	0.80	0.80	0.80	0.80	0.80	0.80
(v / s)_i Volume / Saturation Flow Rate	0.09	0.00	0.00	0.01	0.31	0.02	0.40	0.47	0.01
s, saturation flow rate [veh/h]	1571	1279	1583	300	5074	1583	324	3547	1583
c, Capacity [veh/h]	218	96	166	263	4033	1259	306	2819	1259
d1, Uniform Delay [s]	34.94	0.00	32.02	7.28	2.44	1.71	7.36	3.15	1.69
k, delay calibration	0.11	0.11	0.11	0.50	0.50	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.78	0.00	0.01	0.11	0.29	0.03	4.17	0.90	0.01
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

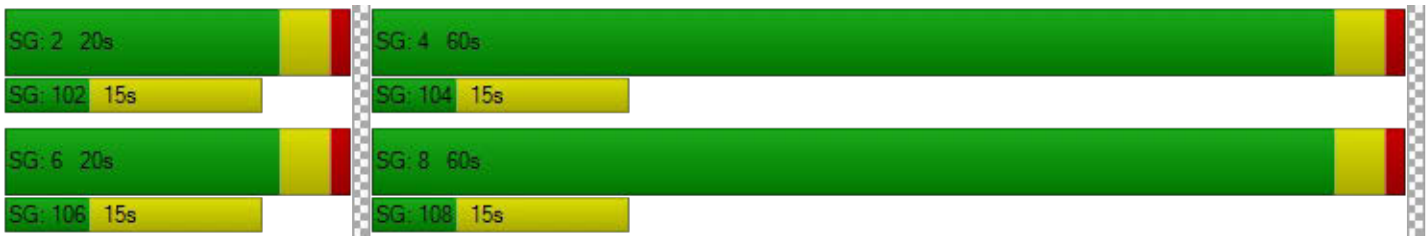
X, volume / capacity	0.61	0.00	0.01	0.02	0.39	0.02	0.42	0.59	0.01
d, Delay for Lane Group [s/veh]	37.72	0.00	32.04	7.39	2.72	1.73	11.54	4.05	1.71
Lane Group LOS	D	A	C	A	A	A	B	A	A
Critical Lane Group	Yes	No	No	No	No	No	No	Yes	No
50th-Percentile Queue Length [veh]	2.59	0.00	0.02	0.03	1.03	0.04	1.22	2.23	0.02
50th-Percentile Queue Length [ft]	64.78	0.00	0.43	0.81	25.72	0.98	30.38	55.66	0.49
95th-Percentile Queue Length [veh]	4.66	0.00	0.03	0.06	1.85	0.07	2.19	4.01	0.03
95th-Percentile Queue Length [ft]	116.61	0.00	0.77	1.45	46.30	1.76	54.68	100.18	0.87

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	37.72	37.72	37.72	0.00	32.04	32.04	7.39	2.72	1.73	11.54	4.05	1.71
Movement LOS	D	D	D	A	C	C	A	A	A	B	A	A
d_A, Approach Delay [s/veh]	37.72			32.04			2.72			4.57		
Approach LOS	D			C			A			A		
d_I, Intersection Delay [s/veh]	5.00											
Intersection LOS	A											
Intersection V/C	0.613											

Sequence

Ring 1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 5: Monty Hall Drive-Van Fleet Avenue / East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	10.5
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.688

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	1	0	1	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	45.00	100.00	100.00	105.00	100.00	130.00	125.00	100.00	180.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	11	7	55	12	6	12	6	1211	9	92	1276	16
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	58	0	23	0	0	0	0	125	56	0	136	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	69	7	80	12	6	12	6	1384	65	96	1463	17
Peak Hour Factor	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	18	2	21	3	2	3	2	363	17	25	383	4
Total Analysis Volume [veh/h]	72	7	84	13	6	13	6	1451	68	101	1534	18
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	1 - E Palm Canyon Drive
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	0	7	7	0	7	7	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	19	0	0	19	0	11	30	0	11	30	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	R	L	C	L	C	R	L	C	R
C, Cycle Length [s]	60	60	60	60	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	7	7	7	7	1	35	35	6	40	40
g / C, Green / Cycle	0.12	0.12	0.12	0.12	0.01	0.58	0.58	0.10	0.67	0.67
(v / s)_i Volume / Saturation Flow Rate	0.08	0.05	0.01	0.01	0.00	0.41	0.04	0.06	0.43	0.01
s, saturation flow rate [veh/h]	939	1583	1403	1662	1774	3547	1583	1774	3547	1583
c, Capacity [veh/h]	228	191	122	201	20	2071	925	169	2369	1057
d1, Uniform Delay [s]	26.71	24.49	30.01	23.46	29.43	8.79	5.43	26.05	5.83	3.35
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.90	1.58	0.38	0.20	7.97	2.00	0.15	3.36	1.38	0.03
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.35	0.44	0.11	0.09	0.30	0.70	0.07	0.60	0.65	0.02
d, Delay for Lane Group [s/veh]	27.61	26.08	30.39	23.67	37.40	10.79	5.58	29.42	7.22	3.38
Lane Group LOS	C	C	C	C	D	B	A	C	A	A
Critical Lane Group	Yes	No	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh]	1.06	1.09	0.19	0.23	0.12	5.02	0.30	1.42	3.46	0.05
50th-Percentile Queue Length [ft]	26.47	27.14	4.68	5.71	3.09	125.59	7.43	35.40	86.54	1.23
95th-Percentile Queue Length [veh]	1.91	1.95	0.34	0.41	0.22	8.70	0.53	2.55	6.23	0.09
95th-Percentile Queue Length [ft]	47.64	48.85	8.42	10.27	5.57	217.48	13.37	63.71	155.77	2.21

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	27.61	27.61	26.08	30.39	23.67	23.67	37.40	10.79	5.58	29.42	7.22	3.38
Movement LOS	C	C	C	C	C	C	D	B	A	C	A	A
d_A, Approach Delay [s/veh]	26.82			26.40			10.66			8.53		
Approach LOS	C			C			B			A		
d_I, Intersection Delay [s/veh]	10.55											
Intersection LOS	B											
Intersection V/C	0.688											

Sequence

Ring 1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 9: Buddy Rogers Avenue/ East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	3.5
Analysis Method:	HCM 2010	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.528

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	13	2	28	10	5	22	23	1186	3	42	1227	15
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	181	0	0	194	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	14	2	29	10	5	23	24	1414	3	44	1470	16
Peak Hour Factor	0.9310	0.9310	0.9310	0.9310	0.9310	0.9310	0.9310	0.9310	0.9310	0.9310	0.9310	0.9310
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	1	8	3	1	6	6	380	1	12	395	4
Total Analysis Volume [veh/h]	15	2	31	11	5	25	26	1519	3	47	1579	17
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	1 - E Palm Canyon Drive
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	7	0	0	7	0	0	7	0	0	7	0
Maximum Green [s]	0	30	0	0	30	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	19	0	0	19	0	0	101	0	0	101	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No			No			No			No	
Maximum Recall		No			No			No			No	
Pedestrian Recall		No			No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	C	L	C	R	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	2.00	2.00	0.00	0.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	6	6	106	106	106	106	106	106
g / C, Green / Cycle	0.05	0.05	0.89	0.89	0.89	0.89	0.89	0.89
(v / s)_i Volume / Saturation Flow Rate	0.03	0.03	0.08	0.43	0.00	0.14	0.45	0.01
s, saturation flow rate [veh/h]	1595	1626	323	3547	1583	342	3547	1583
c, Capacity [veh/h]	114	114	309	3144	1403	326	3144	1403
d1, Uniform Delay [s]	56.11	55.84	3.39	1.35	0.77	3.42	1.39	0.78
k, delay calibration	0.11	0.11	0.50	0.50	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.45	1.89	0.53	0.53	0.00	0.93	0.58	0.02
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.42	0.36	0.08	0.48	0.00	0.14	0.50	0.01
d, Delay for Lane Group [s/veh]	58.56	57.73	3.92	1.89	0.78	4.34	1.97	0.80
Lane Group LOS	E	E	A	A	A	A	A	A
Critical Lane Group	Yes	No	No	No	No	No	Yes	No
50th-Percentile Queue Length [veh]	1.48	1.26	0.17	0.82	0.00	0.30	0.88	0.01
50th-Percentile Queue Length [ft]	37.09	31.38	4.15	20.46	0.06	7.60	21.96	0.34
95th-Percentile Queue Length [veh]	2.67	2.26	0.30	1.47	0.00	0.55	1.58	0.02
95th-Percentile Queue Length [ft]	66.77	56.48	7.47	36.83	0.11	13.69	39.53	0.62

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	58.56	58.56	58.56	57.73	57.73	57.73	3.92	1.89	0.78	4.34	1.97	0.80
Movement LOS	E	E	E	E	E	E	A	A	A	A	A	A
d_A, Approach Delay [s/veh]	58.56			57.73			1.92			2.03		
Approach LOS	E			E			A			A		
d_I, Intersection Delay [s/veh]	3.50											
Intersection LOS	A											
Intersection V/C	0.528											

Sequence

Ring 1	2	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 10: Cathedral Canyon Drive / East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	19.7
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.642

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	0	1	0	0	1	0	1
Pocket Length [ft]	100.00	100.00	70.00	90.00	100.00	100.00	238.00	100.00	100.00	190.00	100.00	270.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	62	124	46	129	147	74	119	1056	74	66	998	157
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	2	0	4	45	0	15	9	132	4	8	140	46
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	66	129	52	179	153	92	133	1230	81	77	1178	209
Peak Hour Factor	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	17	34	14	47	40	24	35	321	21	20	307	54
Total Analysis Volume [veh/h]	69	135	54	187	160	96	139	1283	84	80	1228	218
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	1 - E Palm Canyon Drive
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Overlap	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	6	3	8	0	7	4	0
Auxiliary Signal Groups						3,6						
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	7	7	7	0	7	7	0
Maximum Green [s]	0	30	0	0	30	30	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	1.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	28	0	0	28	28	28	51	0	11	34	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	5	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	10	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No	No	No	No		No	No	
Maximum Recall		No			No	No	No	No		No	No	
Pedestrian Recall		No			No	No	No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	0.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	23	23	23	23	23	36	9	49	49	6	46	46
g / C, Green / Cycle	0.25	0.25	0.25	0.25	0.25	0.40	0.10	0.55	0.55	0.07	0.51	0.51
(v / s)_i Volume / Saturation Flow Rate	0.06	0.07	0.03	0.15	0.09	0.06	0.08	0.36	0.05	0.05	0.24	0.14
s, saturation flow rate [veh/h]	1221	1863	1583	1249	1863	1583	1774	3547	1583	1774	5074	1583
c, Capacity [veh/h]	272	466	396	291	466	627	179	1946	869	120	2614	816
d1, Uniform Delay [s]	33.90	27.27	26.19	36.56	27.67	17.48	39.46	14.36	9.68	40.98	13.96	12.27
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.49	0.34	0.15	2.37	0.43	0.11	6.98	1.77	0.22	6.23	0.61	0.80
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.25	0.29	0.14	0.64	0.34	0.15	0.77	0.66	0.10	0.67	0.47	0.27
d, Delay for Lane Group [s/veh]	34.39	27.61	26.34	38.93	28.10	17.60	46.44	16.13	9.90	47.21	14.57	13.07
Lane Group LOS	C	C	C	D	C	B	D	B	A	D	B	B
Critical Lane Group	No	No	No	Yes	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh]	1.33	2.28	0.88	4.02	2.75	1.22	3.23	8.49	0.76	1.88	4.90	2.41
50th-Percentile Queue Length [ft]	33.30	57.06	21.92	100.54	68.71	30.49	80.87	212.16	19.01	47.04	122.56	60.20
95th-Percentile Queue Length [veh]	2.40	4.11	1.58	7.24	4.95	2.20	5.82	13.26	1.37	3.39	8.53	4.33
95th-Percentile Queue Length [ft]	59.95	102.71	39.46	180.97	123.67	54.89	145.57	331.60	34.21	84.67	213.34	108.36

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	34.39	27.61	26.34	38.93	28.10	17.60	46.44	16.13	9.90	47.21	14.57	13.07
Movement LOS	C	C	C	D	C	B	D	B	A	D	B	B
d_A, Approach Delay [s/veh]	29.16			30.40			18.58			16.06		
Approach LOS	C			C			B			B		
d_I, Intersection Delay [s/veh]	19.69											
Intersection LOS	B											
Intersection V/C	0.642											

Sequence

Ring 1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 11: Perez Road / East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	25.0
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.728

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	150.00	100.00	100.00	170.00	100.00	45.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	34	24	15	19	8	347	269	1161	7	7	1128	12
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	2	0	0	0	0	143	0	2	155	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	35	25	18	20	8	361	280	1350	7	9	1328	12
Peak Hour Factor	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	9	7	5	5	2	95	74	357	2	2	351	3
Total Analysis Volume [veh/h]	37	26	19	21	8	382	296	1427	7	10	1404	13
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	0	7	7	0	7	7	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	19	0	0	19	0	20	71	0	11	62	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	R	L	C	C	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	7	7	17	17	17	13	78	78	2	68	68
g / C, Green / Cycle	0.05	0.05	0.14	0.14	0.14	0.11	0.65	0.65	0.02	0.56	0.56
(v / s)_i Volume / Saturation Flow Rate	0.02	0.03	0.01	0.12	0.12	0.09	0.27	0.27	0.01	0.40	0.01
s, saturation flow rate [veh/h]	1774	1734	1774	1593	1583	3445	3547	1858	1774	3547	1583
c, Capacity [veh/h]	98	96	252	226	225	365	2312	1211	31	1998	892
d1, Uniform Delay [s]	54.72	55.00	44.72	50.37	50.38	52.49	9.90	9.90	58.28	18.94	11.54
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.38	3.53	0.14	9.49	9.54	4.35	0.53	1.02	5.85	2.10	0.03
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

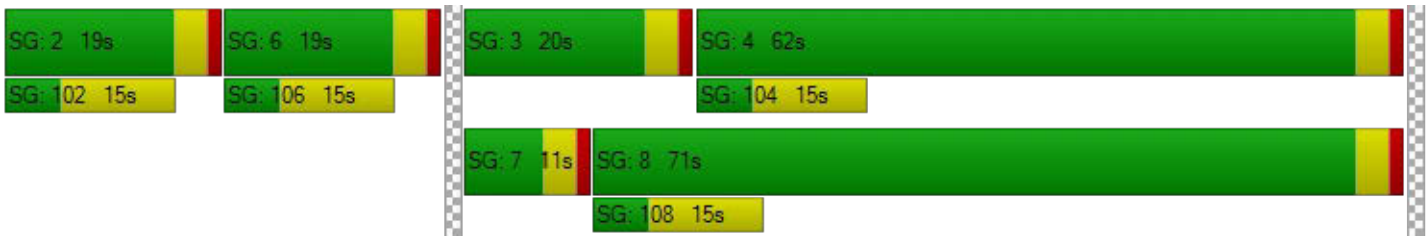
X, volume / capacity	0.38	0.47	0.08	0.86	0.86	0.81	0.41	0.41	0.32	0.70	0.01
d, Delay for Lane Group [s/veh]	57.09	58.54	44.86	59.86	59.92	56.84	10.43	10.92	64.13	21.03	11.57
Lane Group LOS	E	E	D	E	E	E	B	B	E	C	B
Critical Lane Group	No	Yes	No	No	Yes	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh]	1.13	1.40	0.55	6.23	6.19	4.51	5.45	5.88	0.35	13.61	0.15
50th-Percentile Queue Length [ft]	28.24	34.89	13.67	155.71	154.87	112.67	136.34	146.94	8.66	340.20	3.86
95th-Percentile Queue Length [veh]	2.03	2.51	0.98	10.32	10.28	7.99	9.28	9.85	0.62	19.66	0.28
95th-Percentile Queue Length [ft]	50.82	62.81	24.60	258.03	256.91	199.72	232.09	246.34	15.59	491.45	6.95

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	57.09	58.54	58.54	44.86	59.86	59.89	56.84	10.60	10.92	64.13	21.03	11.57
Movement LOS	E	E	E	D	E	E	E	B	B	E	C	B
d_A, Approach Delay [s/veh]	57.89			59.12			18.51			21.25		
Approach LOS	E			E			B			C		
d_I, Intersection Delay [s/veh]	25.04											
Intersection LOS	C											
Intersection V/C	0.728											

Sequence

Ring 1	2	6	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 12: Canyon Plaza Drive / East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	10.8
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.607

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	1	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	95.00	90.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	51	1	74	5	2	12	13	1375	26	51	1443	10
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	4	0	2	11	0	4	6	130	4	2	141	12
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	57	1	79	16	2	16	20	1560	31	55	1642	22
Peak Hour Factor	0.9550	0.9550	0.9550	0.9550	0.9550	0.9550	0.9550	0.9550	0.9550	0.9550	0.9550	0.9550
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	15	0	21	4	1	4	5	408	8	14	430	6
Total Analysis Volume [veh/h]	60	1	83	17	2	17	21	1634	32	58	1719	23
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	0	7	7	0	7	7	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	19	0	0	19	0	11	90	0	11	90	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	L	C	R	L	C	C
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	11	11	11	11	4	91	91	6	94	94
g / C, Green / Cycle	0.09	0.09	0.09	0.09	0.03	0.76	0.76	0.05	0.78	0.78
(v / s)_i Volume / Saturation Flow Rate	0.04	0.05	0.01	0.01	0.01	0.46	0.02	0.03	0.47	0.47
s, saturation flow rate [veh/h]	1388	1586	1308	1609	1774	3547	1583	1774	1863	1854
c, Capacity [veh/h]	141	140	84	142	52	2703	1207	89	1458	1451
d1, Uniform Delay [s]	55.56	52.69	58.56	50.50	57.19	6.30	3.47	55.98	5.33	5.35
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.01	4.11	1.17	0.43	4.92	1.01	0.04	7.92	1.82	1.84
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.42	0.60	0.20	0.13	0.40	0.60	0.03	0.65	0.60	0.60
d, Delay for Lane Group [s/veh]	57.57	56.80	59.73	50.92	62.11	7.31	3.51	63.91	7.15	7.19
Lane Group LOS	E	E	E	D	E	A	A	E	A	A
Critical Lane Group	No	Yes	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh]	1.84	2.56	0.53	0.54	0.69	7.36	0.16	1.89	7.16	7.18
50th-Percentile Queue Length [ft]	45.91	63.97	13.33	13.42	17.20	183.91	4.10	47.34	178.97	179.39
95th-Percentile Queue Length [veh]	3.31	4.61	0.96	0.97	1.24	11.80	0.30	3.41	11.55	11.57
95th-Percentile Queue Length [ft]	82.64	115.14	23.99	24.16	30.96	295.11	7.38	85.22	288.67	289.22

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	57.57	56.80	56.80	59.73	50.92	50.92	62.11	7.31	3.51	63.91	7.17	7.19
Movement LOS	E	E	E	E	D	D	E	A	A	E	A	A
d_A, Approach Delay [s/veh]	57.12			55.08			7.92			9.00		
Approach LOS	E			E			A			A		
d_I, Intersection Delay [s/veh]	10.84											
Intersection LOS	B											
Intersection V/C	0.607											

Sequence

Ring 1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 14: Cathedral Canyon Drive / Officer David Vasquez Road

Control Type:	Signalized	Delay (sec / veh):	4.7
Analysis Method:	HCM 2010	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.245

Intersection Setup

Name						
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	1	0	1	1
Pocket Length [ft]	100.00	100.00	205.00	100.00	120.00	120.00
Speed [mph]	40.00		40.00		40.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		Yes		Yes	

Volumes

Name						
Base Volume Input [veh/h]	417	5	25	404	6	53
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	55	0	0	60	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	489	5	26	480	6	55
Peak Hour Factor	0.9140	0.9140	0.9140	0.9140	0.9140	0.9140
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	134	1	7	131	2	15
Total Analysis Volume [veh/h]	535	5	28	525	7	60
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	2 - N. Cathedral Canyon Drive
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permissive	Permissive	Protected	Permissive	Split	Overlap
Signal group	2	0	1	6	7	7
Auxiliary Signal Groups						1,7
Lead / Lag	-	-	Lead	-	Lead	-
Minimum Green [s]	7	0	7	7	7	7
Maximum Green [s]	30	0	30	30	30	30
Amber [s]	3.0	0.0	3.0	3.0	3.0	3.0
All red [s]	1.0	0.0	1.0	1.0	1.0	1.0
Split [s]	30	0	11	41	19	19
Vehicle Extension [s]	3.0	0.0	3.0	3.0	3.0	3.0
Walk [s]	5	0	0	5	5	5
Pedestrian Clearance [s]	10	0	0	10	10	10
Rest In Walk	No			No	No	
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0
Minimum Recall	No		No	No	No	No
Maximum Recall	No		No	No	No	No
Pedestrian Recall	No		No	No	No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	C	L	C	L	R
C, Cycle Length [s]	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	0.00
g_i, Effective Green Time [s]	41	41	3	47	5	11
g / C, Green / Cycle	0.68	0.68	0.04	0.79	0.08	0.19
(v / s)_i Volume / Saturation Flow Rate	0.14	0.15	0.02	0.15	0.00	0.04
s, saturation flow rate [veh/h]	1863	1857	1774	3547	3445	1583
c, Capacity [veh/h]	1256	1252	81	2789	278	306
d1, Uniform Delay [s]	3.74	3.74	27.83	1.61	25.48	20.36
k, delay calibration	0.50	0.50	0.11	0.50	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.39	0.40	2.50	0.15	0.04	0.31
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

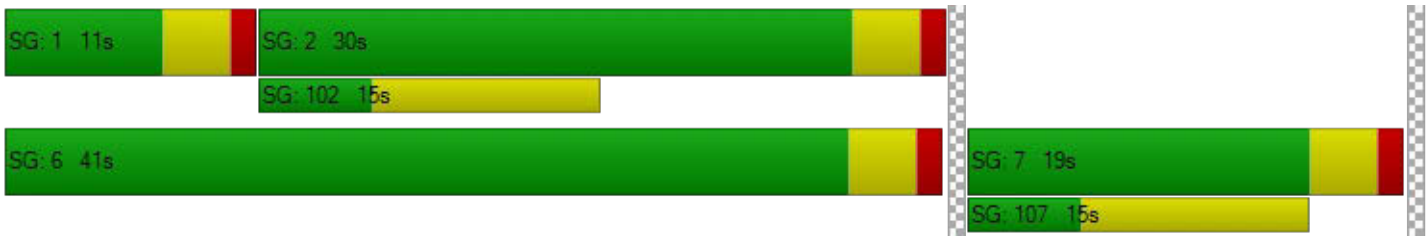
X, volume / capacity	0.22	0.22	0.34	0.19	0.03	0.20
d, Delay for Lane Group [s/veh]	4.13	4.13	30.32	1.76	25.51	20.68
Lane Group LOS	A	A	C	A	C	C
Critical Lane Group	No	Yes	Yes	No	No	Yes
50th-Percentile Queue Length [veh]	0.79	0.79	0.41	0.12	0.04	0.66
50th-Percentile Queue Length [ft]	19.77	19.79	10.37	3.09	1.09	16.51
95th-Percentile Queue Length [veh]	1.42	1.42	0.75	0.22	0.08	1.19
95th-Percentile Queue Length [ft]	35.58	35.62	18.67	5.57	1.96	29.71

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	4.13	4.13	30.32	1.76	25.51	20.68
Movement LOS	A	A	C	A	C	C
d_A, Approach Delay [s/veh]	4.13		3.21		21.18	
Approach LOS	A		A		C	
d_I, Intersection Delay [s/veh]	4.68					
Intersection LOS	A					
Intersection V/C	0.245					

Sequence

Ring 1	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 15: Cathedral Canyon Drive / Perez Road

Control Type:	Signalized	Delay (sec / veh):	25.8
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.603

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	1	1	0	0
Pocket Length [ft]	95.00	100.00	100.00	205.00	100.00	100.00	100.00	100.00	100.00	150.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	38	379	64	148	314	119	152	252	46	63	222	202
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	55	0	0	60	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	40	449	67	154	387	124	158	262	48	66	231	210
Peak Hour Factor	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	10	116	17	40	100	32	41	68	12	17	60	54
Total Analysis Volume [veh/h]	41	464	69	159	400	128	163	271	50	68	239	217
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	2 - N. Cathedral Canyon Drive
Cycle Length [s]	70
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	5.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	24	0	16	29	0	11	19	0	11	19	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	L	C	R	L	C	C
C, Cycle Length [s]	70	70	70	70	70	70	70	70	70	70	70	70
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	4	13	13	8	17	17	8	28	28	5	25	25
g / C, Green / Cycle	0.06	0.18	0.18	0.11	0.24	0.24	0.12	0.40	0.40	0.07	0.36	0.36
(v / s)_i Volume / Saturation Flow Rate	0.02	0.15	0.15	0.09	0.15	0.15	0.09	0.08	0.03	0.04	0.13	0.14
s, saturation flow rate [veh/h]	1774	1863	1780	1774	1863	1710	1774	3547	1583	1774	1863	1583
c, Capacity [veh/h]	101	346	330	203	453	416	209	1410	629	133	661	562
d1, Uniform Delay [s]	31.97	27.28	27.32	30.26	23.61	23.64	30.12	13.81	13.17	31.27	16.78	16.95
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.59	3.97	4.28	6.47	1.31	1.46	6.27	0.30	0.25	3.04	1.54	2.00
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

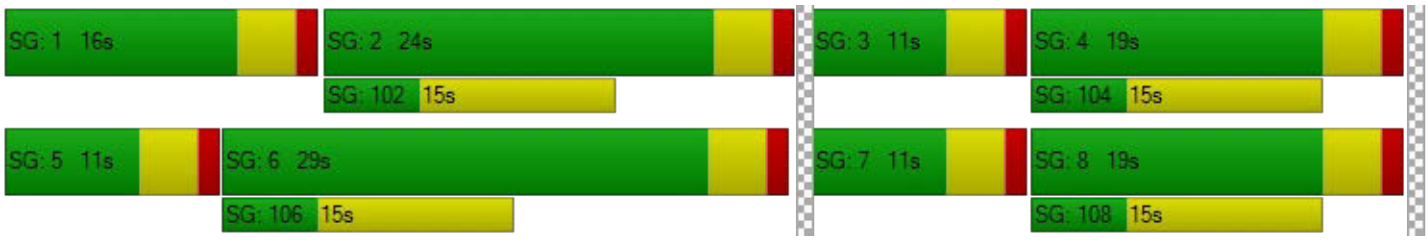
X, volume / capacity	0.40	0.79	0.79	0.78	0.61	0.61	0.78	0.19	0.08	0.51	0.36	0.39
d, Delay for Lane Group [s/veh]	34.56	31.25	31.60	36.73	24.92	25.10	36.39	14.11	13.42	34.30	18.32	18.96
Lane Group LOS	C	C	C	D	C	C	D	B	B	C	B	B
Critical Lane Group	No	No	Yes	Yes	No	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh]	0.70	4.37	4.24	2.80	3.84	3.57	2.85	1.29	0.47	1.15	2.80	2.62
50th-Percentile Queue Length [ft]	17.61	109.21	105.92	69.96	96.02	89.28	71.30	32.15	11.87	28.78	70.07	65.61
95th-Percentile Queue Length [veh]	1.27	7.80	7.61	5.04	6.91	6.43	5.13	2.31	0.85	2.07	5.04	4.72
95th-Percentile Queue Length [ft]	31.70	194.90	190.31	125.93	172.83	160.70	128.33	57.87	21.36	51.81	126.12	118.10

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	34.56	31.40	31.60	36.73	24.98	25.10	36.39	14.11	13.42	34.30	18.32	18.96
Movement LOS	C	C	C	D	C	C	D	B	B	C	B	B
d_A, Approach Delay [s/veh]	31.65			27.72			21.54			20.66		
Approach LOS	C			C			C			C		
d_I, Intersection Delay [s/veh]	25.76											
Intersection LOS	C											
Intersection V/C	0.603											

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 16: Cathedral Canyon Drive / Paseo Real

Control Type:	Two-way stop	Delay (sec / veh):	50.4
Analysis Method:	HCM 2010	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.034

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	0	0	0	0	0	0
Pocket Length [ft]	55.00	100.00	100.00	55.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name												
Base Volume Input [veh/h]	25	749	6	12	578	8	6	1	16	5	3	8
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	48	7	0	53	0	0	0	0	7	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	26	827	13	12	654	8	6	1	17	12	3	8
Peak Hour Factor	0.9370	0.9370	0.9370	0.9370	0.9370	0.9370	0.9370	0.9370	0.9370	0.9370	0.9370	0.9370
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	7	221	3	3	174	2	2	0	5	3	1	2
Total Analysis Volume [veh/h]	28	883	14	13	698	9	6	1	18	13	3	9
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.03	0.01	0.00	0.02	0.01	0.00	0.05	0.01	0.03	0.12	0.03	0.02
d_M, Delay for Movement [s/veh]	9.19	0.00	0.00	9.87	0.00	0.00	35.24	46.64	11.81	43.99	50.37	16.54
Movement LOS	A	A	A	A	A	A	E	E	B	E	F	C
95th-Percentile Queue Length [veh]	0.10	0.00	0.00	0.05	0.00	0.00	0.29	0.29	0.29	0.60	0.60	0.60
95th-Percentile Queue Length [ft]	2.44	0.00	0.00	1.32	0.00	0.00	7.14	7.14	7.14	15.00	15.00	15.00
d_A, Approach Delay [s/veh]	0.28			0.18			18.82			34.87		
Approach LOS	A			A			C			D		
d_I, Intersection Delay [s/veh]	1.02											
Intersection LOS	F											

Intersection Level Of Service Report
Intersection 17: Cathedral Canyon Drive / Dinah Shore Drive

Control Type:	Signalized	Delay (sec / veh):	39.6
Analysis Method:	HCM 2010	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.722

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	130.00	100.00	100.00	75.00	100.00	100.00	100.00	100.00	100.00	150.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	228	474	97	113	260	28	59	775	189	95	652	83
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	12	27	9	0	33	0	0	0	11	9	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	249	520	110	118	303	29	61	806	208	108	678	86
Peak Hour Factor	0.9340	0.9340	0.9340	0.9340	0.9340	0.9340	0.9340	0.9340	0.9340	0.9340	0.9340	0.9340
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	67	139	29	32	81	8	16	216	56	29	181	23
Total Analysis Volume [veh/h]	267	557	118	126	324	31	65	863	223	116	726	92
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	2 - N. Cathedral Canyon Drive
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	104.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	34	37	0	16	19	0	13	54	0	13	54	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	L	C	C	L	C	C
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	20	25	25	10	15	15	6	59	59	10	62	62
g / C, Green / Cycle	0.17	0.21	0.21	0.09	0.13	0.13	0.05	0.49	0.49	0.08	0.52	0.52
(v / s)_i Volume / Saturation Flow Rate	0.15	0.19	0.19	0.07	0.10	0.10	0.04	0.30	0.30	0.07	0.22	0.22
s, saturation flow rate [veh/h]	1774	1863	1751	1774	1863	1806	1774	1863	1733	1774	1863	1790
c, Capacity [veh/h]	298	390	367	153	238	230	93	914	850	143	966	929
d1, Uniform Delay [s]	48.90	46.12	46.12	53.97	50.57	50.61	55.97	22.32	22.35	54.29	17.91	17.91
k, delay calibration	0.16	0.20	0.20	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	12.84	11.94	12.58	10.56	4.85	5.15	9.22	3.10	3.34	10.38	1.41	1.46
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.90	0.89	0.89	0.82	0.76	0.76	0.70	0.62	0.62	0.81	0.43	0.43
d, Delay for Lane Group [s/veh]	61.74	58.06	58.70	64.53	55.42	55.76	65.19	25.42	25.69	64.67	19.32	19.37
Lane Group LOS	E	E	E	E	E	E	E	C	C	E	B	B
Critical Lane Group	No	No	Yes	Yes	No	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh]	8.73	11.14	10.54	4.13	5.44	5.34	2.14	11.76	11.03	3.80	7.20	6.93
50th-Percentile Queue Length [ft]	218.35	278.58	263.54	103.24	135.95	133.39	53.62	294.04	275.82	95.09	179.88	173.26
95th-Percentile Queue Length [veh]	13.58	16.62	15.87	7.43	9.26	9.12	3.86	17.39	16.48	6.85	11.59	11.25
95th-Percentile Queue Length [ft]	339.52	415.44	396.66	185.82	231.56	228.09	96.52	434.65	412.00	171.16	289.86	281.20

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	61.74	58.30	58.70	64.53	55.57	55.76	65.19	25.51	25.69	64.67	19.34	19.37
Movement LOS	E	E	E	E	E	E	E	C	C	E	B	B
d_A, Approach Delay [s/veh]	59.33			57.93			27.79			24.97		
Approach LOS	E			E			C			C		
d_I, Intersection Delay [s/veh]	39.64											
Intersection LOS	D											
Intersection V/C	0.722											

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 18: Date Palm Drive / Gerald Ford Drive

Control Type:	Signalized	Delay (sec / veh):	21.9
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.455

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	85.00	100.00	85.00	160.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			Yes			Yes			No		

Volumes

Name												
Base Volume Input [veh/h]	20	597	290	119	438	44	58	56	18	167	42	148
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	85	26	0	93	27	27	0	0	24	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	21	706	328	124	549	73	87	58	19	198	44	154
Peak Hour Factor	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	6	186	86	33	145	19	23	15	5	52	12	41
Total Analysis Volume [veh/h]	22	744	346	131	579	77	92	61	20	209	46	162
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	6 - N/S
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Split	Split	Split	Split	Split	Split
Signal group	5	2	0	1	6	0	3	8	0	7	4	4
Auxiliary Signal Groups												1,4
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	7	7	0	7	7	0	0	7	0	0	7	7
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	30
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	3.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	1.0
Split [s]	13	68	0	18	73	0	0	34	0	0	34	34
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	3.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	5
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	10
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	2.0
Minimum Recall	No	No		No	No			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	C	L	C	C	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.00	0.00	2.00	2.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	4	73	73	11	80	80	24	24	24	24	24	24
g / C, Green / Cycle	0.03	0.61	0.61	0.09	0.67	0.67	0.20	0.20	0.20	0.20	0.20	0.20
(v / s)_i Volume / Saturation Flow Rate	0.01	0.15	0.22	0.07	0.12	0.12	0.07	0.02	0.02	0.09	0.10	0.10
s, saturation flow rate [veh/h]	1774	5074	1583	1774	3547	1754	1354	1863	1711	1312	1299	1583
c, Capacity [veh/h]	54	3095	966	157	2371	1172	174	375	344	280	311	319
d1, Uniform Delay [s]	57.13	10.70	11.68	53.79	7.52	7.54	54.03	39.14	39.19	45.92	44.11	42.64
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	4.91	0.18	1.04	10.70	0.17	0.35	2.50	0.13	0.15	1.09	0.92	1.25
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.41	0.24	0.36	0.83	0.18	0.19	0.53	0.11	0.12	0.44	0.42	0.51
d, Delay for Lane Group [s/veh]	62.04	10.88	12.72	64.50	7.70	7.89	56.52	39.27	39.34	47.01	45.03	43.90
Lane Group LOS	E	B	B	E	A	A	E	D	D	D	D	D
Critical Lane Group	No	No	Yes	Yes	No	No	No	No	No	No	No	Yes
50th-Percentile Queue Length [veh]	0.72	2.86	4.56	4.29	1.98	2.05	2.80	0.99	0.97	3.41	3.56	4.31
50th-Percentile Queue Length [ft]	17.98	71.57	113.98	107.31	49.53	51.14	70.11	24.78	24.15	85.19	88.92	107.81
95th-Percentile Queue Length [veh]	1.29	5.15	8.06	7.69	3.57	3.68	5.05	1.78	1.74	6.13	6.40	7.72
95th-Percentile Queue Length [ft]	32.36	128.83	201.53	192.25	89.16	92.05	126.20	44.60	43.47	153.35	160.05	192.95

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	62.04	10.88	12.72	64.50	7.74	7.89	56.52	39.29	39.34	46.21	45.03	43.90
Movement LOS	E	B	B	E	A	A	E	D	D	D	D	D
d_A, Approach Delay [s/veh]	12.46			17.20			48.46			45.17		
Approach LOS	B			B			D			D		
d_I, Intersection Delay [s/veh]	21.95											
Intersection LOS	C											
Intersection V/C	0.455											

Sequence

Ring 1	1	2	-	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 19: Date Palm Drive / Dinah Shore Drive

Control Type:	Signalized	Delay (sec / veh):	36.2
Analysis Method:	HCM 2010	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.541

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	2	0	1	2	0	1	1	0	0	1	0	1
Pocket Length [ft]	225.00	100.00	125.00	170.00	100.00	50.00	150.00	100.00	100.00	130.00	100.00	180.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			No		

Volumes

Name												
Base Volume Input [veh/h]	231	614	79	115	586	73	102	576	215	69	537	117
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	89	23	9	98	0	0	0	0	22	0	9
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	240	728	105	129	707	76	106	599	224	94	558	131
Peak Hour Factor	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	65	198	29	35	192	21	29	163	61	26	152	36
Total Analysis Volume [veh/h]	261	792	114	140	769	83	115	652	244	102	607	143
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	1 - E Palm Canyon Drive
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Overlap
Signal group	5	2	0	1	6	0	3	8	0	7	4	4
Auxiliary Signal Groups												1,4
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	7
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	30
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	1.0
Split [s]	32	48	0	11	27	0	18	46	0	15	43	43
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	5
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	10
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0
Minimum Recall	No	No		No	No		No	No		No	No	No
Maximum Recall	No	No		No	No		No	No		No	No	No
Pedestrian Recall	No	No		No	No		No	No		No	No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	0.00
g_i, Effective Green Time [s]	12	63	63	7	58	58	10	26	26	9	25	36
g / C, Green / Cycle	0.10	0.52	0.52	0.06	0.49	0.49	0.08	0.21	0.21	0.07	0.20	0.30
(v / s)_i Volume / Saturation Flow Rate	0.08	0.16	0.07	0.04	0.15	0.05	0.06	0.18	0.15	0.06	0.17	0.09
s, saturation flow rate [veh/h]	3445	5074	1583	3445	5074	1583	1774	3547	1583	1774	3547	1583
c, Capacity [veh/h]	333	2654	828	203	2464	769	142	755	337	127	726	470
d1, Uniform Delay [s]	53.01	16.18	14.71	55.40	18.72	16.76	54.34	45.58	43.98	54.88	45.82	32.61
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	4.09	0.29	0.35	4.10	0.33	0.28	10.48	3.11	2.96	10.96	2.64	0.36
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.78	0.30	0.14	0.69	0.31	0.11	0.81	0.86	0.72	0.80	0.84	0.30
d, Delay for Lane Group [s/veh]	57.10	16.47	15.06	59.50	19.05	17.05	64.82	48.69	46.94	65.84	48.46	32.97
Lane Group LOS	E	B	B	E	B	B	E	D	D	E	D	C
Critical Lane Group	Yes	No	No	No	Yes	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh]	3.97	3.99	1.62	2.16	4.24	1.27	3.78	9.48	6.89	3.38	8.76	3.21
50th-Percentile Queue Length [ft]	99.30	99.82	40.50	54.06	106.06	31.71	94.40	236.96	172.16	84.42	218.91	80.24
95th-Percentile Queue Length [veh]	7.15	7.19	2.92	3.89	7.62	2.28	6.80	14.53	11.19	6.08	13.61	5.78
95th-Percentile Queue Length [ft]	178.74	179.68	72.89	97.30	190.50	57.08	169.92	363.19	279.75	151.96	340.23	144.43

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	57.10	16.47	15.06	59.50	19.05	17.05	64.82	48.69	46.94	65.84	48.46	32.97
Movement LOS	E	B	B	E	B	B	E	D	D	E	D	C
d_A, Approach Delay [s/veh]	25.42			24.59			50.10			47.94		
Approach LOS	C			C			D			D		
d_I, Intersection Delay [s/veh]	36.19											
Intersection LOS	D											
Intersection V/C	0.541											

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	



Intersection Level Of Service Report
Intersection 23: East Palm Canyon Drive / Frank Sinatra Drive

Control Type:	Signalized	Delay (sec / veh):	27.6
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.618

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	1	1	0	0	2	0	1
Pocket Length [ft]	160.00	100.00	45.00	325.00	100.00	250.00	100.00	100.00	100.00	120.00	100.00	1200.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			No			Yes		

Volumes

Name												
Base Volume Input [veh/h]	43	1314	198	296	1170	20	44	53	19	144	29	302
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	97	2	23	95	6	5	0	0	2	0	22
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	45	1464	208	331	1312	27	51	55	20	152	30	336
Peak Hour Factor	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	12	396	56	89	355	7	14	15	5	41	8	91
Total Analysis Volume [veh/h]	49	1583	225	358	1418	29	55	59	22	164	32	363
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	6 - N/S
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	66.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Overlap	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Overlap
Signal group	5	2	2	1	6	0	3	8	0	7	4	4
Auxiliary Signal Groups			1,2,3,4,									1,2,3,4,
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	7	7	7	0	7	7	0	7	7	7
Maximum Green [s]	30	30	30	30	30	0	30	30	0	30	30	30
Amber [s]	3.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0
All red [s]	1.0	1.0	1.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	1.0
Split [s]	13	63	63	27	77	0	11	19	0	11	19	19
Vehicle Extension [s]	3.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0
Walk [s]	0	5	5	0	5	0	0	5	0	0	5	5
Pedestrian Clearance [s]	0	10	10	0	10	0	0	10	0	0	10	10
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0
Minimum Recall	No	No	No	No	No		No	No		No	No	No
Maximum Recall	No	No	No	No	No		No	No		No	No	No
Pedestrian Recall	No	No	No	No	No		No	No		No	No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	0.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	0.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	2.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	7	47	212	20	60	60	9	27	9	28	212
g / C, Green / Cycle	0.06	0.39	1.77	0.17	0.50	0.50	0.07	0.23	0.08	0.23	1.77
(v / s)_i Volume / Saturation Flow Rate	0.03	0.31	0.14	0.13	0.28	0.02	0.04	0.05	0.05	0.02	0.23
s, saturation flow rate [veh/h]	1774	5074	1583	2741	5074	1583	1412	1778	3445	1863	1583
c, Capacity [veh/h]	104	1990	2797	477	2551	796	136	403	271	436	2797
d1, Uniform Delay [s]	54.71	32.23	0.00	49.62	20.58	15.11	55.92	37.60	53.46	35.80	0.00
k, delay calibration	0.11	0.11	0.13	0.11	0.11	0.11	0.11	0.50	0.11	0.50	0.39
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	3.33	0.75	0.02	2.41	0.19	0.02	1.94	1.12	2.16	0.33	0.07
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.47	0.80	0.08	0.75	0.56	0.04	0.41	0.20	0.60	0.07	0.13
d, Delay for Lane Group [s/veh]	58.04	32.98	0.02	52.03	20.77	15.13	57.86	38.72	55.62	36.12	0.07
Lane Group LOS	E	C	A	D	C	B	E	D	E	D	A
Critical Lane Group	No	Yes	No	Yes	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh]	1.51	13.12	0.01	5.29	8.73	0.40	1.69	2.03	2.44	0.76	0.06
50th-Percentile Queue Length [ft]	37.73	328.03	0.29	132.30	218.21	9.88	42.17	50.74	60.95	19.06	1.45
95th-Percentile Queue Length [veh]	2.72	19.06	0.02	9.06	13.57	0.71	3.04	3.65	4.39	1.37	0.10
95th-Percentile Queue Length [ft]	67.91	476.54	0.53	226.61	339.34	17.78	75.91	91.33	109.71	34.30	2.62

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	58.04	32.98	0.02	52.03	20.77	15.13	57.86	38.72	38.72	55.62	36.12	0.07
Movement LOS	E	C	A	D	C	B	E	D	D	E	D	A
d_A, Approach Delay [s/veh]	29.65			26.88			46.46			18.44		
Approach LOS	C			C			D			B		
d_I, Intersection Delay [s/veh]	27.59											
Intersection LOS	C											
Intersection V/C	0.618											

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 24: East Palm Canyon Drive / Mirage Cove Drive

Control Type:	Signalized	Delay (sec / veh):	35.5
Analysis Method:	HCM 2010	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.422

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	1	1	0	0
Pocket Length [ft]	150.00	100.00	100.00	110.00	100.00	100.00	75.00	100.00	75.00	75.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	16	1475	9	16	1379	15	35	0	20	6	0	26
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	77	0	22	71	4	3	0	0	0	0	19
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	17	1611	9	39	1505	20	39	0	21	6	0	46
Peak Hour Factor	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	5	435	2	11	407	5	11	0	6	2	0	12
Total Analysis Volume [veh/h]	18	1742	10	42	1627	22	42	0	23	6	0	50
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	6 - N/S
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	5	2	0	1	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	7	7	0	7	7	0	0	7	0	0	7	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	11	80	0	21	90	0	0	19	0	0	19	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No	No		No	No			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	L	C	R	L	C
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.00	0.00	2.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	3	45	45	5	47	47	58	58	58	58	58
g / C, Green / Cycle	0.03	0.37	0.37	0.04	0.39	0.39	0.48	0.48	0.48	0.48	0.48
(v / s)_i Volume / Saturation Flow Rate	0.01	0.32	0.32	0.02	0.31	0.31	0.03	0.00	0.01	0.00	0.03
s, saturation flow rate [veh/h]	1774	3547	1857	1774	3547	1850	1349	1863	1583	1412	1583
c, Capacity [veh/h]	50	1316	689	81	1378	719	662	900	765	714	765
d1, Uniform Delay [s]	57.21	35.07	35.08	55.93	32.26	32.26	18.97	0.00	16.23	17.35	16.52
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	4.40	1.97	3.67	5.12	1.03	1.95	0.18	0.00	0.07	0.02	0.16
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.36	0.87	0.87	0.52	0.79	0.79	0.06	0.00	0.03	0.01	0.07
d, Delay for Lane Group [s/veh]	61.60	37.05	38.74	61.04	33.29	34.21	19.15	0.00	16.31	17.37	16.68
Lane Group LOS	E	D	D	E	C	C	B	A	B	B	B
Critical Lane Group	No	No	Yes	Yes	No	No	No	No	No	No	Yes
50th-Percentile Queue Length [veh]	0.59	15.33	16.38	1.34	13.47	14.24	0.69	0.00	0.34	0.09	0.75
50th-Percentile Queue Length [ft]	14.73	383.26	409.59	33.50	336.73	356.00	17.21	0.00	8.48	2.30	18.77
95th-Percentile Queue Length [veh]	1.06	21.75	23.02	2.41	19.49	20.43	1.24	0.00	0.61	0.17	1.35
95th-Percentile Queue Length [ft]	26.52	543.79	575.54	60.30	487.21	510.72	30.97	0.00	15.26	4.13	33.78

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	61.60	37.62	38.74	61.04	33.60	34.21	19.15	0.00	16.31	17.37	16.68	16.68
Movement LOS	E	D	D	E	C	C	B	A	B	B	B	B
d_A, Approach Delay [s/veh]	37.87			34.28			18.14			16.76		
Approach LOS	D			C			B			B		
d_I, Intersection Delay [s/veh]	35.49											
Intersection LOS	D											
Intersection V/C	0.422											

Sequence

Ring 1	1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 27: Van Fleet Street / B Street-West Project Driveway

Control Type:	Two-way stop	Delay (sec / veh):	12.2
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.013

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	2	80	0	0	80	14	6	0	4	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	23	0	56	0	0	0	13	0	0	14	58
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	2	106	0	56	83	15	6	13	4	0	14	58
Peak Hour Factor	0.8940	0.8940	0.8940	0.8940	0.8940	0.8940	0.8940	0.8940	0.8940	0.8940	0.8940	0.8940
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	30	0	16	23	4	2	4	1	0	4	16
Total Analysis Volume [veh/h]	2	119	0	63	93	17	7	15	4	0	16	65
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.04	0.00	0.00	0.01	0.03	0.00	0.00	0.03	0.07
d_M, Delay for Movement [s/veh]	7.44	0.00	0.00	7.56	0.00	0.00	12.17	11.88	9.07	11.92	12.14	9.35
Movement LOS	A	A	A	A	A	A	B	B	A	B	B	A
95th-Percentile Queue Length [veh]	0.27	0.27	0.27	0.40	0.40	0.40	0.14	0.14	0.14	0.33	0.33	0.33
95th-Percentile Queue Length [ft]	6.67	6.67	6.67	9.99	9.99	9.99	3.53	3.53	3.53	8.24	8.24	8.24
d_A, Approach Delay [s/veh]	0.12			2.75			11.52			9.90		
Approach LOS	A			A			B			A		
d_I, Intersection Delay [s/veh]	3.97											
Intersection LOS	B											

Intersection Level Of Service Report
Intersection 28: Van Fleet Street / D Street

Control Type:	Two-way stop	Delay (sec / veh):	10.4
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.013

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	3	64	1	3	71	6	10	1	2	2	1	6
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	7	0	0	0	0	7	0	7	7	23
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	3	67	8	3	74	6	10	8	2	9	8	29
Peak Hour Factor	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	20	2	1	22	2	3	2	1	3	2	9
Total Analysis Volume [veh/h]	4	79	9	4	87	7	12	9	2	11	9	34
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.01	0.00	0.01	0.01	0.03
d_M, Delay for Movement [s/veh]	7.41	0.00	0.00	7.39	0.00	0.00	10.24	10.33	8.89	10.07	10.44	8.97
Movement LOS	A	A	A	A	A	A	B	B	A	B	B	A
95th-Percentile Queue Length [veh]	0.20	0.20	0.20	0.21	0.21	0.21	0.10	0.10	0.10	0.20	0.20	0.20
95th-Percentile Queue Length [ft]	4.89	4.89	4.89	5.21	5.21	5.21	2.47	2.47	2.47	4.98	4.98	4.98
d_A, Approach Delay [s/veh]	0.32			0.30			10.16			9.44		
Approach LOS	A			A			B			A		
d_I, Intersection Delay [s/veh]	3.00											
Intersection LOS	B											

Intersection Level Of Service Report
Intersection 29: South Project Driveway / D Street

Control Type:	Two-way stop	Delay (sec / veh):	8.9
Analysis Method:	HCM 2010	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

Intersection Setup

Name						
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00		40.00		40.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name						
Base Volume Input [veh/h]	0	0	0	5	9	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	37	14	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	37	14	5	9	0
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	10	4	1	2	0
Total Analysis Volume [veh/h]	0	40	15	5	10	0
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.04	0.01	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	8.89	8.49	7.26	0.00	0.00	0.00
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh]	0.12	0.12	0.04	0.04	0.00	0.00
95th-Percentile Queue Length [ft]	2.91	2.91	0.94	0.94	0.00	0.00
d_A, Approach Delay [s/veh]	8.49		5.44		0.00	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	6.41					
Intersection LOS	A					

Intersection Level Of Service Report
Intersection 2: Date Palm Drive / Buddy Rogers Avenue

Control Type:	Two-way stop	Delay (sec / veh):	20.6
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.149

Intersection Setup

Name						
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00		40.00		40.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

Volumes

Name						
Base Volume Input [veh/h]	4	492	513	25	29	14
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	2.97	1.04	1.04	2.97	1.33	1.33
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	114	169	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	12	626	703	74	39	19
Peak Hour Factor	0.9410	0.9410	0.9410	0.9410	0.9410	0.9410
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	166	187	20	10	5
Total Analysis Volume [veh/h]	13	665	747	79	41	20
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.03	0.01	0.01	0.00	0.15	0.04
d_M, Delay for Movement [s/veh]	12.80	0.00	0.00	0.00	20.62	14.73
Movement LOS	B	A	A	A	C	B
95th-Percentile Queue Length [veh]	0.08	0.00	0.00	0.00	0.68	0.68
95th-Percentile Queue Length [ft]	2.11	0.00	0.00	0.00	17.07	17.07
d_A, Approach Delay [s/veh]	0.25		0.00		18.69	
Approach LOS	A		A		C	
d_I, Intersection Delay [s/veh]	0.83					
Intersection LOS	C					

Intersection Level Of Service Report
Intersection 3: Date Palm Drive / East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	14.3
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.793

Intersection Setup

Name						
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	1	2	0	0	0
Pocket Length [ft]	230.00	230.00	195.00	100.00	100.00	100.00
Speed [mph]	40.00		40.00		40.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		Yes		No	

Volumes

Name						
Base Volume Input [veh/h]	339	121	149	1198	1174	347
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	8	161	106	126	174	8
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	361	287	261	1372	1395	369
Peak Hour Factor	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	97	77	70	369	375	99
Total Analysis Volume [veh/h]	388	309	281	1475	1500	397
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	1 - E Palm Canyon Drive
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Split	Split	Protected	Permissive	Permissive	Overlap
Signal group	1	0	3	8	4	4
Auxiliary Signal Groups						3,4
Lead / Lag	Lead	-	Lead	-	-	-
Minimum Green [s]	7	0	7	7	7	7
Maximum Green [s]	30	0	30	30	30	30
Amber [s]	3.0	0.0	3.0	3.0	3.0	3.0
All red [s]	1.0	0.0	1.0	1.0	1.0	1.0
Split [s]	22	0	11	38	27	27
Vehicle Extension [s]	3.0	0.0	3.0	3.0	3.0	3.0
Walk [s]	5	0	0	5	5	5
Pedestrian Clearance [s]	10	0	0	10	10	10
Rest In Walk	No			No	No	
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0
Minimum Recall	No		No	No	No	No
Maximum Recall	No		No	No	No	No
Pedestrian Recall	No		No	No	No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	R	L	C	C	R
C, Cycle Length [s]	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	2.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	0.00
g_i, Effective Green Time [s]	14	14	10	38	24	38
g / C, Green / Cycle	0.24	0.24	0.17	0.63	0.39	0.63
(v / s)_i Volume / Saturation Flow Rate	0.08	0.20	0.10	0.29	0.30	0.25
s, saturation flow rate [veh/h]	5168	1583	2741	5074	5074	1583
c, Capacity [veh/h]	1227	376	482	3193	1990	996
d1, Uniform Delay [s]	18.88	21.70	25.21	5.82	15.75	5.51
k, delay calibration	0.11	0.11	0.11	0.50	0.50	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.15	4.51	1.12	0.48	2.70	0.26
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

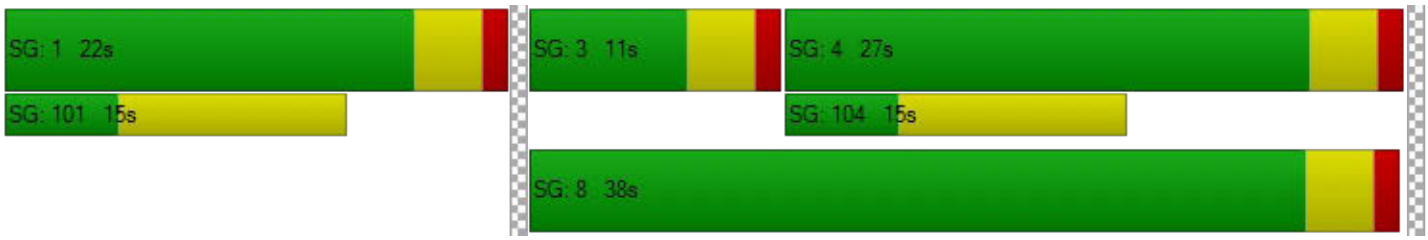
X, volume / capacity	0.32	0.82	0.58	0.46	0.75	0.40
d, Delay for Lane Group [s/veh]	19.03	26.21	26.34	6.30	18.46	5.77
Lane Group LOS	B	C	C	A	B	A
Critical Lane Group	No	Yes	No	No	Yes	Yes
50th-Percentile Queue Length [veh]	1.33	4.08	1.82	2.11	5.32	1.58
50th-Percentile Queue Length [ft]	33.23	101.88	45.44	52.75	133.12	39.38
95th-Percentile Queue Length [veh]	2.39	7.34	3.27	3.80	9.11	2.84
95th-Percentile Queue Length [ft]	59.81	183.38	81.80	94.96	227.73	70.89

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	19.03	26.21	26.34	6.30	18.46	5.77
Movement LOS	B	C	C	A	B	A
d_A, Approach Delay [s/veh]	22.21		9.51		15.80	
Approach LOS	C		A		B	
d_I, Intersection Delay [s/veh]	14.29					
Intersection LOS	B					
Intersection V/C	0.793					

Sequence

Ring 1	1	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 4: South Project Driveway-Allen Avenue / East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	5.2
Analysis Method:	HCM 2010	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.750

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	1	0	1	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	95.00	100.00	185.00	135.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	0	0	0	2	0	3	8	1365	0	0	1343	20
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	24	0	100	0	0	0	0	133	31	164	171	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	24	0	100	2	0	3	8	1553	31	164	1568	21
Peak Hour Factor	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	6	0	26	1	0	1	2	409	8	43	413	6
Total Analysis Volume [veh/h]	25	0	105	2	0	3	8	1636	33	173	1652	22
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	1 - E Palm Canyon Drive
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	0	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	7	0	0	7	0	0	7	0	0	7	0
Maximum Green [s]	0	30	0	0	30	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	19	0	0	19	0	0	41	0	0	41	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No			No			No			No	
Maximum Recall		No			No			No			No	
Pedestrian Recall		No			No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	L	C	L	C	R	L	C	R
C, Cycle Length [s]	60	60	60	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	2.00	0.00	2.00	0.00	0.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	6	6	6	46	46	46	46	46	46
g / C, Green / Cycle	0.11	0.11	0.11	0.76	0.76	0.76	0.76	0.76	0.76
(v / s)_i Volume / Saturation Flow Rate	0.08	0.00	0.00	0.03	0.32	0.02	0.57	0.47	0.01
s, saturation flow rate [veh/h]	1547	1284	1583	301	5074	1583	306	3547	1583
c, Capacity [veh/h]	237	130	169	269	3857	1203	303	2696	1203
d1, Uniform Delay [s]	26.14	29.61	24.01	7.84	2.55	1.77	11.18	3.24	1.75
k, delay calibration	0.11	0.11	0.11	0.50	0.50	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.99	0.05	0.04	0.20	0.34	0.04	7.63	1.05	0.03
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

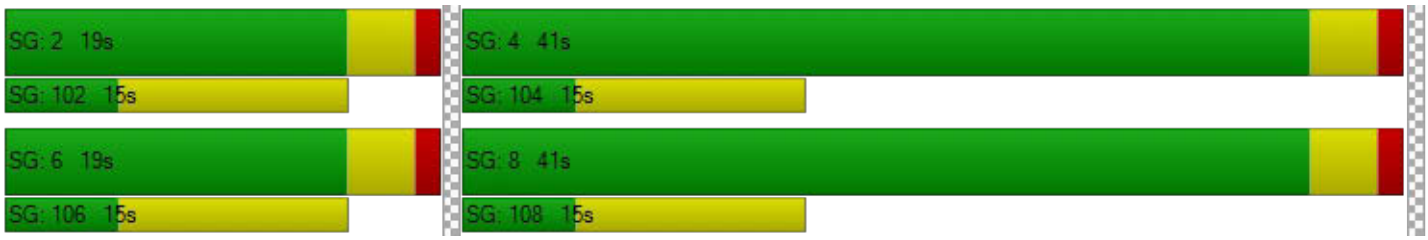
X, volume / capacity	0.55	0.02	0.02	0.03	0.42	0.03	0.57	0.61	0.02
d, Delay for Lane Group [s/veh]	28.13	29.66	24.05	8.04	2.89	1.81	18.82	4.29	1.78
Lane Group LOS	C	C	C	A	A	A	B	A	A
Critical Lane Group	Yes	No	No	No	No	No	Yes	No	No
50th-Percentile Queue Length [veh]	1.77	0.03	0.04	0.06	0.64	0.04	1.98	1.39	0.02
50th-Percentile Queue Length [ft]	44.34	0.70	0.92	1.42	16.06	0.90	49.43	34.79	0.59
95th-Percentile Queue Length [veh]	3.19	0.05	0.07	0.10	1.16	0.06	3.56	2.50	0.04
95th-Percentile Queue Length [ft]	79.81	1.27	1.65	2.56	28.90	1.61	88.98	62.62	1.07

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	28.13	28.13	28.13	29.66	24.05	24.05	8.04	2.89	1.81	18.82	4.29	1.78
Movement LOS	C	C	C	C	C	C	A	A	A	B	A	A
d_A, Approach Delay [s/veh]	28.13			26.29			2.90			5.62		
Approach LOS	C			C			A			A		
d_I, Intersection Delay [s/veh]	5.20											
Intersection LOS	A											
Intersection V/C	0.750											

Sequence

Ring 1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 5: Monty Hall Drive-Van Fleet Avenue / East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	10.2
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.633

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	1	0	1	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	45.00	100.00	100.00	105.00	100.00	130.00	125.00	100.00	180.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	11	1	44	10	9	12	13	1322	16	55	1290	10
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	59	0	24	0	0	0	0	140	76	0	195	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	70	1	70	10	9	12	14	1515	93	57	1537	10
Peak Hour Factor	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	18	0	18	3	2	3	4	395	24	15	401	3
Total Analysis Volume [veh/h]	73	1	73	10	9	13	15	1580	97	59	1603	10
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	1 - E Palm Canyon Drive
Cycle Length [s]	100
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	0	7	7	0	7	7	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	19	0	0	19	0	11	70	0	11	70	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	R	L	C	L	C	R	L	C	R
C, Cycle Length [s]	100	100	100	100	100	100	100	100	100	100
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	11	11	11	11	2	72	72	6	75	75
g / C, Green / Cycle	0.11	0.11	0.11	0.11	0.02	0.72	0.72	0.06	0.75	0.75
(v / s)_i Volume / Saturation Flow Rate	0.08	0.05	0.01	0.01	0.01	0.45	0.06	0.03	0.45	0.01
s, saturation flow rate [veh/h]	944	1583	1410	1687	1774	3547	1583	1774	3547	1583
c, Capacity [veh/h]	170	166	73	177	43	2549	1138	100	2664	1189
d1, Uniform Delay [s]	45.53	42.01	50.00	40.60	48.04	7.13	4.21	46.04	5.65	3.11
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.74	1.83	0.85	0.31	4.90	1.14	0.15	5.41	1.01	0.01
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

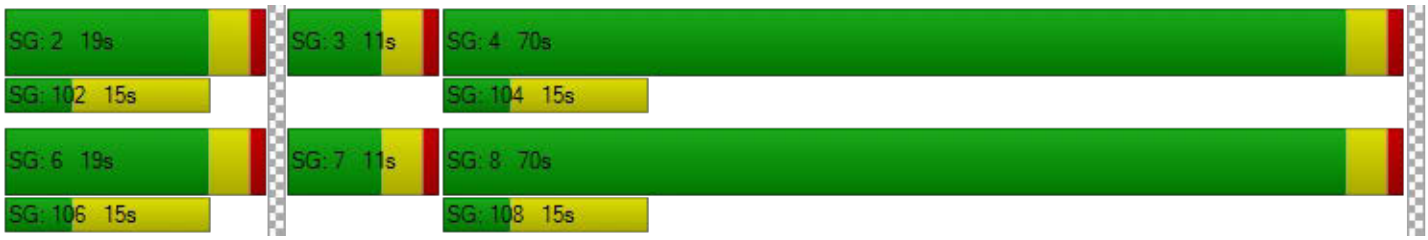
X, volume / capacity	0.43	0.44	0.14	0.12	0.35	0.62	0.09	0.59	0.60	0.01
d, Delay for Lane Group [s/veh]	47.27	43.83	50.85	40.91	52.94	8.28	4.36	51.45	6.66	3.13
Lane Group LOS	D	D	D	D	D	A	A	D	A	A
Critical Lane Group	Yes	No	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh]	1.84	1.73	0.26	0.50	0.42	6.79	0.51	1.55	5.61	0.04
50th-Percentile Queue Length [ft]	45.93	43.28	6.58	12.38	10.44	169.87	12.75	38.66	140.35	1.01
95th-Percentile Queue Length [veh]	3.31	3.12	0.47	0.89	0.75	11.07	0.92	2.78	9.50	0.07
95th-Percentile Queue Length [ft]	82.67	77.90	11.84	22.28	18.79	276.74	22.95	69.58	237.49	1.81

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	47.27	47.27	43.83	50.85	40.91	40.91	52.94	8.28	4.36	51.45	6.66	3.13
Movement LOS	D	D	D	D	D	D	D	A	A	D	A	A
d_A, Approach Delay [s/veh]	45.56			44.02			8.45			8.22		
Approach LOS	D			D			A			A		
d_I, Intersection Delay [s/veh]	10.20											
Intersection LOS	B											
Intersection V/C	0.633											

Sequence

Ring 1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 9: Buddy Rogers Avenue/ East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	4.0
Analysis Method:	HCM 2010	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.571

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	10	1	39	19	2	28	16	1309	2	16	1255	17
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	216	0	0	254	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	10	1	41	20	2	29	17	1577	2	17	1559	18
Peak Hour Factor	0.9360	0.9360	0.9360	0.9360	0.9360	0.9360	0.9360	0.9360	0.9360	0.9360	0.9360	0.9360
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	0	11	5	1	8	5	421	1	5	416	5
Total Analysis Volume [veh/h]	11	1	44	21	2	31	18	1685	2	18	1666	19
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	1 - E Palm Canyon Drive
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	7	0	0	7	0	0	7	0	0	7	0
Maximum Green [s]	0	30	0	0	30	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	19	0	0	19	0	0	101	0	0	101	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No			No			No			No	
Maximum Recall		No			No			No			No	
Pedestrian Recall		No			No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	C	L	C	R	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	2.00	2.00	0.00	0.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	6	6	106	106	106	106	106	106
g / C, Green / Cycle	0.05	0.05	0.88	0.88	0.88	0.88	0.88	0.88
(v / s)_i Volume / Saturation Flow Rate	0.03	0.04	0.06	0.48	0.00	0.06	0.47	0.01
s, saturation flow rate [veh/h]	1651	1387	297	3547	1583	291	3547	1583
c, Capacity [veh/h]	118	111	285	3134	1399	280	3134	1399
d1, Uniform Delay [s]	56.06	56.22	3.76	1.55	0.81	3.84	1.53	0.82
k, delay calibration	0.11	0.11	0.50	0.50	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.95	3.31	0.43	0.67	0.00	0.44	0.65	0.02
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.48	0.49	0.06	0.54	0.00	0.06	0.53	0.01
d, Delay for Lane Group [s/veh]	59.01	59.53	4.19	2.21	0.81	4.28	2.18	0.84
Lane Group LOS	E	E	A	A	A	A	A	A
Critical Lane Group	No	Yes	No	Yes	No	No	No	No
50th-Percentile Queue Length [veh]	1.74	1.69	0.12	1.14	0.00	0.13	1.12	0.02
50th-Percentile Queue Length [ft]	43.48	42.32	3.12	28.61	0.04	3.17	27.99	0.43
95th-Percentile Queue Length [veh]	3.13	3.05	0.22	2.06	0.00	0.23	2.01	0.03
95th-Percentile Queue Length [ft]	78.26	76.17	5.61	51.51	0.08	5.71	50.37	0.77

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	59.01	59.01	59.01	59.53	59.53	59.53	4.19	2.21	0.81	4.28	2.18	0.84
Movement LOS	E	E	E	E	E	E	A	A	A	A	A	A
d_A, Approach Delay [s/veh]	59.01			59.53			2.23			2.19		
Approach LOS	E			E			A			A		
d_I, Intersection Delay [s/veh]	3.99											
Intersection LOS	A											
Intersection V/C	0.571											

Sequence

Ring 1	2	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 10: Cathedral Canyon Drive / East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	22.2
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.665

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	0	1	0	0	1	0	1
Pocket Length [ft]	100.00	100.00	70.00	90.00	100.00	100.00	238.00	100.00	100.00	190.00	100.00	270.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	71	113	50	127	131	92	110	1151	77	61	1111	120
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	4	0	7	61	0	15	12	147	5	10	198	47
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	78	118	59	193	136	111	126	1344	85	73	1353	172
Peak Hour Factor	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	20	31	15	50	35	29	33	347	22	19	350	44
Total Analysis Volume [veh/h]	81	122	61	200	141	115	130	1390	88	75	1399	178
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	1 - E Palm Canyon Drive
Cycle Length [s]	110
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Overlap	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	6	3	8	0	7	4	0
Auxiliary Signal Groups						3,6						
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	7	7	7	0	7	7	0
Maximum Green [s]	0	30	0	0	30	30	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	1.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	34	0	0	34	34	26	65	0	11	50	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	5	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	10	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No	No	No	No		No	No	
Maximum Recall		No			No	No	No	No		No	No	
Pedestrian Recall		No			No	No	No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	110	110	110	110	110	110	110	110	110	110	110	110
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	0.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	27	27	27	27	27	42	10	64	64	6	60	60
g / C, Green / Cycle	0.25	0.25	0.25	0.25	0.25	0.38	0.09	0.58	0.58	0.06	0.55	0.55
(v / s)_i Volume / Saturation Flow Rate	0.07	0.07	0.04	0.16	0.08	0.07	0.07	0.39	0.06	0.04	0.28	0.11
s, saturation flow rate [veh/h]	1243	1863	1583	1264	1863	1583	1774	3547	1583	1774	5074	1583
c, Capacity [veh/h]	273	463	394	288	463	598	165	2072	925	103	2787	870
d1, Uniform Delay [s]	40.83	33.21	32.28	44.38	33.58	22.94	48.82	15.64	10.07	50.94	15.42	12.58
k, delay calibration	0.11	0.11	0.11	0.14	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.60	0.30	0.18	3.95	0.37	0.15	8.12	1.75	0.20	9.41	0.65	0.53
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

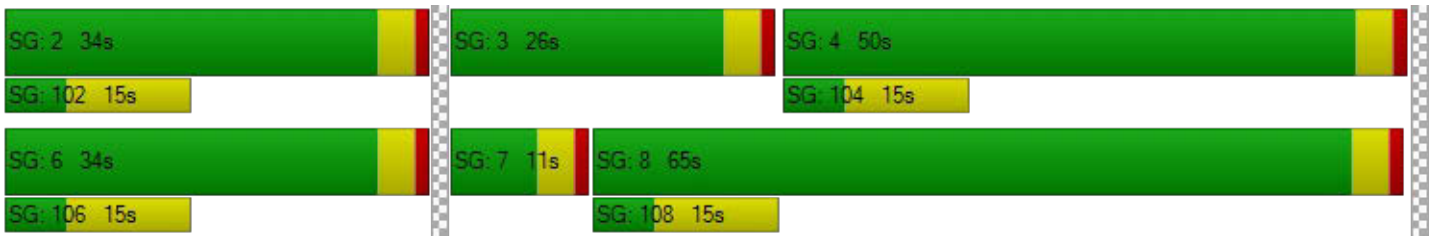
X, volume / capacity	0.30	0.26	0.15	0.70	0.30	0.19	0.79	0.67	0.10	0.73	0.50	0.20
d, Delay for Lane Group [s/veh]	41.43	33.51	32.46	48.34	33.95	23.10	56.94	17.39	10.27	60.35	16.07	13.12
Lane Group LOS	D	C	C	D	C	C	E	B	B	E	B	B
Critical Lane Group	No	No	No	Yes	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh]	1.96	2.60	1.26	5.50	3.04	1.97	3.79	11.21	0.93	2.26	6.89	2.22
50th-Percentile Queue Length [ft]	49.02	64.94	31.58	137.56	75.93	49.18	94.79	280.28	23.14	56.56	172.25	55.56
95th-Percentile Queue Length [veh]	3.53	4.68	2.27	9.35	5.47	3.54	6.83	16.70	1.67	4.07	11.19	4.00
95th-Percentile Queue Length [ft]	88.23	116.89	56.85	233.74	136.68	88.53	170.63	417.56	41.65	101.81	279.87	100.01

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	41.43	33.51	32.46	48.34	33.95	23.10	56.94	17.39	10.27	60.35	16.07	13.12
Movement LOS	D	C	C	D	C	C	E	B	B	E	B	B
d_A, Approach Delay [s/veh]	35.70			37.52			20.19			17.76		
Approach LOS	D			D			C			B		
d_I, Intersection Delay [s/veh]	22.20											
Intersection LOS	C											
Intersection V/C	0.665											

Sequence

Ring 1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 11: Perez Road / East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	19.2
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.703

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	150.00	100.00	100.00	170.00	100.00	45.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	9	9	4	17	10	257	212	1274	4	4	1270	21
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	5	0	0	0	0	159	0	5	211	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	9	9	9	18	10	267	220	1484	4	9	1532	22
Peak Hour Factor	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	2	2	5	3	69	56	381	1	2	393	6
Total Analysis Volume [veh/h]	9	9	9	18	10	274	226	1524	4	9	1573	23
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	0	7	7	0	7	7	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	19	0	0	19	0	13	40	0	42	69	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	R	L	C	C	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	4	4	13	13	13	10	85	85	2	77	77
g / C, Green / Cycle	0.04	0.04	0.11	0.11	0.11	0.08	0.71	0.71	0.02	0.64	0.64
(v / s)_i Volume / Saturation Flow Rate	0.01	0.01	0.01	0.09	0.09	0.07	0.28	0.28	0.01	0.44	0.01
s, saturation flow rate [veh/h]	1774	1712	1774	1600	1583	3445	3547	1860	1774	3547	1583
c, Capacity [veh/h]	63	61	194	175	173	292	2503	1313	29	2259	1008
d1, Uniform Delay [s]	56.13	56.44	48.10	52.27	52.27	53.81	7.25	7.25	58.41	14.22	8.03
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.03	2.67	0.20	8.81	8.95	4.35	0.48	0.91	6.16	1.80	0.04
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

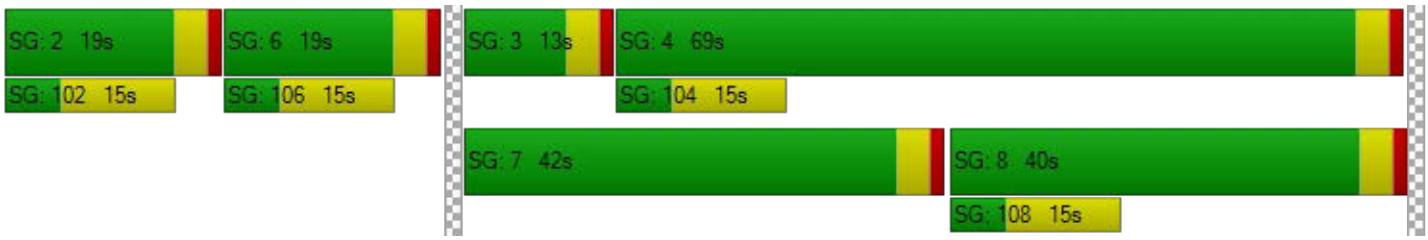
X, volume / capacity	0.14	0.30	0.09	0.81	0.82	0.77	0.40	0.40	0.32	0.70	0.02
d, Delay for Lane Group [s/veh]	57.15	59.10	48.30	61.08	61.23	58.16	7.73	8.16	64.58	16.02	8.07
Lane Group LOS	E	E	D	E	E	E	A	A	E	B	A
Critical Lane Group	No	Yes	No	No	Yes	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh]	0.28	0.57	0.49	4.56	4.52	3.46	4.67	5.06	0.32	12.93	0.22
50th-Percentile Queue Length [ft]	6.97	14.24	12.26	113.92	113.04	86.58	116.70	126.38	7.89	323.33	5.40
95th-Percentile Queue Length [veh]	0.50	1.03	0.88	8.06	8.01	6.23	8.21	8.74	0.57	18.83	0.39
95th-Percentile Queue Length [ft]	12.55	25.63	22.06	201.44	200.22	155.85	205.28	218.56	14.20	470.78	9.72

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	57.15	59.10	59.10	48.30	61.08	61.16	58.16	7.88	8.16	64.58	16.02	8.07
Movement LOS	E	E	E	D	E	E	E	A	A	E	B	A
d_A, Approach Delay [s/veh]	58.45			60.39			14.36			16.18		
Approach LOS	E			E			B			B		
d_I, Intersection Delay [s/veh]	19.24											
Intersection LOS	B											
Intersection V/C	0.703											

Sequence

Ring 1	2	6	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 12: Canyon Plaza Drive / East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	12.0
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.653

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	1	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	95.00	90.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	55	2	83	6	3	14	10	1457	39	56	1457	11
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	11	0	6	8	0	5	6	145	11	6	196	10
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	68	2	92	14	3	20	16	1660	52	64	1711	21
Peak Hour Factor	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	18	1	24	4	1	5	4	433	14	17	446	5
Total Analysis Volume [veh/h]	71	2	96	15	3	21	17	1731	54	67	1784	22
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	0	7	7	0	7	7	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	19	0	0	19	0	11	90	0	11	90	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	L	C	R	L	C	C
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	12	12	12	12	3	90	90	6	93	93
g / C, Green / Cycle	0.10	0.10	0.10	0.10	0.03	0.75	0.75	0.05	0.78	0.78
(v / s)_i Volume / Saturation Flow Rate	0.05	0.06	0.01	0.01	0.01	0.49	0.03	0.04	0.48	0.49
s, saturation flow rate [veh/h]	1381	1588	1292	1614	1774	3547	1583	1774	1863	1855
c, Capacity [veh/h]	153	157	88	160	45	2656	1186	92	1445	1439
d1, Uniform Delay [s]	55.05	51.90	58.14	49.44	57.55	7.39	3.92	56.02	5.86	5.88
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.19	3.99	0.92	0.43	5.18	1.26	0.07	10.25	2.05	2.08
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.47	0.62	0.17	0.15	0.38	0.65	0.05	0.73	0.63	0.63
d, Delay for Lane Group [s/veh]	57.24	55.90	59.06	49.87	62.73	8.65	3.99	66.28	7.92	7.96
Lane Group LOS	E	E	E	D	E	A	A	E	A	A
Critical Lane Group	No	Yes	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh]	2.17	2.96	0.47	0.67	0.57	8.99	0.31	2.23	8.10	8.13
50th-Percentile Queue Length [ft]	54.25	74.03	11.66	16.73	14.13	224.78	7.65	55.77	202.54	203.25
95th-Percentile Queue Length [veh]	3.91	5.33	0.84	1.20	1.02	13.91	0.55	4.02	12.77	12.81
95th-Percentile Queue Length [ft]	97.65	133.26	20.99	30.11	25.43	347.72	13.76	100.38	319.23	320.16

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	57.24	55.90	55.90	59.06	49.87	49.87	62.73	8.65	3.99	66.28	7.94	7.96
Movement LOS	E	E	E	E	D	D	E	A	A	E	A	A
d_A, Approach Delay [s/veh]	56.46			53.40			9.02			10.03		
Approach LOS	E			D			A			B		
d_I, Intersection Delay [s/veh]	12.02											
Intersection LOS	B											
Intersection V/C	0.653											

Sequence

Ring 1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 14: Cathedral Canyon Drive / Officer David Vasquez Road

Control Type:	Signalized	Delay (sec / veh):	3.8
Analysis Method:	HCM 2010	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.215

Intersection Setup

Name						
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	1	0	1	1
Pocket Length [ft]	100.00	100.00	205.00	100.00	120.00	120.00
Speed [mph]	40.00		40.00		40.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		Yes		Yes	

Volumes

Name						
Base Volume Input [veh/h]	344	7	17	370	7	32
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	59	0	0	76	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	417	7	18	461	7	33
Peak Hour Factor	0.8670	0.8670	0.8670	0.8670	0.8670	0.8670
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	120	2	5	133	2	10
Total Analysis Volume [veh/h]	481	8	21	532	8	38
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	2 - N. Cathedral Canyon Drive
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permissive	Permissive	Protected	Permissive	Split	Overlap
Signal group	2	0	1	6	7	7
Auxiliary Signal Groups						1,7
Lead / Lag	-	-	Lead	-	Lead	-
Minimum Green [s]	7	0	7	7	7	7
Maximum Green [s]	30	0	30	30	30	30
Amber [s]	3.0	0.0	3.0	3.0	3.0	3.0
All red [s]	1.0	0.0	1.0	1.0	1.0	1.0
Split [s]	30	0	11	41	19	19
Vehicle Extension [s]	3.0	0.0	3.0	3.0	3.0	3.0
Walk [s]	5	0	0	5	5	5
Pedestrian Clearance [s]	10	0	0	10	10	10
Rest In Walk	No			No	No	
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0
Minimum Recall	No		No	No	No	No
Maximum Recall	No		No	No	No	No
Pedestrian Recall	No		No	No	No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	C	L	C	L	R
C, Cycle Length [s]	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	0.00
g_i, Effective Green Time [s]	42	42	2	48	4	10
g / C, Green / Cycle	0.70	0.70	0.04	0.80	0.06	0.17
(v / s)_i Volume / Saturation Flow Rate	0.13	0.13	0.01	0.15	0.00	0.02
s, saturation flow rate [veh/h]	1863	1852	1774	3547	3445	1583
c, Capacity [veh/h]	1302	1295	65	2845	223	266
d1, Uniform Delay [s]	3.14	3.14	28.25	1.38	26.37	21.34
k, delay calibration	0.50	0.50	0.11	0.50	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.32	0.32	2.82	0.15	0.06	0.24
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

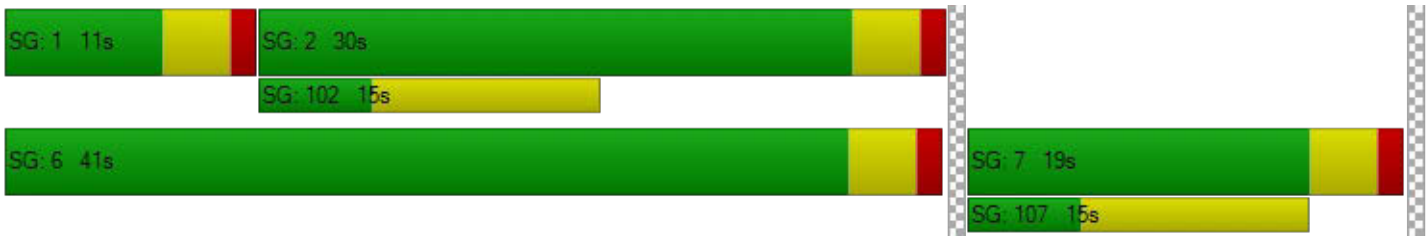
X, volume / capacity	0.19	0.19	0.32	0.19	0.04	0.14
d, Delay for Lane Group [s/veh]	3.46	3.46	31.06	1.53	26.44	21.58
Lane Group LOS	A	A	C	A	C	C
Critical Lane Group	No	No	No	Yes	No	Yes
50th-Percentile Queue Length [veh]	0.58	0.58	0.32	0.06	0.05	0.43
50th-Percentile Queue Length [ft]	14.52	14.55	8.05	1.44	1.28	10.75
95th-Percentile Queue Length [veh]	1.05	1.05	0.58	0.10	0.09	0.77
95th-Percentile Queue Length [ft]	26.13	26.19	14.49	2.59	2.31	19.35

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	3.46	3.46	31.06	1.53	26.44	21.58
Movement LOS	A	A	C	A	C	C
d_A, Approach Delay [s/veh]	3.46		2.65		22.43	
Approach LOS	A		A		C	
d_I, Intersection Delay [s/veh]	3.85					
Intersection LOS	A					
Intersection V/C	0.215					

Sequence

Ring 1	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 15: Cathedral Canyon Drive / Perez Road

Control Type:	Signalized	Delay (sec / veh):	22.4
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.469

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	1	1	0	0
Pocket Length [ft]	95.00	100.00	100.00	205.00	100.00	100.00	100.00	100.00	100.00	150.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	26	297	52	109	282	127	114	192	51	48	207	88
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	59	0	0	76	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	27	368	54	113	369	132	119	200	53	50	215	92
Peak Hour Factor	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	7	94	14	29	95	34	31	51	14	13	55	24
Total Analysis Volume [veh/h]	28	378	55	116	379	136	122	205	54	51	221	94
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	2 - N. Cathedral Canyon Drive
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	19	0	11	19	0	11	19	0	11	19	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	L	C	R	L	C	C
C, Cycle Length [s]	60	60	60	60	60	60	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	3	10	10	6	13	13	6	24	24	4	22	22
g / C, Green / Cycle	0.04	0.16	0.16	0.10	0.21	0.21	0.10	0.41	0.41	0.07	0.37	0.37
(v / s)_i Volume / Saturation Flow Rate	0.02	0.12	0.12	0.07	0.14	0.15	0.07	0.06	0.03	0.03	0.09	0.09
s, saturation flow rate [veh/h]	1774	1863	1782	1774	1863	1698	1774	3547	1583	1774	1863	1680
c, Capacity [veh/h]	82	297	284	181	400	365	181	1436	641	122	692	624
d1, Uniform Delay [s]	27.87	24.16	24.20	26.02	21.70	21.74	26.10	11.33	11.05	26.93	13.06	13.11
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.44	3.64	3.98	3.77	1.94	2.20	4.29	0.21	0.26	2.29	0.80	0.93
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.34	0.74	0.75	0.64	0.67	0.68	0.67	0.14	0.08	0.42	0.24	0.24
d, Delay for Lane Group [s/veh]	30.31	27.80	28.18	29.79	23.64	23.94	30.39	11.54	11.31	29.22	13.85	14.04
Lane Group LOS	C	C	C	C	C	C	C	B	B	C	B	B
Critical Lane Group	No	No	Yes	Yes	No	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh]	0.41	2.97	2.91	1.64	3.28	3.05	1.74	0.76	0.41	0.72	1.43	1.36
50th-Percentile Queue Length [ft]	10.37	74.34	72.65	40.99	81.95	76.25	43.62	18.93	10.34	18.00	35.66	33.99
95th-Percentile Queue Length [veh]	0.75	5.35	5.23	2.95	5.90	5.49	3.14	1.36	0.74	1.30	2.57	2.45
95th-Percentile Queue Length [ft]	18.66	133.82	130.78	73.77	147.51	137.24	78.52	34.08	18.62	32.39	64.19	61.18

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	30.31	27.96	28.18	29.79	23.73	23.94	30.39	11.54	11.31	29.22	13.90	14.04
Movement LOS	C	C	C	C	C	C	C	B	B	C	B	B
d_A, Approach Delay [s/veh]	28.13			24.89			17.54			16.07		
Approach LOS	C			C			B			B		
d_I, Intersection Delay [s/veh]	22.42											
Intersection LOS	C											
Intersection V/C	0.469											

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 16: Cathedral Canyon Drive / Paseo Real

Control Type:	Two-way stop	Delay (sec / veh):	29.9
Analysis Method:	HCM 2010	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.037

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	0	0	0	0	0	0
Pocket Length [ft]	55.00	100.00	100.00	55.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name												
Base Volume Input [veh/h]	11	482	9	16	509	19	11	5	16	9	6	14
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	52	7	0	67	0	0	0	0	9	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	11	553	16	17	596	20	11	5	17	18	6	15
Peak Hour Factor	0.9680	0.9680	0.9680	0.9680	0.9680	0.9680	0.9680	0.9680	0.9680	0.9680	0.9680	0.9680
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	143	4	4	154	5	3	1	4	5	2	4
Total Analysis Volume [veh/h]	11	571	17	18	616	21	11	5	18	19	6	15
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.01	0.00	0.02	0.01	0.00	0.06	0.03	0.03	0.09	0.04	0.02
d_M, Delay for Movement [s/veh]	8.86	0.00	0.00	8.73	0.00	0.00	25.33	28.89	11.89	25.48	29.88	12.62
Movement LOS	A	A	A	A	A	A	D	D	B	D	D	B
95th-Percentile Queue Length [veh]	0.04	0.00	0.00	0.06	0.00	0.00	0.38	0.38	0.38	0.53	0.53	0.53
95th-Percentile Queue Length [ft]	0.89	0.00	0.00	1.40	0.00	0.00	9.62	9.62	9.62	13.35	13.35	13.35
d_A, Approach Delay [s/veh]	0.16			0.24			18.74			21.32		
Approach LOS	A			A			C			C		
d_I, Intersection Delay [s/veh]	1.31											
Intersection LOS	D											

Intersection Level Of Service Report
Intersection 17: Cathedral Canyon Drive / Dinah Shore Drive

Control Type:	Signalized	Delay (sec / veh):	24.0
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.645

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	130.00	100.00	100.00	75.00	100.00	100.00	100.00	100.00	100.00	150.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	156	237	102	119	230	28	31	587	198	102	575	71
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	12	31	9	0	40	0	0	0	15	12	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	174	277	115	124	279	29	32	610	221	118	598	74
Peak Hour Factor	0.9700	0.9700	0.9700	0.9700	0.9700	0.9700	0.9700	0.9700	0.9700	0.9700	0.9700	0.9700
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	45	71	30	32	72	7	8	157	57	30	154	19
Total Analysis Volume [veh/h]	179	286	119	128	288	30	33	629	228	122	616	76
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	2 - N. Cathedral Canyon Drive
Cycle Length [s]	70
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	16	23	0	12	19	0	12	24	0	11	23	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	L	C	C	L	C	C
C, Cycle Length [s]	70	70	70	70	70	70	70	70	70	70	70	70
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	9	11	11	7	8	8	3	30	30	6	33	33
g / C, Green / Cycle	0.13	0.15	0.15	0.09	0.12	0.12	0.05	0.43	0.43	0.09	0.48	0.48
(v / s)_i Volume / Saturation Flow Rate	0.10	0.11	0.12	0.07	0.09	0.09	0.02	0.24	0.24	0.07	0.19	0.19
s, saturation flow rate [veh/h]	1774	1863	1681	1774	1863	1802	1774	1863	1696	1774	1863	1792
c, Capacity [veh/h]	225	287	259	166	226	218	87	807	734	162	886	852
d1, Uniform Delay [s]	29.80	28.35	28.41	31.10	29.70	29.73	32.38	14.87	14.88	31.14	11.92	11.92
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	6.32	3.66	4.29	7.31	4.15	4.43	2.72	2.76	3.03	6.87	1.34	1.39
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.80	0.74	0.75	0.77	0.71	0.72	0.38	0.56	0.56	0.75	0.40	0.40
d, Delay for Lane Group [s/veh]	36.12	32.01	32.70	38.41	33.85	34.15	35.10	17.63	17.90	38.02	13.26	13.31
Lane Group LOS	D	C	C	D	C	C	D	B	B	D	B	B
Critical Lane Group	Yes	No	No	No	No	Yes	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh]	3.12	3.43	3.19	2.32	2.69	2.64	0.58	5.15	4.75	2.19	3.30	3.19
50th-Percentile Queue Length [ft]	78.03	85.69	79.70	57.89	67.23	66.07	14.42	128.79	118.72	54.80	82.59	79.87
95th-Percentile Queue Length [veh]	5.62	6.17	5.74	4.17	4.84	4.76	1.04	8.87	8.32	3.95	5.95	5.75
95th-Percentile Queue Length [ft]	140.45	154.24	143.46	104.19	121.01	118.93	25.96	221.85	208.07	98.64	148.67	143.76

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	36.12	32.19	32.70	38.41	33.98	34.15	35.10	17.71	17.90	38.02	13.28	13.31
Movement LOS	D	C	C	D	C	C	D	B	B	D	B	B
d_A, Approach Delay [s/veh]	33.50			35.27			18.40			16.99		
Approach LOS	C			D			B			B		
d_I, Intersection Delay [s/veh]	23.96											
Intersection LOS	C											
Intersection V/C	0.645											

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 18: Date Palm Drive / Gerald Ford Drive

Control Type:	Signalized	Delay (sec / veh):	19.0
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.431

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	85.00	100.00	85.00	160.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			Yes			Yes			No		

Volumes

Name												
Base Volume Input [veh/h]	22	418	198	120	415	61	36	46	46	196	44	127
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	85	29	0	135	53	53	0	0	35	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	23	520	235	125	567	116	90	48	48	239	46	132
Peak Hour Factor	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	6	136	61	33	148	30	23	13	13	62	12	34
Total Analysis Volume [veh/h]	24	543	245	130	592	121	94	50	50	249	48	138
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	6 - N/S
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Split	Split	Split	Split	Split	Split
Signal group	5	2	0	1	6	0	3	8	0	7	4	4
Auxiliary Signal Groups												1,4
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	7	7	0	7	7	0	0	7	0	0	7	7
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	30
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	3.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	1.0
Split [s]	11	45	0	18	52	0	0	27	0	0	27	27
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	3.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	5
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	10
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	2.0
Minimum Recall	No	No		No	No			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	C	L	C	C	L	C	R
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.00	0.00	2.00	2.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	3	48	48	8	53	53	22	22	22	22	22	22
g / C, Green / Cycle	0.04	0.53	0.53	0.09	0.59	0.59	0.24	0.24	0.24	0.24	0.24	0.24
(v / s)_i Volume / Saturation Flow Rate	0.01	0.11	0.15	0.07	0.14	0.14	0.07	0.03	0.03	0.11	0.13	0.09
s, saturation flow rate [veh/h]	1774	5074	1583	1774	3547	1707	1352	1863	1583	1290	1217	1583
c, Capacity [veh/h]	62	2702	843	163	2088	1005	198	452	384	330	363	384
d1, Uniform Delay [s]	42.47	11.02	11.64	40.07	8.79	8.82	40.30	26.52	26.65	32.92	31.30	28.28
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	3.84	0.17	0.87	8.72	0.26	0.54	1.77	0.11	0.15	0.91	0.78	0.57
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.38	0.20	0.29	0.80	0.23	0.23	0.48	0.11	0.13	0.44	0.42	0.36
d, Delay for Lane Group [s/veh]	46.31	11.19	12.51	48.79	9.05	9.36	42.07	26.63	26.81	33.83	32.09	28.84
Lane Group LOS	D	B	B	D	A	A	D	C	C	C	C	C
Critical Lane Group	No	No	Yes	Yes	No	No	No	No	No	No	Yes	No
50th-Percentile Queue Length [veh]	0.57	1.74	2.63	3.11	2.00	2.04	2.06	0.81	0.82	2.80	2.91	2.41
50th-Percentile Queue Length [ft]	14.31	43.48	65.79	77.79	50.06	51.00	51.58	20.34	20.51	69.94	72.72	60.37
95th-Percentile Queue Length [veh]	1.03	3.13	4.74	5.60	3.60	3.67	3.71	1.46	1.48	5.04	5.24	4.35
95th-Percentile Queue Length [ft]	25.75	78.27	118.42	140.01	90.10	91.79	92.85	36.61	36.91	125.90	130.90	108.67

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	46.31	11.19	12.51	48.79	9.11	9.36	42.07	26.63	26.81	33.10	32.09	28.84
Movement LOS	D	B	B	D	A	A	D	C	C	C	C	C
d_A, Approach Delay [s/veh]	12.62			15.27			34.16			31.63		
Approach LOS	B			B			C			C		
d_I, Intersection Delay [s/veh]	19.05											
Intersection LOS	B											
Intersection V/C	0.431											

Sequence

Ring 1	1	2	-	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 19: Date Palm Drive / Dinah Shore Drive

Control Type:	Signalized	Delay (sec / veh):	30.0
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.492

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	2	0	1	2	0	1	1	0	0	1	0	1
Pocket Length [ft]	225.00	100.00	125.00	170.00	100.00	50.00	150.00	100.00	100.00	130.00	100.00	180.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			No		

Volumes

Name												
Base Volume Input [veh/h]	185	483	58	114	538	75	103	483	173	59	427	115
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	114	24	15	156	0	0	0	0	31	0	16
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	192	616	84	134	716	78	107	502	180	92	444	136
Peak Hour Factor	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	51	163	22	35	190	21	28	133	48	24	118	36
Total Analysis Volume [veh/h]	203	653	89	142	758	83	113	532	191	97	470	144
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	1 - E Palm Canyon Drive
Cycle Length [s]	100
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Overlap
Signal group	5	2	0	1	6	0	3	8	0	7	4	4
Auxiliary Signal Groups												1,4
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	7
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	30
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	1.0
Split [s]	19	27	0	11	19	0	30	44	0	18	32	32
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	5
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	10
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0
Minimum Recall	No	No		No	No		No	No		No	No	No
Maximum Recall	No	No		No	No		No	No		No	No	No
Pedestrian Recall	No	No		No	No		No	No		No	No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	100	100	100	100	100	100	100	100	100	100	100	100
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	0.00
g_i, Effective Green Time [s]	8	52	52	7	51	51	8	18	18	7	17	28
g / C, Green / Cycle	0.08	0.52	0.52	0.07	0.51	0.51	0.08	0.18	0.18	0.07	0.17	0.28
(v / s)_i Volume / Saturation Flow Rate	0.06	0.13	0.06	0.04	0.15	0.05	0.06	0.15	0.12	0.05	0.13	0.09
s, saturation flow rate [veh/h]	3445	5074	1583	3445	5074	1583	1774	3547	1583	1774	3547	1583
c, Capacity [veh/h]	280	2620	818	244	2567	801	145	647	289	125	608	447
d1, Uniform Delay [s]	44.91	13.44	12.41	45.09	14.37	12.90	45.09	39.37	38.06	45.75	39.63	28.39
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	3.57	0.23	0.27	2.20	0.29	0.26	8.69	2.69	2.58	9.71	2.14	0.41
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

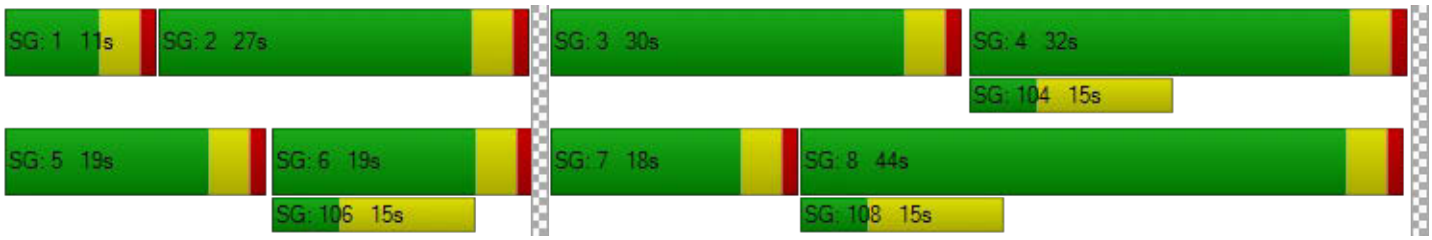
X, volume / capacity	0.73	0.25	0.11	0.58	0.30	0.10	0.78	0.82	0.66	0.77	0.77	0.32
d, Delay for Lane Group [s/veh]	48.48	13.67	12.68	47.29	14.66	13.16	53.78	42.06	40.64	55.46	41.77	28.80
Lane Group LOS	D	B	B	D	B	B	D	D	D	E	D	C
Critical Lane Group	Yes	No	No	No	Yes	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh]	2.53	2.57	1.01	1.74	3.15	0.97	3.03	6.31	4.42	2.65	5.52	2.69
50th-Percentile Queue Length [ft]	63.37	64.30	25.28	43.52	78.69	24.13	75.74	157.80	110.52	66.19	137.99	67.18
95th-Percentile Queue Length [veh]	4.56	4.63	1.82	3.13	5.67	1.74	5.45	10.43	7.87	4.77	9.37	4.84
95th-Percentile Queue Length [ft]	114.06	115.74	45.50	78.33	141.65	43.44	136.33	260.81	196.72	119.15	234.32	120.93

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	48.48	13.67	12.68	47.29	14.66	13.16	53.78	42.06	40.64	55.46	41.77	28.80
Movement LOS	D	B	B	D	B	B	D	D	D	E	D	C
d_A, Approach Delay [s/veh]	21.06			19.25			43.32			41.01		
Approach LOS	C			B			D			D		
d_I, Intersection Delay [s/veh]	29.98											
Intersection LOS	C											
Intersection V/C	0.492											

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 23: East Palm Canyon Drive / Frank Sinatra Drive

Control Type:	Signalized	Delay (sec / veh):	28.6
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.566

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	1	1	0	0	2	0	1
Pocket Length [ft]	160.00	100.00	45.00	325.00	100.00	250.00	100.00	100.00	100.00	120.00	100.00	1200.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			No			Yes		

Volumes

Name												
Base Volume Input [veh/h]	47	1301	147	214	1244	33	34	18	13	141	24	199
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	146	2	24	106	5	5	0	0	2	0	31
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	49	1499	155	247	1400	39	40	19	14	149	25	238
Peak Hour Factor	0.9210	0.9210	0.9210	0.9210	0.9210	0.9210	0.9210	0.9210	0.9210	0.9210	0.9210	0.9210
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	13	407	42	67	380	11	11	5	4	40	7	65
Total Analysis Volume [veh/h]	53	1628	168	268	1520	42	43	21	15	162	27	258
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	6 - N/S
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Overlap	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Overlap
Signal group	5	2	2	1	6	0	3	8	0	7	4	4
Auxiliary Signal Groups			1,2,3,4,									1,2,3,4,
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	7	7	7	0	7	7	0	7	7	7
Maximum Green [s]	30	30	30	30	30	0	30	30	0	30	30	30
Amber [s]	3.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0
All red [s]	1.0	1.0	1.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	1.0
Split [s]	12	68	68	22	78	0	11	19	0	11	19	19
Vehicle Extension [s]	3.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0
Walk [s]	0	5	5	0	5	0	0	5	0	0	5	5
Pedestrian Clearance [s]	0	10	10	0	10	0	0	10	0	0	10	10
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0
Minimum Recall	No	No	No	No	No		No	No		No	No	No
Maximum Recall	No	No	No	No	No		No	No		No	No	No
Pedestrian Recall	No	No	No	No	No		No	No		No	No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	0.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	0.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	2.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	7	48	212	16	58	58	7	30	9	33	212
g / C, Green / Cycle	0.06	0.40	1.77	0.13	0.48	0.48	0.06	0.25	0.07	0.27	1.77
(v / s)_i Volume / Saturation Flow Rate	0.03	0.32	0.11	0.10	0.30	0.03	0.03	0.02	0.05	0.01	0.16
s, saturation flow rate [veh/h]	1774	5074	1583	2741	5074	1583	1412	1735	3445	1863	1583
c, Capacity [veh/h]	104	2050	2797	379	2432	759	114	441	258	509	2797
d1, Uniform Delay [s]	54.84	31.39	0.00	51.92	23.23	16.71	57.25	34.10	53.87	32.15	0.00
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.11	0.50	0.20
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	3.87	0.73	0.01	2.43	0.27	0.03	2.05	0.36	2.49	0.20	0.03
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.51	0.79	0.06	0.71	0.63	0.06	0.38	0.08	0.63	0.05	0.09
d, Delay for Lane Group [s/veh]	58.71	32.11	0.01	54.35	23.50	16.74	59.30	34.46	56.36	32.35	0.03
Lane Group LOS	E	C	A	D	C	B	E	C	E	C	A
Critical Lane Group	No	Yes	No	Yes	No	No	No	No	Yes	No	Yes
50th-Percentile Queue Length [veh]	1.64	13.35	0.01	4.01	10.20	0.61	1.34	0.84	2.43	0.60	0.02
50th-Percentile Queue Length [ft]	41.09	333.70	0.17	100.17	255.06	15.28	33.46	20.89	60.66	15.01	0.50
95th-Percentile Queue Length [veh]	2.96	19.34	0.01	7.21	15.44	1.10	2.41	1.50	4.37	1.08	0.04
95th-Percentile Queue Length [ft]	73.97	483.49	0.31	180.30	386.02	27.51	60.23	37.61	109.20	27.02	0.89

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	58.71	32.11	0.01	54.35	23.50	16.74	59.30	34.46	34.46	56.36	32.35	0.03
Movement LOS	E	C	A	D	C	B	E	C	C	E	C	A
d_A, Approach Delay [s/veh]	29.96			27.86			47.98			22.40		
Approach LOS	C			C			D			C		
d_I, Intersection Delay [s/veh]	28.58											
Intersection LOS	C											
Intersection V/C	0.566											

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 24: East Palm Canyon Drive / Mirage Cove Drive

Control Type:	Signalized	Delay (sec / veh):	38.5
Analysis Method:	HCM 2010	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.413

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	1	1	0	0
Pocket Length [ft]	150.00	100.00	100.00	110.00	100.00	100.00	75.00	100.00	75.00	75.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	40	1394	6	23	1334	43	39	0	21	4	0	23
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	115	0	27	72	9	7	0	0	0	0	26
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	42	1565	6	51	1459	54	48	0	22	4	0	50
Peak Hour Factor	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	11	410	2	13	382	14	13	0	6	1	0	13
Total Analysis Volume [veh/h]	44	1640	6	53	1529	57	50	0	23	4	0	52
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	6 - N/S
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	5	2	0	1	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	7	7	0	7	7	0	0	7	0	0	7	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	11	71	0	30	90	0	0	19	0	0	19	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No	No		No	No			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	L	C	R	L	C
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.00	0.00	2.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	5	42	42	6	42	42	60	60	60	60	60
g / C, Green / Cycle	0.05	0.35	0.35	0.05	0.35	0.35	0.50	0.50	0.50	0.50	0.50
(v / s)_i Volume / Saturation Flow Rate	0.02	0.30	0.30	0.03	0.30	0.30	0.04	0.00	0.01	0.00	0.03
s, saturation flow rate [veh/h]	1774	3547	1859	1774	3547	1829	1347	1863	1583	1412	1583
c, Capacity [veh/h]	82	1234	647	88	1246	642	684	935	795	738	795
d1, Uniform Delay [s]	55.88	36.64	36.65	55.77	35.77	35.77	17.95	0.00	15.07	16.25	15.36
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	5.29	2.13	3.94	6.34	1.60	3.05	0.21	0.00	0.07	0.01	0.16
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.53	0.88	0.88	0.60	0.84	0.84	0.07	0.00	0.03	0.01	0.07
d, Delay for Lane Group [s/veh]	61.18	38.78	40.59	62.11	37.37	38.82	18.16	0.00	15.14	16.26	15.52
Lane Group LOS	E	D	D	E	D	D	B	A	B	B	B
Critical Lane Group	No	No	Yes	Yes	No	No	Yes	No	No	No	No
50th-Percentile Queue Length [veh]	1.40	14.63	15.66	1.70	13.83	14.52	0.79	0.00	0.32	0.06	0.75
50th-Percentile Queue Length [ft]	35.12	365.70	391.59	42.61	345.63	363.02	19.86	0.00	8.09	1.47	18.66
95th-Percentile Queue Length [veh]	2.53	20.90	22.15	3.07	19.92	20.77	1.43	0.00	0.58	0.11	1.34
95th-Percentile Queue Length [ft]	63.22	522.51	553.85	76.69	498.08	519.25	35.75	0.00	14.57	2.64	33.60

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	61.18	39.40	40.59	62.11	37.83	38.82	18.16	0.00	15.14	16.26	15.52	15.52
Movement LOS	E	D	D	E	D	D	B	A	B	B	B	B
d_A, Approach Delay [s/veh]	39.97			38.65			17.21			15.57		
Approach LOS	D			D			B			B		
d_I, Intersection Delay [s/veh]	38.47											
Intersection LOS	D											
Intersection V/C	0.413											

Sequence

Ring 1	1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 27: Van Fleet Street / B Street-West Project Driveway

Control Type:	Two-way stop	Delay (sec / veh):	12.8
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.014

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	1	41	0	0	50	15	5	0	3	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	24	0	76	0	0	0	19	0	0	14	59
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	1	67	0	76	52	16	5	19	3	0	14	59
Peak Hour Factor	0.7570	0.7570	0.7570	0.7570	0.7570	0.7570	0.7570	0.7570	0.7570	0.7570	0.7570	0.7570
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	22	0	25	17	5	2	6	1	0	5	19
Total Analysis Volume [veh/h]	1	89	0	100	69	21	7	25	4	0	18	78
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.07	0.00	0.00	0.01	0.05	0.00	0.00	0.04	0.08
d_M, Delay for Movement [s/veh]	7.39	0.00	0.00	7.56	0.00	0.00	12.83	12.40	9.14	12.48	12.59	9.28
Movement LOS	A	A	A	A	A	A	B	B	A	B	B	A
95th-Percentile Queue Length [veh]	0.19	0.19	0.19	0.43	0.43	0.43	0.21	0.21	0.21	0.39	0.39	0.39
95th-Percentile Queue Length [ft]	4.76	4.76	4.76	10.80	10.80	10.80	5.32	5.32	5.32	9.76	9.76	9.76
d_A, Approach Delay [s/veh]	0.08			3.98			12.12			9.90		
Approach LOS	A			A			B			A		
d_I, Intersection Delay [s/veh]	5.22											
Intersection LOS	B											

Intersection Level Of Service Report
Intersection 28: Van Fleet Street / D Street

Control Type:	Two-way stop	Delay (sec / veh):	9.9
Analysis Method:	HCM 2010	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.012

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	1	32	2	4	42	5	3	5	2	2	1	2
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	9	0	0	0	0	9	0	7	7	24
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	1	33	11	4	44	5	3	14	2	9	8	26
Peak Hour Factor	0.8710	0.8710	0.8710	0.8710	0.8710	0.8710	0.8710	0.8710	0.8710	0.8710	0.8710	0.8710
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	9	3	1	13	1	1	4	1	3	2	7
Total Analysis Volume [veh/h]	1	38	13	5	51	6	3	16	2	10	9	30
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.01	0.01	0.03
d_M, Delay for Movement [s/veh]	7.33	0.00	0.00	7.32	0.00	0.00	9.58	9.80	8.68	9.51	9.87	8.73
Movement LOS	A	A	A	A	A	A	A	A	A	A	A	A
95th-Percentile Queue Length [veh]	0.10	0.10	0.10	0.12	0.12	0.12	0.08	0.08	0.08	0.17	0.17	0.17
95th-Percentile Queue Length [ft]	2.61	2.61	2.61	3.11	3.11	3.11	2.04	2.04	2.04	4.18	4.18	4.18
d_A, Approach Delay [s/veh]	0.14			0.59			9.66			9.10		
Approach LOS	A			A			A			A		
d_I, Intersection Delay [s/veh]	3.76											
Intersection LOS	A											

Intersection Level Of Service Report
Intersection 29: South Project Driveway / D Street

Control Type:	Two-way stop	Delay (sec / veh):	9.0
Analysis Method:	HCM 2010	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

Intersection Setup

Name						
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00		40.00		40.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name						
Base Volume Input [veh/h]	0	0	0	5	9	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	38	18	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	38	18	5	9	0
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	10	5	1	2	0
Total Analysis Volume [veh/h]	0	41	20	5	10	0
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.04	0.01	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	8.96	8.49	7.26	0.00	0.00	0.00
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh]	0.12	0.12	0.05	0.05	0.00	0.00
95th-Percentile Queue Length [ft]	2.98	2.98	1.18	1.18	0.00	0.00
d_A, Approach Delay [s/veh]	8.49		5.81		0.00	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	6.49					
Intersection LOS	A					

Year 2040 Conditions
Alternative A

Traffic Impact Analysis

Vistro File: G:\...\2040 & Alt A.vistro
Report File: G:\...\2040 PM.pdf

Scenario 2 2040 PM
7/30/2018

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	North Project Driveway 1 / Buddy Rogers Avenue	Two-way stop	HCM 2010	NB Thru	0.000	9.5	A
2	Date Palm Drive / Buddy Rogers Avenue	Two-way stop	HCM 2010	EB Left	0.741	201.0	F
3	Date Palm Drive / East Palm Canyon Drive	Signalized	HCM 2010	WB Right	0.833	17.5	B
4	South Project Driveway-Allen Avenue / East Palm Canyon Drive	Signalized	HCM 2010	SB Right	0.360	0.8	A
5	Monty Hall Drive-Van Fleet Avenue / East Palm Canyon Drive	Signalized	HCM 2010	EB Left	0.495	7.4	A
6	Date Palm Drive / East Palm Drive	Two-way stop	HCM 2010	EB Right	0.000	19.2	C
7	North Project Driveway 2 / Buddy Rogers Avenue	Two-way stop	HCM 2010	NB Left	0.000	8.8	A
8	Monty Hall Drive / Buddy Rogers Avenue	All-way stop	HCM 2010	SB Left	0.077	7.5	A
9	Buddy Rogers Avenue/ East Palm Canyon Drive	Signalized	HCM 2010	NB Right	0.372	3.1	A
10	Cathedral Canyon Drive / East Palm Canyon Drive	Signalized	HCM 2010	SB Left	0.577	16.2	B
11	Perez Road / East Palm Canyon Drive	Signalized	HCM 2010	WB Left	0.729	28.8	C
12	Canyon Plaza Drive / East Palm Canyon Drive	Signalized	HCM 2010	WB Left	0.617	10.6	B
13	Golf Club Drive / East Palm Canyon Drive	Signalized	HCM 2010	EB Left	1.196	20.1	C
14	Cathedral Canyon Drive / Officer David Vasquez Road	Signalized	HCM 2010	SB Left	0.288	5.2	A
15	Cathedral Canyon Drive / Perez Road	Signalized	HCM 2010	EB Left	0.747	27.3	C
16	Cathedral Canyon Drive / Paseo Real	Two-way stop	HCM 2010	WB Thru	0.073	78.8	F

17	Cathedral Canyon Drive / Dinah Shore Drive	Signalized	HCM 2010	SB Left	0.896	48.5	D
18	Date Palm Drive / Gerald Ford Drive	Signalized	HCM 2010	EB Left	1.068	38.5	D
19	Date Palm Drive / Dinah Shore Drive	Signalized	HCM 2010	SB Left	0.801	41.1	D
20	Date Palm Drive / Ramon Road	Signalized	HCM 2010	WB Right	0.833	47.6	D
21	Da Vall Drive / Dinah Shore Drive	Signalized	HCM 2010	SB Left	0.857	37.6	D
22	Da Vall Drive / Gerald Ford Drive	Signalized	HCM 2010	SB Left	0.796	34.5	C
23	East Palm Canyon Drive / Frank Sinatra Drive	Signalized	HCM 2010	SB Left	0.985	47.2	D
24	East Palm Canyon Drive / Mirage Cove Drive	Signalized	HCM 2010	NB Left	0.708	11.7	B
25	East Palm Canyon Drive / Country Club Drive	Signalized	HCM 2010	SB Left	0.923	23.2	C
26	Thompson Road-Morningside Drive / Frank Sinatra Drive	Signalized	HCM 2010	NB Left	0.393	8.7	A
27	Van Fleet Street / B Street-West Project Driveway	Two-way stop	HCM 2010	EB Thru	0.000	10.7	B
28	Van Fleet Street / D Street	Two-way stop	HCM 2010	EB Thru	0.002	10.6	B
29	South Project Driveway / D Street	Two-way stop	HCM 2010	SB Left	0.000	8.6	A

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. for all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report
Intersection 1: North Project Driveway 1 / Buddy Rogers Avenue

Control Type:	Two-way stop	Delay (sec / veh):	9.5
Analysis Method:	HCM 2010	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			No			No		

Volumes

Name												
Base Volume Input [veh/h]	0	0	0	0	0	0	0	29	0	0	31	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	0	0	0	0	39	0	0	41	0
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	0	0	0	0	11	0	0	11	0
Total Analysis Volume [veh/h]	0	0	0	0	0	0	0	42	0	0	45	0
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	No	No		
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	No	No		
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	9.01	9.48	8.50	9.01	9.48	8.51	7.30	0.00	0.00	7.30	0.00	0.00
Movement LOS	A	A	A	A	A	A	A	A	A	A	A	A
95th-Percentile Queue Length [veh]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	9.00			9.00			0.00			0.00		
Approach LOS	A			A			A			A		
d_I, Intersection Delay [s/veh]	0.00											
Intersection LOS	A											

Intersection Level Of Service Report
Intersection 2: Date Palm Drive / Buddy Rogers Avenue

Control Type:	Two-way stop	Delay (sec / veh):	201.0
Analysis Method:	HCM 2010	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.741

Intersection Setup

Name						
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00		40.00		40.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

Volumes

Name						
Base Volume Input [veh/h]	4	671	533	27	23	6
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	2.97	2.97	2.97	2.97	1.33	1.33
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	12	1993	1583	80	31	8
Peak Hour Factor	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	520	413	21	8	2
Total Analysis Volume [veh/h]	13	2080	1652	84	32	8
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.08	0.02	0.02	0.00	0.74	0.03
d_M, Delay for Movement [s/veh]	27.93	0.00	0.00	0.00	201.01	131.79
Movement LOS	D	A	A	A	F	F
95th-Percentile Queue Length [veh]	0.25	0.00	0.00	0.00	3.21	3.21
95th-Percentile Queue Length [ft]	6.14	0.00	0.00	0.00	80.18	80.18
d_A, Approach Delay [s/veh]	0.17		0.00		187.17	
Approach LOS	A		A		F	
d_I, Intersection Delay [s/veh]	2.03					
Intersection LOS	F					

Intersection Level Of Service Report
Intersection 3: Date Palm Drive / East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	17.5
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.833

Intersection Setup

Name						
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00		40.00		40.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		Yes		Yes	

Volumes

Name						
Base Volume Input [veh/h]	409	118	143	1125	1247	472
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.46	1.46	1.16	1.16	1.76	1.76
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	597	172	166	1305	2195	831
Peak Hour Factor	0.9560	0.9560	0.9560	0.9560	0.9560	0.9560
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	156	45	43	341	574	217
Total Analysis Volume [veh/h]	624	180	174	1365	2296	869
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	70
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Split	Split	ProtectedPermissi	Permissive	Permissive	Permissive
Signal group	1	0	3	8	4	0
Auxiliary Signal Groups						
Lead / Lag	Lead	-	Lead	-	-	-
Minimum Green [s]	7	0	7	7	7	0
Maximum Green [s]	30	0	7	30	30	0
Amber [s]	3.0	0.0	3.0	3.0	3.0	0.0
All red [s]	1.0	0.0	1.0	1.0	1.0	0.0
Split [s]	19	0	32	51	19	0
Vehicle Extension [s]	3.0	0.0	3.0	3.0	3.0	0.0
Walk [s]	5	0	0	5	5	0
Pedestrian Clearance [s]	10	0	0	10	10	0
Rest In Walk	No			No	No	
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	2.0	0.0
Minimum Recall	No		Yes	No	No	
Maximum Recall	No		No	No	No	
Pedestrian Recall	No		No	No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	R	L	C	C	R
C, Cycle Length [s]	70	70	70	70	70	70
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	0.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	11	11	51	51	40	40
g / C, Green / Cycle	0.16	0.16	0.72	0.72	0.57	0.57
(v / s)_i Volume / Saturation Flow Rate	0.12	0.11	0.20	0.27	0.45	0.55
s, saturation flow rate [veh/h]	5168	1583	854	5074	5074	1583
c, Capacity [veh/h]	845	259	704	3665	2885	900
d1, Uniform Delay [s]	27.88	27.65	12.03	3.70	11.91	14.46
k, delay calibration	0.11	0.11	0.11	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.28	3.34	0.18	0.29	2.37	22.69
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.74	0.69	0.25	0.37	0.80	0.97
d, Delay for Lane Group [s/veh]	29.16	30.99	12.21	3.99	14.28	37.14
Lane Group LOS	C	C	B	A	B	D
Critical Lane Group	Yes	No	Yes	No	No	Yes
50th-Percentile Queue Length [veh]	3.16	2.87	0.21	1.38	7.68	15.39
50th-Percentile Queue Length [ft]	79.08	71.74	5.15	34.43	192.11	384.72
95th-Percentile Queue Length [veh]	5.69	5.17	0.37	2.48	12.23	21.82
95th-Percentile Queue Length [ft]	142.35	129.14	9.27	61.97	305.76	545.56

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	29.16	30.99	12.21	3.99	14.28	37.14
Movement LOS	C	C	B	A	B	D
d_A, Approach Delay [s/veh]	29.57		4.92		20.56	
Approach LOS	C		A		C	
d_I, Intersection Delay [s/veh]	17.50					
Intersection LOS	B					
Intersection V/C	0.833					

Sequence

Ring 1	1	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 4: South Project Driveway-Allen Avenue / East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	0.8
Analysis Method:	HCM 2010	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.360

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	0	0	0	0	0	1	4	1262	0	0	1341	11
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	0	0	1	5	1464	0	0	1556	13
Peak Hour Factor	0.9120	0.9120	0.9120	0.9120	0.9120	0.9120	0.9120	0.9120	0.9120	0.9120	0.9120	0.9120
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	0	0	0	1	401	0	0	427	4
Total Analysis Volume [veh/h]	0	0	0	0	0	1	5	1605	0	0	1706	14
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	1 - E Palm Canyon Drive
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	0	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	7	0	0	7	0	0	7	0	0	7	0
Maximum Green [s]	0	30	0	0	30	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	19	0	0	19	0	0	101	0	0	101	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No			No			No			No	
Maximum Recall		No			No			No			No	
Pedestrian Recall		No			No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	L	C	L	C	R	C	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	2.00	0.00	2.00	0.00	0.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	0	0	0	112	112	112	112	112	112
g / C, Green / Cycle	0.00	0.00	0.00	0.93	0.93	0.93	0.93	0.93	0.93
(v / s)_i Volume / Saturation Flow Rate	0.00	0.00	0.00	0.02	0.32	0.00	0.34	0.34	0.01
s, saturation flow rate [veh/h]	400	1412	1583	286	5074	1583	1863	3227	1583
c, Capacity [veh/h]	31	61	4	309	4723	1474	1764	3004	1474
d1, Uniform Delay [s]	0.00	0.00	59.70	0.99	0.42	0.00	0.43	0.43	0.29
k, delay calibration	0.11	0.11	0.11	0.50	0.50	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.00	0.00	33.63	0.10	0.20	0.00	0.56	0.34	0.01
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.00	0.00	0.26	0.02	0.34	0.00	0.35	0.36	0.01
d, Delay for Lane Group [s/veh]	0.00	0.00	93.33	1.09	0.61	0.00	0.99	0.77	0.30
Lane Group LOS	A	A	F	A	A	A	A	A	A
Critical Lane Group	No	No	Yes	No	No	No	Yes	No	No
50th-Percentile Queue Length [veh]	0.00	0.00	0.07	0.02	0.09	0.00	0.27	0.14	0.00
50th-Percentile Queue Length [ft]	0.00	0.00	1.63	0.45	2.14	0.00	6.83	3.51	0.12
95th-Percentile Queue Length [veh]	0.00	0.00	0.12	0.03	0.15	0.00	0.49	0.25	0.01
95th-Percentile Queue Length [ft]	0.00	0.00	2.94	0.81	3.86	0.00	12.30	6.32	0.22

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	0.00	93.33	93.33	1.09	0.61	0.00	0.99	0.85	0.30
Movement LOS	A	A	A	A	F	F	A	A	A	A	A	A
d_A, Approach Delay [s/veh]	0.00			93.33			0.62			0.84		
Approach LOS	A			F			A			A		
d_I, Intersection Delay [s/veh]	0.76											
Intersection LOS	A											
Intersection V/C	0.360											

Sequence

Ring 1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 5: Monty Hall Drive-Van Fleet Avenue / East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	7.4
Analysis Method:	HCM 2010	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.495

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	1	0	1	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	45.00	100.00	100.00	105.00	100.00	130.00	125.00	100.00	180.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	11	7	55	12	6	12	6	1211	9	92	1276	16
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	13	8	64	14	7	14	7	1405	10	107	1480	19
Peak Hour Factor	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	2	17	4	2	4	2	368	3	28	388	5
Total Analysis Volume [veh/h]	14	8	67	15	7	15	7	1473	10	112	1551	20
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	1 - E Palm Canyon Drive
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	0	7	7	0	7	7	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	19	0	0	19	0	11	30	0	11	30	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	R	L	C	L	C	R	L	C	R
C, Cycle Length [s]	60	60	60	60	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	5	5	5	5	1	37	37	6	42	42
g / C, Green / Cycle	0.09	0.09	0.09	0.09	0.01	0.61	0.61	0.10	0.70	0.70
(v / s)_i Volume / Saturation Flow Rate	0.02	0.04	0.01	0.01	0.00	0.29	0.01	0.06	0.31	0.01
s, saturation flow rate [veh/h]	1235	1583	1402	1663	1774	5074	1583	1774	5074	1583
c, Capacity [veh/h]	212	146	169	153	26	3087	963	177	3518	1098
d1, Uniform Delay [s]	25.10	25.88	28.30	25.12	29.31	6.50	4.64	26.02	4.07	2.86
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.21	2.24	0.22	0.42	5.23	0.53	0.02	3.69	0.40	0.03
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.10	0.46	0.09	0.14	0.27	0.48	0.01	0.63	0.44	0.02
d, Delay for Lane Group [s/veh]	25.31	28.12	28.52	25.54	34.53	7.03	4.66	29.71	4.48	2.89
Lane Group LOS	C	C	C	C	C	A	A	C	A	A
Critical Lane Group	No	Yes	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh]	0.28	0.92	0.20	0.28	0.13	2.35	0.04	1.58	1.43	0.04
50th-Percentile Queue Length [ft]	6.90	22.96	5.11	7.04	3.26	58.72	0.93	39.49	35.87	1.12
95th-Percentile Queue Length [veh]	0.50	1.65	0.37	0.51	0.23	4.23	0.07	2.84	2.58	0.08
95th-Percentile Queue Length [ft]	12.41	41.32	9.19	12.68	5.87	105.70	1.67	71.09	64.57	2.01

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	25.31	25.31	28.12	28.52	25.54	25.54	34.53	7.03	4.66	29.71	4.48	2.89
Movement LOS	C	C	C	C	C	C	C	A	A	C	A	A
d_A, Approach Delay [s/veh]	27.43			26.75			7.14			6.14		
Approach LOS	C			C			A			A		
d_I, Intersection Delay [s/veh]	7.40											
Intersection LOS	A											
Intersection V/C	0.495											

Sequence

Ring 1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 6: Date Palm Drive / East Palm Drive

Control Type:	Two-way stop	Delay (sec / veh):	19.2
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

Intersection Setup

Name						
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00		40.00		40.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

Volumes

Name						
Base Volume Input [veh/h]	0	8	539	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	2.97	2.97	2.97	1.04	1.33
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	24	1601	0	0	0
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	7	435	0	0	0
Total Analysis Volume [veh/h]	0	26	1740	0	0	0
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.02	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	0.00	0.00	19.23
Movement LOS		A	A	A		C
95th-Percentile Queue Length [veh]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	0.00		0.00		19.23	
Approach LOS	A		A		C	
d_I, Intersection Delay [s/veh]	0.00					
Intersection LOS	C					

Intersection Level Of Service Report
Intersection 7: North Project Driveway 2 / Buddy Rogers Avenue

Control Type:	Two-way stop	Delay (sec / veh):	8.8
Analysis Method:	HCM 2010	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

Intersection Setup

Name						
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00		40.00		40.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name						
Base Volume Input [veh/h]	0	0	29	0	0	31
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.33	1.00	1.00	1.33	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	29	0	0	31
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	8	0	0	8
Total Analysis Volume [veh/h]	0	0	32	0	0	34
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	8.83	8.46	0.00	0.00	7.28	0.00
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	8.64		0.00		0.00	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	0.00					
Intersection LOS	A					

Intersection Level Of Service Report
Intersection 8: Monty Hall Drive / Buddy Rogers Avenue

Control Type:	All-way stop	Delay (sec / veh):	7.5
Analysis Method:	HCM 2010	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.077

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			No			No		

Volumes

Name												
Base Volume Input [veh/h]	13	7	3	23	12	0	4	15	21	9	11	5
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	17	9	4	31	16	0	5	20	28	12	15	7
Peak Hour Factor	0.7500	0.7500	0.7500	0.7500	0.7500	0.7500	0.7500	0.7500	0.7500	0.7500	0.7500	0.7500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	6	3	1	10	5	0	2	7	9	4	5	2
Total Analysis Volume [veh/h]	23	12	5	41	21	0	7	27	37	16	20	9
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	840	827	919	861
Degree of Utilization, x	0.05	0.07	0.08	0.05

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.15	0.24	0.25	0.17
95th-Percentile Queue Length [ft]	3.74	6.06	6.27	4.13
Approach Delay [s/veh]	7.50	7.70	7.25	7.41
Approach LOS	A	A	A	A
Intersection Delay [s/veh]	7.46			
Intersection LOS	A			

Intersection Level Of Service Report

Intersection 9: Buddy Rogers Avenue/ East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	3.1
Analysis Method:	HCM 2010	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.372

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	13	2	28	10	5	22	23	1186	3	42	1227	15
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	15	2	32	12	6	26	27	1376	3	49	1423	17
Peak Hour Factor	0.9310	0.9310	0.9310	0.9310	0.9310	0.9310	0.9310	0.9310	0.9310	0.9310	0.9310	0.9310
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	1	9	3	2	7	7	369	1	13	382	5
Total Analysis Volume [veh/h]	16	2	34	13	6	28	29	1478	3	53	1528	18
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	1 - E Palm Canyon Drive
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	7	0	0	7	0	0	7	0	0	7	0
Maximum Green [s]	0	30	0	0	30	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	19	0	0	19	0	0	101	0	0	101	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No			No			No			No	
Maximum Recall		No			No			No			No	
Pedestrian Recall		No			No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	C	L	C	R	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	2.00	2.00	0.00	0.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	6	6	106	106	106	106	106	106
g / C, Green / Cycle	0.05	0.05	0.89	0.89	0.89	0.89	0.89	0.89
(v / s)_i Volume / Saturation Flow Rate	0.03	0.03	0.09	0.29	0.00	0.15	0.30	0.01
s, saturation flow rate [veh/h]	1563	1590	339	5074	1583	356	5074	1583
c, Capacity [veh/h]	115	115	336	4490	1401	350	4490	1401
d1, Uniform Delay [s]	56.11	55.89	2.29	1.12	0.80	2.40	1.14	0.80
k, delay calibration	0.11	0.11	0.50	0.50	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.77	2.31	0.51	0.20	0.00	0.91	0.21	0.02
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.45	0.41	0.09	0.33	0.00	0.15	0.34	0.01
d, Delay for Lane Group [s/veh]	58.88	58.20	2.80	1.32	0.80	3.31	1.34	0.82
Lane Group LOS	E	E	A	A	A	A	A	A
Critical Lane Group	Yes	No	No	No	No	No	Yes	No
50th-Percentile Queue Length [veh]	1.61	1.45	0.14	0.42	0.00	0.26	0.44	0.02
50th-Percentile Queue Length [ft]	40.35	36.18	3.46	10.55	0.06	6.59	11.07	0.39
95th-Percentile Queue Length [veh]	2.91	2.61	0.25	0.76	0.00	0.47	0.80	0.03
95th-Percentile Queue Length [ft]	72.63	65.13	6.24	18.99	0.11	11.86	19.92	0.69

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	58.88	58.88	58.88	58.20	58.20	58.20	2.80	1.32	0.80	3.31	1.34	0.82
Movement LOS	E	E	E	E	E	E	A	A	A	A	A	A
d_A, Approach Delay [s/veh]	58.88			58.20			1.34			1.40		
Approach LOS	E			E			A			A		
d_I, Intersection Delay [s/veh]	3.14											
Intersection LOS	A											
Intersection V/C	0.372											

Sequence

Ring 1	2	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 10: Cathedral Canyon Drive / East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	16.2
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.577

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	0	1	0	0	1	0	1
Pocket Length [ft]	100.00	100.00	70.00	90.00	100.00	100.00	238.00	100.00	100.00	190.00	100.00	270.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	62	124	46	129	147	74	119	1056	74	66	998	157
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.33	1.33	1.33	1.33	1.33	1.33	1.31	1.31	1.31	1.16	1.16	1.16
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	82	165	61	172	196	98	156	1383	97	77	1158	182
Peak Hour Factor	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	21	43	16	45	51	26	41	361	25	20	302	47
Total Analysis Volume [veh/h]	86	172	64	179	204	102	163	1442	101	80	1208	190
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	1 - E Palm Canyon Drive
Cycle Length [s]	70
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Overlap	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	6	3	8	0	7	4	0
Auxiliary Signal Groups						3,6						
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	7	7	7	0	7	7	0
Maximum Green [s]	0	30	0	0	30	30	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	1.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	19	0	0	19	19	22	40	0	11	29	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	5	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	10	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No	No	No	No		No	No	
Maximum Recall		No			No	No	No	No		No	No	
Pedestrian Recall		No			No	No	No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	70	70	70	70	70	70	70	70	70	70	70	70
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	0.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	15	15	15	15	15	27	8	38	38	6	35	35
g / C, Green / Cycle	0.21	0.21	0.21	0.21	0.21	0.39	0.12	0.54	0.54	0.08	0.49	0.49
(v / s)_i Volume / Saturation Flow Rate	0.07	0.09	0.04	0.15	0.11	0.06	0.09	0.28	0.06	0.05	0.24	0.12
s, saturation flow rate [veh/h]	1173	1863	1583	1208	1863	1583	1774	5074	1583	1774	5074	1583
c, Capacity [veh/h]	212	401	341	235	401	623	215	2717	848	139	2501	781
d1, Uniform Delay [s]	31.17	23.84	22.55	32.25	24.30	13.83	29.88	10.59	8.09	31.24	11.85	10.26
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.25	0.73	0.26	5.00	1.00	0.12	5.44	0.75	0.29	3.70	0.67	0.74
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.41	0.43	0.19	0.76	0.51	0.16	0.76	0.53	0.12	0.57	0.48	0.24
d, Delay for Lane Group [s/veh]	32.42	24.56	22.81	37.25	25.30	13.95	35.32	11.33	8.38	34.94	12.52	11.00
Lane Group LOS	C	C	C	D	C	B	D	B	A	C	B	B
Critical Lane Group	No	No	No	Yes	No	No	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh]	1.40	2.35	0.82	3.22	2.85	0.95	2.80	4.02	0.68	1.37	3.60	1.57
50th-Percentile Queue Length [ft]	35.10	58.68	20.56	80.41	71.28	23.72	70.05	100.59	17.10	34.17	89.96	39.18
95th-Percentile Queue Length [veh]	2.53	4.22	1.48	5.79	5.13	1.71	5.04	7.24	1.23	2.46	6.48	2.82
95th-Percentile Queue Length [ft]	63.19	105.62	37.01	144.74	128.30	42.70	126.09	181.06	30.77	61.51	161.94	70.53

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	32.42	24.56	22.81	37.25	25.30	13.95	35.32	11.33	8.38	34.94	12.52	11.00
Movement LOS	C	C	C	D	C	B	D	B	A	C	B	B
d_A, Approach Delay [s/veh]	26.31			27.32			13.45			13.54		
Approach LOS	C			C			B			B		
d_I, Intersection Delay [s/veh]	16.21											
Intersection LOS	B											
Intersection V/C	0.577											

Sequence

Ring 1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 11: Perez Road / East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	28.8
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.729

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	150.00	100.00	100.00	170.00	100.00	45.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	34	24	15	19	8	347	269	1161	7	7	1128	12
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.33	1.33	1.33	1.33	1.33	1.33	1.64	1.64	1.64	1.31	1.31	1.31
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	45	32	20	25	11	462	441	1904	11	9	1478	16
Peak Hour Factor	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	12	8	5	7	3	122	117	503	3	2	391	4
Total Analysis Volume [veh/h]	48	34	21	26	12	488	466	2013	12	10	1562	17
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	0	7	7	0	7	7	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	19	0	0	19	0	20	71	0	11	62	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	R	L	C	C	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	7	7	21	21	21	18	74	74	2	58	58
g / C, Green / Cycle	0.06	0.06	0.17	0.17	0.17	0.15	0.62	0.62	0.02	0.49	0.49
(v / s)_i Volume / Saturation Flow Rate	0.03	0.03	0.01	0.16	0.16	0.14	0.37	0.38	0.01	0.31	0.01
s, saturation flow rate [veh/h]	1774	1745	1774	1595	1583	3445	3547	1857	1774	5074	1583
c, Capacity [veh/h]	100	99	308	277	275	519	2197	1150	30	2463	769
d1, Uniform Delay [s]	54.89	55.14	41.57	48.60	48.60	50.05	13.90	13.91	58.34	22.95	16.06
k, delay calibration	0.11	0.11	0.11	0.18	0.18	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	3.49	4.82	0.12	16.05	16.14	5.82	1.24	2.37	6.47	1.26	0.05
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

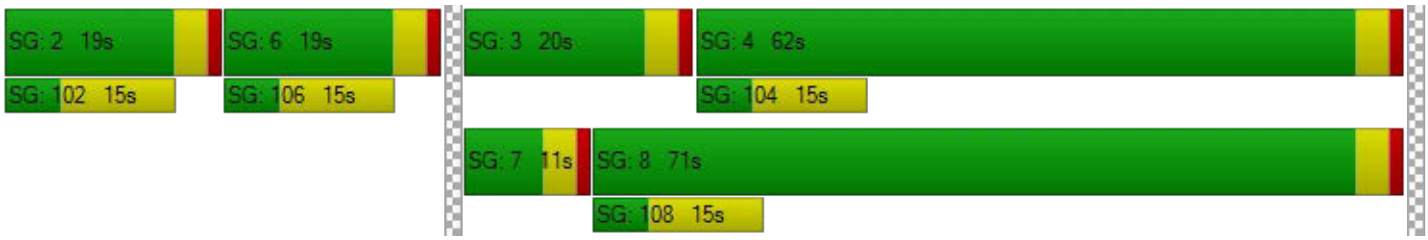
X, volume / capacity	0.48	0.56	0.08	0.90	0.90	0.90	0.60	0.61	0.34	0.63	0.02
d, Delay for Lane Group [s/veh]	58.38	59.96	41.68	64.65	64.75	55.87	15.14	16.28	64.81	24.21	16.11
Lane Group LOS	E	E	D	E	E	E	B	B	E	C	B
Critical Lane Group	No	Yes	No	No	Yes	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh]	1.48	1.73	0.65	8.44	8.38	7.15	10.32	11.19	0.35	10.68	0.25
50th-Percentile Queue Length [ft]	37.11	43.22	16.20	210.92	209.60	178.78	257.97	279.78	8.74	267.04	6.22
95th-Percentile Queue Length [veh]	2.67	3.11	1.17	13.20	13.13	11.54	15.59	16.68	0.63	16.04	0.45
95th-Percentile Queue Length [ft]	66.79	77.80	29.17	330.01	328.32	288.42	389.67	416.94	15.73	401.04	11.19

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	58.38	59.96	59.96	41.68	64.65	64.70	55.87	15.53	16.28	64.81	24.21	16.11
Movement LOS	E	E	E	D	E	E	E	B	B	E	C	B
d_A, Approach Delay [s/veh]	59.22			63.56			23.08			24.38		
Approach LOS	E			E			C			C		
d_I, Intersection Delay [s/veh]	28.83											
Intersection LOS	C											
Intersection V/C	0.729											

Sequence

Ring 1	2	6	3	4	-	-	-	-	-	-	-	-	-	-	-	-	
Ring 2	-	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-	
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	



Intersection Level Of Service Report

Intersection 12: Canyon Plaza Drive / East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	10.6
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.617

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	1	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	95.00	90.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	51	1	74	5	2	12	13	1375	26	51	1443	10
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.33	1.33	1.33	1.33	1.33	1.33	1.55	1.55	1.55	1.64	1.64	1.64
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	68	1	98	7	3	16	20	2131	40	84	2367	16
Peak Hour Factor	0.9550	0.9550	0.9550	0.9550	0.9550	0.9550	0.9550	0.9550	0.9550	0.9550	0.9550	0.9550
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	18	0	26	2	1	4	5	558	10	22	620	4
Total Analysis Volume [veh/h]	71	1	103	7	3	17	21	2231	42	88	2479	17
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	0	7	7	0	7	7	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	19	0	0	19	0	11	90	0	11	90	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	L	C	R	L	C	C
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	12	12	12	12	4	89	89	7	93	93
g / C, Green / Cycle	0.10	0.10	0.10	0.10	0.03	0.74	0.74	0.06	0.77	0.77
(v / s)_i Volume / Saturation Flow Rate	0.05	0.07	0.01	0.01	0.01	0.44	0.03	0.05	0.46	0.46
s, saturation flow rate [veh/h]	1386	1586	1285	1620	1774	5074	1583	1774	3547	1856
c, Capacity [veh/h]	153	153	79	156	52	3761	1174	111	2746	1437
d1, Uniform Delay [s]	55.05	52.42	58.57	49.59	57.19	7.17	4.13	55.50	5.69	5.70
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.19	5.22	0.48	0.37	4.92	0.70	0.06	12.10	0.96	1.84
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.46	0.68	0.09	0.13	0.40	0.59	0.04	0.80	0.60	0.60
d, Delay for Lane Group [s/veh]	57.24	57.64	59.05	49.96	62.11	7.87	4.18	67.60	6.65	7.54
Lane Group LOS	E	E	E	D	E	A	A	E	A	A
Critical Lane Group	No	Yes	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh]	2.17	3.20	0.22	0.56	0.69	7.28	0.25	2.96	6.76	7.45
50th-Percentile Queue Length [ft]	54.24	80.02	5.45	13.95	17.20	181.99	6.18	73.92	169.01	186.32
95th-Percentile Queue Length [veh]	3.91	5.76	0.39	1.00	1.24	11.70	0.45	5.32	11.02	11.93
95th-Percentile Queue Length [ft]	97.63	144.03	9.81	25.10	30.96	292.61	11.13	133.05	275.61	298.24

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	57.24	57.64	57.64	59.05	49.96	49.96	62.11	7.87	4.18	67.60	6.95	7.54
Movement LOS	E	E	E	E	D	D	E	A	A	E	A	A
d_A, Approach Delay [s/veh]	57.48			52.32			8.30			9.02		
Approach LOS	E			D			A			A		
d_I, Intersection Delay [s/veh]	10.59											
Intersection LOS	B											
Intersection V/C	0.617											

Sequence

Ring 1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 13: Golf Club Drive / East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	20.1
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.196

Intersection Setup

Name						
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	0
Pocket Length [ft]	100.00	100.00	90.00	95.00	100.00	100.00
Speed [mph]	40.00		40.00		40.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		Yes		No	

Volumes

Name						
Base Volume Input [veh/h]	146	51	83	1246	1366	113
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.55	1.55	1.55	1.55	1.55	1.55
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	226	79	129	1931	2117	175
Peak Hour Factor	0.9240	0.9240	0.9240	0.9240	0.9240	0.9240
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	61	21	35	522	573	47
Total Analysis Volume [veh/h]	245	85	140	2090	2291	189
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Split	Split	ProtectedPermissi	Permissive	Permissive	Permissive
Signal group	1	0	3	8	4	0
Auxiliary Signal Groups						
Lead / Lag	Lead	-	Lead	-	-	-
Minimum Green [s]	7	0	7	7	7	0
Maximum Green [s]	30	0	7	30	30	0
Amber [s]	3.0	0.0	3.0	3.0	3.0	0.0
All red [s]	1.0	0.0	1.0	1.0	1.0	0.0
Split [s]	19	0	11	101	90	0
Vehicle Extension [s]	3.0	0.0	3.0	3.0	3.0	0.0
Walk [s]	5	0	0	5	5	0
Pedestrian Clearance [s]	10	0	0	10	10	0
Rest In Walk	No			No	No	
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	2.0	0.0
Minimum Recall	No		Yes	No	No	
Maximum Recall	No		No	No	No	
Pedestrian Recall	No		No	No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	C	C	C
C, Cycle Length [s]	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	0.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	13	13	98	98	87	87
g / C, Green / Cycle	0.11	0.11	0.82	0.82	0.73	0.73
(v / s)_i Volume / Saturation Flow Rate	0.10	0.10	0.94	0.39	0.47	0.46
s, saturation flow rate [veh/h]	1774	1668	477	4617	3547	1791
c, Capacity [veh/h]	199	187	392	3791	2587	1306
d1, Uniform Delay [s]	52.23	52.26	22.25	3.12	8.22	8.16
k, delay calibration	0.11	0.11	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	9.85	10.74	89.74	0.42	1.22	2.34
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.85	0.86	1.14	0.47	0.64	0.63
d, Delay for Lane Group [s/veh]	62.08	63.00	111.99	3.54	9.45	10.50
Lane Group LOS	E	E	F	A	A	B
Critical Lane Group	No	Yes	Yes	No	No	No
50th-Percentile Queue Length [veh]	5.46	5.21	11.07	2.69	9.23	9.57
50th-Percentile Queue Length [ft]	136.61	130.33	276.82	67.18	230.83	239.27
95th-Percentile Queue Length [veh]	9.30	8.96	18.25	4.84	14.22	14.64
95th-Percentile Queue Length [ft]	232.45	223.94	456.32	120.92	355.41	366.12

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	62.37	63.00	111.99	19.48	9.74	10.50
Movement LOS	E	E	F	B	A	B
d_A, Approach Delay [s/veh]	62.52		25.28		9.80	
Approach LOS	E		C		A	
d_I, Intersection Delay [s/veh]	20.10					
Intersection LOS	C					
Intersection V/C	1.196					

Sequence

Ring 1	1	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 14: Cathedral Canyon Drive / Officer David Vasquez Road

Control Type:	Signalized	Delay (sec / veh):	5.2
Analysis Method:	HCM 2010	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.288

Intersection Setup

Name						
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	1	0	1	1
Pocket Length [ft]	100.00	100.00	205.00	100.00	120.00	120.00
Speed [mph]	40.00		40.00		40.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		Yes		Yes	

Volumes

Name						
Base Volume Input [veh/h]	417	5	25	404	6	53
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.33	1.33	1.33	1.33	1.33	1.33
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	555	7	33	537	8	70
Peak Hour Factor	0.9140	0.9140	0.9140	0.9140	0.9140	0.9140
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	152	2	9	147	2	19
Total Analysis Volume [veh/h]	607	8	36	588	9	77
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	2 - N. Cathedral Canyon Drive
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permissive	Permissive	Protected	Permissive	Split	Overlap
Signal group	2	0	1	6	7	7
Auxiliary Signal Groups						1,7
Lead / Lag	-	-	Lead	-	Lead	-
Minimum Green [s]	7	0	7	7	7	7
Maximum Green [s]	30	0	30	30	30	30
Amber [s]	3.0	0.0	3.0	3.0	3.0	3.0
All red [s]	1.0	0.0	1.0	1.0	1.0	1.0
Split [s]	30	0	11	41	19	19
Vehicle Extension [s]	3.0	0.0	3.0	3.0	3.0	3.0
Walk [s]	5	0	0	5	5	5
Pedestrian Clearance [s]	10	0	0	10	10	10
Rest In Walk	No			No	No	
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0
Minimum Recall	No		No	No	No	No
Maximum Recall	No		No	No	No	No
Pedestrian Recall	No		No	No	No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	C	L	C	L	R
C, Cycle Length [s]	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	0.00
g_i, Effective Green Time [s]	39	39	3	47	5	13
g / C, Green / Cycle	0.66	0.66	0.05	0.78	0.09	0.21
(v / s)_i Volume / Saturation Flow Rate	0.17	0.17	0.02	0.17	0.00	0.05
s, saturation flow rate [veh/h]	1863	1854	1774	3547	3445	1583
c, Capacity [veh/h]	1220	1214	97	2753	313	336
d1, Uniform Delay [s]	4.30	4.30	27.42	1.81	24.93	19.62
k, delay calibration	0.50	0.50	0.11	0.50	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.50	0.50	2.32	0.18	0.04	0.34
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

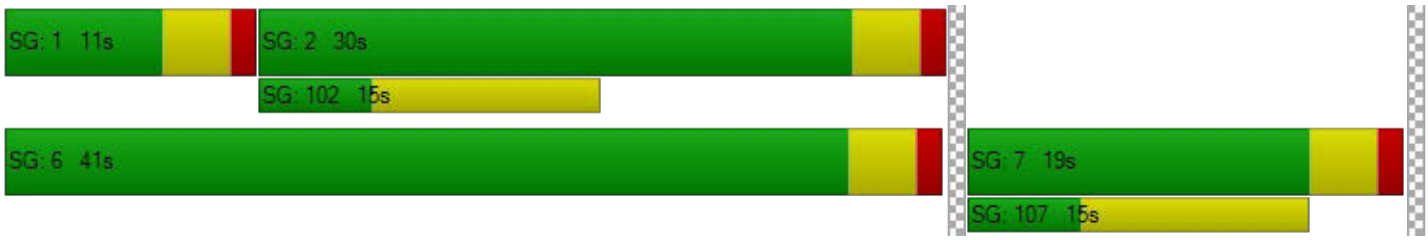
X, volume / capacity	0.25	0.25	0.37	0.21	0.03	0.23
d, Delay for Lane Group [s/veh]	4.79	4.80	29.74	1.99	24.96	19.96
Lane Group LOS	A	A	C	A	C	B
Critical Lane Group	No	Yes	Yes	No	No	Yes
50th-Percentile Queue Length [veh]	1.05	1.05	0.52	0.20	0.06	0.83
50th-Percentile Queue Length [ft]	26.26	26.31	13.01	5.09	1.38	20.71
95th-Percentile Queue Length [veh]	1.89	1.89	0.94	0.37	0.10	1.49
95th-Percentile Queue Length [ft]	47.27	47.35	23.42	9.17	2.48	37.28

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	4.80	4.80	29.74	1.99	24.96	19.96
Movement LOS	A	A	C	A	C	B
d_A, Approach Delay [s/veh]	4.80		3.59		20.48	
Approach LOS	A		A		C	
d_I, Intersection Delay [s/veh]	5.25					
Intersection LOS	A					
Intersection V/C	0.288					

Sequence

Ring 1	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	7	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 15: Cathedral Canyon Drive / Perez Road

Control Type:	Signalized	Delay (sec / veh):	27.3
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.747

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	1	1	0	0
Pocket Length [ft]	95.00	100.00	100.00	205.00	100.00	100.00	100.00	100.00	100.00	150.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	38	379	64	148	314	119	152	252	46	63	222	202
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	51	504	85	197	418	158	202	335	61	84	295	269
Peak Hour Factor	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	13	130	22	51	108	41	52	87	16	22	76	70
Total Analysis Volume [veh/h]	53	521	88	204	432	163	209	346	63	87	305	278
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	2 - N. Cathedral Canyon Drive
Cycle Length [s]	70
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	5.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	23	0	17	29	0	11	19	0	11	19	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	L	C	R	L	C	C
C, Cycle Length [s]	70	70	70	70	70	70	70	70	70	70	70	70
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	5	14	14	10	20	20	10	24	24	6	20	20
g / C, Green / Cycle	0.07	0.21	0.21	0.14	0.28	0.28	0.14	0.34	0.34	0.08	0.28	0.28
(v / s)_i Volume / Saturation Flow Rate	0.03	0.17	0.17	0.11	0.17	0.17	0.12	0.10	0.04	0.05	0.16	0.18
s, saturation flow rate [veh/h]	1774	1863	1770	1774	1863	1691	1774	3547	1583	1774	1863	1583
c, Capacity [veh/h]	118	384	365	252	524	476	255	1212	541	147	523	444
d1, Uniform Delay [s]	31.56	26.60	26.63	29.23	21.78	21.79	29.19	16.87	15.85	31.08	21.74	22.05
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.67	4.17	4.49	6.16	1.08	1.20	6.41	0.59	0.44	3.79	4.70	6.52
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

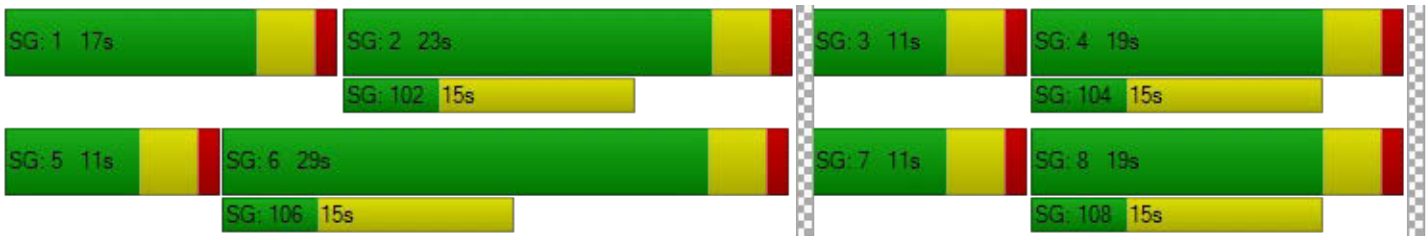
X, volume / capacity	0.45	0.81	0.82	0.81	0.59	0.60	0.82	0.29	0.12	0.59	0.58	0.63
d, Delay for Lane Group [s/veh]	34.24	30.77	31.12	35.39	22.86	22.99	35.60	17.46	16.29	34.87	26.44	28.57
Lane Group LOS	C	C	C	D	C	C	D	B	B	C	C	C
Critical Lane Group	No	No	Yes	Yes	No	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh]	0.90	4.99	4.80	3.52	4.15	3.79	3.62	1.91	0.69	1.48	4.57	4.40
50th-Percentile Queue Length [ft]	22.49	124.64	119.93	87.98	103.70	94.86	90.38	47.79	17.15	37.11	114.18	109.89
95th-Percentile Queue Length [veh]	1.62	8.65	8.39	6.33	7.47	6.83	6.51	3.44	1.23	2.67	8.07	7.83
95th-Percentile Queue Length [ft]	40.49	216.19	209.73	158.37	186.67	170.75	162.68	86.03	30.87	66.81	201.80	195.85

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	34.24	30.91	31.12	35.39	22.90	22.99	35.60	17.46	16.29	34.87	26.44	28.57
Movement LOS	C	C	C	D	C	C	D	B	B	C	C	C
d_A, Approach Delay [s/veh]	31.20			26.10			23.47			28.42		
Approach LOS	C			C			C			C		
d_I, Intersection Delay [s/veh]	27.30											
Intersection LOS	C											
Intersection V/C	0.747											

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 16: Cathedral Canyon Drive / Paseo Real

Control Type:	Two-way stop	Delay (sec / veh):	78.8
Analysis Method:	HCM 2010	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.073

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	0	0	0	0	0	0
Pocket Length [ft]	55.00	100.00	100.00	55.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name												
Base Volume Input [veh/h]	25	749	6	12	578	8	6	1	16	5	3	8
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	33	996	8	16	769	11	8	1	21	7	4	11
Peak Hour Factor	0.9370	0.9370	0.9370	0.9370	0.9370	0.9370	0.9370	0.9370	0.9370	0.9370	0.9370	0.9370
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	9	266	2	4	205	3	2	0	6	2	1	3
Total Analysis Volume [veh/h]	35	1063	9	17	821	12	9	1	22	7	4	12
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.04	0.01	0.00	0.03	0.01	0.00	0.12	0.02	0.04	0.11	0.07	0.02
d_M, Delay for Movement [s/veh]	9.73	0.00	0.00	10.72	0.00	0.00	55.00	74.57	15.08	67.83	78.80	20.38
Movement LOS	A	A	A	B	A	A	F	F	C	F	F	C
95th-Percentile Queue Length [veh]	0.14	0.00	0.00	0.08	0.00	0.00	0.60	0.60	0.60	0.72	0.72	0.72
95th-Percentile Queue Length [ft]	3.45	0.00	0.00	2.02	0.00	0.00	15.01	15.01	15.01	18.08	18.08	18.08
d_A, Approach Delay [s/veh]	0.31			0.21			28.17			44.99		
Approach LOS	A			A			D			E		
d_I, Intersection Delay [s/veh]	1.22											
Intersection LOS	F											

Intersection Level Of Service Report
Intersection 17: Cathedral Canyon Drive / Dinah Shore Drive

Control Type:	Signalized	Delay (sec / veh):	48.5
Analysis Method:	HCM 2010	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.896

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	130.00	100.00	100.00	75.00	100.00	100.00	100.00	100.00	100.00	150.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	228	474	97	113	260	28	59	775	189	95	652	83
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	303	630	129	150	346	37	78	1031	251	126	867	110
Peak Hour Factor	0.9340	0.9340	0.9340	0.9340	0.9340	0.9340	0.9340	0.9340	0.9340	0.9340	0.9340	0.9340
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	81	169	35	40	93	10	21	276	67	34	232	29
Total Analysis Volume [veh/h]	324	675	138	161	370	40	84	1104	269	135	928	118
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	2 - N. Cathedral Canyon Drive
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	104.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	34	37	0	16	19	0	11	56	0	11	56	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	L	C	C	L	C	C
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	24	29	29	12	17	17	7	52	52	10	55	55
g / C, Green / Cycle	0.20	0.24	0.24	0.10	0.15	0.15	0.06	0.43	0.43	0.09	0.46	0.46
(v / s)_i Volume / Saturation Flow Rate	0.18	0.22	0.22	0.09	0.11	0.11	0.05	0.38	0.38	0.08	0.29	0.29
s, saturation flow rate [veh/h]	1774	1863	1754	1774	1863	1800	1774	1863	1739	1774	1863	1790
c, Capacity [veh/h]	354	456	429	178	271	262	106	810	756	154	860	827
d1, Uniform Delay [s]	47.06	44.15	44.17	53.43	49.32	49.36	55.67	30.81	31.13	54.18	24.36	24.37
k, delay calibration	0.25	0.32	0.32	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	18.72	18.74	19.84	15.34	4.52	4.78	12.18	12.24	14.24	14.35	3.34	3.49
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

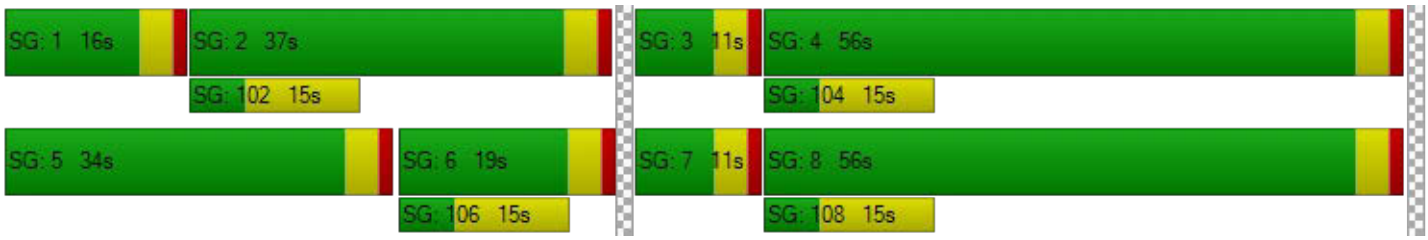
X, volume / capacity	0.92	0.92	0.92	0.91	0.77	0.77	0.79	0.87	0.88	0.88	0.62	0.62
d, Delay for Lane Group [s/veh]	65.77	62.89	64.01	68.78	53.84	54.14	67.85	43.05	45.37	68.53	27.70	27.87
Lane Group LOS	E	E	E	E	D	D	E	D	D	E	C	C
Critical Lane Group	No	No	Yes	Yes	No	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh]	11.10	14.16	13.49	5.48	6.23	6.07	2.83	20.34	19.85	4.57	11.70	11.30
50th-Percentile Queue Length [ft]	277.42	353.89	337.20	136.98	155.66	151.81	70.73	508.38	496.28	114.27	292.48	282.58
95th-Percentile Queue Length [veh]	16.56	20.33	19.51	9.32	10.32	10.11	5.09	27.73	27.16	8.08	17.31	16.82
95th-Percentile Queue Length [ft]	414.00	508.15	487.78	232.95	257.97	252.85	127.31	693.27	678.95	201.93	432.71	420.42

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	65.77	63.32	64.01	68.78	53.97	54.14	67.85	43.89	45.37	68.53	27.77	27.87
Movement LOS	E	E	E	E	D	D	E	D	D	E	C	C
d_A, Approach Delay [s/veh]	64.10			58.16			45.54			32.44		
Approach LOS	E			E			D			C		
d_I, Intersection Delay [s/veh]	48.50											
Intersection LOS	D											
Intersection V/C	0.896											

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 18: Date Palm Drive / Gerald Ford Drive

Control Type:	Signalized	Delay (sec / veh):	38.5
Analysis Method:	HCM 2010	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.068

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	85.00	100.00	85.00	160.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			Yes			Yes			No		

Volumes

Name												
Base Volume Input [veh/h]	20	597	290	119	438	44	58	56	18	167	42	148
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	2.97	2.97	2.97	1.83	1.83	1.83	1.83	1.83	1.83	1.97	1.97	1.97
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	59	1773	861	218	802	81	106	102	33	329	83	292
Peak Hour Factor	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	16	467	227	57	211	21	28	27	9	87	22	77
Total Analysis Volume [veh/h]	62	1868	907	230	845	85	112	107	35	347	87	308
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	6 - N/S
Cycle Length [s]	100
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Split	Split	Split	Split	Split	Split
Signal group	5	2	0	1	6	0	3	8	0	7	4	4
Auxiliary Signal Groups												1,4
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	7	7	0	7	7	0	0	7	0	0	7	7
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	30
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	3.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	1.0
Split [s]	15	57	0	16	58	0	0	27	0	0	27	27
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	3.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	5
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	10
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	2.0
Minimum Recall	No	No		No	No			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	C	L	C	C	L	C	R
C, Cycle Length [s]	100	100	100	100	100	100	100	100	100	100	100	100
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.00	0.00	2.00	2.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	6	53	53	12	59	59	23	23	23	23	23	23
g / C, Green / Cycle	0.06	0.53	0.53	0.12	0.59	0.59	0.23	0.23	0.23	0.23	0.23	0.23
(v / s)_i Volume / Saturation Flow Rate	0.03	0.37	0.57	0.13	0.17	0.17	0.09	0.04	0.04	0.17	0.19	0.19
s, saturation flow rate [veh/h]	1774	5074	1583	1774	3547	1777	1305	1863	1711	1241	1195	1583
c, Capacity [veh/h]	104	2685	838	214	2097	1051	104	429	394	294	333	365
d1, Uniform Delay [s]	45.93	17.55	23.55	43.97	10.12	10.12	49.62	30.83	30.88	40.58	38.31	36.78
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.13	0.18	0.19
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	5.42	1.52	55.95	50.70	0.36	0.72	62.13	0.18	0.21	3.79	3.88	9.16
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.60	0.70	1.08	1.07	0.30	0.30	1.07	0.17	0.18	0.71	0.68	0.84
d, Delay for Lane Group [s/veh]	51.35	19.07	79.50	94.67	10.48	10.84	111.75	31.01	31.10	44.37	42.19	45.94
Lane Group LOS	D	B	F	F	B	B	F	C	C	D	D	D
Critical Lane Group	No	No	Yes	Yes	No	No	No	No	No	No	No	Yes
50th-Percentile Queue Length [veh]	1.62	9.97	30.33	8.15	3.10	3.22	4.35	1.38	1.33	5.21	5.46	7.83
50th-Percentile Queue Length [ft]	40.57	249.17	758.22	203.82	77.62	80.57	108.75	34.54	33.31	130.19	136.40	195.72
95th-Percentile Queue Length [veh]	2.92	15.14	41.89	13.21	5.59	5.80	7.83	2.49	2.40	8.95	9.29	12.42
95th-Percentile Queue Length [ft]	73.02	378.61	1047.37	330.34	139.71	145.03	195.75	62.17	59.97	223.76	232.17	310.44

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	51.35	19.07	79.50	94.67	10.57	10.84	111.75	31.04	31.10	43.51	42.19	45.94
Movement LOS	D	B	F	F	B	B	F	C	C	D	D	D
d_A, Approach Delay [s/veh]	39.09			27.27			66.63			44.36		
Approach LOS	D			C			E			D		
d_I, Intersection Delay [s/veh]	38.53											
Intersection LOS	D											
Intersection V/C	1.068											

Sequence

Ring 1	1	2	-	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 19: Date Palm Drive / Dinah Shore Drive

Control Type:	Signalized	Delay (sec / veh):	41.1
Analysis Method:	HCM 2010	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.801

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	2	0	1	2	0	1	1	0	0	1	0	1
Pocket Length [ft]	225.00	100.00	125.00	170.00	100.00	50.00	150.00	100.00	100.00	130.00	100.00	180.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			No		

Volumes

Name												
Base Volume Input [veh/h]	231	614	79	115	586	73	102	576	215	69	537	117
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.83	1.83	1.83	1.44	1.44	1.44	1.67	1.67	1.67	1.67	1.67	1.67
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	423	1124	145	166	844	105	170	962	359	115	897	195
Peak Hour Factor	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	115	306	39	45	230	29	46	262	98	31	244	53
Total Analysis Volume [veh/h]	460	1223	158	181	918	114	185	1047	391	125	976	212
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	1 - E Palm Canyon Drive
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Overlap
Signal group	5	2	0	1	6	0	3	8	0	7	4	4
Auxiliary Signal Groups												1,4
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	7
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	30
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	1.0
Split [s]	22	49	0	11	38	0	18	46	0	14	42	42
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	5
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	10
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0
Minimum Recall	No	No		No	No		No	No		No	No	No
Maximum Recall	No	No		No	No		No	No		No	No	No
Pedestrian Recall	No	No		No	No		No	No		No	No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	0.00
g_i, Effective Green Time [s]	18	47	47	7	37	37	14	40	40	10	36	47
g / C, Green / Cycle	0.15	0.39	0.39	0.06	0.30	0.30	0.12	0.33	0.33	0.08	0.30	0.39
(v / s)_i Volume / Saturation Flow Rate	0.13	0.24	0.10	0.05	0.18	0.07	0.10	0.30	0.25	0.07	0.28	0.13
s, saturation flow rate [veh/h]	3445	5074	1583	3445	5074	1583	1774	3547	1583	1774	3547	1583
c, Capacity [veh/h]	512	2005	626	203	1550	484	208	1166	520	149	1048	614
d1, Uniform Delay [s]	50.21	28.94	24.40	56.10	35.36	31.21	52.24	38.39	35.93	54.19	41.11	25.97
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.25	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	5.92	1.39	0.97	12.35	1.67	1.14	12.19	2.77	4.93	11.74	4.40	0.34
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.90	0.61	0.25	0.89	0.59	0.24	0.89	0.90	0.75	0.84	0.93	0.35
d, Delay for Lane Group [s/veh]	56.13	30.34	25.37	68.44	37.03	32.35	64.43	41.16	40.86	65.94	45.51	26.31
Lane Group LOS	E	C	C	E	D	C	E	D	D	E	D	C
Critical Lane Group	Yes	No	No	No	Yes	No	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh]	7.07	9.30	3.12	3.03	7.65	2.59	6.10	14.57	10.59	4.15	14.19	4.23
50th-Percentile Queue Length [ft]	176.78	232.62	78.11	75.70	191.26	64.76	152.38	364.33	264.64	103.64	354.75	105.82
95th-Percentile Queue Length [veh]	11.43	14.31	5.62	5.45	12.19	4.66	10.14	20.83	15.92	7.46	20.37	7.61
95th-Percentile Queue Length [ft]	285.81	357.68	140.60	136.26	304.66	116.57	253.61	520.85	398.04	186.55	509.20	190.17

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	56.13	30.34	25.37	68.44	37.03	32.35	64.43	41.16	40.86	65.94	45.51	26.31
Movement LOS	E	C	C	E	D	C	E	D	D	E	D	C
d_A, Approach Delay [s/veh]	36.36			41.28			43.74			44.36		
Approach LOS	D			D			D			D		
d_I, Intersection Delay [s/veh]	41.11											
Intersection LOS	D											
Intersection V/C	0.801											

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 20: Date Palm Drive / Ramon Road

Control Type:	Signalized	Delay (sec / veh):	47.6
Analysis Method:	HCM 2010	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.833

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	215.00	100.00	80.00	180.00	100.00	100.00	350.00	100.00	100.00	230.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			No		

Volumes

Name												
Base Volume Input [veh/h]	241	564	82	189	486	156	192	754	157	136	717	147
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.44	1.44	1.44	1.44	1.44	1.44	1.44	1.44	1.44	1.44	1.44	1.44
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	347	812	118	272	700	225	276	1086	226	196	1032	212
Peak Hour Factor	0.9770	0.9770	0.9770	0.9770	0.9770	0.9770	0.9770	0.9770	0.9770	0.9770	0.9770	0.9770
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	89	208	30	70	179	58	71	278	58	50	264	54
Total Analysis Volume [veh/h]	355	831	121	278	716	230	282	1112	231	201	1056	217
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	7 - E/W
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	24	34	0	25	35	0	25	42	0	19	36	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	C	L	C	C
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	15	31	31	21	37	37	21	37	37	15	31	31
g / C, Green / Cycle	0.12	0.26	0.26	0.17	0.31	0.31	0.17	0.31	0.31	0.13	0.26	0.26
(v / s)_i Volume / Saturation Flow Rate	0.10	0.16	0.08	0.16	0.14	0.15	0.16	0.26	0.26	0.11	0.24	0.24
s, saturation flow rate [veh/h]	3445	5074	1583	1774	5074	1583	1774	3547	1704	1774	3547	1705
c, Capacity [veh/h]	422	1330	415	304	1578	493	308	1091	524	223	921	443
d1, Uniform Delay [s]	51.53	39.08	35.38	48.87	33.17	33.33	48.76	38.66	38.67	51.78	43.43	43.43
k, delay calibration	0.11	0.50	0.50	0.18	0.50	0.50	0.18	0.11	0.32	0.11	0.11	0.38
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	4.58	2.22	1.77	15.84	0.94	3.16	16.39	1.71	9.65	12.65	5.07	24.26
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

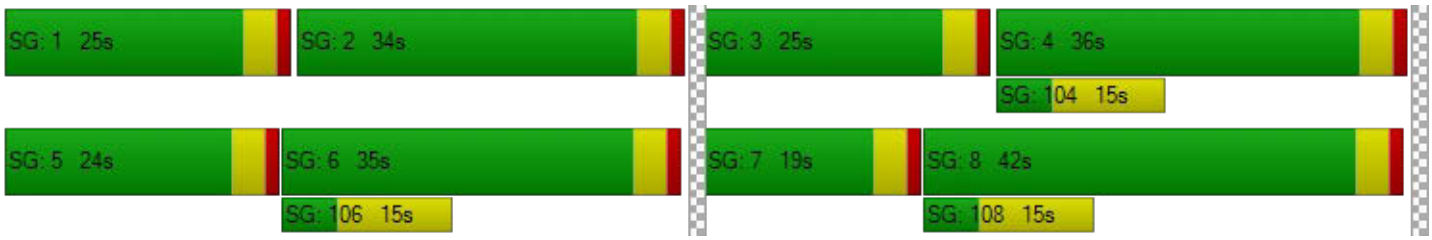
X, volume / capacity	0.84	0.62	0.29	0.91	0.45	0.47	0.92	0.83	0.83	0.90	0.93	0.93
d, Delay for Lane Group [s/veh]	56.11	41.30	37.16	64.71	34.11	36.49	65.16	40.37	48.32	64.44	48.50	67.69
Lane Group LOS	E	D	D	E	C	D	E	D	D	E	D	E
Critical Lane Group	No	Yes	No	Yes	No	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh]	5.40	7.32	2.99	9.35	5.59	5.72	9.52	12.28	12.97	6.64	12.75	14.62
50th-Percentile Queue Length [ft]	134.98	182.95	74.76	233.68	139.84	142.89	238.11	306.99	324.23	165.93	318.83	365.50
95th-Percentile Queue Length [veh]	9.21	11.75	5.38	14.36	9.47	9.64	14.59	18.03	18.88	10.86	18.61	20.89
95th-Percentile Queue Length [ft]	230.25	293.86	134.58	359.03	236.81	240.91	364.64	450.67	471.88	271.56	465.24	522.27

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	56.11	41.30	37.16	64.71	34.11	36.49	65.16	41.84	48.32	64.44	52.07	67.69
Movement LOS	E	D	D	E	C	D	E	D	D	E	D	E
d_A, Approach Delay [s/veh]	44.94			41.51			46.80			56.06		
Approach LOS	D			D			D			E		
d_I, Intersection Delay [s/veh]	47.64											
Intersection LOS	D											
Intersection V/C	0.833											

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	



Intersection Level Of Service Report
Intersection 21: Da Vall Drive / Dinah Shore Drive

Control Type:	Signalized	Delay (sec / veh):	37.6
Analysis Method:	HCM 2010	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.857

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	0	1	0	1	1	0	0
Pocket Length [ft]	120.00	100.00	120.00	130.00	100.00	100.00	175.00	100.00	215.00	185.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	173	327	44	48	197	85	60	533	174	59	544	107
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.67
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	289	546	73	80	329	142	100	890	291	99	908	179
Peak Hour Factor	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	79	150	20	22	90	39	27	245	80	27	249	49
Total Analysis Volume [veh/h]	318	600	80	88	362	156	110	978	320	109	998	197
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	6 - N/S
Cycle Length [s]	100
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	51	19	0	51	19	0	11	19	0	11	19	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	C	L	C	R	L	C	C
C, Cycle Length [s]	100	100	100	100	100	100	100	100	100	100	100	100
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	20	31	31	7	18	18	8	38	38	8	38	38
g / C, Green / Cycle	0.20	0.31	0.31	0.07	0.18	0.18	0.08	0.38	0.38	0.08	0.38	0.38
(v / s)_i Volume / Saturation Flow Rate	0.18	0.17	0.05	0.05	0.15	0.15	0.06	0.28	0.20	0.06	0.33	0.33
s, saturation flow rate [veh/h]	1774	3547	1583	1774	1863	1676	1774	3547	1583	1774	1863	1758
c, Capacity [veh/h]	359	1109	495	116	327	294	142	1357	606	141	712	671
d1, Uniform Delay [s]	38.79	28.47	24.92	46.00	39.81	39.91	45.18	26.35	23.92	45.22	28.50	28.59
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	7.30	0.41	0.15	9.54	5.34	6.35	8.69	3.33	3.28	8.72	13.00	14.14
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.88	0.54	0.16	0.76	0.83	0.84	0.77	0.72	0.53	0.77	0.86	0.87
d, Delay for Lane Group [s/veh]	46.09	28.89	25.07	55.54	45.15	46.26	53.87	29.68	27.19	53.94	41.51	42.73
Lane Group LOS	D	C	C	E	D	D	D	C	C	D	D	D
Critical Lane Group	Yes	No	No	No	No	Yes	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh]	8.03	5.76	1.35	2.41	6.69	6.20	2.95	9.94	6.08	2.93	15.18	14.65
50th-Percentile Queue Length [ft]	200.70	144.02	33.76	60.14	167.31	154.98	73.79	248.46	152.04	73.18	379.54	366.35
95th-Percentile Queue Length [veh]	12.67	9.70	2.43	4.33	10.93	10.28	5.31	15.11	10.13	5.27	21.57	20.93
95th-Percentile Queue Length [ft]	316.87	242.43	60.76	108.25	273.37	257.07	132.83	377.72	253.15	131.72	539.29	523.30

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	46.09	28.89	25.07	55.54	45.43	46.26	53.87	29.68	27.19	53.94	41.98	42.73
Movement LOS	D	C	C	E	D	D	D	C	C	D	D	D
d_A, Approach Delay [s/veh]	34.06			47.11			31.01			43.09		
Approach LOS	C			D			C			D		
d_I, Intersection Delay [s/veh]	37.63											
Intersection LOS	D											
Intersection V/C	0.857											

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 22: Da Vall Drive / Gerald Ford Drive

Control Type:	Signalized	Delay (sec / veh):	34.5
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.796

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	200.00	100.00	175.00	140.00	100.00	100.00	175.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	125	374	36	96	268	64	40	349	83	42	295	120
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.97	1.97	1.97	1.97	1.97	1.97	1.97	1.97	1.97	1.97	1.97	1.97
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	246	737	71	189	528	126	79	688	164	83	581	236
Peak Hour Factor	0.9480	0.9480	0.9480	0.9480	0.9480	0.9480	0.9480	0.9480	0.9480	0.9480	0.9480	0.9480
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	65	194	19	50	139	33	21	181	43	22	153	62
Total Analysis Volume [veh/h]	259	777	75	199	557	133	83	726	173	88	613	249
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	6 - N/S
Cycle Length [s]	80
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	18	22	0	15	19	0	11	30	0	13	32	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	C	L	C	C	L	C	C
C, Cycle Length [s]	80	80	80	80	80	80	80	80	80	80	80	80
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	13	25	25	11	22	22	6	23	23	6	23	23
g / C, Green / Cycle	0.17	0.31	0.31	0.13	0.27	0.27	0.07	0.28	0.28	0.08	0.29	0.29
(v / s)_i Volume / Saturation Flow Rate	0.15	0.22	0.05	0.11	0.19	0.19	0.05	0.25	0.25	0.05	0.24	0.24
s, saturation flow rate [veh/h]	1774	3547	1583	1774	1863	1740	1774	1863	1740	1774	1863	1682
c, Capacity [veh/h]	300	1084	484	239	505	472	133	529	494	136	532	480
d1, Uniform Delay [s]	32.44	24.77	20.31	33.84	26.35	26.35	36.00	27.40	27.40	35.99	27.06	27.06
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.21	0.21	0.11	0.19	0.19
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	7.38	4.08	0.68	7.43	8.07	8.62	4.70	8.76	9.30	5.12	6.86	7.53
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

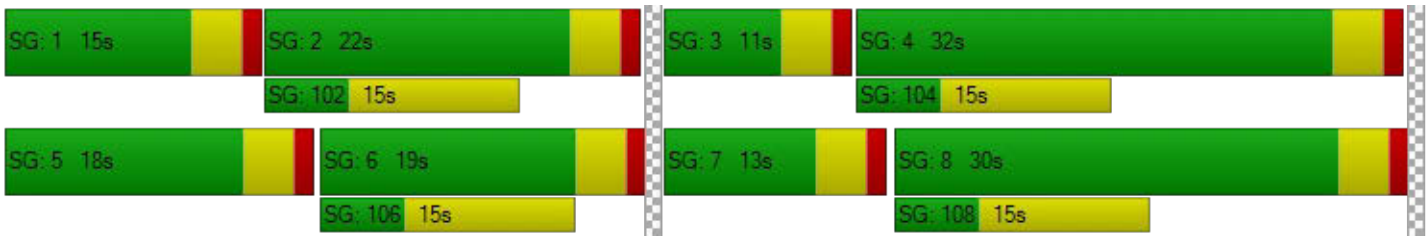
X, volume / capacity	0.86	0.72	0.16	0.83	0.71	0.71	0.62	0.88	0.88	0.65	0.85	0.85
d, Delay for Lane Group [s/veh]	39.82	28.85	20.99	41.27	34.42	34.97	40.69	36.16	36.70	41.11	33.92	34.59
Lane Group LOS	D	C	C	D	C	C	D	D	D	D	C	C
Critical Lane Group	Yes	No	No	No	No	Yes	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh]	5.22	6.63	1.04	4.06	6.80	6.43	1.68	9.09	8.56	1.79	8.53	7.79
50th-Percentile Queue Length [ft]	130.40	165.76	26.09	101.61	170.08	160.77	41.91	227.17	214.10	44.70	213.28	194.84
95th-Percentile Queue Length [veh]	8.96	10.85	1.88	7.32	11.08	10.59	3.02	14.03	13.36	3.22	13.32	12.37
95th-Percentile Queue Length [ft]	224.04	271.34	46.97	182.90	277.02	264.75	75.45	350.76	334.08	80.46	333.03	309.30

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	39.82	28.85	20.99	41.27	34.62	34.97	40.69	36.35	36.70	41.11	34.09	34.59
Movement LOS	D	C	C	D	C	C	D	D	D	D	C	C
d_A, Approach Delay [s/veh]	30.88			36.16			36.78			34.87		
Approach LOS	C			D			D			C		
d_I, Intersection Delay [s/veh]	34.51											
Intersection LOS	C											
Intersection V/C	0.796											

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	



Intersection Level Of Service Report

Intersection 23: East Palm Canyon Drive / Frank Sinatra Drive

Control Type:	Signalized	Delay (sec / veh):	47.2
Analysis Method:	HCM 2010	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.985

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	1	1	0	0	2	0	1
Pocket Length [ft]	160.00	100.00	45.00	325.00	100.00	250.00	100.00	100.00	100.00	120.00	100.00	1200.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			No			Yes		

Volumes

Name												
Base Volume Input [veh/h]	43	1314	198	296	1170	20	44	53	19	144	29	302
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.95	1.95	1.95	1.76	1.76	1.76	1.15	1.15	1.15	1.15	1.15	1.15
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	84	2562	386	521	2059	35	51	61	22	166	33	347
Peak Hour Factor	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	23	692	104	141	556	9	14	16	6	45	9	94
Total Analysis Volume [veh/h]	91	2770	417	563	2226	38	55	66	24	179	36	375
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	6 - N/S
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	66.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Overlap	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Overlap
Signal group	5	2	2	1	6	0	3	8	0	7	4	4
Auxiliary Signal Groups			1,2,3,4,									1,2,3,4,
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	7	7	7	0	7	7	0	7	7	7
Maximum Green [s]	30	30	30	30	30	0	30	30	0	30	30	30
Amber [s]	3.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0
All red [s]	1.0	1.0	1.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	1.0
Split [s]	13	64	64	26	77	0	11	19	0	11	19	19
Vehicle Extension [s]	3.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0
Walk [s]	0	5	5	0	5	0	0	5	0	0	5	5
Pedestrian Clearance [s]	0	10	10	0	10	0	0	10	0	0	10	10
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0
Minimum Recall	No	No	No	No	No		No	No		No	No	No
Maximum Recall	No	No	No	No	No		No	No		No	No	No
Pedestrian Recall	No	No	No	No	No		No	No		No	No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	0.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	0.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	2.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	8	60	212	22	74	74	7	15	7	15	212
g / C, Green / Cycle	0.07	0.50	1.77	0.18	0.61	0.61	0.06	0.12	0.06	0.12	1.77
(v / s)_i Volume / Saturation Flow Rate	0.05	0.55	0.26	0.21	0.44	0.02	0.04	0.05	0.05	0.02	0.24
s, saturation flow rate [veh/h]	1774	5074	1583	2741	5074	1583	1412	1779	3445	1863	1583
c, Capacity [veh/h]	124	2536	2797	517	3111	971	119	220	206	232	2797
d1, Uniform Delay [s]	54.71	30.01	0.00	51.16	15.99	9.20	57.30	48.51	55.96	46.87	0.00
k, delay calibration	0.11	0.11	0.49	0.11	0.11	0.11	0.11	0.50	0.11	0.50	0.41
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	8.09	43.28	0.11	47.73	0.31	0.02	2.76	5.53	10.72	1.41	0.08
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.73	1.09	0.15	1.09	0.72	0.04	0.46	0.41	0.87	0.15	0.13
d, Delay for Lane Group [s/veh]	62.80	73.30	0.11	98.89	16.31	9.21	60.05	54.04	66.68	48.28	0.08
Lane Group LOS	E	F	A	F	B	A	E	D	E	D	A
Critical Lane Group	No	Yes	No	Yes	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh]	2.93	32.69	0.09	11.18	12.72	0.38	1.73	2.79	2.95	1.04	0.06
50th-Percentile Queue Length [ft]	73.31	817.34	2.15	279.54	317.93	9.41	43.20	69.72	73.80	25.99	1.60
95th-Percentile Queue Length [veh]	5.28	45.03	0.15	17.37	18.57	0.68	3.11	5.02	5.31	1.87	0.11
95th-Percentile Queue Length [ft]	131.96	1125.83	3.86	434.22	464.14	16.93	77.76	125.50	132.83	46.79	2.87

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	62.80	73.30	0.11	98.89	16.31	9.21	60.05	54.04	54.04	66.68	48.28	0.08
Movement LOS	E	F	A	F	B	A	E	D	D	E	D	A
d_A, Approach Delay [s/veh]	63.70			32.66			56.32			23.23		
Approach LOS	E			C			E			C		
d_I, Intersection Delay [s/veh]	47.22											
Intersection LOS	D											
Intersection V/C	0.985											

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 24: East Palm Canyon Drive / Mirage Cove Drive

Control Type:	Signalized	Delay (sec / veh):	11.7
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.708

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	1	1	0	0
Pocket Length [ft]	150.00	100.00	100.00	110.00	100.00	100.00	75.00	100.00	75.00	75.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	16	1475	9	16	1379	15	35	0	20	6	0	26
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.95	1.95	1.95	1.95	1.95	1.95	1.33	1.33	1.33	1.95	1.95	1.95
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	31	2876	18	31	2689	29	47	0	27	12	0	51
Peak Hour Factor	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	8	777	5	8	727	8	13	0	7	3	0	14
Total Analysis Volume [veh/h]	34	3109	19	34	2907	31	51	0	29	13	0	55
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	6 - N/S
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	5	2	0	1	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	7	7	0	7	7	0	0	7	0	0	7	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	11	90	0	11	90	0	0	19	0	0	19	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No	No		No	No			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	L	C	R	L	C
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.00	0.00	2.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	5	92	92	5	92	92	12	12	12	12	12
g / C, Green / Cycle	0.04	0.76	0.76	0.04	0.76	0.76	0.10	0.10	0.10	0.10	0.10
(v / s)_i Volume / Saturation Flow Rate	0.02	0.58	0.58	0.02	0.54	0.55	0.04	0.00	0.02	0.01	0.03
s, saturation flow rate [veh/h]	1774	3547	1857	1774	3547	1853	1343	1863	1583	1412	1583
c, Capacity [veh/h]	70	2706	1417	70	2706	1413	123	182	154	172	154
d1, Uniform Delay [s]	56.41	8.00	8.03	56.41	7.38	7.43	56.69	0.00	49.78	51.34	50.63
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	5.07	2.05	3.89	5.07	1.62	3.13	2.24	0.00	0.58	0.19	1.39
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.48	0.76	0.76	0.48	0.71	0.72	0.42	0.00	0.19	0.08	0.36
d, Delay for Lane Group [s/veh]	61.48	10.04	11.92	61.48	9.01	10.56	58.93	0.00	50.36	51.53	52.02
Lane Group LOS	E	B	B	E	A	B	E	A	D	D	D
Critical Lane Group	No	No	Yes	Yes	No	No	Yes	No	No	No	No
50th-Percentile Queue Length [veh]	1.09	11.89	13.26	1.09	10.25	11.42	1.58	0.00	0.81	0.37	1.58
50th-Percentile Queue Length [ft]	27.32	297.25	331.59	27.32	256.33	285.60	39.59	0.00	20.37	9.19	39.57
95th-Percentile Queue Length [veh]	1.97	17.55	19.24	1.97	15.50	16.97	2.85	0.00	1.47	0.66	2.85
95th-Percentile Queue Length [ft]	49.18	438.63	480.90	49.18	387.61	424.17	71.26	0.00	36.66	16.54	71.23

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	61.48	10.68	11.92	61.48	9.53	10.56	58.93	0.00	50.36	51.53	52.02	52.02
Movement LOS	E	B	B	E	A	B	E	A	D	D	D	D
d_A, Approach Delay [s/veh]	11.24			10.14			55.82			51.92		
Approach LOS	B			B			E			D		
d_I, Intersection Delay [s/veh]	11.73											
Intersection LOS	B											
Intersection V/C	0.708											

Sequence

Ring 1	1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 25: East Palm Canyon Drive / Country Club Drive

Control Type:	Signalized	Delay (sec / veh):	23.2
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.923

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	2	0	0	1	0	0	1	0	0
Pocket Length [ft]	160.00	100.00	45.00	190.00	100.00	100.00	30.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			Yes			Yes			No		

Volumes

Name												
Base Volume Input [veh/h]	8	1344	49	145	1218	3	3	8	9	41	4	207
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.95	1.95	1.95	1.95	1.95	1.95	1.33	1.33	1.33	1.95	1.95	1.95
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	16	2621	96	283	2375	6	4	11	12	80	8	404
Peak Hour Factor	0.9370	0.9370	0.9370	0.9370	0.9370	0.9370	0.9370	0.9370	0.9370	0.9370	0.9370	0.9370
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	699	26	76	634	2	1	3	3	21	2	108
Total Analysis Volume [veh/h]	17	2797	102	302	2535	6	4	12	13	85	9	431
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	6 - N/S
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	61.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Protecte	Permiss	Overlap	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	5	2	2	1	6	0	0	8	0	0	4	0
Auxiliary Signal Groups			1,2,4,5,									
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	7	7	7	7	7	0	0	7	0	0	7	0
Maximum Green [s]	30	30	30	30	30	0	0	30	0	0	30	0
Amber [s]	3.0	3.0	3.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	1.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	11	57	57	14	60	0	0	19	0	0	19	0
Vehicle Extension [s]	3.0	3.0	3.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	5	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	10	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	2.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	2.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No	No	No	No	No			No			No	
Maximum Recall	No	No	No	No	No			No			No	
Pedestrian Recall	No	No	No	No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	C	L	C	L	C	R
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	0.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	2.00	0.00	0.00	2.00	0.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	7	51	160	10	54	54	17	17	17	17	17
g / C, Green / Cycle	0.07	0.56	1.78	0.11	0.60	0.60	0.19	0.19	0.19	0.19	0.19
(v / s)_i Volume / Saturation Flow Rate	0.01	0.55	0.06	0.11	0.47	0.47	0.00	0.01	0.06	0.14	0.14
s, saturation flow rate [veh/h]	1774	5074	1583	2741	3547	1860	945	1706	1380	1593	1583
c, Capacity [veh/h]	131	2851	2815	327	2125	1115	129	330	312	308	306
d1, Uniform Delay [s]	38.96	19.26	0.00	41.70	13.64	13.66	40.59	29.71	33.21	33.98	33.98
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.29	0.50	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.44	4.60	0.01	11.03	0.66	3.25	0.44	0.45	2.15	13.31	13.38
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.13	0.98	0.04	0.92	0.78	0.79	0.03	0.08	0.27	0.72	0.72
d, Delay for Lane Group [s/veh]	39.40	23.86	0.01	52.73	14.30	16.91	41.03	30.15	35.37	47.28	47.36
Lane Group LOS	D	C	A	D	B	B	D	C	D	D	D
Critical Lane Group	No	Yes	No	Yes	No	No	No	No	No	No	Yes
50th-Percentile Queue Length [veh]	0.36	17.07	0.00	3.80	10.72	12.08	0.10	0.47	1.77	5.44	5.42
50th-Percentile Queue Length [ft]	8.90	426.87	0.10	94.88	268.10	301.91	2.44	11.68	44.17	136.12	135.45
95th-Percentile Queue Length [veh]	0.64	23.85	0.01	6.83	16.09	17.78	0.18	0.84	3.18	9.27	9.24
95th-Percentile Queue Length [ft]	16.03	596.29	0.18	170.78	402.36	444.39	4.39	21.03	79.51	231.79	230.89

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	39.40	23.86	0.01	52.73	15.20	16.91	41.03	30.15	30.15	35.37	47.28	47.32
Movement LOS	D	C	A	D	B	B	D	C	C	D	D	D
d_A, Approach Delay [s/veh]	23.12			19.19			31.65			45.39		
Approach LOS	C			B			C			D		
d_I, Intersection Delay [s/veh]	23.24											
Intersection LOS	C											
Intersection V/C	0.923											

Sequence

Ring 1	1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 26: Thompson Road-Morningside Drive / Frank Sinatra Drive

Control Type:	Signalized	Delay (sec / veh):	8.7
Analysis Method:	HCM 2010	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.393

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	150.00	100.00	100.00	90.00	100.00	100.00	90.00	100.00	100.00	130.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	163	22	37	11	15	8	10	434	102	46	476	19
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	187	25	43	13	17	9	12	499	117	53	547	22
Peak Hour Factor	0.9030	0.9030	0.9030	0.9030	0.9030	0.9030	0.9030	0.9030	0.9030	0.9030	0.9030	0.9030
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	52	7	12	4	5	2	3	138	32	15	151	6
Total Analysis Volume [veh/h]	207	28	48	14	19	10	13	553	130	59	606	24
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	7 - E/W
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	0	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	7	0	0	7	0	0	7	0	0	7	0
Maximum Green [s]	0	30	0	0	30	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	30	0	0	30	0	0	30	0	0	30	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No			No			No			No	
Maximum Recall		No			No			No			No	
Pedestrian Recall		No			No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	C	L	C	C	L	C	C
C, Cycle Length [s]	60	60	60	60	60	60	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	0.00	2.00	0.00	0.00	2.00	0.00	0.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	14	14	14	14	14	14	38	38	38	38	38	38
g / C, Green / Cycle	0.23	0.23	0.23	0.23	0.23	0.23	0.64	0.64	0.64	0.64	0.64	0.64
(v / s)_i Volume / Saturation Flow Rate	0.15	0.02	0.03	0.01	0.01	0.01	0.02	0.19	0.19	0.08	0.17	0.17
s, saturation flow rate [veh/h]	1375	1863	1583	1377	1863	1660	793	1863	1742	755	1863	1838
c, Capacity [veh/h]	374	425	361	368	425	379	545	1189	1112	516	1189	1173
d1, Uniform Delay [s]	23.46	18.14	18.43	20.38	18.01	18.03	6.58	4.84	4.84	7.34	4.73	4.73
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.28	0.06	0.16	0.04	0.03	0.04	0.08	0.64	0.68	0.45	0.55	0.56
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.55	0.07	0.13	0.04	0.03	0.04	0.02	0.30	0.30	0.11	0.27	0.27
d, Delay for Lane Group [s/veh]	24.74	18.21	18.59	20.42	18.04	18.07	6.66	5.47	5.53	7.79	5.28	5.28
Lane Group LOS	C	B	B	C	B	B	A	A	A	A	A	A
Critical Lane Group	Yes	No	No	No	No	No	No	No	Yes	No	No	No
50th-Percentile Queue Length [veh]	2.63	0.28	0.49	0.15	0.14	0.14	0.07	1.38	1.31	0.36	1.21	1.19
50th-Percentile Queue Length [ft]	65.76	6.96	12.21	3.76	3.60	3.57	1.76	34.38	32.71	8.93	30.17	29.87
95th-Percentile Queue Length [veh]	4.73	0.50	0.88	0.27	0.26	0.26	0.13	2.48	2.35	0.64	2.17	2.15
95th-Percentile Queue Length [ft]	118.37	12.53	21.97	6.77	6.47	6.43	3.17	61.88	58.87	16.07	54.30	53.76

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	24.74	18.21	18.59	20.42	18.05	18.07	6.66	5.49	5.53	7.79	5.28	5.28
Movement LOS	C	B	B	C	B	B	A	A	A	A	A	A
d_A, Approach Delay [s/veh]	23.05			18.83			5.52			5.49		
Approach LOS	C			B			A			A		
d_I, Intersection Delay [s/veh]	8.74											
Intersection LOS	A											
Intersection V/C	0.393											

Sequence

Ring 1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 27: Van Fleet Street / B Street-West Project Driveway

Control Type:	Two-way stop	Delay (sec / veh):	10.7
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	2	80	0	0	80	14	6	0	4	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	3	106	0	0	106	19	8	0	5	0	0	0
Peak Hour Factor	0.8940	0.8940	0.8940	0.8940	0.8940	0.8940	0.8940	0.8940	0.8940	0.8940	0.8940	0.8940
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	30	0	0	30	5	2	0	1	0	0	0
Total Analysis Volume [veh/h]	3	119	0	0	119	21	9	0	6	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.01	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	7.50	0.00	0.00	7.45	0.00	0.00	10.25	10.65	9.00	10.22	10.63	8.86
Movement LOS	A	A	A	A	A	A	B	B	A	B	B	A
95th-Percentile Queue Length [veh]	0.28	0.28	0.28	0.00	0.00	0.00	0.06	0.06	0.06	0.00	0.00	0.00
95th-Percentile Queue Length [ft]	6.91	6.91	6.91	0.00	0.00	0.00	1.48	1.48	1.48	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	0.18			0.00			9.75			9.90		
Approach LOS	A			A			A			A		
d_I, Intersection Delay [s/veh]	0.61											
Intersection LOS	B											

Intersection Level Of Service Report
Intersection 28: Van Fleet Street / D Street

Control Type:	Two-way stop	Delay (sec / veh):	10.6
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.002

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	3	64	1	3	71	6	10	1	2	2	1	6
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	4	85	1	4	94	8	13	1	3	3	1	8
Peak Hour Factor	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	25	0	1	28	2	4	0	1	1	0	2
Total Analysis Volume [veh/h]	5	100	1	5	111	9	15	1	4	4	1	9
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.01	0.00	0.01
d_M, Delay for Movement [s/veh]	7.46	0.00	0.00	7.42	0.00	0.00	10.27	10.60	8.98	10.16	10.56	8.84
Movement LOS	A	A	A	A	A	A	B	B	A	B	B	A
95th-Percentile Queue Length [veh]	0.23	0.23	0.23	0.27	0.27	0.27	0.08	0.08	0.08	0.05	0.05	0.05
95th-Percentile Queue Length [ft]	5.83	5.83	5.83	6.85	6.85	6.85	2.09	2.09	2.09	1.27	1.27	1.27
d_A, Approach Delay [s/veh]	0.35			0.30			10.03			9.34		
Approach LOS	A			A			B			A		
d_I, Intersection Delay [s/veh]	1.53											
Intersection LOS	B											

Intersection Level Of Service Report
Intersection 29: South Project Driveway / D Street

Control Type:	Two-way stop	Delay (sec / veh):	8.6
Analysis Method:	HCM 2010	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

Intersection Setup

Name						
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00		40.00		40.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name						
Base Volume Input [veh/h]	0	0	0	5	9	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.33	1.33	1.33	1.33	1.33	1.33
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	7	12	0
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	2	3	0
Total Analysis Volume [veh/h]	0	0	0	8	13	0
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	8.62	8.37	7.24	0.00	0.00	0.00
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	8.49		0.00		0.00	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	0.00					
Intersection LOS	A					

Traffic Impact Analysis

Vistro File: G:\...\2040 & Alt A.vistro
Report File: G:\...\2040 SAT MD.pdf
Scenario 3 2040 SAT MD
7/30/2018

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	North Project Driveway 1 / Buddy Rogers Avenue	Two-way stop	HCM 2010	NB Thru	0.000	9.5	A
2	Date Palm Drive / Buddy Rogers Avenue	Two-way stop	HCM 2010	EB Left	0.693	149.8	F
3	Date Palm Drive / East Palm Canyon Drive	Signalized	HCM 2010	SB Right	0.727	14.1	B
4	South Project Driveway-Allen Avenue / East Palm Canyon Drive	Signalized	HCM 2010	SB Right	0.354	0.9	A
5	Monty Hall Drive-Van Fleet Avenue / East Palm Canyon Drive	Signalized	HCM 2010	EB Left	0.446	6.5	A
6	Date Palm Drive / East Palm Drive	Two-way stop	HCM 2010	EB Right	0.000	19.2	C
7	North Project Driveway 2 / Buddy Rogers Avenue	Two-way stop	HCM 2010	NB Left	0.000	8.8	A
8	Monty Hall Drive / Buddy Rogers Avenue	All-way stop	HCM 2010	SB Left	0.078	7.4	A
9	Buddy Rogers Avenue/ East Palm Canyon Drive	Signalized	HCM 2010	SB Right	0.408	3.4	A
10	Cathedral Canyon Drive / East Palm Canyon Drive	Signalized	HCM 2010	WB Left	0.567	18.3	B
11	Perez Road / East Palm Canyon Drive	Signalized	HCM 2010	WB Left	0.651	21.3	C
12	Canyon Plaza Drive / East Palm Canyon Drive	Signalized	HCM 2010	WB Left	0.658	11.3	B
13	Golf Club Drive / East Palm Canyon Drive	Signalized	HCM 2010	EB Left	1.058	22.3	C
14	Cathedral Canyon Drive / Officer David Vasquez Road	Signalized	HCM 2010	SB Left	0.237	4.4	A
15	Cathedral Canyon Drive / Perez Road	Signalized	HCM 2010	SB Left	0.571	23.1	C
16	Cathedral Canyon Drive / Paseo Real	Two-way stop	HCM 2010	EB Thru	0.057	38.2	E

17	Cathedral Canyon Drive / Dinah Shore Drive	Signalized	HCM 2010	WB Left	0.784	27.7	C
18	Date Palm Drive / Gerald Ford Drive	Signalized	HCM 2010	EB Left	0.912	25.9	C
19	Date Palm Drive / Dinah Shore Drive	Signalized	HCM 2010	WB Left	0.707	30.3	C
20	Date Palm Drive / Ramon Road	Signalized	HCM 2010	WB Left	0.830	43.3	D
21	Da Vall Drive / Dinah Shore Drive	Signalized	HCM 2010	WB Left	0.676	23.6	C
22	Da Vall Drive / Gerald Ford Drive	Signalized	HCM 2010	SB Left	0.665	29.8	C
23	East Palm Canyon Drive / Frank Sinatra Drive	Signalized	HCM 2010	SB Left	0.883	30.1	C
24	East Palm Canyon Drive / Mirage Cove Drive	Signalized	HCM 2010	NB Left	0.683	18.8	B
25	East Palm Canyon Drive / Country Club Drive	Signalized	HCM 2010	SB Left	0.856	23.9	C
26	Thompson Road-Morningside Drive / Frank Sinatra Drive	Signalized	HCM 2010	NB Left	0.418	7.2	A
27	Van Fleet Street / B Street-West Project Driveway	Two-way stop	HCM 2010	WB Thru	0.000	10.1	B
28	Van Fleet Street / D Street	Two-way stop	HCM 2010	EB Thru	0.011	9.9	A
29	South Project Driveway / D Street	Two-way stop	HCM 2010	SB Left	0.000	8.6	A

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. for all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report
Intersection 1: North Project Driveway 1 / Buddy Rogers Avenue

Control Type:	Two-way stop	Delay (sec / veh):	9.5
Analysis Method:	HCM 2010	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			No			No		

Volumes

Name												
Base Volume Input [veh/h]	0	0	0	0	0	0	0	29	0	0	31	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	0	0	0	0	39	0	0	41	0
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	0	0	0	0	11	0	0	11	0
Total Analysis Volume [veh/h]	0	0	0	0	0	0	0	42	0	0	45	0
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	No	No		
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	No	No		
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	9.01	9.48	8.50	9.01	9.48	8.51	7.30	0.00	0.00	7.30	0.00	0.00
Movement LOS	A	A	A	A	A	A	A	A	A	A	A	A
95th-Percentile Queue Length [veh]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	9.00			9.00			0.00			0.00		
Approach LOS	A			A			A			A		
d_I, Intersection Delay [s/veh]	0.00											
Intersection LOS	A											

Intersection Level Of Service Report
Intersection 2: Date Palm Drive / Buddy Rogers Avenue

Control Type:	Two-way stop	Delay (sec / veh):	149.8
Analysis Method:	HCM 2010	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.693

Intersection Setup

Name						
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00		40.00		40.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

Volumes

Name						
Base Volume Input [veh/h]	4	492	513	25	29	14
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	2.97	2.97	2.97	2.97	1.33	1.33
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	12	1461	1524	74	39	19
Peak Hour Factor	0.9410	0.9410	0.9410	0.9410	0.9410	0.9410
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	388	405	20	10	5
Total Analysis Volume [veh/h]	13	1553	1620	79	41	20
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.07	0.02	0.02	0.00	0.69	0.08
d_M, Delay for Movement [s/veh]	26.90	0.00	0.00	0.00	149.79	102.72
Movement LOS	D	A	A	A	F	F
95th-Percentile Queue Length [veh]	0.23	0.00	0.00	0.00	3.78	3.78
95th-Percentile Queue Length [ft]	5.87	0.00	0.00	0.00	94.42	94.42
d_A, Approach Delay [s/veh]	0.22		0.00		134.36	
Approach LOS	A		A		F	
d_I, Intersection Delay [s/veh]	2.57					
Intersection LOS	F					

Intersection Level Of Service Report
Intersection 3: Date Palm Drive / East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	14.1
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.727

Intersection Setup

Name						
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00		40.00		40.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		Yes		Yes	

Volumes

Name						
Base Volume Input [veh/h]	339	121	149	1198	1174	347
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.46	1.46	1.16	1.16	1.76	1.76
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	495	177	173	1390	2066	611
Peak Hour Factor	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	133	48	47	374	555	164
Total Analysis Volume [veh/h]	532	190	186	1495	2222	657
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Split	Split	ProtectedPermissi	Permissive	Permissive	Permissive
Signal group	1	0	3	8	4	0
Auxiliary Signal Groups						
Lead / Lag	Lead	-	Lead	-	-	-
Minimum Green [s]	7	0	7	7	7	0
Maximum Green [s]	30	0	7	30	30	0
Amber [s]	3.0	0.0	3.0	3.0	3.0	0.0
All red [s]	1.0	0.0	1.0	1.0	1.0	0.0
Split [s]	19	0	22	41	19	0
Vehicle Extension [s]	3.0	0.0	3.0	3.0	3.0	0.0
Walk [s]	5	0	0	5	5	0
Pedestrian Clearance [s]	10	0	0	10	10	0
Rest In Walk	No			No	No	
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	2.0	0.0
Minimum Recall	No		Yes	No	No	
Maximum Recall	No		No	No	No	
Pedestrian Recall	No		No	No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	R	L	C	C	R
C, Cycle Length [s]	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	0.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	10	10	42	42	31	31
g / C, Green / Cycle	0.17	0.17	0.70	0.70	0.52	0.52
(v / s)_i Volume / Saturation Flow Rate	0.10	0.12	0.19	0.29	0.44	0.41
s, saturation flow rate [veh/h]	5168	1583	979	5074	5074	1583
c, Capacity [veh/h]	884	271	788	3532	2631	821
d1, Uniform Delay [s]	23.04	23.49	10.55	3.94	12.40	11.91
k, delay calibration	0.11	0.11	0.11	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.66	3.30	0.15	0.37	3.53	8.06
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.60	0.70	0.24	0.42	0.84	0.80
d, Delay for Lane Group [s/veh]	23.70	26.79	10.70	4.31	15.93	19.97
Lane Group LOS	C	C	B	A	B	B
Critical Lane Group	No	Yes	Yes	No	Yes	No
50th-Percentile Queue Length [veh]	2.13	2.52	0.19	1.34	7.04	7.10
50th-Percentile Queue Length [ft]	53.32	62.95	4.65	33.44	175.93	177.52
95th-Percentile Queue Length [veh]	3.84	4.53	0.33	2.41	11.39	11.47
95th-Percentile Queue Length [ft]	95.97	113.32	8.36	60.20	284.70	286.77

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	23.70	26.79	10.70	4.31	15.93	19.97
Movement LOS	C	C	B	A	B	B
d_A, Approach Delay [s/veh]	24.52		5.02		16.86	
Approach LOS	C		A		B	
d_I, Intersection Delay [s/veh]	14.14					
Intersection LOS	B					
Intersection V/C	0.727					

Sequence

Ring 1	1	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 4: South Project Driveway-Allen Avenue / East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	0.9
Analysis Method:	HCM 2010	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.354

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	0	0	0	2	0	3	8	1365	0	0	1343	20
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	2	0	3	9	1583	0	0	1558	23
Peak Hour Factor	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	1	0	1	2	417	0	0	410	6
Total Analysis Volume [veh/h]	0	0	0	2	0	3	9	1668	0	0	1642	24
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	1 - E Palm Canyon Drive
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	0	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	7	0	0	7	0	0	7	0	0	7	0
Maximum Green [s]	0	30	0	0	30	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	19	0	0	19	0	0	101	0	0	101	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No			No			No			No	
Maximum Recall		No			No			No			No	
Pedestrian Recall		No			No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	L	C	L	C	R	C	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	2.00	0.00	2.00	0.00	0.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	1	1	1	111	111	111	111	111	111
g / C, Green / Cycle	0.01	0.01	0.01	0.92	0.92	0.92	0.92	0.92	0.92
(v / s)_i Volume / Saturation Flow Rate	0.00	0.00	0.00	0.03	0.33	0.00	0.32	0.32	0.02
s, saturation flow rate [veh/h]	134	1412	1583	304	5074	1583	1863	3227	1583
c, Capacity [veh/h]	31	61	15	323	4688	1463	1751	2982	1463
d1, Uniform Delay [s]	0.00	59.93	58.94	1.13	0.52	0.00	0.51	0.51	0.35
k, delay calibration	0.11	0.11	0.11	0.50	0.50	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.00	0.22	6.51	0.16	0.21	0.00	0.54	0.32	0.02
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.00	0.03	0.20	0.03	0.36	0.00	0.34	0.35	0.02
d, Delay for Lane Group [s/veh]	0.00	60.14	65.46	1.29	0.73	0.00	1.05	0.84	0.37
Lane Group LOS	A	E	E	A	A	A	A	A	A
Critical Lane Group	No	No	Yes	No	Yes	No	No	No	No
50th-Percentile Queue Length [veh]	0.00	0.06	0.12	0.03	0.09	0.00	0.26	0.13	0.01
50th-Percentile Queue Length [ft]	0.00	1.59	2.90	0.82	2.30	0.00	6.52	3.35	0.21
95th-Percentile Queue Length [veh]	0.00	0.11	0.21	0.06	0.17	0.00	0.47	0.24	0.02
95th-Percentile Queue Length [ft]	0.00	2.87	5.22	1.47	4.14	0.00	11.73	6.03	0.38

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	60.14	65.46	65.46	1.29	0.73	0.00	1.05	0.91	0.37
Movement LOS	A	A	A	E	E	E	A	A	A	A	A	A
d_A, Approach Delay [s/veh]	0.00			63.33			0.73			0.91		
Approach LOS	A			E			A			A		
d_I, Intersection Delay [s/veh]	0.91											
Intersection LOS	A											
Intersection V/C	0.354											

Sequence

Ring 1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 5: Monty Hall Drive-Van Fleet Avenue / East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	6.5
Analysis Method:	HCM 2010	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.446

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	1	0	1	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	45.00	100.00	100.00	105.00	100.00	130.00	125.00	100.00	180.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	11	1	44	10	9	12	13	1322	16	55	1290	10
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	13	1	51	12	10	14	15	1534	19	64	1496	12
Peak Hour Factor	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	0	13	3	3	4	4	400	5	17	390	3
Total Analysis Volume [veh/h]	14	1	53	13	10	15	16	1600	20	67	1560	13
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	1 - E Palm Canyon Drive
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	0	7	7	0	7	7	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	19	0	0	19	0	12	60	0	11	59	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	R	L	C	L	C	R	L	C	R
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	6	6	6	6	2	67	67	6	70	70
g / C, Green / Cycle	0.06	0.06	0.06	0.06	0.03	0.74	0.74	0.06	0.78	0.78
(v / s)_i Volume / Saturation Flow Rate	0.02	0.03	0.01	0.01	0.01	0.32	0.01	0.04	0.31	0.01
s, saturation flow rate [veh/h]	744	1583	1410	1684	1774	5074	1583	1774	5074	1583
c, Capacity [veh/h]	125	102	98	109	48	3745	1169	113	3934	1227
d1, Uniform Delay [s]	41.90	40.75	44.31	39.98	43.03	4.51	3.13	41.00	3.28	2.29
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.42	4.00	0.61	1.06	4.09	0.36	0.03	4.82	0.30	0.02
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.12	0.52	0.13	0.23	0.34	0.43	0.02	0.59	0.40	0.01
d, Delay for Lane Group [s/veh]	42.32	44.75	44.93	41.04	47.12	4.87	3.15	45.82	3.58	2.31
Lane Group LOS	D	D	D	D	D	A	A	D	A	A
Critical Lane Group	No	Yes	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh]	0.33	1.21	0.30	0.54	0.39	2.61	0.07	1.55	1.80	0.03
50th-Percentile Queue Length [ft]	8.26	30.35	7.42	13.53	9.83	65.21	1.83	38.75	45.07	0.87
95th-Percentile Queue Length [veh]	0.59	2.19	0.53	0.97	0.71	4.70	0.13	2.79	3.25	0.06
95th-Percentile Queue Length [ft]	14.87	54.63	13.36	24.36	17.70	117.38	3.30	69.75	81.13	1.57

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	42.32	42.32	44.75	44.93	41.04	41.04	47.12	4.87	3.15	45.82	3.58	2.31
Movement LOS	D	D	D	D	D	D	D	A	A	D	A	A
d_A, Approach Delay [s/veh]	44.21			42.37			5.26			5.30		
Approach LOS	D			D			A			A		
d_I, Intersection Delay [s/veh]	6.48											
Intersection LOS	A											
Intersection V/C	0.446											

Sequence

Ring 1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 6: Date Palm Drive / East Palm Drive

Control Type:	Two-way stop	Delay (sec / veh):	19.2
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

Intersection Setup

Name						
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00		40.00		40.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

Volumes

Name						
Base Volume Input [veh/h]	0	8	539	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	2.97	2.97	2.97	1.04	1.33
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	24	1601	0	0	0
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	7	435	0	0	0
Total Analysis Volume [veh/h]	0	26	1740	0	0	0
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.02	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	0.00	0.00	19.23
Movement LOS		A	A	A		C
95th-Percentile Queue Length [veh]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	0.00		0.00		19.23	
Approach LOS	A		A		C	
d_I, Intersection Delay [s/veh]	0.00					
Intersection LOS	C					

Intersection Level Of Service Report
Intersection 7: North Project Driveway 2 / Buddy Rogers Avenue

Control Type:	Two-way stop	Delay (sec / veh):	8.8
Analysis Method:	HCM 2010	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

Intersection Setup

Name						
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00		40.00		40.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name						
Base Volume Input [veh/h]	0	0	29	0	0	31
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.33	1.00	1.00	1.33	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	29	0	0	31
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	8	0	0	8
Total Analysis Volume [veh/h]	0	0	32	0	0	34
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	8.83	8.46	0.00	0.00	7.28	0.00
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	8.64		0.00		0.00	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	0.00					
Intersection LOS	A					

Intersection Level Of Service Report
Intersection 8: Monty Hall Drive / Buddy Rogers Avenue

Control Type:	All-way stop	Delay (sec / veh):	7.4
Analysis Method:	HCM 2010	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.078

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			No			No		

Volumes

Name												
Base Volume Input [veh/h]	20	5	4	17	6	0	1	13	6	7	25	12
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	27	7	5	23	8	0	1	17	8	9	33	16
Peak Hour Factor	0.8290	0.8290	0.8290	0.8290	0.8290	0.8290	0.8290	0.8290	0.8290	0.8290	0.8290	0.8290
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	8	2	2	7	2	0	0	5	2	3	10	5
Total Analysis Volume [veh/h]	33	8	6	28	10	0	1	21	10	11	40	19
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	846	829	898	894
Degree of Utilization, x	0.06	0.05	0.04	0.08

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.18	0.14	0.11	0.25
95th-Percentile Queue Length [ft]	4.40	3.60	2.77	6.35
Approach Delay [s/veh]	7.50	7.55	7.16	7.37
Approach LOS	A	A	A	A
Intersection Delay [s/veh]	7.40			
Intersection LOS	A			

Intersection Level Of Service Report

Intersection 9: Buddy Rogers Avenue/ East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	3.4
Analysis Method:	HCM 2010	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.408

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	10	1	39	19	2	28	16	1309	2	16	1255	17
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	12	1	45	22	2	32	19	1518	2	19	1456	20
Peak Hour Factor	0.9360	0.9360	0.9360	0.9360	0.9360	0.9360	0.9360	0.9360	0.9360	0.9360	0.9360	0.9360
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	0	12	6	1	9	5	405	1	5	389	5
Total Analysis Volume [veh/h]	13	1	48	24	2	34	20	1622	2	20	1556	21
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	1 - E Palm Canyon Drive
Cycle Length [s]	110
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	7	0	0	7	0	0	7	0	0	7	0
Maximum Green [s]	0	30	0	0	30	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	29	0	0	29	0	0	81	0	0	81	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No			No			No			No	
Maximum Recall		No			No			No			No	
Pedestrian Recall		No			No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	C	L	C	R	L	C	R
C, Cycle Length [s]	110	110	110	110	110	110	110	110
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	2.00	2.00	0.00	0.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	6	6	96	96	96	96	96	96
g / C, Green / Cycle	0.05	0.05	0.87	0.87	0.87	0.87	0.87	0.87
(v / s)_i Volume / Saturation Flow Rate	0.04	0.04	0.06	0.32	0.00	0.06	0.31	0.01
s, saturation flow rate [veh/h]	1642	1375	330	5074	1583	310	5074	1583
c, Capacity [veh/h]	129	121	327	4429	1382	310	4429	1382
d1, Uniform Delay [s]	51.07	51.26	2.52	1.31	0.89	2.62	1.28	0.90
k, delay calibration	0.11	0.11	0.50	0.50	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.76	3.14	0.36	0.23	0.00	0.40	0.22	0.02
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.48	0.50	0.06	0.37	0.00	0.06	0.35	0.02
d, Delay for Lane Group [s/veh]	53.83	54.40	2.87	1.54	0.89	3.02	1.50	0.92
Lane Group LOS	D	D	A	A	A	A	A	A
Critical Lane Group	No	Yes	No	Yes	No	No	No	No
50th-Percentile Queue Length [veh]	1.75	1.71	0.10	0.53	0.00	0.10	0.49	0.02
50th-Percentile Queue Length [ft]	43.63	42.68	2.40	13.16	0.05	2.52	12.37	0.48
95th-Percentile Queue Length [veh]	3.14	3.07	0.17	0.95	0.00	0.18	0.89	0.03
95th-Percentile Queue Length [ft]	78.53	76.82	4.33	23.68	0.08	4.53	22.27	0.87

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	53.83	53.83	53.83	54.40	54.40	54.40	2.87	1.54	0.89	3.02	1.50	0.92
Movement LOS	D	D	D	D	D	D	A	A	A	A	A	A
d_A, Approach Delay [s/veh]	53.83			54.40			1.56			1.51		
Approach LOS	D			D			A			A		
d_I, Intersection Delay [s/veh]	3.44											
Intersection LOS	A											
Intersection V/C	0.408											

Sequence

Ring 1	2	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 10: Cathedral Canyon Drive / East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	18.3
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.567

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	0	1	0	0	1	0	1
Pocket Length [ft]	100.00	100.00	70.00	90.00	100.00	100.00	238.00	100.00	100.00	190.00	100.00	270.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	71	113	50	127	131	92	110	1151	77	61	1111	120
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.33	1.33	1.33	1.33	1.33	1.33	1.31	1.31	1.31	1.16	1.16	1.16
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	94	150	67	169	174	122	144	1508	101	71	1289	139
Peak Hour Factor	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	24	39	17	44	45	32	37	390	26	18	333	36
Total Analysis Volume [veh/h]	97	155	69	175	180	126	149	1559	104	73	1333	144
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	1 - E Palm Canyon Drive
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Overlap	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	6	3	8	0	7	4	0
Auxiliary Signal Groups						3,6						
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	7	7	7	0	7	7	0
Maximum Green [s]	0	30	0	0	30	30	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	1.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	24	0	0	24	24	47	55	0	11	19	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	5	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	10	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No	No	No	No		No	No	
Maximum Recall		No			No	No	No	No		No	No	
Pedestrian Recall		No			No	No	No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	0.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	20	20	20	20	20	34	10	52	52	6	48	48
g / C, Green / Cycle	0.22	0.22	0.22	0.22	0.22	0.38	0.11	0.58	0.58	0.07	0.54	0.54
(v / s)_i Volume / Saturation Flow Rate	0.08	0.08	0.04	0.14	0.10	0.08	0.08	0.31	0.07	0.04	0.26	0.09
s, saturation flow rate [veh/h]	1199	1863	1583	1227	1863	1583	1774	5074	1583	1774	5074	1583
c, Capacity [veh/h]	223	415	353	242	415	597	195	2935	916	116	2710	846
d1, Uniform Delay [s]	37.99	29.68	28.45	39.53	30.12	18.99	38.97	11.56	8.57	41.02	13.26	10.75
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.33	0.56	0.27	4.06	0.72	0.17	6.14	0.69	0.25	5.45	0.64	0.44
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

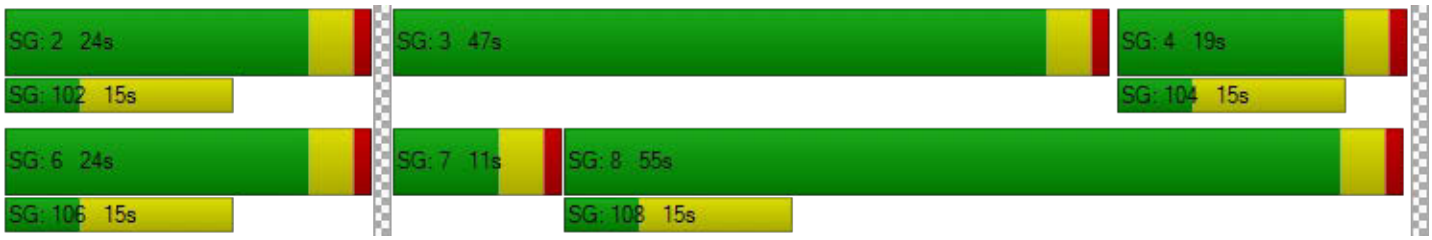
X, volume / capacity	0.43	0.37	0.20	0.72	0.43	0.21	0.76	0.53	0.11	0.63	0.49	0.17
d, Delay for Lane Group [s/veh]	39.32	30.23	28.71	43.58	30.83	19.17	45.10	12.25	8.82	46.47	13.90	11.19
Lane Group LOS	D	C	C	D	C	B	D	B	A	D	B	B
Critical Lane Group	No	No	No	Yes	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh]	2.06	2.79	1.19	4.02	3.29	1.71	3.41	5.59	0.87	1.70	5.16	1.42
50th-Percentile Queue Length [ft]	51.38	69.69	29.71	100.60	82.31	42.70	85.34	139.71	21.63	42.54	128.97	35.41
95th-Percentile Queue Length [veh]	3.70	5.02	2.14	7.24	5.93	3.07	6.14	9.47	1.56	3.06	8.88	2.55
95th-Percentile Queue Length [ft]	92.49	125.45	53.48	181.08	148.15	76.86	153.61	236.63	38.94	76.58	222.10	63.73

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	39.32	30.23	28.71	43.58	30.83	19.17	45.10	12.25	8.82	46.47	13.90	11.19
Movement LOS	D	C	C	D	C	B	D	B	A	D	B	B
d_A, Approach Delay [s/veh]	32.65			32.41			14.76			15.18		
Approach LOS	C			C			B			B		
d_I, Intersection Delay [s/veh]	18.34											
Intersection LOS	B											
Intersection V/C	0.567											

Sequence

Ring 1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 11: Perez Road / East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	21.3
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.651

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	150.00	100.00	100.00	170.00	100.00	45.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	9	9	4	17	10	257	212	1274	4	4	1270	21
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.33	1.33	1.33	1.33	1.33	1.33	1.64	1.64	1.64	1.31	1.31	1.31
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	12	12	5	23	13	342	348	2089	7	5	1664	28
Peak Hour Factor	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	3	1	6	3	88	89	536	2	1	427	7
Total Analysis Volume [veh/h]	12	12	5	24	13	351	357	2145	7	5	1708	29
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	0	7	7	0	7	7	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	19	0	0	21	0	17	69	0	11	63	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	R	L	C	C	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	4	4	16	16	16	15	82	82	1	68	68
g / C, Green / Cycle	0.04	0.04	0.14	0.14	0.14	0.12	0.69	0.69	0.01	0.57	0.57
(v / s)_i Volume / Saturation Flow Rate	0.01	0.01	0.01	0.11	0.11	0.10	0.40	0.40	0.00	0.34	0.02
s, saturation flow rate [veh/h]	1774	1771	1774	1600	1583	3445	3547	1860	1774	5074	1583
c, Capacity [veh/h]	66	66	240	217	214	428	2427	1273	18	2893	903
d1, Uniform Delay [s]	56.05	56.21	45.50	50.67	50.68	51.37	9.93	9.94	59.01	16.72	11.30
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.32	2.06	0.18	8.68	8.78	4.33	1.02	1.95	8.54	0.89	0.07
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

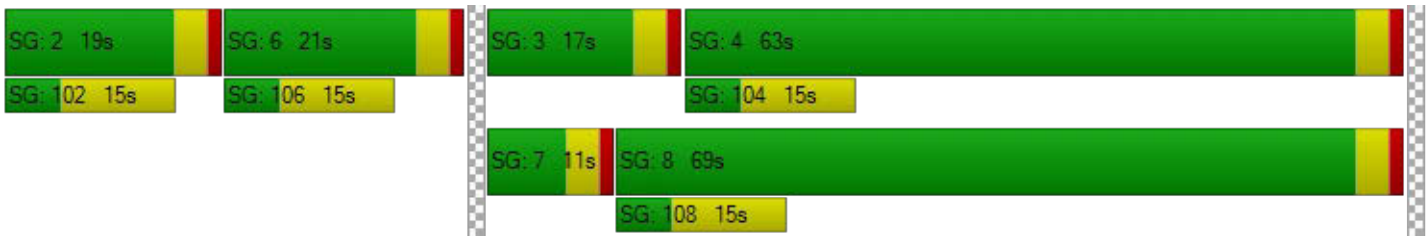
X, volume / capacity	0.18	0.26	0.10	0.84	0.84	0.83	0.58	0.58	0.28	0.59	0.03
d, Delay for Lane Group [s/veh]	57.36	58.27	45.68	59.35	59.46	55.70	10.95	11.88	67.55	17.61	11.36
Lane Group LOS	E	E	D	E	E	E	B	B	E	B	B
Critical Lane Group	No	Yes	No	No	Yes	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh]	0.37	0.53	0.63	5.79	5.73	5.41	8.73	9.49	0.19	9.66	0.34
50th-Percentile Queue Length [ft]	9.30	13.29	15.80	144.69	143.36	135.19	218.26	237.36	4.77	241.57	8.52
95th-Percentile Queue Length [veh]	0.67	0.96	1.14	9.73	9.66	9.22	13.58	14.55	0.34	14.76	0.61
95th-Percentile Queue Length [ft]	16.73	23.92	28.45	243.33	241.54	230.53	339.41	363.70	8.58	369.02	15.34

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	57.36	58.27	58.27	45.68	59.35	59.41	55.70	11.27	11.88	67.55	17.61	11.36
Movement LOS	E	E	E	D	E	E	E	B	B	E	B	B
d_A, Approach Delay [s/veh]	57.89			58.56			17.60			17.65		
Approach LOS	E			E			B			B		
d_I, Intersection Delay [s/veh]	21.27											
Intersection LOS	C											
Intersection V/C	0.651											

Sequence

Ring 1	2	6	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 12: Canyon Plaza Drive / East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	11.3
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.658

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	1	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	95.00	90.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	55	2	83	6	3	14	10	1457	39	56	1457	11
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.33	1.33	1.33	1.33	1.33	1.33	1.55	1.55	1.55	1.64	1.64	1.64
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	73	3	110	8	4	19	16	2258	60	92	2389	18
Peak Hour Factor	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	19	1	29	2	1	5	4	589	16	24	623	5
Total Analysis Volume [veh/h]	76	3	115	8	4	20	17	2355	63	96	2491	19
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	0	7	7	0	7	7	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	19	0	0	19	0	11	90	0	11	90	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	L	C	R	L	C	C
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	12	12	12	12	3	88	88	8	93	93
g / C, Green / Cycle	0.10	0.10	0.10	0.10	0.03	0.73	0.73	0.07	0.77	0.77
(v / s)_i Volume / Saturation Flow Rate	0.06	0.07	0.01	0.01	0.01	0.46	0.04	0.05	0.46	0.47
s, saturation flow rate [veh/h]	1381	1589	1269	1624	1774	5074	1583	1774	3547	1856
c, Capacity [veh/h]	158	162	75	166	45	3707	1157	119	2740	1433
d1, Uniform Delay [s]	54.83	52.23	58.94	49.08	57.55	8.13	4.54	55.18	5.80	5.81
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.28	6.05	0.61	0.40	5.18	0.84	0.09	11.80	0.98	1.88
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.48	0.73	0.11	0.14	0.38	0.64	0.05	0.80	0.60	0.60
d, Delay for Lane Group [s/veh]	57.11	58.29	59.55	49.48	62.73	8.97	4.63	66.98	6.78	7.69
Lane Group LOS	E	E	E	D	E	A	A	E	A	A
Critical Lane Group	No	Yes	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh]	2.32	3.66	0.25	0.67	0.57	8.58	0.40	3.21	6.92	7.63
50th-Percentile Queue Length [ft]	58.03	91.50	6.27	16.64	14.13	214.57	10.01	80.20	173.04	190.77
95th-Percentile Queue Length [veh]	4.18	6.59	0.45	1.20	1.02	13.39	0.72	5.77	11.24	12.16
95th-Percentile Queue Length [ft]	104.46	164.70	11.29	29.95	25.43	334.68	18.01	144.35	280.90	304.03

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	57.11	58.29	58.29	59.55	49.48	49.48	62.73	8.97	4.63	66.98	7.09	7.69
Movement LOS	E	E	E	E	D	D	E	A	A	E	A	A
d_A, Approach Delay [s/veh]	57.82			52.00			9.24			9.30		
Approach LOS	E			D			A			A		
d_I, Intersection Delay [s/veh]	11.32											
Intersection LOS	B											
Intersection V/C	0.658											

Sequence

Ring 1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 13: Golf Club Drive / East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	22.3
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.058

Intersection Setup

Name						
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	0
Pocket Length [ft]	100.00	100.00	90.00	95.00	100.00	100.00
Speed [mph]	40.00		40.00		40.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		Yes		No	

Volumes

Name						
Base Volume Input [veh/h]	179	70	73	1477	1407	141
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.55	1.55	1.55	1.55	1.55	1.55
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	277	109	113	2289	2181	219
Peak Hour Factor	0.9660	0.9660	0.9660	0.9660	0.9660	0.9660
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	72	28	29	592	564	57
Total Analysis Volume [veh/h]	287	113	117	2370	2258	227
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Split	Split	ProtectedPermissi	Permissive	Permissive	Permissive
Signal group	1	0	3	8	4	0
Auxiliary Signal Groups						
Lead / Lag	Lead	-	Lead	-	-	-
Minimum Green [s]	7	0	7	7	7	0
Maximum Green [s]	30	0	7	30	30	0
Amber [s]	3.0	0.0	3.0	3.0	3.0	0.0
All red [s]	1.0	0.0	1.0	1.0	1.0	0.0
Split [s]	19	0	11	101	90	0
Vehicle Extension [s]	3.0	0.0	3.0	3.0	3.0	0.0
Walk [s]	5	0	0	5	5	0
Pedestrian Clearance [s]	10	0	0	10	10	0
Rest In Walk	No			No	No	
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	2.0	0.0
Minimum Recall	No		Yes	No	No	
Maximum Recall	No		No	No	No	
Pedestrian Recall	No		No	No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	C	C	C
C, Cycle Length [s]	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	0.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	15	15	97	97	86	86
g / C, Green / Cycle	0.13	0.13	0.81	0.81	0.72	0.72
(v / s)_i Volume / Saturation Flow Rate	0.12	0.12	0.89	0.43	0.47	0.47
s, saturation flow rate [veh/h]	1774	1657	586	4617	3547	1777
c, Capacity [veh/h]	222	208	452	3731	2541	1273
d1, Uniform Delay [s]	51.93	51.95	18.63	3.85	9.05	9.04
k, delay calibration	0.11	0.11	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	15.59	16.64	91.41	0.54	1.32	2.59
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.93	0.93	1.15	0.53	0.65	0.65
d, Delay for Lane Group [s/veh]	67.52	68.59	110.04	4.38	10.37	11.63
Lane Group LOS	E	E	F	A	B	B
Critical Lane Group	No	Yes	Yes	No	No	No
50th-Percentile Queue Length [veh]	7.00	6.61	13.30	3.67	9.96	10.40
50th-Percentile Queue Length [ft]	174.96	165.29	332.53	91.74	249.00	259.89
95th-Percentile Queue Length [veh]	11.34	10.83	21.49	6.61	15.14	15.68
95th-Percentile Queue Length [ft]	283.42	270.71	537.24	165.14	378.39	392.08

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	67.83	68.59	110.04	22.39	10.70	11.63
Movement LOS	E	E	F	C	B	B
d_A, Approach Delay [s/veh]	68.04		26.51		10.79	
Approach LOS	E		C		B	
d_I, Intersection Delay [s/veh]	22.33					
Intersection LOS	C					
Intersection V/C	1.058					

Sequence

Ring 1	1	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 14: Cathedral Canyon Drive / Officer David Vasquez Road

Control Type:	Signalized	Delay (sec / veh):	4.4
Analysis Method:	HCM 2010	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.237

Intersection Setup

Name						
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	1	0	1	1
Pocket Length [ft]	100.00	100.00	205.00	100.00	120.00	120.00
Speed [mph]	40.00		40.00		40.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		Yes		Yes	

Volumes

Name						
Base Volume Input [veh/h]	344	7	17	370	7	32
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.33	1.33	1.33	1.33	1.33	1.33
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	458	9	23	492	9	43
Peak Hour Factor	0.8670	0.8670	0.8670	0.8670	0.8670	0.8670
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	132	3	7	142	3	12
Total Analysis Volume [veh/h]	528	10	27	567	10	50
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	2 - N. Cathedral Canyon Drive
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permissive	Permissive	Protected	Permissive	Split	Overlap
Signal group	2	0	1	6	7	7
Auxiliary Signal Groups						1,7
Lead / Lag	-	-	Lead	-	Lead	-
Minimum Green [s]	7	0	7	7	7	7
Maximum Green [s]	30	0	30	30	30	30
Amber [s]	3.0	0.0	3.0	3.0	3.0	3.0
All red [s]	1.0	0.0	1.0	1.0	1.0	1.0
Split [s]	30	0	11	41	19	19
Vehicle Extension [s]	3.0	0.0	3.0	3.0	3.0	3.0
Walk [s]	5	0	0	5	5	5
Pedestrian Clearance [s]	10	0	0	10	10	10
Rest In Walk	No			No	No	
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0
Minimum Recall	No		No	No	No	No
Maximum Recall	No		No	No	No	No
Pedestrian Recall	No		No	No	No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	C	L	C	L	R
C, Cycle Length [s]	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	0.00
g_i, Effective Green Time [s]	41	41	3	48	5	11
g / C, Green / Cycle	0.68	0.68	0.04	0.79	0.07	0.18
(v / s)_i Volume / Saturation Flow Rate	0.14	0.15	0.02	0.16	0.00	0.03
s, saturation flow rate [veh/h]	1863	1851	1774	3547	3445	1583
c, Capacity [veh/h]	1267	1258	79	2806	262	296
d1, Uniform Delay [s]	3.60	3.60	27.88	1.56	25.76	20.53
k, delay calibration	0.50	0.50	0.11	0.50	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.38	0.39	2.53	0.16	0.06	0.27
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

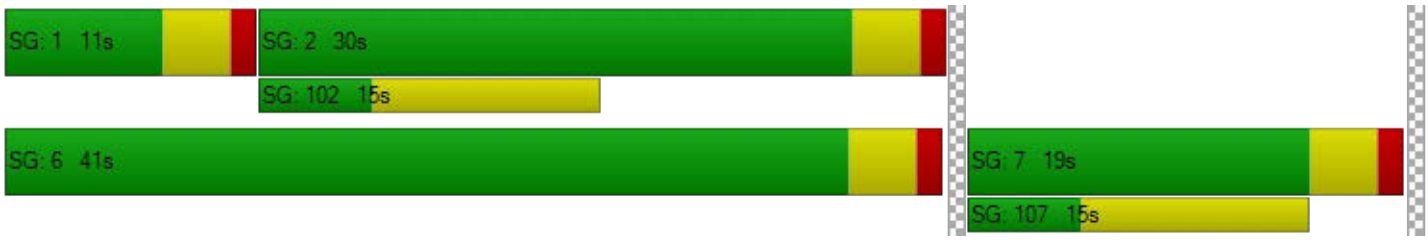
X, volume / capacity	0.21	0.21	0.34	0.20	0.04	0.17
d, Delay for Lane Group [s/veh]	3.98	3.99	30.41	1.73	25.82	20.80
Lane Group LOS	A	A	C	A	C	C
Critical Lane Group	No	Yes	Yes	No	No	Yes
50th-Percentile Queue Length [veh]	0.75	0.76	0.40	0.11	0.06	0.55
50th-Percentile Queue Length [ft]	18.86	18.91	10.04	2.72	1.57	13.80
95th-Percentile Queue Length [veh]	1.36	1.36	0.72	0.20	0.11	0.99
95th-Percentile Queue Length [ft]	33.96	34.04	18.08	4.90	2.83	24.84

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	3.99	3.99	30.41	1.73	25.82	20.80
Movement LOS	A	A	C	A	C	C
d_A, Approach Delay [s/veh]	3.99		3.03		21.63	
Approach LOS	A		A		C	
d_I, Intersection Delay [s/veh]	4.40					
Intersection LOS	A					
Intersection V/C	0.237					

Sequence

Ring 1	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	7	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 15: Cathedral Canyon Drive / Perez Road

Control Type:	Signalized	Delay (sec / veh):	23.1
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.571

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	1	1	0	0
Pocket Length [ft]	95.00	100.00	100.00	205.00	100.00	100.00	100.00	100.00	100.00	150.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	26	297	52	109	282	127	114	192	51	48	207	88
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	35	395	69	145	375	169	152	255	68	64	275	117
Peak Hour Factor	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	9	101	18	37	96	43	39	65	17	16	71	30
Total Analysis Volume [veh/h]	36	406	71	149	385	174	156	262	70	66	282	120
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	2 - N. Cathedral Canyon Drive
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	19	0	11	19	0	11	19	0	11	19	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	L	C	R	L	C	C
C, Cycle Length [s]	60	60	60	60	60	60	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	3	10	10	7	14	14	7	23	23	5	21	21
g / C, Green / Cycle	0.05	0.17	0.17	0.11	0.22	0.22	0.11	0.38	0.38	0.08	0.34	0.34
(v / s)_i Volume / Saturation Flow Rate	0.02	0.13	0.13	0.08	0.16	0.16	0.09	0.07	0.04	0.04	0.11	0.12
s, saturation flow rate [veh/h]	1774	1863	1768	1774	1863	1670	1774	3547	1583	1774	1863	1679
c, Capacity [veh/h]	98	319	303	194	419	376	202	1329	593	141	634	571
d1, Uniform Delay [s]	27.46	23.81	23.85	26.12	21.49	21.52	25.96	12.72	12.33	26.54	14.77	14.83
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.27	3.78	4.16	6.32	2.14	2.44	6.17	0.33	0.41	2.41	1.39	1.60
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.37	0.76	0.77	0.77	0.70	0.71	0.77	0.20	0.12	0.47	0.33	0.34
d, Delay for Lane Group [s/veh]	29.73	27.59	28.02	32.45	23.63	23.96	32.13	13.06	12.73	28.95	16.16	16.43
Lane Group LOS	C	C	C	C	C	C	C	B	B	C	B	B
Critical Lane Group	No	No	Yes	Yes	No	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh]	0.52	3.28	3.18	2.22	3.60	3.29	2.31	1.06	0.59	0.92	2.05	1.93
50th-Percentile Queue Length [ft]	13.00	81.95	79.51	55.53	90.00	82.15	57.74	26.59	14.64	23.02	51.13	48.18
95th-Percentile Queue Length [veh]	0.94	5.90	5.72	4.00	6.48	5.91	4.16	1.91	1.05	1.66	3.68	3.47
95th-Percentile Queue Length [ft]	23.40	147.51	143.12	99.95	162.00	147.87	103.93	47.86	26.36	41.43	92.03	86.73

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	29.73	27.76	28.02	32.45	23.71	23.96	32.13	13.06	12.73	28.95	16.23	16.43
Movement LOS	C	C	C	C	C	C	C	B	B	C	B	B
d_A, Approach Delay [s/veh]	27.94			25.61			19.11			18.08		
Approach LOS	C			C			B			B		
d_I, Intersection Delay [s/veh]	23.08											
Intersection LOS	C											
Intersection V/C	0.571											

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 16: Cathedral Canyon Drive / Paseo Real

Control Type:	Two-way stop	Delay (sec / veh):	38.2
Analysis Method:	HCM 2010	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.057

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	0	0	0	0	0	0
Pocket Length [ft]	55.00	100.00	100.00	55.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name												
Base Volume Input [veh/h]	11	482	9	16	509	19	11	5	16	9	6	14
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	15	641	12	21	677	25	15	7	21	12	8	19
Peak Hour Factor	0.9680	0.9680	0.9680	0.9680	0.9680	0.9680	0.9680	0.9680	0.9680	0.9680	0.9680	0.9680
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	166	3	5	175	6	4	2	5	3	2	5
Total Analysis Volume [veh/h]	15	662	12	22	699	26	15	7	22	12	8	20
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.02	0.01	0.00	0.02	0.01	0.00	0.10	0.06	0.03	0.08	0.07	0.03
d_M, Delay for Movement [s/veh]	9.19	0.00	0.00	9.04	0.00	0.00	33.95	38.21	14.55	32.28	37.97	13.82
Movement LOS	A	A	A	A	A	A	D	E	B	D	E	B
95th-Percentile Queue Length [veh]	0.05	0.00	0.00	0.07	0.00	0.00	0.71	0.71	0.71	0.62	0.62	0.62
95th-Percentile Queue Length [ft]	1.31	0.00	0.00	1.85	0.00	0.00	17.75	17.75	17.75	15.60	15.60	15.60
d_A, Approach Delay [s/veh]	0.20			0.27			24.93			24.19		
Approach LOS	A			A			C			C		
d_I, Intersection Delay [s/veh]	1.58											
Intersection LOS	E											

Intersection Level Of Service Report
Intersection 17: Cathedral Canyon Drive / Dinah Shore Drive

Control Type:	Signalized	Delay (sec / veh):	27.7
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.784

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	130.00	100.00	100.00	75.00	100.00	100.00	100.00	100.00	100.00	150.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	156	237	102	119	230	28	31	587	198	102	575	71
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	207	315	136	158	306	37	41	781	263	136	765	94
Peak Hour Factor	0.9700	0.9700	0.9700	0.9700	0.9700	0.9700	0.9700	0.9700	0.9700	0.9700	0.9700	0.9700
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	53	81	35	41	79	10	11	201	68	35	197	24
Total Analysis Volume [veh/h]	213	325	140	163	315	38	42	805	271	140	789	97
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	2 - N. Cathedral Canyon Drive
Cycle Length [s]	70
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	20	27	0	12	19	0	11	20	0	11	20	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	L	C	C	L	C	C
C, Cycle Length [s]	70	70	70	70	70	70	70	70	70	70	70	70
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	10	12	12	8	10	10	4	27	27	7	30	30
g / C, Green / Cycle	0.15	0.17	0.17	0.11	0.14	0.14	0.06	0.39	0.39	0.10	0.43	0.43
(v / s)_i Volume / Saturation Flow Rate	0.12	0.13	0.13	0.09	0.10	0.10	0.02	0.30	0.30	0.08	0.24	0.24
s, saturation flow rate [veh/h]	1774	1863	1676	1774	1863	1794	1774	1863	1704	1774	1863	1792
c, Capacity [veh/h]	263	317	285	204	255	245	102	717	656	182	801	770
d1, Uniform Delay [s]	28.96	27.83	27.87	30.31	28.97	29.00	31.96	19.04	19.05	30.71	15.08	15.08
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	5.87	3.94	4.53	7.08	3.53	3.77	2.64	8.37	9.16	6.68	2.87	2.98
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

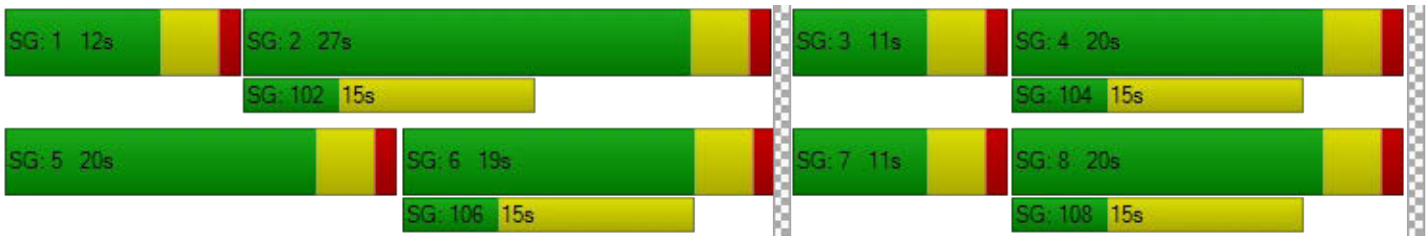
X, volume / capacity	0.81	0.77	0.78	0.80	0.70	0.71	0.41	0.78	0.78	0.77	0.56	0.56
d, Delay for Lane Group [s/veh]	34.83	31.77	32.40	37.39	32.50	32.76	34.61	27.41	28.21	37.40	17.94	18.05
Lane Group LOS	C	C	C	D	C	C	C	C	C	D	B	B
Critical Lane Group	No	No	Yes	Yes	No	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh]	3.64	3.95	3.63	2.90	2.92	2.85	0.72	8.59	8.02	2.49	5.25	5.07
50th-Percentile Queue Length [ft]	91.06	98.72	90.84	72.47	73.08	71.35	18.05	214.71	200.45	62.24	131.15	126.79
95th-Percentile Queue Length [veh]	6.56	7.11	6.54	5.22	5.26	5.14	1.30	13.39	12.66	4.48	9.00	8.77
95th-Percentile Queue Length [ft]	163.91	177.69	163.52	130.45	131.55	128.43	32.48	334.86	316.55	112.03	225.06	219.13

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	34.83	31.93	32.40	37.39	32.62	32.76	34.61	27.65	28.21	37.40	17.99	18.05
Movement LOS	C	C	C	D	C	C	C	C	C	D	B	B
d_A, Approach Delay [s/veh]	32.94			34.13			28.05			20.64		
Approach LOS	C			C			C			C		
d_I, Intersection Delay [s/veh]	27.71											
Intersection LOS	C											
Intersection V/C	0.784											

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 18: Date Palm Drive / Gerald Ford Drive

Control Type:	Signalized	Delay (sec / veh):	25.9
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.912

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	85.00	100.00	85.00	160.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			Yes			Yes			No		

Volumes

Name												
Base Volume Input [veh/h]	22	418	198	120	415	61	36	46	46	196	44	127
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	2.97	2.97	2.97	1.83	1.83	1.83	1.83	1.83	1.83	1.97	1.97	1.97
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	65	1241	588	220	759	112	66	84	84	386	87	250
Peak Hour Factor	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	17	324	153	57	198	29	17	22	22	101	23	65
Total Analysis Volume [veh/h]	68	1295	614	230	792	117	69	88	88	403	91	261
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	6 - N/S
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Split	Split	Split	Split	Split	Split
Signal group	5	2	0	1	6	0	3	8	0	7	4	4
Auxiliary Signal Groups												1,4
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	7	7	0	7	7	0	0	7	0	0	7	7
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	30
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	3.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	1.0
Split [s]	14	32	0	31	49	0	0	27	0	0	27	27
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	3.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	5
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	10
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	2.0
Minimum Recall	No	No		No	No			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	C	L	C	C	L	C	R
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.00	0.00	2.00	2.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	6	41	41	14	49	49	23	23	23	23	23	23
g / C, Green / Cycle	0.06	0.46	0.46	0.15	0.55	0.55	0.26	0.26	0.26	0.26	0.26	0.26
(v / s)_i Volume / Saturation Flow Rate	0.04	0.26	0.39	0.13	0.17	0.17	0.05	0.05	0.06	0.20	0.23	0.16
s, saturation flow rate [veh/h]	1774	5074	1583	1774	3547	1743	1300	1863	1583	1204	1097	1583
c, Capacity [veh/h]	115	2324	725	272	1938	952	84	476	405	309	346	405
d1, Uniform Delay [s]	40.96	17.76	21.61	37.10	11.19	11.19	45.01	26.18	26.41	36.81	34.69	29.86
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.16	0.23	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	4.81	0.97	11.73	7.17	0.43	0.87	17.26	0.18	0.27	5.85	6.26	1.72
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.59	0.56	0.85	0.85	0.31	0.32	0.82	0.18	0.22	0.77	0.74	0.64
d, Delay for Lane Group [s/veh]	45.76	18.73	33.34	44.28	11.61	12.06	62.28	26.36	26.67	42.66	40.96	31.59
Lane Group LOS	D	B	C	D	B	B	E	C	C	D	D	C
Critical Lane Group	No	No	Yes	Yes	No	No	No	No	No	No	Yes	No
50th-Percentile Queue Length [veh]	1.57	6.13	12.60	5.26	3.05	3.13	1.90	1.44	1.45	5.56	5.78	4.97
50th-Percentile Queue Length [ft]	39.30	153.17	315.07	131.44	76.29	78.18	47.48	35.89	36.33	138.96	144.44	124.20
95th-Percentile Queue Length [veh]	2.83	10.19	18.42	9.02	5.49	5.63	3.42	2.58	2.62	9.42	9.72	8.62
95th-Percentile Queue Length [ft]	70.74	254.65	460.62	225.45	137.32	140.72	85.46	64.59	65.40	235.62	242.99	215.58

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	45.76	18.73	33.34	44.28	11.72	12.06	62.28	26.36	26.67	41.98	40.96	31.59
Movement LOS	D	B	C	D	B	B	E	C	C	D	D	C
d_A, Approach Delay [s/veh]	24.20			18.33			36.59			38.26		
Approach LOS	C			B			D			D		
d_I, Intersection Delay [s/veh]	25.89											
Intersection LOS	C											
Intersection V/C	0.912											

Sequence

Ring 1	1	2	-	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 19: Date Palm Drive / Dinah Shore Drive

Control Type:	Signalized	Delay (sec / veh):	30.3
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.707

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	2	0	1	2	0	1	1	0	0	1	0	1
Pocket Length [ft]	225.00	100.00	125.00	170.00	100.00	50.00	150.00	100.00	100.00	130.00	100.00	180.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			No		

Volumes

Name												
Base Volume Input [veh/h]	185	483	58	114	538	75	103	483	173	59	427	115
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.83	1.83	1.83	1.44	1.44	1.44	1.67	1.67	1.67	1.67	1.67	1.67
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	339	884	106	164	775	108	172	807	289	99	713	192
Peak Hour Factor	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	90	234	28	43	205	29	46	214	77	26	189	51
Total Analysis Volume [veh/h]	359	936	112	174	821	114	182	855	306	105	755	203
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	1 - E Palm Canyon Drive
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Overlap
Signal group	5	2	0	1	6	0	3	8	0	7	4	4
Auxiliary Signal Groups												1,4
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	7
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	30
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	1.0
Split [s]	17	25	0	11	19	0	20	41	0	13	34	34
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	5
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	10
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0
Minimum Recall	No	No		No	No		No	No		No	No	No
Maximum Recall	No	No		No	No		No	No		No	No	No
Pedestrian Recall	No	No		No	No		No	No		No	No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	0.00
g_i, Effective Green Time [s]	11	33	33	7	29	29	11	27	27	7	23	34
g / C, Green / Cycle	0.13	0.37	0.37	0.08	0.32	0.32	0.12	0.30	0.30	0.08	0.25	0.37
(v / s)_i Volume / Saturation Flow Rate	0.10	0.18	0.07	0.05	0.16	0.07	0.10	0.24	0.19	0.06	0.21	0.13
s, saturation flow rate [veh/h]	3445	5074	1583	3445	5074	1583	1774	3547	1583	1774	3547	1583
c, Capacity [veh/h]	437	1875	585	269	1628	508	219	1061	474	134	890	592
d1, Uniform Delay [s]	38.33	21.96	19.27	40.31	24.79	22.39	38.55	29.16	27.43	40.91	32.10	20.27
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	3.89	0.95	0.73	2.59	1.12	1.02	7.83	1.50	1.49	9.53	2.35	0.34
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

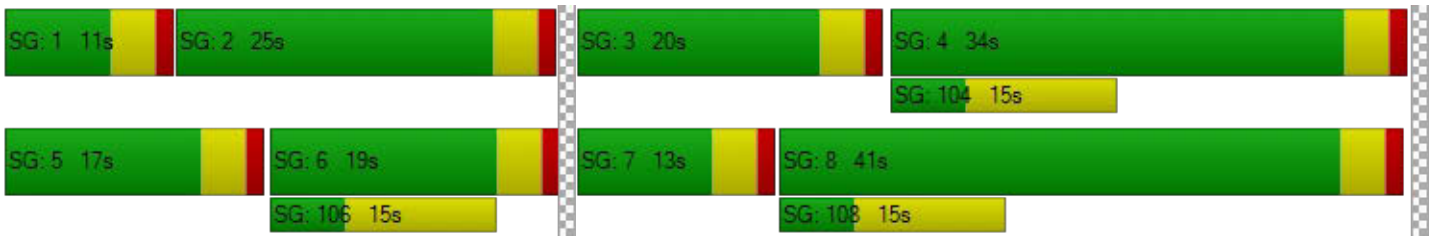
X, volume / capacity	0.82	0.50	0.19	0.65	0.50	0.22	0.83	0.81	0.65	0.78	0.85	0.34
d, Delay for Lane Group [s/veh]	42.22	22.91	20.00	42.90	25.91	23.42	46.38	30.65	28.91	50.44	34.45	20.61
Lane Group LOS	D	C	B	D	C	C	D	C	C	D	C	C
Critical Lane Group	Yes	No	No	No	Yes	No	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh]	3.94	4.92	1.61	1.90	4.62	1.82	4.25	8.22	5.58	2.56	7.68	2.93
50th-Percentile Queue Length [ft]	98.62	122.88	40.36	47.61	115.49	45.47	106.19	205.47	139.53	64.10	191.94	73.24
95th-Percentile Queue Length [veh]	7.10	8.55	2.91	3.43	8.14	3.27	7.63	12.92	9.46	4.62	12.22	5.27
95th-Percentile Queue Length [ft]	177.52	213.78	72.65	85.69	203.61	81.85	190.69	323.01	236.39	115.38	305.54	131.84

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	42.22	22.91	20.00	42.90	25.91	23.42	46.38	30.65	28.91	50.44	34.45	20.61
Movement LOS	D	C	B	D	C	C	D	C	C	D	C	C
d_A, Approach Delay [s/veh]	27.61			28.32			32.39			33.39		
Approach LOS	C			C			C			C		
d_I, Intersection Delay [s/veh]	30.32											
Intersection LOS	C											
Intersection V/C	0.707											

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 20: Date Palm Drive / Ramon Road

Control Type:	Signalized	Delay (sec / veh):	43.3
Analysis Method:	HCM 2010	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.830

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	215.00	100.00	80.00	180.00	100.00	100.00	350.00	100.00	100.00	230.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			No		

Volumes

Name												
Base Volume Input [veh/h]	215	474	82	221	460	139	193	684	133	104	610	117
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.44	1.44	1.44	1.44	1.44	1.44	1.44	1.44	1.44	1.44	1.44	1.44
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	310	683	118	318	662	200	278	985	192	150	878	168
Peak Hour Factor	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	82	181	31	84	175	53	74	261	51	40	233	44
Total Analysis Volume [veh/h]	328	724	125	337	701	212	294	1043	203	159	930	178
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	7 - E/W
Cycle Length [s]	110
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	21	28	0	27	34	0	24	40	0	15	31	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	C	L	C	C
C, Cycle Length [s]	110	110	110	110	110	110	110	110	110	110	110	110
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	13	26	26	23	36	36	20	34	34	11	26	26
g / C, Green / Cycle	0.12	0.24	0.24	0.21	0.33	0.33	0.18	0.31	0.31	0.10	0.23	0.23
(v / s)_i Volume / Saturation Flow Rate	0.10	0.14	0.08	0.19	0.14	0.13	0.17	0.24	0.24	0.09	0.21	0.21
s, saturation flow rate [veh/h]	3445	5074	1583	1774	5074	1583	1774	3547	1712	1774	3547	1714
c, Capacity [veh/h]	401	1196	373	366	1651	515	323	1106	534	179	820	396
d1, Uniform Delay [s]	47.54	37.54	34.95	42.87	29.10	28.95	44.21	34.20	34.20	48.90	41.26	41.27
k, delay calibration	0.11	0.50	0.50	0.23	0.50	0.50	0.16	0.11	0.26	0.11	0.11	0.29
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	4.14	2.28	2.41	17.68	0.80	2.42	13.91	1.10	5.28	13.36	4.36	18.35
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

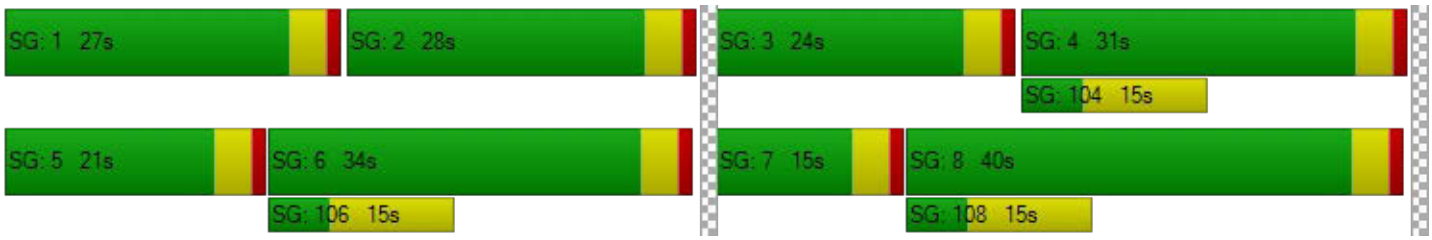
X, volume / capacity	0.82	0.61	0.33	0.92	0.42	0.41	0.91	0.76	0.76	0.89	0.91	0.91
d, Delay for Lane Group [s/veh]	51.69	39.82	37.35	60.55	29.90	31.37	58.12	35.30	39.48	62.26	45.62	59.62
Lane Group LOS	D	D	D	E	C	C	E	D	D	E	D	E
Critical Lane Group	No	Yes	No	Yes	No	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh]	4.53	5.89	2.97	10.51	4.81	4.58	8.89	9.91	10.19	4.89	10.03	11.25
50th-Percentile Queue Length [ft]	113.18	147.27	74.20	262.85	120.21	114.42	222.32	247.73	254.65	122.18	250.78	281.25
95th-Percentile Queue Length [veh]	8.02	9.87	5.34	15.83	8.40	8.09	13.78	15.07	15.42	8.51	15.23	16.75
95th-Percentile Queue Length [ft]	200.42	246.78	133.56	395.80	210.11	202.13	344.58	376.79	385.51	212.82	380.64	418.77

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	51.69	39.82	37.35	60.55	29.90	31.37	58.12	36.11	39.48	62.26	48.38	59.62
Movement LOS	D	D	D	E	C	C	E	D	D	E	D	E
d_A, Approach Delay [s/veh]	42.87			38.41			40.76			51.70		
Approach LOS	D			D			D			D		
d_I, Intersection Delay [s/veh]	43.32											
Intersection LOS	D											
Intersection V/C	0.830											

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 21: Da Vall Drive / Dinah Shore Drive

Control Type:	Signalized	Delay (sec / veh):	23.6
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.676

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	0	1	0	1	1	0	0
Pocket Length [ft]	120.00	100.00	120.00	130.00	100.00	100.00	175.00	100.00	215.00	185.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	127	128	47	52	160	41	43	448	134	50	469	59
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.67
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	212	214	78	87	267	68	72	748	224	84	783	99
Peak Hour Factor	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	56	56	21	23	70	18	19	197	59	22	206	26
Total Analysis Volume [veh/h]	223	226	82	92	281	72	76	788	236	89	825	104
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	6 - N/S
Cycle Length [s]	70
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	21	22	0	18	19	0	11	19	0	11	19	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	C	L	C	R	L	C	C
C, Cycle Length [s]	70	70	70	70	70	70	70	70	70	70	70	70
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	11	14	14	6	9	9	5	28	28	6	29	29
g / C, Green / Cycle	0.15	0.20	0.20	0.08	0.13	0.13	0.08	0.40	0.40	0.08	0.41	0.41
(v / s)_i Volume / Saturation Flow Rate	0.13	0.06	0.05	0.05	0.10	0.10	0.04	0.22	0.15	0.05	0.25	0.25
s, saturation flow rate [veh/h]	1774	3547	1583	1774	1863	1735	1774	3547	1583	1774	1863	1791
c, Capacity [veh/h]	274	725	324	151	251	234	139	1417	633	148	754	724
d1, Uniform Delay [s]	28.72	23.75	23.46	31.02	29.13	29.19	31.17	16.28	14.88	31.08	16.70	16.70
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	5.79	0.24	0.41	3.94	3.88	4.46	3.31	1.58	1.68	3.89	3.95	4.11
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.81	0.31	0.25	0.61	0.72	0.74	0.55	0.56	0.37	0.60	0.63	0.63
d, Delay for Lane Group [s/veh]	34.51	24.00	23.86	34.96	33.00	33.65	34.48	17.86	16.56	34.97	20.65	20.81
Lane Group LOS	C	C	C	C	C	C	C	B	B	C	C	C
Critical Lane Group	Yes	No	No	No	No	Yes	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh]	3.80	1.49	1.09	1.57	2.98	2.87	1.29	4.53	2.60	1.52	6.05	5.85
50th-Percentile Queue Length [ft]	94.89	37.37	27.25	39.31	74.57	71.84	32.23	113.15	65.09	38.03	151.26	146.20
95th-Percentile Queue Length [veh]	6.83	2.69	1.96	2.83	5.37	5.17	2.32	8.01	4.69	2.74	10.08	9.81
95th-Percentile Queue Length [ft]	170.80	67.26	49.06	70.76	134.23	129.31	58.02	200.37	117.16	68.45	252.11	245.35

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	34.51	24.00	23.86	34.96	33.23	33.65	34.48	17.86	16.56	34.97	20.72	20.81
Movement LOS	C	C	C	C	C	C	C	B	B	C	C	C
d_A, Approach Delay [s/veh]	28.39			33.66			18.73			21.98		
Approach LOS	C			C			B			C		
d_I, Intersection Delay [s/veh]	23.60											
Intersection LOS	C											
Intersection V/C	0.676											

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 22: Da Vall Drive / Gerald Ford Drive

Control Type:	Signalized	Delay (sec / veh):	29.8
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.665

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	200.00	100.00	175.00	140.00	100.00	100.00	175.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	94	178	44	73	199	50	30	285	97	34	245	90
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.97	1.97	1.97	1.97	1.97	1.97	1.97	1.97	1.97	1.97	1.97	1.97
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	185	351	87	144	392	99	59	561	191	67	483	177
Peak Hour Factor	0.9210	0.9210	0.9210	0.9210	0.9210	0.9210	0.9210	0.9210	0.9210	0.9210	0.9210	0.9210
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	50	95	24	39	106	27	16	152	52	18	131	48
Total Analysis Volume [veh/h]	201	381	94	156	426	107	64	609	207	73	524	192
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	6 - N/S
Cycle Length [s]	80
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	15	19	0	15	19	0	22	35	0	11	24	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	C	L	C	C	L	C	C
C, Cycle Length [s]	80	80	80	80	80	80	80	80	80	80	80	80
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	11	28	28	9	26	26	5	21	21	6	22	22
g / C, Green / Cycle	0.13	0.35	0.35	0.11	0.33	0.33	0.07	0.27	0.27	0.07	0.27	0.27
(v / s)_i Volume / Saturation Flow Rate	0.11	0.11	0.06	0.09	0.15	0.15	0.04	0.23	0.23	0.04	0.20	0.20
s, saturation flow rate [veh/h]	1774	3547	1583	1774	1863	1736	1774	1863	1703	1774	1863	1695
c, Capacity [veh/h]	239	1255	560	194	611	569	119	496	453	126	503	458
d1, Uniform Delay [s]	33.80	18.74	17.78	34.85	21.22	21.24	36.16	27.96	27.97	36.05	26.71	26.73
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.14	0.14	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	7.68	0.62	0.65	7.64	2.39	2.59	3.71	5.52	6.04	4.16	2.21	2.45
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

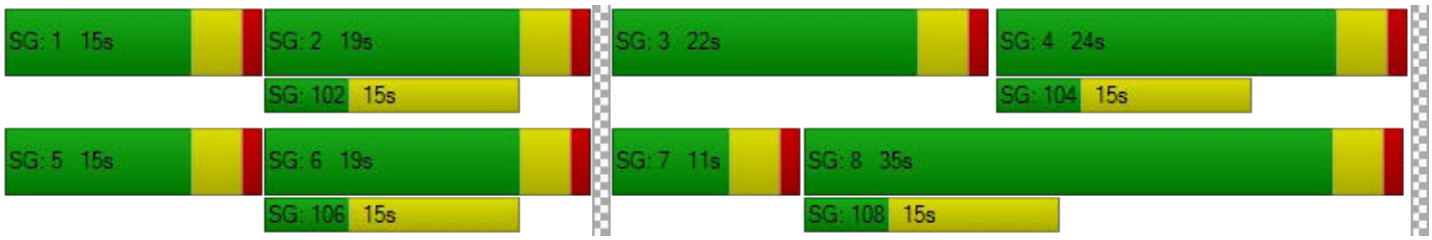
X, volume / capacity	0.84	0.30	0.17	0.81	0.45	0.45	0.54	0.86	0.86	0.58	0.74	0.75
d, Delay for Lane Group [s/veh]	41.48	19.36	18.43	42.49	23.61	23.83	39.87	33.49	34.01	40.21	28.92	29.19
Lane Group LOS	D	B	B	D	C	C	D	C	C	D	C	C
Critical Lane Group	Yes	No	No	No	No	Yes	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh]	4.12	2.46	1.20	3.23	4.14	3.92	1.28	7.94	7.33	1.46	6.35	5.83
50th-Percentile Queue Length [ft]	102.91	61.46	30.02	80.75	103.62	97.94	31.98	198.39	183.20	36.62	158.82	145.83
95th-Percentile Queue Length [veh]	7.41	4.42	2.16	5.81	7.46	7.05	2.30	12.56	11.77	2.64	10.49	9.79
95th-Percentile Queue Length [ft]	185.25	110.62	54.03	145.36	186.52	176.29	57.56	313.89	294.18	65.92	262.16	244.85

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	41.48	19.36	18.43	42.49	23.69	23.83	39.87	33.64	34.01	40.21	29.00	29.19
Movement LOS	D	B	B	D	C	C	D	C	C	D	C	C
d_A, Approach Delay [s/veh]	25.81			27.97			34.18			30.08		
Approach LOS	C			C			C			C		
d_I, Intersection Delay [s/veh]	29.84											
Intersection LOS	C											
Intersection V/C	0.665											

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	



Intersection Level Of Service Report
Intersection 23: East Palm Canyon Drive / Frank Sinatra Drive

Control Type:	Signalized	Delay (sec / veh):	30.1
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.883

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	1	1	0	0	2	0	1
Pocket Length [ft]	160.00	100.00	45.00	325.00	100.00	250.00	100.00	100.00	100.00	120.00	100.00	1200.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			No			Yes		

Volumes

Name												
Base Volume Input [veh/h]	47	1301	147	214	1244	33	34	18	13	141	24	199
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.95	1.95	1.95	1.76	1.76	1.76	1.15	1.15	1.15	1.15	1.15	1.15
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	92	2537	287	377	2189	58	39	21	15	162	28	229
Peak Hour Factor	0.9210	0.9210	0.9210	0.9210	0.9210	0.9210	0.9210	0.9210	0.9210	0.9210	0.9210	0.9210
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	25	689	78	102	594	16	11	6	4	44	8	62
Total Analysis Volume [veh/h]	100	2755	312	409	2377	63	42	23	16	176	30	249
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	6 - N/S
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Overlap	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Overlap
Signal group	5	2	2	1	6	0	3	8	0	7	4	4
Auxiliary Signal Groups			1,2,3,4,									1,2,3,4,
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	7	7	7	0	7	7	0	7	7	7
Maximum Green [s]	30	30	30	30	30	0	30	30	0	30	30	30
Amber [s]	3.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0
All red [s]	1.0	1.0	1.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	1.0
Split [s]	12	69	69	21	78	0	11	19	0	11	19	19
Vehicle Extension [s]	3.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0
Walk [s]	0	5	5	0	5	0	0	5	0	0	5	5
Pedestrian Clearance [s]	0	10	10	0	10	0	0	10	0	0	10	10
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0
Minimum Recall	No	No	No	No	No		No	No		No	No	No
Maximum Recall	No	No	No	No	No		No	No		No	No	No
Pedestrian Recall	No	No	No	No	No		No	No		No	No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	0.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	0.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	2.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	8	65	212	17	74	74	6	15	7	16	212
g / C, Green / Cycle	0.07	0.54	1.77	0.14	0.62	0.62	0.05	0.12	0.06	0.14	1.77
(v / s)_i Volume / Saturation Flow Rate	0.06	0.54	0.20	0.15	0.47	0.04	0.03	0.02	0.05	0.02	0.16
s, saturation flow rate [veh/h]	1774	5074	1583	2741	5074	1583	1412	1737	3445	1863	1583
c, Capacity [veh/h]	118	2747	2797	403	3128	976	103	215	207	254	2797
d1, Uniform Delay [s]	55.39	27.52	0.00	53.62	16.61	9.19	58.11	47.15	55.87	45.47	0.00
k, delay calibration	0.11	0.11	0.30	0.11	0.11	0.11	0.11	0.50	0.11	0.50	0.18
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	14.83	8.66	0.05	24.84	0.39	0.03	2.56	1.85	9.42	0.94	0.02
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.85	1.00	0.11	1.02	0.76	0.06	0.41	0.18	0.85	0.12	0.09
d, Delay for Lane Group [s/veh]	70.22	36.18	0.05	78.46	17.00	9.22	60.66	49.00	65.29	46.42	0.02
Lane Group LOS	E	F	A	F	B	A	E	D	E	D	A
Critical Lane Group	No	Yes	No	Yes	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh]	3.43	26.05	0.04	7.43	14.19	0.63	1.33	1.14	2.87	0.84	0.02
50th-Percentile Queue Length [ft]	85.76	651.34	0.93	185.71	354.79	15.68	33.18	28.55	71.72	21.07	0.44
95th-Percentile Queue Length [veh]	6.18	34.51	0.07	11.98	20.37	1.13	2.39	2.06	5.16	1.52	0.03
95th-Percentile Queue Length [ft]	154.38	862.66	1.67	299.49	509.25	28.22	59.73	51.39	129.10	37.93	0.78

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	70.22	36.18	0.05	78.46	17.00	9.22	60.66	49.00	49.00	65.29	46.42	0.02
Movement LOS	E	F	A	F	B	A	E	D	D	E	D	A
d_A, Approach Delay [s/veh]	33.69			25.65			55.05			28.33		
Approach LOS	C			C			E			C		
d_I, Intersection Delay [s/veh]	30.09											
Intersection LOS	C											
Intersection V/C	0.883											

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 24: East Palm Canyon Drive / Mirage Cove Drive

Control Type:	Signalized	Delay (sec / veh):	18.8
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.683

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	1	1	0	0
Pocket Length [ft]	150.00	100.00	100.00	110.00	100.00	100.00	75.00	100.00	75.00	75.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	40	1394	6	23	1334	43	39	0	21	4	0	23
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.95	1.95	1.95	1.95	1.95	1.95	1.33	1.33	1.33	1.95	1.95	1.95
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	78	2718	12	45	2601	84	52	0	28	8	0	45
Peak Hour Factor	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	20	712	3	12	682	22	14	0	7	2	0	12
Total Analysis Volume [veh/h]	82	2849	13	47	2726	88	55	0	29	8	0	47
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	6 - N/S
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	5	2	0	1	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	7	7	0	7	7	0	0	7	0	0	7	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	11	69	0	32	90	0	0	19	0	0	19	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No	No		No	No			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	L	C	R	L	C
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.00	0.00	2.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	7	79	79	6	77	77	24	24	24	24	24
g / C, Green / Cycle	0.06	0.66	0.66	0.05	0.64	0.64	0.20	0.20	0.20	0.20	0.20
(v / s)_i Volume / Saturation Flow Rate	0.05	0.53	0.53	0.03	0.52	0.53	0.04	0.00	0.02	0.01	0.03
s, saturation flow rate [veh/h]	1774	3547	1858	1774	3547	1833	1353	1863	1583	1412	1583
c, Capacity [veh/h]	104	2328	1220	83	2286	1182	273	367	312	316	312
d1, Uniform Delay [s]	55.75	15.03	15.07	56.02	15.80	16.06	44.41	0.00	39.40	40.40	39.87
k, delay calibration	0.11	0.11	0.27	0.11	0.11	0.28	0.50	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	12.53	0.69	3.27	6.04	0.71	3.71	1.66	0.00	0.59	0.15	1.02
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.79	0.81	0.81	0.57	0.81	0.82	0.20	0.00	0.09	0.03	0.15
d, Delay for Lane Group [s/veh]	68.29	15.72	18.34	62.06	16.51	19.76	46.06	0.00	40.00	40.54	40.89
Lane Group LOS	E	B	B	E	B	B	D	A	D	D	D
Critical Lane Group	Yes	No	No	No	No	Yes	Yes	No	No	No	No
50th-Percentile Queue Length [veh]	2.77	16.36	18.10	1.51	16.58	18.66	1.54	0.00	0.74	0.21	1.22
50th-Percentile Queue Length [ft]	69.30	408.98	452.61	37.80	414.51	466.39	38.62	0.00	18.58	5.14	30.59
95th-Percentile Queue Length [veh]	4.99	22.99	25.08	2.72	23.26	25.74	2.78	0.00	1.34	0.37	2.20
95th-Percentile Queue Length [ft]	124.75	574.81	627.07	68.04	581.46	643.48	69.52	0.00	33.45	9.25	55.06

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	68.29	16.61	18.34	62.06	17.56	19.76	46.06	0.00	40.00	40.54	40.89	40.89
Movement LOS	E	B	B	E	B	B	D	A	D	D	D	D
d_A, Approach Delay [s/veh]	18.06			18.36			43.97			40.84		
Approach LOS	B			B			D			D		
d_I, Intersection Delay [s/veh]	18.78											
Intersection LOS	B											
Intersection V/C	0.683											

Sequence

Ring 1	1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 25: East Palm Canyon Drive / Country Club Drive

Control Type:	Signalized	Delay (sec / veh):	23.9
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.856

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	2	0	0	1	0	0	1	0	0
Pocket Length [ft]	160.00	100.00	45.00	190.00	100.00	100.00	30.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			Yes			Yes			No		

Volumes

Name												
Base Volume Input [veh/h]	6	1285	78	134	1246	8	4	4	5	84	4	146
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.95	1.95	1.95	1.95	1.95	1.95	1.33	1.33	1.33	1.95	1.95	1.95
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	12	2506	152	261	2430	16	5	5	7	164	8	285
Peak Hour Factor	0.9380	0.9380	0.9380	0.9380	0.9380	0.9380	0.9380	0.9380	0.9380	0.9380	0.9380	0.9380
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	668	41	70	648	4	1	1	2	44	2	76
Total Analysis Volume [veh/h]	13	2672	162	278	2591	17	5	5	7	175	9	304
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	6 - N/S
Cycle Length [s]	100
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Protecte	Permiss	Overlap	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	5	2	2	1	6	0	0	8	0	0	4	0
Auxiliary Signal Groups			1,2,4,5,									
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	7	7	7	7	7	0	0	7	0	0	7	0
Maximum Green [s]	30	30	30	30	30	0	0	30	0	0	30	0
Amber [s]	3.0	3.0	3.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	1.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	11	67	67	14	70	0	0	19	0	0	19	0
Vehicle Extension [s]	3.0	3.0	3.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	5	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	10	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	2.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	2.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No	No	No	No	No			No			No	
Maximum Recall	No	No	No	No	No			No			No	
Pedestrian Recall	No	No	No	No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	C	L	C	L	C	R
C, Cycle Length [s]	100	100	100	100	100	100	100	100	100	100	100
L, Total Lost Time per Cycle [s]	4.00	4.00	0.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	2.00	0.00	0.00	2.00	0.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	7	55	180	10	58	58	23	23	23	23	23
g / C, Green / Cycle	0.07	0.55	1.80	0.10	0.58	0.58	0.23	0.23	0.23	0.23	0.23
(v / s)_i Volume / Saturation Flow Rate	0.01	0.53	0.10	0.10	0.48	0.48	0.00	0.01	0.13	0.10	0.10
s, saturation flow rate [veh/h]	1774	5074	1583	2741	3547	1857	1062	1689	1397	1597	1583
c, Capacity [veh/h]	125	2800	2850	300	2065	1081	206	384	357	363	360
d1, Uniform Delay [s]	43.53	21.21	0.00	46.60	16.85	16.90	38.39	30.06	36.20	33.11	33.11
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.27	0.50	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.36	2.57	0.01	12.06	0.90	4.25	0.22	0.15	4.74	3.73	3.76
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.10	0.95	0.06	0.93	0.83	0.83	0.02	0.03	0.49	0.43	0.43
d, Delay for Lane Group [s/veh]	43.90	23.78	0.01	58.66	17.74	21.15	38.61	30.22	40.93	36.84	36.87
Lane Group LOS	D	C	A	E	B	C	D	C	D	D	D
Critical Lane Group	No	Yes	No	Yes	No	No	No	No	Yes	No	No
50th-Percentile Queue Length [veh]	0.31	17.78	0.01	3.93	13.88	15.63	0.12	0.24	4.23	3.54	3.51
50th-Percentile Queue Length [ft]	7.68	444.62	0.16	98.19	347.03	390.70	2.94	5.88	105.63	88.41	87.73
95th-Percentile Queue Length [veh]	0.55	24.70	0.01	7.07	19.99	22.11	0.21	0.42	7.60	6.37	6.32
95th-Percentile Queue Length [ft]	13.82	617.52	0.29	176.74	499.78	552.78	5.30	10.58	189.91	159.13	157.91

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	43.90	23.78	0.01	58.66	18.90	21.15	38.61	30.22	30.22	40.93	36.84	36.85
Movement LOS	D	C	A	E	B	C	D	C	C	D	D	D
d_A, Approach Delay [s/veh]	22.52			22.74			32.68			38.32		
Approach LOS	C			C			C			D		
d_I, Intersection Delay [s/veh]	23.89											
Intersection LOS	C											
Intersection V/C	0.856											

Sequence

Ring 1	1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 26: Thompson Road-Morningside Drive / Frank Sinatra Drive

Control Type:	Signalized	Delay (sec / veh):	7.2
Analysis Method:	HCM 2010	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.418

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	150.00	100.00	100.00	90.00	100.00	100.00	90.00	100.00	100.00	130.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	85	16	30	19	36	13	12	459	227	63	457	18
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	98	18	35	22	41	15	14	528	261	72	526	21
Peak Hour Factor	0.8230	0.8230	0.8230	0.8230	0.8230	0.8230	0.8230	0.8230	0.8230	0.8230	0.8230	0.8230
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	30	5	11	7	12	5	4	160	79	22	160	6
Total Analysis Volume [veh/h]	119	22	43	27	50	18	17	642	317	87	639	26
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	7 - E/W
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	0	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	7	0	0	7	0	0	7	0	0	7	0
Maximum Green [s]	0	30	0	0	30	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	21	0	0	21	0	0	39	0	0	39	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No			No			No			No	
Maximum Recall		No			No			No			No	
Pedestrian Recall		No			No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	C	L	C	C	L	C	C
C, Cycle Length [s]	60	60	60	60	60	60	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	0.00	2.00	0.00	0.00	2.00	0.00	0.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	10	10	10	10	10	10	42	42	42	42	42	42
g / C, Green / Cycle	0.17	0.17	0.17	0.17	0.17	0.17	0.70	0.70	0.70	0.70	0.70	0.70
(v / s)_i Volume / Saturation Flow Rate	0.09	0.01	0.03	0.02	0.02	0.02	0.02	0.27	0.27	0.15	0.18	0.18
s, saturation flow rate [veh/h]	1328	1863	1583	1384	1863	1702	768	1863	1657	583	1863	1837
c, Capacity [veh/h]	274	315	268	290	315	288	583	1300	1156	445	1300	1282
d1, Uniform Delay [s]	25.77	20.96	21.29	23.55	21.10	21.13	4.84	3.77	3.77	6.93	3.34	3.34
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.09	0.09	0.28	0.14	0.15	0.18	0.09	0.88	0.99	0.98	0.48	0.49
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.43	0.07	0.16	0.09	0.11	0.12	0.03	0.39	0.39	0.20	0.26	0.26
d, Delay for Lane Group [s/veh]	26.86	21.06	21.57	23.69	21.26	21.31	4.94	4.65	4.76	7.91	3.82	3.83
Lane Group LOS	C	C	C	C	C	C	A	A	A	A	A	A
Critical Lane Group	Yes	No	No	No	No	No	No	No	Yes	No	No	No
50th-Percentile Queue Length [veh]	1.57	0.24	0.49	0.32	0.38	0.38	0.07	1.51	1.38	0.54	0.87	0.86
50th-Percentile Queue Length [ft]	39.33	6.05	12.13	8.05	9.51	9.39	1.80	37.66	34.39	13.39	21.69	21.47
95th-Percentile Queue Length [veh]	2.83	0.44	0.87	0.58	0.68	0.68	0.13	2.71	2.48	0.96	1.56	1.55
95th-Percentile Queue Length [ft]	70.79	10.90	21.84	14.48	17.12	16.91	3.25	67.79	61.90	24.10	39.04	38.65

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	26.86	21.06	21.57	23.69	21.27	21.31	4.94	4.68	4.76	7.91	3.83	3.83
Movement LOS	C	C	C	C	C	C	A	A	A	A	A	A
d_A, Approach Delay [s/veh]	24.93			21.97			4.71			4.30		
Approach LOS	C			C			A			A		
d_I, Intersection Delay [s/veh]	7.23											
Intersection LOS	A											
Intersection V/C	0.418											

Sequence

Ring 1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 27: Van Fleet Street / B Street-West Project Driveway

Control Type:	Two-way stop	Delay (sec / veh):	10.1
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	1	41	0	0	50	15	5	0	3	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	1	55	0	0	67	20	7	0	4	0	0	0
Peak Hour Factor	0.7570	0.7570	0.7570	0.7570	0.7570	0.7570	0.7570	0.7570	0.7570	0.7570	0.7570	0.7570
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	18	0	0	22	7	2	0	1	0	0	0
Total Analysis Volume [veh/h]	1	73	0	0	89	26	9	0	5	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.01	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	7.44	0.00	0.00	7.36	0.00	0.00	9.66	10.10	8.85	9.63	10.11	8.64
Movement LOS	A	A	A	A	A	A	A	B	A	A	B	A
95th-Percentile Queue Length [veh]	0.16	0.16	0.16	0.00	0.00	0.00	0.05	0.05	0.05	0.00	0.00	0.00
95th-Percentile Queue Length [ft]	3.96	3.96	3.96	0.00	0.00	0.00	1.27	1.27	1.27	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	0.10			0.00			9.37			9.46		
Approach LOS	A			A			A			A		
d_I, Intersection Delay [s/veh]	0.68											
Intersection LOS	B											

Intersection Level Of Service Report
Intersection 28: Van Fleet Street / D Street

Control Type:	Two-way stop	Delay (sec / veh):	9.9
Analysis Method:	HCM 2010	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.011

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	1	32	2	4	42	5	3	5	2	2	1	2
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	1	43	3	5	56	7	4	7	3	3	1	3
Peak Hour Factor	0.8710	0.8710	0.8710	0.8710	0.8710	0.8710	0.8710	0.8710	0.8710	0.8710	0.8710	0.8710
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	12	1	1	16	2	1	2	1	1	0	1
Total Analysis Volume [veh/h]	1	49	3	6	64	8	5	8	3	3	1	3
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	7.36	0.00	0.00	7.33	0.00	0.00	9.42	9.87	8.71	9.42	9.83	8.57
Movement LOS	A	A	A	A	A	A	A	A	A	A	A	A
95th-Percentile Queue Length [veh]	0.11	0.11	0.11	0.16	0.16	0.16	0.06	0.06	0.06	0.02	0.02	0.02
95th-Percentile Queue Length [ft]	2.69	2.69	2.69	3.96	3.96	3.96	1.50	1.50	1.50	0.60	0.60	0.60
d_A, Approach Delay [s/veh]	0.14			0.56			9.51			9.11		
Approach LOS	A			A			A			A		
d_I, Intersection Delay [s/veh]	1.74											
Intersection LOS	A											

Intersection Level Of Service Report
Intersection 29: South Project Driveway / D Street

Control Type:	Two-way stop	Delay (sec / veh):	8.6
Analysis Method:	HCM 2010	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

Intersection Setup

Name						
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00		40.00		40.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name						
Base Volume Input [veh/h]	0	0	0	5	9	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.33	1.33	1.33	1.33	1.33	1.33
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	7	12	0
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	2	3	0
Total Analysis Volume [veh/h]	0	0	0	8	13	0
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	8.62	8.37	7.24	0.00	0.00	0.00
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	8.49		0.00		0.00	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	0.00					
Intersection LOS	A					

Year 2040 Conditions
Alternative A

Traffic Impact Analysis

Vistro File: G:\...\2040 & Alt A.vistro
Report File: G:\...\2040 PM ALT A.pdf

Scenario 4 4 2040 PM ALT A
7/30/2018

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	North Project Driveway 1 / Buddy Rogers Avenue	Two-way stop	HCM 2010	SB Left	0.000	12.2	B
2	Date Palm Drive / Buddy Rogers Avenue	Two-way stop	HCM 2010	EB Left	3.456	1,418.5	F
3	Date Palm Drive / East Palm Canyon Drive	Signalized	HCM 2010	WB Right	0.864	19.6	B
4	South Project Driveway-Allen Avenue / East Palm Canyon Drive	Signalized	HCM 2010	SB Right	0.434	3.6	A
5	Monty Hall Drive-Van Fleet Avenue / East Palm Canyon Drive	Signalized	HCM 2010	WB Left	0.530	9.1	A
8	Monty Hall Drive / Buddy Rogers Avenue	All-way stop	HCM 2010	WB Left	0.120	7.7	A
9	Buddy Rogers Avenue/ East Palm Canyon Drive	Signalized	HCM 2010	NB Right	0.394	3.1	A
10	Cathedral Canyon Drive / East Palm Canyon Drive	Signalized	HCM 2010	WB Left	0.613	20.7	C
11	Perez Road / East Palm Canyon Drive	Signalized	HCM 2010	WB Left	0.738	28.9	C
12	Canyon Plaza Drive / East Palm Canyon Drive	Signalized	HCM 2010	WB Left	0.622	10.8	B
14	Cathedral Canyon Drive / Officer David Vasquez Road	Signalized	HCM 2010	SB Left	0.305	5.2	A
15	Cathedral Canyon Drive / Perez Road	Signalized	HCM 2010	EB Left	0.763	27.6	C
16	Cathedral Canyon Drive / Paseo Real	Two-way stop	HCM 2010	WB Thru	0.083	102.4	F
17	Cathedral Canyon Drive / Dinah Shore Drive	Signalized	HCM 2010	SB Left	0.917	51.3	D
18	Date Palm Drive / Gerald Ford Drive	Signalized	HCM 2010	WB Right	1.144	50.3	D
19	Date Palm Drive / Dinah Shore Drive	Signalized	HCM 2010	SB Left	0.806	41.1	D

23	East Palm Canyon Drive / Frank Sinatra Drive	Signalized	HCM 2010	SB Left	1.003	52.9	D
24	East Palm Canyon Drive / Mirage Cove Drive	Signalized	HCM 2010	NB Left	0.715	13.5	B

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. for all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report

Intersection 1: North Project Driveway 1 / Buddy Rogers Avenue

Control Type:	Two-way stop	Delay (sec / veh):	12.2
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			No			No		

Volumes

Name												
Base Volume Input [veh/h]	0	0	0	0	0	0	0	29	0	0	31	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	39	0	99	0	0	0	0	0	38	95	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	39	0	99	0	0	0	0	39	38	95	41	0
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	11	0	27	0	0	0	0	11	10	26	11	0
Total Analysis Volume [veh/h]	42	0	108	0	0	0	0	42	41	103	45	0
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	No	No		
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	No	No		
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.07	0.00	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.07	0.00	0.00
d_M, Delay for Movement [s/veh]	11.39	11.86	9.03	12.24	11.60	8.51	7.30	0.00	0.00	7.55	0.00	0.00
Movement LOS	B	B	A	B	B	A	A	A	A	A	A	A
95th-Percentile Queue Length [veh]	0.22	0.36	0.36	0.00	0.00	0.00	0.00	0.00	0.00	0.32	0.32	0.32
95th-Percentile Queue Length [ft]	5.58	9.03	9.03	0.00	0.00	0.00	0.00	0.00	0.00	8.11	8.11	8.11
d_A, Approach Delay [s/veh]	9.69			10.78			0.00			5.26		
Approach LOS	A			B			A			A		
d_I, Intersection Delay [s/veh]	5.86											
Intersection LOS	B											

Intersection Level Of Service Report
Intersection 2: Date Palm Drive / Buddy Rogers Avenue

Control Type:	Two-way stop	Delay (sec / veh):	1,418.5
Analysis Method:	HCM 2010	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	3.456

Intersection Setup

Name						
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00		40.00		40.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

Volumes

Name						
Base Volume Input [veh/h]	4	671	533	27	23	6
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	2.97	2.97	2.97	2.97	1.33	1.33
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	29	0	0	66	69	30
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	41	1993	1583	146	100	38
Peak Hour Factor	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	11	520	413	38	26	10
Total Analysis Volume [veh/h]	43	2080	1652	152	104	40
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.27	0.02	0.02	0.00	3.46	0.17
d_M, Delay for Movement [s/veh]	36.34	0.00	0.00	0.00	1418.52	1313.83
Movement LOS	E	A	A	A	F	F
95th-Percentile Queue Length [veh]	1.05	0.00	0.00	0.00	16.34	16.34
95th-Percentile Queue Length [ft]	26.32	0.00	0.00	0.00	408.40	408.40
d_A, Approach Delay [s/veh]	0.74		0.00		1389.44	
Approach LOS	A		A		F	
d_I, Intersection Delay [s/veh]	49.53					
Intersection LOS	F					

Intersection Level Of Service Report
Intersection 3: Date Palm Drive / East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	19.6
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.864

Intersection Setup

Name						
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00		40.00		40.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		Yes		Yes	

Volumes

Name						
Base Volume Input [veh/h]	409	118	143	1125	1247	472
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.46	1.46	1.16	1.16	1.76	1.76
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	30	0	0	23	22	29
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	627	172	166	1328	2217	860
Peak Hour Factor	0.9560	0.9560	0.9560	0.9560	0.9560	0.9560
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	164	45	43	347	580	225
Total Analysis Volume [veh/h]	656	180	174	1389	2319	900
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	70
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Split	Split	ProtectedPermissi	Permissive	Permissive	Permissive
Signal group	1	0	3	8	4	0
Auxiliary Signal Groups						
Lead / Lag	Lead	-	Lead	-	-	-
Minimum Green [s]	7	0	7	7	7	0
Maximum Green [s]	30	0	7	30	30	0
Amber [s]	3.0	0.0	3.0	3.0	3.0	0.0
All red [s]	1.0	0.0	1.0	1.0	1.0	0.0
Split [s]	19	0	32	51	19	0
Vehicle Extension [s]	3.0	0.0	3.0	3.0	3.0	0.0
Walk [s]	5	0	0	5	5	0
Pedestrian Clearance [s]	10	0	0	10	10	0
Rest In Walk	No			No	No	
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	2.0	0.0
Minimum Recall	No		Yes	No	No	
Maximum Recall	No		No	No	No	
Pedestrian Recall	No		No	No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	R	L	C	C	R
C, Cycle Length [s]	70	70	70	70	70	70
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	0.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	12	12	50	50	39	39
g / C, Green / Cycle	0.17	0.17	0.72	0.72	0.56	0.56
(v / s)_i Volume / Saturation Flow Rate	0.13	0.11	0.20	0.27	0.46	0.57
s, saturation flow rate [veh/h]	5168	1583	853	5074	5074	1583
c, Capacity [veh/h]	874	268	697	3636	2857	891
d1, Uniform Delay [s]	27.70	27.29	12.44	3.87	12.32	15.31
k, delay calibration	0.11	0.11	0.11	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.32	2.92	0.19	0.31	2.64	32.55
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.75	0.67	0.25	0.38	0.81	1.01
d, Delay for Lane Group [s/veh]	29.02	30.20	12.62	4.18	14.96	47.86
Lane Group LOS	C	C	B	A	B	F
Critical Lane Group	Yes	No	Yes	No	No	Yes
50th-Percentile Queue Length [veh]	3.32	2.82	0.22	1.48	8.03	18.57
50th-Percentile Queue Length [ft]	83.06	70.61	5.40	37.04	200.83	464.22
95th-Percentile Queue Length [veh]	5.98	5.08	0.39	2.67	12.68	25.83
95th-Percentile Queue Length [ft]	149.51	127.10	9.72	66.66	317.04	645.87

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	29.02	30.20	12.62	4.18	14.96	47.86
Movement LOS	C	C	B	A	B	F
d_A, Approach Delay [s/veh]	29.28		5.12		24.16	
Approach LOS	C		A		C	
d_I, Intersection Delay [s/veh]	19.62					
Intersection LOS	B					
Intersection V/C	0.864					

Sequence

Ring 1	1	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 4: South Project Driveway-Allen Avenue / East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	3.6
Analysis Method:	HCM 2010	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.434

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	0	0	0	0	0	1	4	1262	0	0	1341	11
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	23	0	70	66	0	0	0	0	22
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	23	0	71	71	1464	0	0	1556	35
Peak Hour Factor	0.9120	0.9120	0.9120	0.9120	0.9120	0.9120	0.9120	0.9120	0.9120	0.9120	0.9120	0.9120
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	6	0	19	19	401	0	0	427	10
Total Analysis Volume [veh/h]	0	0	0	25	0	78	78	1605	0	0	1706	38
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	1 - E Palm Canyon Drive
Cycle Length [s]	70
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	0	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	7	0	0	7	0	0	7	0	0	7	0
Maximum Green [s]	0	30	0	0	30	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	19	0	0	19	0	0	51	0	0	51	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No			No			No			No	
Maximum Recall		No			No			No			No	
Pedestrian Recall		No			No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	L	C	L	C	R	C	C	R
C, Cycle Length [s]	70	70	70	70	70	70	70	70	70
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	2.00	0.00	2.00	0.00	0.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	6	6	6	56	56	56	56	56	56
g / C, Green / Cycle	0.09	0.09	0.09	0.80	0.80	0.80	0.80	0.80	0.80
(v / s)_i Volume / Saturation Flow Rate	0.00	0.02	0.05	0.27	0.32	0.00	0.34	0.34	0.02
s, saturation flow rate [veh/h]	1613	1412	1583	286	5074	1583	1863	3227	1583
c, Capacity [veh/h]	193	192	139	291	4049	1263	1538	2575	1263
d1, Uniform Delay [s]	0.00	31.25	30.63	5.63	2.09	0.00	2.15	2.15	1.46
k, delay calibration	0.11	0.11	0.11	0.50	0.50	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.00	0.30	3.51	2.25	0.29	0.00	0.80	0.51	0.04
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

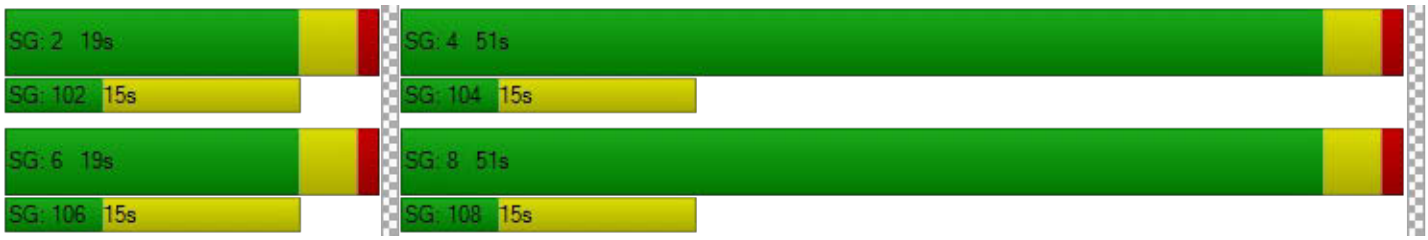
X, volume / capacity	0.00	0.13	0.56	0.27	0.40	0.00	0.41	0.42	0.03
d, Delay for Lane Group [s/veh]	0.00	31.55	34.14	7.88	2.38	0.00	2.95	2.66	1.51
Lane Group LOS	A	C	C	A	A	A	A	A	A
Critical Lane Group	No	No	Yes	No	No	No	No	Yes	No
50th-Percentile Queue Length [veh]	0.00	0.39	1.32	0.54	0.56	0.00	0.88	0.65	0.04
50th-Percentile Queue Length [ft]	0.00	9.87	32.95	13.39	14.07	0.00	22.12	16.30	0.95
95th-Percentile Queue Length [veh]	0.00	0.71	2.37	0.96	1.01	0.00	1.59	1.17	0.07
95th-Percentile Queue Length [ft]	0.00	17.77	59.30	24.11	25.32	0.00	39.81	29.34	1.71

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	31.55	34.14	34.14	7.88	2.38	0.00	2.95	2.76	1.51
Movement LOS	A	A	A	C	C	C	A	A	A	A	A	A
d_A, Approach Delay [s/veh]	0.00			33.51			2.64			2.74		
Approach LOS	A			C			A			A		
d_I, Intersection Delay [s/veh]	3.59											
Intersection LOS	A											
Intersection V/C	0.434											

Sequence

Ring 1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 5: Monty Hall Drive-Van Fleet Avenue / East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	9.1
Analysis Method:	HCM 2010	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.530

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	1	0	1	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	45.00	100.00	100.00	105.00	100.00	130.00	125.00	100.00	180.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	11	7	55	12	6	12	6	1211	9	92	1276	16
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	13	0	0	39	38	53	0	14	56	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	13	8	77	14	7	53	45	1458	10	121	1536	19
Peak Hour Factor	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	2	20	4	2	14	12	382	3	32	403	5
Total Analysis Volume [veh/h]	14	8	81	15	7	56	47	1528	10	127	1610	20
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	1 - E Palm Canyon Drive
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	0	7	7	0	7	7	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	19	0	0	19	0	11	30	0	11	30	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	R	L	C	L	C	R	L	C	R
C, Cycle Length [s]	60	60	60	60	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	6	6	6	6	4	36	36	6	38	38
g / C, Green / Cycle	0.10	0.10	0.10	0.10	0.06	0.60	0.60	0.10	0.64	0.64
(v / s)_i Volume / Saturation Flow Rate	0.03	0.05	0.01	0.04	0.03	0.30	0.01	0.07	0.32	0.01
s, saturation flow rate [veh/h]	856	1583	1402	1610	1774	5074	1583	1774	5074	1583
c, Capacity [veh/h]	182	155	142	157	116	3040	949	184	3235	1009
d1, Uniform Delay [s]	24.85	25.81	29.44	25.49	26.99	6.92	4.86	26.03	5.79	4.00
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.30	2.73	0.32	1.64	2.27	0.60	0.02	4.57	0.55	0.04
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.12	0.52	0.11	0.40	0.41	0.50	0.01	0.69	0.50	0.02
d, Delay for Lane Group [s/veh]	25.14	28.54	29.76	27.13	29.26	7.51	4.88	30.60	6.34	4.04
Lane Group LOS	C	C	C	C	C	A	A	C	A	A
Critical Lane Group	No	Yes	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh]	0.28	1.12	0.21	0.84	0.67	2.60	0.04	1.82	2.28	0.06
50th-Percentile Queue Length [ft]	6.90	27.98	5.28	21.03	16.64	64.92	0.97	45.60	56.90	1.61
95th-Percentile Queue Length [veh]	0.50	2.01	0.38	1.51	1.20	4.67	0.07	3.28	4.10	0.12
95th-Percentile Queue Length [ft]	12.43	50.36	9.51	37.85	29.96	116.86	1.75	82.09	102.42	2.90

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	25.14	25.14	28.54	29.76	27.13	27.13	29.26	7.51	4.88	30.60	6.34	4.04
Movement LOS	C	C	C	C	C	C	C	A	A	C	A	A
d_A, Approach Delay [s/veh]	27.81			27.63			8.14			8.07		
Approach LOS	C			C			A			A		
d_I, Intersection Delay [s/veh]	9.11											
Intersection LOS	A											
Intersection V/C	0.530											

Sequence

Ring 1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 8: Monty Hall Drive / Buddy Rogers Avenue

Control Type:	All-way stop	Delay (sec / veh):	7.7
Analysis Method:	HCM 2010	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.120

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			No			No		

Volumes

Name												
Base Volume Input [veh/h]	13	7	3	23	12	0	4	15	21	9	11	5
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	38	0	0	0	0	0	0	39	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	17	9	42	31	16	0	5	20	28	51	15	7
Peak Hour Factor	0.7500	0.7500	0.7500	0.7500	0.7500	0.7500	0.7500	0.7500	0.7500	0.7500	0.7500	0.7500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	6	3	14	10	5	0	2	7	9	17	5	2
Total Analysis Volume [veh/h]	23	12	56	41	21	0	7	27	37	68	20	9
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	885	793	880	812
Degree of Utilization, x	0.10	0.08	0.08	0.12

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.34	0.25	0.26	0.41
95th-Percentile Queue Length [ft]	8.56	6.35	6.57	10.14
Approach Delay [s/veh]	7.53	7.93	7.45	8.04
Approach LOS	A	A	A	A
Intersection Delay [s/veh]	7.74			
Intersection LOS	A			

Intersection Level Of Service Report

Intersection 9: Buddy Rogers Avenue/ East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	3.1
Analysis Method:	HCM 2010	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.394

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	13	2	28	10	5	22	23	1186	3	42	1227	15
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	91	0	0	95	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	15	2	32	12	6	26	27	1467	3	49	1518	17
Peak Hour Factor	0.9310	0.9310	0.9310	0.9310	0.9310	0.9310	0.9310	0.9310	0.9310	0.9310	0.9310	0.9310
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	1	9	3	2	7	7	394	1	13	408	5
Total Analysis Volume [veh/h]	16	2	34	13	6	28	29	1576	3	53	1631	18
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	1 - E Palm Canyon Drive
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	7	0	0	7	0	0	7	0	0	7	0
Maximum Green [s]	0	30	0	0	30	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	19	0	0	19	0	0	101	0	0	101	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No			No			No			No	
Maximum Recall		No			No			No			No	
Pedestrian Recall		No			No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	C	L	C	R	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	2.00	2.00	0.00	0.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	6	6	106	106	106	106	106	106
g / C, Green / Cycle	0.05	0.05	0.89	0.89	0.89	0.89	0.89	0.89
(v / s)_i Volume / Saturation Flow Rate	0.03	0.03	0.09	0.31	0.00	0.16	0.32	0.01
s, saturation flow rate [veh/h]	1563	1590	307	5074	1583	324	5074	1583
c, Capacity [veh/h]	115	115	308	4490	1401	323	4490	1401
d1, Uniform Delay [s]	56.11	55.89	2.44	1.15	0.80	2.57	1.17	0.80
k, delay calibration	0.11	0.11	0.50	0.50	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.77	2.31	0.61	0.22	0.00	1.09	0.23	0.02
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.45	0.41	0.09	0.35	0.00	0.16	0.36	0.01
d, Delay for Lane Group [s/veh]	58.88	58.20	3.04	1.37	0.80	3.66	1.40	0.82
Lane Group LOS	E	E	A	A	A	A	A	A
Critical Lane Group	Yes	No	No	No	No	No	Yes	No
50th-Percentile Queue Length [veh]	1.61	1.45	0.15	0.46	0.00	0.29	0.49	0.02
50th-Percentile Queue Length [ft]	40.35	36.18	3.74	11.58	0.06	7.14	12.18	0.39
95th-Percentile Queue Length [veh]	2.91	2.61	0.27	0.83	0.00	0.51	0.88	0.03
95th-Percentile Queue Length [ft]	72.63	65.13	6.73	20.84	0.11	12.85	21.93	0.69

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	58.88	58.88	58.88	58.20	58.20	58.20	3.04	1.37	0.80	3.66	1.40	0.82
Movement LOS	E	E	E	E	E	E	A	A	A	A	A	A
d_A, Approach Delay [s/veh]	58.88			58.20			1.40			1.46		
Approach LOS	E			E			A			A		
d_I, Intersection Delay [s/veh]	3.09											
Intersection LOS	A											
Intersection V/C	0.394											

Sequence

Ring 1	2	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 10: Cathedral Canyon Drive / East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	20.7
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.613

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	0	1	0	0	1	0	1
Pocket Length [ft]	100.00	100.00	70.00	90.00	100.00	100.00	238.00	100.00	100.00	190.00	100.00	270.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	62	124	46	129	147	74	119	1056	74	66	998	157
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.33	1.33	1.33	1.33	1.33	1.33	1.31	1.31	1.31	1.16	1.16	1.16
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	13	45	0	0	0	33	0	14	35	46
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	82	165	74	217	196	98	156	1416	97	91	1193	228
Peak Hour Factor	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	21	43	19	57	51	26	41	369	25	24	311	59
Total Analysis Volume [veh/h]	86	172	77	226	204	102	163	1477	101	95	1244	238
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	1 - E Palm Canyon Drive
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Overlap	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	6	3	8	0	7	4	0
Auxiliary Signal Groups						3,6						
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	7	7	7	0	7	7	0
Maximum Green [s]	0	30	0	0	30	30	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	1.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	28	0	0	28	28	28	51	0	11	34	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	5	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	10	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No	No	No	No		No	No	
Maximum Recall		No			No	No	No	No		No	No	
Pedestrian Recall		No			No	No	No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	0.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	24	24	24	24	24	38	10	48	48	6	44	44
g / C, Green / Cycle	0.27	0.27	0.27	0.27	0.27	0.43	0.12	0.53	0.53	0.07	0.48	0.48
(v / s)_i Volume / Saturation Flow Rate	0.07	0.09	0.05	0.19	0.11	0.06	0.09	0.29	0.06	0.05	0.25	0.15
s, saturation flow rate [veh/h]	1173	1863	1583	1208	1863	1583	1774	5074	1583	1774	5074	1583
c, Capacity [veh/h]	262	497	423	287	497	678	207	2682	837	127	2452	765
d1, Uniform Delay [s]	34.66	26.67	25.45	37.99	27.19	15.75	38.70	14.12	10.69	41.05	15.94	14.16
k, delay calibration	0.11	0.11	0.11	0.13	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.72	0.41	0.20	5.69	0.54	0.10	6.51	0.82	0.29	8.59	0.75	1.06
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.33	0.35	0.18	0.79	0.41	0.15	0.79	0.55	0.12	0.75	0.51	0.31
d, Delay for Lane Group [s/veh]	35.39	27.09	25.65	43.68	27.73	15.86	45.22	14.94	10.99	49.64	16.69	15.22
Lane Group LOS	D	C	C	D	C	B	D	B	B	D	B	B
Critical Lane Group	No	No	No	Yes	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh]	1.70	2.90	1.24	5.29	3.51	1.22	3.74	6.07	0.98	2.30	5.43	2.91
50th-Percentile Queue Length [ft]	42.59	72.50	30.96	132.25	87.80	30.43	93.60	151.68	24.49	57.49	135.74	72.65
95th-Percentile Queue Length [veh]	3.07	5.22	2.23	9.06	6.32	2.19	6.74	10.11	1.76	4.14	9.25	5.23
95th-Percentile Queue Length [ft]	76.65	130.50	55.72	226.55	158.03	54.77	168.48	252.68	44.08	103.48	231.27	130.78

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	35.39	27.09	25.65	43.68	27.73	15.86	45.22	14.94	10.99	49.64	16.69	15.22
Movement LOS	D	C	C	D	C	B	D	B	B	D	B	B
d_A, Approach Delay [s/veh]	28.89			32.23			17.55			18.45		
Approach LOS	C			C			B			B		
d_I, Intersection Delay [s/veh]	20.66											
Intersection LOS	C											
Intersection V/C	0.613											

Sequence

Ring 1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 11: Perez Road / East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	28.9
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.738

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	150.00	100.00	100.00	170.00	100.00	45.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	34	24	15	19	8	347	269	1161	7	7	1128	12
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.33	1.33	1.33	1.33	1.33	1.33	1.64	1.64	1.64	1.31	1.31	1.31
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	33	0	0	35	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	45	32	20	25	11	462	441	1937	11	9	1513	16
Peak Hour Factor	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	12	8	5	7	3	122	117	512	3	2	400	4
Total Analysis Volume [veh/h]	48	34	21	26	12	488	466	2048	12	10	1599	17
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	0	7	7	0	7	7	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	19	0	0	19	0	20	71	0	11	62	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	R	L	C	C	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	7	7	21	21	21	18	74	74	2	58	58
g / C, Green / Cycle	0.06	0.06	0.17	0.17	0.17	0.15	0.62	0.62	0.02	0.49	0.49
(v / s)_i Volume / Saturation Flow Rate	0.03	0.03	0.01	0.16	0.16	0.14	0.38	0.38	0.01	0.32	0.01
s, saturation flow rate [veh/h]	1774	1745	1774	1595	1583	3445	3547	1857	1774	5074	1583
c, Capacity [veh/h]	100	99	308	277	275	519	2197	1150	30	2463	769
d1, Uniform Delay [s]	54.89	55.14	41.57	48.60	48.60	50.05	14.04	14.06	58.34	23.20	16.06
k, delay calibration	0.11	0.11	0.11	0.18	0.18	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	3.49	4.82	0.12	16.05	16.14	5.82	1.30	2.48	6.47	1.34	0.05
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

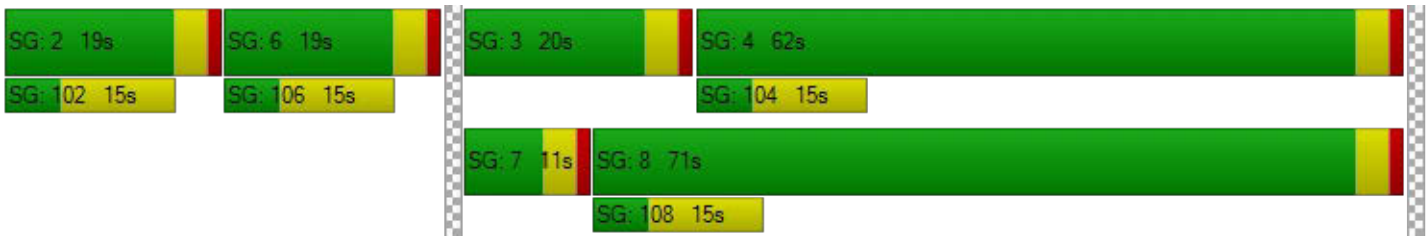
X, volume / capacity	0.48	0.56	0.08	0.90	0.90	0.90	0.62	0.62	0.34	0.65	0.02
d, Delay for Lane Group [s/veh]	58.38	59.96	41.68	64.65	64.75	55.87	15.34	16.53	64.81	24.54	16.11
Lane Group LOS	E	E	D	E	E	E	B	B	E	C	B
Critical Lane Group	No	Yes	No	No	Yes	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh]	1.48	1.73	0.65	8.44	8.38	7.15	10.61	11.52	0.35	11.06	0.25
50th-Percentile Queue Length [ft]	37.11	43.22	16.20	210.92	209.60	178.78	265.31	287.94	8.74	276.51	6.22
95th-Percentile Queue Length [veh]	2.67	3.11	1.17	13.20	13.13	11.54	15.95	17.08	0.63	16.51	0.45
95th-Percentile Queue Length [ft]	66.79	77.80	29.17	330.01	328.32	288.42	398.87	427.08	15.73	412.86	11.19

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	58.38	59.96	59.96	41.68	64.65	64.70	55.87	15.75	16.53	64.81	24.54	16.11
Movement LOS	E	E	E	D	E	E	E	B	B	E	C	B
d_A, Approach Delay [s/veh]	59.22			63.56			23.15			24.70		
Approach LOS	E			E			C			C		
d_I, Intersection Delay [s/veh]	28.90											
Intersection LOS	C											
Intersection V/C	0.738											

Sequence

Ring 1	2	6	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 12: Canyon Plaza Drive / East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	10.8
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.622

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	1	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	95.00	90.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	51	1	74	5	2	12	13	1375	26	51	1443	10
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.33	1.33	1.33	1.33	1.33	1.33	1.55	1.55	1.55	1.64	1.64	1.64
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	11	0	0	0	22	0	0	23	12
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	68	1	98	18	3	16	20	2153	40	84	2390	28
Peak Hour Factor	0.9550	0.9550	0.9550	0.9550	0.9550	0.9550	0.9550	0.9550	0.9550	0.9550	0.9550	0.9550
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	18	0	26	5	1	4	5	564	10	22	626	7
Total Analysis Volume [veh/h]	71	1	103	19	3	17	21	2254	42	88	2503	29
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	0	7	7	0	7	7	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	19	0	0	19	0	11	90	0	11	90	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	L	C	R	L	C	C
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	12	12	12	12	4	89	89	7	93	93
g / C, Green / Cycle	0.10	0.10	0.10	0.10	0.03	0.74	0.74	0.06	0.77	0.77
(v / s)_i Volume / Saturation Flow Rate	0.05	0.07	0.01	0.01	0.01	0.44	0.03	0.05	0.47	0.47
s, saturation flow rate [veh/h]	1386	1586	1285	1620	1774	5074	1583	1774	3547	1852
c, Capacity [veh/h]	153	153	79	156	52	3761	1174	111	2746	1434
d1, Uniform Delay [s]	55.05	52.42	59.12	49.59	57.19	7.23	4.13	55.50	5.76	5.78
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.19	5.22	1.56	0.37	4.92	0.71	0.06	12.10	1.00	1.92
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.46	0.68	0.24	0.13	0.40	0.60	0.04	0.80	0.61	0.61
d, Delay for Lane Group [s/veh]	57.24	57.64	60.68	49.96	62.11	7.94	4.18	67.60	6.76	7.70
Lane Group LOS	E	E	E	D	E	A	A	E	A	A
Critical Lane Group	No	Yes	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh]	2.17	3.20	0.60	0.56	0.69	7.42	0.25	2.96	6.95	7.67
50th-Percentile Queue Length [ft]	54.24	80.02	15.07	13.95	17.20	185.40	6.18	73.92	173.76	191.84
95th-Percentile Queue Length [veh]	3.91	5.76	1.09	1.00	1.24	11.88	0.45	5.32	11.27	12.22
95th-Percentile Queue Length [ft]	97.63	144.03	27.13	25.10	30.96	297.06	11.13	133.05	281.85	305.41

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	57.24	57.64	57.64	60.68	49.96	49.96	62.11	7.94	4.18	67.60	7.07	7.70
Movement LOS	E	E	E	E	D	D	E	A	A	E	A	A
d_A, Approach Delay [s/veh]	57.48			55.18			8.37			9.11		
Approach LOS	E			E			A			A		
d_I, Intersection Delay [s/veh]	10.77											
Intersection LOS	B											
Intersection V/C	0.622											

Sequence

Ring 1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 14: Cathedral Canyon Drive / Officer David Vasquez Road

Control Type:	Signalized	Delay (sec / veh):	5.2
Analysis Method:	HCM 2010	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.305

Intersection Setup

Name						
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	1	0	1	1
Pocket Length [ft]	100.00	100.00	205.00	100.00	120.00	120.00
Speed [mph]	40.00		40.00		40.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		Yes		Yes	

Volumes

Name						
Base Volume Input [veh/h]	417	5	25	404	6	53
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.33	1.33	1.33	1.33	1.33	1.33
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	46	0	0	45	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	601	7	33	582	8	70
Peak Hour Factor	0.9140	0.9140	0.9140	0.9140	0.9140	0.9140
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	164	2	9	159	2	19
Total Analysis Volume [veh/h]	658	8	36	637	9	77
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	2 - N. Cathedral Canyon Drive
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permissive	Permissive	Protected	Permissive	Split	Overlap
Signal group	2	0	1	6	7	7
Auxiliary Signal Groups						1,7
Lead / Lag	-	-	Lead	-	Lead	-
Minimum Green [s]	7	0	7	7	7	7
Maximum Green [s]	30	0	30	30	30	30
Amber [s]	3.0	0.0	3.0	3.0	3.0	3.0
All red [s]	1.0	0.0	1.0	1.0	1.0	1.0
Split [s]	30	0	11	41	19	19
Vehicle Extension [s]	3.0	0.0	3.0	3.0	3.0	3.0
Walk [s]	5	0	0	5	5	5
Pedestrian Clearance [s]	10	0	0	10	10	10
Rest In Walk	No			No	No	
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0
Minimum Recall	No		No	No	No	No
Maximum Recall	No		No	No	No	No
Pedestrian Recall	No		No	No	No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	C	L	C	L	R
C, Cycle Length [s]	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	0.00
g_i, Effective Green Time [s]	39	39	3	47	5	13
g / C, Green / Cycle	0.66	0.66	0.05	0.78	0.09	0.21
(v / s)_i Volume / Saturation Flow Rate	0.18	0.18	0.02	0.18	0.00	0.05
s, saturation flow rate [veh/h]	1863	1855	1774	3547	3445	1583
c, Capacity [veh/h]	1220	1214	97	2753	313	336
d1, Uniform Delay [s]	4.37	4.37	27.42	1.84	24.93	19.62
k, delay calibration	0.50	0.50	0.11	0.50	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.55	0.56	2.32	0.20	0.04	0.34
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

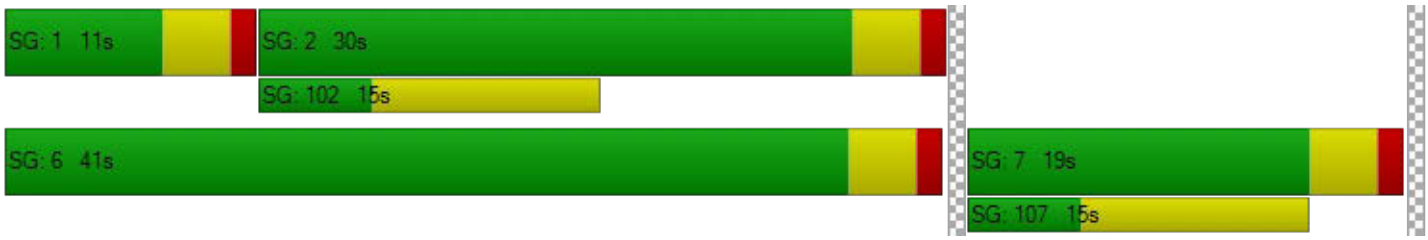
X, volume / capacity	0.27	0.27	0.37	0.23	0.03	0.23
d, Delay for Lane Group [s/veh]	4.92	4.93	29.74	2.03	24.96	19.96
Lane Group LOS	A	A	C	A	C	B
Critical Lane Group	No	Yes	Yes	No	No	Yes
50th-Percentile Queue Length [veh]	1.16	1.16	0.52	0.22	0.06	0.83
50th-Percentile Queue Length [ft]	28.97	29.02	13.01	5.62	1.38	20.71
95th-Percentile Queue Length [veh]	2.09	2.09	0.94	0.40	0.10	1.49
95th-Percentile Queue Length [ft]	52.14	52.23	23.42	10.12	2.48	37.28

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	4.93	4.93	29.74	2.03	24.96	19.96
Movement LOS	A	A	C	A	C	B
d_A, Approach Delay [s/veh]	4.93		3.52		20.48	
Approach LOS	A		A		C	
d_I, Intersection Delay [s/veh]	5.20					
Intersection LOS	A					
Intersection V/C	0.305					

Sequence

Ring 1	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 15: Cathedral Canyon Drive / Perez Road

Control Type:	Signalized	Delay (sec / veh):	27.6
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.763

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	1	1	0	0
Pocket Length [ft]	95.00	100.00	100.00	205.00	100.00	100.00	100.00	100.00	100.00	150.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	38	379	64	148	314	119	152	252	46	63	222	202
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	46	0	0	45	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	51	550	85	197	463	158	202	335	61	84	295	269
Peak Hour Factor	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	13	142	22	51	120	41	52	87	16	22	76	70
Total Analysis Volume [veh/h]	53	569	88	204	479	163	209	346	63	87	305	278
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	2 - N. Cathedral Canyon Drive
Cycle Length [s]	70
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	5.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	24	0	16	29	0	11	19	0	11	19	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	L	C	R	L	C	C
C, Cycle Length [s]	70	70	70	70	70	70	70	70	70	70	70	70
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	5	15	15	10	21	21	10	23	23	6	19	19
g / C, Green / Cycle	0.07	0.22	0.22	0.14	0.29	0.29	0.14	0.33	0.33	0.08	0.27	0.27
(v / s)_i Volume / Saturation Flow Rate	0.03	0.18	0.18	0.11	0.18	0.18	0.12	0.10	0.04	0.05	0.16	0.18
s, saturation flow rate [veh/h]	1774	1863	1777	1774	1863	1703	1774	3547	1583	1774	1863	1583
c, Capacity [veh/h]	118	407	388	251	547	500	255	1169	522	147	501	426
d1, Uniform Delay [s]	31.56	26.17	26.19	29.26	21.38	21.38	29.21	17.49	16.44	31.08	22.46	22.78
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.67	4.26	4.53	6.28	1.12	1.23	6.48	0.65	0.47	3.79	5.44	7.60
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

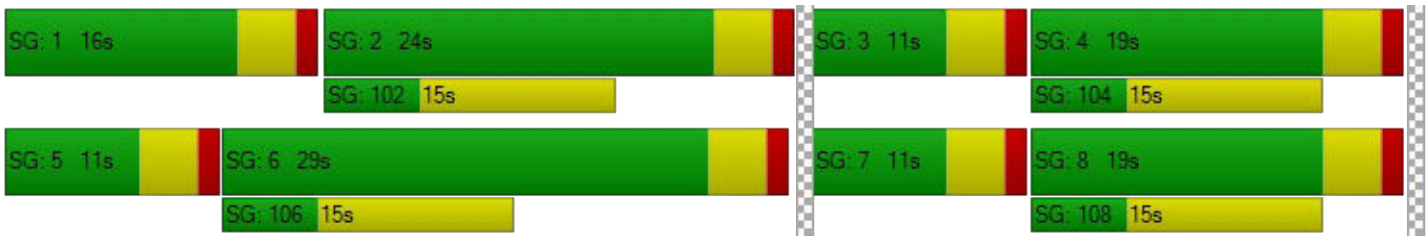
X, volume / capacity	0.45	0.82	0.83	0.81	0.61	0.61	0.82	0.30	0.12	0.59	0.61	0.65
d, Delay for Lane Group [s/veh]	34.24	30.42	30.72	35.55	22.49	22.61	35.69	18.14	16.91	34.87	27.89	30.38
Lane Group LOS	C	C	C	D	C	C	D	B	B	C	C	C
Critical Lane Group	No	No	Yes	Yes	No	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh]	0.90	5.35	5.15	3.53	4.43	4.08	3.62	1.96	0.70	1.48	4.72	4.57
50th-Percentile Queue Length [ft]	22.49	133.80	128.85	88.22	110.85	101.90	90.53	49.06	17.61	37.12	118.12	114.19
95th-Percentile Queue Length [veh]	1.62	9.15	8.88	6.35	7.89	7.34	6.52	3.53	1.27	2.67	8.29	8.07
95th-Percentile Queue Length [ft]	40.49	228.65	221.93	158.79	197.18	183.42	162.96	88.32	31.70	66.81	207.23	201.81

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	34.24	30.54	30.72	35.55	22.53	22.61	35.69	18.14	16.91	34.87	27.89	30.38
Movement LOS	C	C	C	D	C	C	D	B	B	C	C	C
d_A, Approach Delay [s/veh]	30.84			25.68			23.95			29.83		
Approach LOS	C			C			C			C		
d_I, Intersection Delay [s/veh]	27.57											
Intersection LOS	C											
Intersection V/C	0.763											

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 16: Cathedral Canyon Drive / Paseo Real

Control Type:	Two-way stop	Delay (sec / veh):	102.4
Analysis Method:	HCM 2010	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.083

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	0	0	0	0	0	0
Pocket Length [ft]	55.00	100.00	100.00	55.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name												
Base Volume Input [veh/h]	25	749	6	12	578	8	6	1	16	5	3	8
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	39	7	0	38	0	0	0	0	7	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	33	1035	15	16	807	11	8	1	21	14	4	11
Peak Hour Factor	0.9370	0.9370	0.9370	0.9370	0.9370	0.9370	0.9370	0.9370	0.9370	0.9370	0.9370	0.9370
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	9	276	4	4	215	3	2	0	6	4	1	3
Total Analysis Volume [veh/h]	35	1105	16	17	861	12	9	1	22	15	4	12
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.05	0.01	0.00	0.03	0.01	0.00	0.13	0.02	0.04	0.26	0.08	0.03
d_M, Delay for Movement [s/veh]	9.91	0.00	0.00	10.98	0.00	0.00	61.62	84.81	16.22	89.38	102.38	35.31
Movement LOS	A	A	A	B	A	A	F	F	C	F	F	E
95th-Percentile Queue Length [veh]	0.14	0.00	0.00	0.08	0.00	0.00	0.67	0.67	0.67	1.43	1.43	1.43
95th-Percentile Queue Length [ft]	3.57	0.00	0.00	2.12	0.00	0.00	16.81	16.81	16.81	35.66	35.66	35.66
d_A, Approach Delay [s/veh]	0.30			0.21			31.14			70.13		
Approach LOS	A			A			D			F		
d_I, Intersection Delay [s/veh]	1.76											
Intersection LOS	F											

Intersection Level Of Service Report
Intersection 17: Cathedral Canyon Drive / Dinah Shore Drive

Control Type:	Signalized	Delay (sec / veh):	51.3
Analysis Method:	HCM 2010	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.917

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	130.00	100.00	100.00	75.00	100.00	100.00	100.00	100.00	100.00	150.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	228	474	97	113	260	28	59	775	189	95	652	83
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	12	18	9	0	18	0	0	0	11	9	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	315	648	138	150	364	37	78	1031	262	135	867	110
Peak Hour Factor	0.9340	0.9340	0.9340	0.9340	0.9340	0.9340	0.9340	0.9340	0.9340	0.9340	0.9340	0.9340
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	84	173	37	40	97	10	21	276	70	36	232	29
Total Analysis Volume [veh/h]	337	694	148	161	390	40	84	1104	281	145	928	118
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	2 - N. Cathedral Canyon Drive
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	104.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	34	37	0	16	19	0	13	54	0	13	54	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	L	C	C	L	C	C
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	25	30	30	12	18	18	7	50	50	11	55	55
g / C, Green / Cycle	0.21	0.25	0.25	0.10	0.15	0.15	0.06	0.42	0.42	0.10	0.45	0.45
(v / s)_i Volume / Saturation Flow Rate	0.19	0.23	0.23	0.09	0.12	0.12	0.05	0.38	0.39	0.08	0.29	0.29
s, saturation flow rate [veh/h]	1774	1863	1751	1774	1863	1803	1774	1863	1735	1774	1863	1790
c, Capacity [veh/h]	367	469	441	178	272	263	107	781	728	168	846	813
d1, Uniform Delay [s]	46.64	43.77	43.81	53.42	49.60	49.64	55.65	32.73	33.10	53.57	25.07	25.09
k, delay calibration	0.27	0.34	0.35	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	19.83	20.12	21.47	15.06	5.48	5.78	11.89	16.53	19.57	12.09	3.55	3.71
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.92	0.92	0.93	0.90	0.80	0.81	0.79	0.91	0.93	0.86	0.63	0.63
d, Delay for Lane Group [s/veh]	66.47	63.89	65.28	68.47	55.08	55.42	67.54	49.26	52.67	65.66	28.62	28.80
Lane Group LOS	E	E	E	E	E	E	E	D	D	E	C	C
Critical Lane Group	No	No	Yes	Yes	No	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh]	11.64	14.83	14.14	5.47	6.62	6.46	2.82	22.03	21.65	4.80	11.92	11.52
50th-Percentile Queue Length [ft]	290.95	370.63	353.52	136.67	165.51	161.58	70.55	550.78	541.14	119.98	298.11	288.12
95th-Percentile Queue Length [veh]	17.23	21.14	20.31	9.30	10.84	10.63	5.08	29.73	29.28	8.39	17.59	17.09
95th-Percentile Queue Length [ft]	430.82	528.49	507.70	232.53	271.00	265.81	127.00	743.22	731.90	209.80	439.69	427.30

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	66.47	64.41	65.28	68.47	55.23	55.42	67.54	50.47	52.67	65.66	28.70	28.80
Movement LOS	E	E	E	E	E	E	E	D	D	E	C	C
d_A, Approach Delay [s/veh]	65.11			58.85			51.87			33.21		
Approach LOS	E			E			D			C		
d_I, Intersection Delay [s/veh]	51.31											
Intersection LOS	D											
Intersection V/C	0.917											

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 18: Date Palm Drive / Gerald Ford Drive

Control Type:	Signalized	Delay (sec / veh):	50.3
Analysis Method:	HCM 2010	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.144

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	85.00	100.00	85.00	160.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			Yes			Yes			No		

Volumes

Name												
Base Volume Input [veh/h]	20	597	290	119	438	44	58	56	18	167	42	148
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	2.97	2.97	2.97	1.83	1.83	1.83	1.83	1.83	1.83	1.97	1.97	1.97
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	23	46	0	22	0	0	0	0	44	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	59	1796	907	218	824	81	106	102	33	373	83	292
Peak Hour Factor	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	16	473	239	57	217	21	28	27	9	98	22	77
Total Analysis Volume [veh/h]	62	1893	956	230	868	85	112	107	35	393	87	308
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	6 - N/S
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Split	Split	Split	Split	Split	Split
Signal group	5	2	0	1	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	7	7	0	7	7	0	0	7	0	0	7	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	17	65	0	18	66	0	0	12	0	0	25	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No	No		No	No			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	C	L	C	C	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	6	61	61	14	69	69	8	8	8	21	21	21
g / C, Green / Cycle	0.05	0.51	0.51	0.12	0.57	0.57	0.07	0.07	0.07	0.18	0.18	0.18
(v / s)_i Volume / Saturation Flow Rate	0.03	0.37	0.60	0.13	0.18	0.18	0.06	0.04	0.04	0.13	0.13	0.19
s, saturation flow rate [veh/h]	1774	5074	1583	1774	3547	1779	1774	1863	1711	1774	1805	1583
c, Capacity [veh/h]	92	2585	807	208	2038	1022	115	121	111	311	316	277
d1, Uniform Delay [s]	54.90	14.04	19.26	50.66	6.74	6.74	56.01	54.60	54.70	47.19	47.14	49.51
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.29
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	8.33	1.88	95.84	62.92	0.40	0.80	32.34	4.65	5.65	4.12	3.86	74.66
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.33	1.33	1.33	1.33	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.68	0.73	1.19	1.11	0.31	0.31	0.97	0.60	0.63	0.77	0.76	1.11
d, Delay for Lane Group [s/veh]	63.24	15.91	115.10	113.58	7.13	7.53	88.36	59.25	60.35	51.31	51.01	124.18
Lane Group LOS	E	B	F	F	A	A	F	E	E	D	D	F
Critical Lane Group	No	No	Yes	Yes	No	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh]	2.00	8.31	37.22	9.47	2.21	2.33	4.36	2.25	2.19	7.02	7.07	13.88
50th-Percentile Queue Length [ft]	49.91	207.84	930.38	236.77	55.27	58.36	109.04	56.29	54.81	175.53	176.76	347.03
95th-Percentile Queue Length [veh]	3.59	13.04	53.45	15.12	3.98	4.20	7.79	4.05	3.95	11.37	11.43	21.04
95th-Percentile Queue Length [ft]	89.83	326.05	1336.32	378.11	99.49	105.05	194.67	101.32	98.66	284.17	285.79	525.90

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	63.24	15.91	115.10	113.58	7.24	7.53	88.36	59.60	60.35	51.19	51.01	124.18
Movement LOS	E	B	F	F	A	A	F	E	E	D	D	F
d_A, Approach Delay [s/veh]	49.49			27.94			72.38			79.70		
Approach LOS	D			C			E			E		
d_I, Intersection Delay [s/veh]	50.29											
Intersection LOS	D											
Intersection V/C	1.144											

Sequence

Ring 1	1	2	4	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 19: Date Palm Drive / Dinah Shore Drive

Control Type:	Signalized	Delay (sec / veh):	41.1
Analysis Method:	HCM 2010	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.806

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	2	0	1	2	0	1	1	0	0	1	0	1
Pocket Length [ft]	225.00	100.00	125.00	170.00	100.00	50.00	150.00	100.00	100.00	130.00	100.00	180.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			No		

Volumes

Name												
Base Volume Input [veh/h]	231	614	79	115	586	73	102	576	215	69	537	117
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.83	1.83	1.83	1.44	1.44	1.44	1.67	1.67	1.67	1.67	1.67	1.67
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	23	0	0	22	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	423	1147	145	166	866	105	170	962	359	115	897	195
Peak Hour Factor	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	115	312	39	45	236	29	46	262	98	31	244	53
Total Analysis Volume [veh/h]	460	1248	158	181	942	114	185	1047	391	125	976	212
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	1 - E Palm Canyon Drive
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Overlap
Signal group	5	2	0	1	6	0	3	8	0	7	4	4
Auxiliary Signal Groups												1,4
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	7
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	30
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	1.0
Split [s]	22	49	0	11	38	0	18	46	0	14	42	42
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	5
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	10
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0
Minimum Recall	No	No		No	No		No	No		No	No	No
Maximum Recall	No	No		No	No		No	No		No	No	No
Pedestrian Recall	No	No		No	No		No	No		No	No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	0.00
g_i, Effective Green Time [s]	18	47	47	7	37	37	14	40	40	10	36	47
g / C, Green / Cycle	0.15	0.39	0.39	0.06	0.30	0.30	0.12	0.33	0.33	0.08	0.30	0.39
(v / s)_i Volume / Saturation Flow Rate	0.13	0.25	0.10	0.05	0.19	0.07	0.10	0.30	0.25	0.07	0.28	0.13
s, saturation flow rate [veh/h]	3445	5074	1583	3445	5074	1583	1774	3547	1583	1774	3547	1583
c, Capacity [veh/h]	512	2005	626	203	1550	484	208	1166	520	149	1048	614
d1, Uniform Delay [s]	50.21	29.13	24.40	56.10	35.56	31.21	52.24	38.39	35.93	54.19	41.11	25.97
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.25	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	5.92	1.47	0.97	12.35	1.78	1.14	12.19	2.77	4.93	11.74	4.40	0.34
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.90	0.62	0.25	0.89	0.61	0.24	0.89	0.90	0.75	0.84	0.93	0.35
d, Delay for Lane Group [s/veh]	56.13	30.60	25.37	68.44	37.34	32.35	64.43	41.16	40.86	65.94	45.51	26.31
Lane Group LOS	E	C	C	E	D	C	E	D	D	E	D	C
Critical Lane Group	Yes	No	No	No	Yes	No	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh]	7.07	9.56	3.12	3.03	7.90	2.59	6.10	14.57	10.59	4.15	14.19	4.23
50th-Percentile Queue Length [ft]	176.78	239.09	78.11	75.70	197.60	64.76	152.38	364.33	264.64	103.64	354.75	105.82
95th-Percentile Queue Length [veh]	11.43	14.64	5.62	5.45	12.51	4.66	10.14	20.83	15.92	7.46	20.37	7.61
95th-Percentile Queue Length [ft]	285.81	365.89	140.60	136.26	312.87	116.57	253.61	520.85	398.04	186.55	509.20	190.17

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	56.13	30.60	25.37	68.44	37.34	32.35	64.43	41.16	40.86	65.94	45.51	26.31
Movement LOS	E	C	C	E	D	C	E	D	D	E	D	C
d_A, Approach Delay [s/veh]	36.45			41.44			43.74			44.36		
Approach LOS	D			D			D			D		
d_I, Intersection Delay [s/veh]	41.15											
Intersection LOS	D											
Intersection V/C	0.806											

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	



Intersection Level Of Service Report

Intersection 23: East Palm Canyon Drive / Frank Sinatra Drive

Control Type:	Signalized	Delay (sec / veh):	52.9
Analysis Method:	HCM 2010	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.003

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	1	1	0	0	2	0	1
Pocket Length [ft]	160.00	100.00	45.00	325.00	100.00	250.00	100.00	100.00	100.00	120.00	100.00	1200.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			No			Yes		

Volumes

Name												
Base Volume Input [veh/h]	43	1314	198	296	1170	20	44	53	19	144	29	302
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.95	1.95	1.95	1.76	1.76	1.76	1.15	1.15	1.15	1.15	1.15	1.15
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	29	0	23	30	0	0	0	0	0	0	22
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	84	2591	386	544	2089	35	51	61	22	166	33	369
Peak Hour Factor	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	23	700	104	147	565	9	14	16	6	45	9	100
Total Analysis Volume [veh/h]	91	2801	417	588	2258	38	55	66	24	179	36	399
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	6 - N/S
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	66.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Overlap	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Overlap
Signal group	5	2	2	1	6	0	3	8	0	7	4	4
Auxiliary Signal Groups			1,2,3,4,									1,2,3,4,
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	7	7	7	0	7	7	0	7	7	7
Maximum Green [s]	30	30	30	30	30	0	30	30	0	30	30	30
Amber [s]	3.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0
All red [s]	1.0	1.0	1.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	1.0
Split [s]	13	63	63	27	77	0	11	19	0	11	19	19
Vehicle Extension [s]	3.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0
Walk [s]	0	5	5	0	5	0	0	5	0	0	5	5
Pedestrian Clearance [s]	0	10	10	0	10	0	0	10	0	0	10	10
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0
Minimum Recall	No	No	No	No	No		No	No		No	No	No
Maximum Recall	No	No	No	No	No		No	No		No	No	No
Pedestrian Recall	No	No	No	No	No		No	No		No	No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	0.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	0.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	2.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	8	59	212	23	74	74	7	15	7	15	212
g / C, Green / Cycle	0.07	0.49	1.77	0.19	0.61	0.61	0.06	0.12	0.06	0.12	1.77
(v / s)_i Volume / Saturation Flow Rate	0.05	0.55	0.26	0.21	0.45	0.02	0.04	0.05	0.05	0.02	0.25
s, saturation flow rate [veh/h]	1774	5074	1583	2741	5074	1583	1412	1779	3445	1863	1583
c, Capacity [veh/h]	124	2494	2797	540	3111	971	119	220	205	233	2797
d1, Uniform Delay [s]	54.70	30.51	0.00	50.67	16.18	9.20	57.30	48.51	55.97	46.86	0.00
k, delay calibration	0.11	0.11	0.49	0.11	0.11	0.11	0.11	0.50	0.11	0.50	0.46
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	8.05	56.84	0.11	47.55	0.33	0.02	2.76	5.52	10.79	1.41	0.10
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.73	1.12	0.15	1.09	0.73	0.04	0.46	0.41	0.87	0.15	0.14
d, Delay for Lane Group [s/veh]	62.75	87.35	0.11	98.22	16.51	9.22	60.06	54.03	66.76	48.28	0.10
Lane Group LOS	E	F	A	F	B	A	E	D	E	D	A
Critical Lane Group	No	Yes	No	Yes	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh]	2.93	35.37	0.09	11.66	13.05	0.38	1.73	2.79	2.95	1.04	0.08
50th-Percentile Queue Length [ft]	73.28	884.28	2.15	291.55	326.31	9.41	43.21	69.71	73.85	25.99	1.90
95th-Percentile Queue Length [veh]	5.28	49.25	0.15	18.01	18.98	0.68	3.11	5.02	5.32	1.87	0.14
95th-Percentile Queue Length [ft]	131.90	1231.37	3.86	450.22	474.44	16.94	77.77	125.48	132.92	46.78	3.42

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	62.75	87.35	0.11	98.22	16.51	9.22	60.06	54.03	54.03	66.76	48.28	0.10
Movement LOS	E	F	A	F	B	A	E	D	D	E	D	A
d_A, Approach Delay [s/veh]	75.68			33.07			56.32			22.36		
Approach LOS	E			C			E			C		
d_I, Intersection Delay [s/veh]	52.89											
Intersection LOS	D											
Intersection V/C	1.003											

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 24: East Palm Canyon Drive / Mirage Cove Drive

Control Type:	Signalized	Delay (sec / veh):	13.5
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.715

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	1	1	0	0
Pocket Length [ft]	150.00	100.00	100.00	110.00	100.00	100.00	75.00	100.00	75.00	75.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	16	1475	9	16	1379	15	35	0	20	6	0	26
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.95	1.95	1.95	1.95	1.95	1.95	1.33	1.33	1.33	1.95	1.95	1.95
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	29	0	0	30	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	31	2905	18	31	2719	29	47	0	27	12	0	51
Peak Hour Factor	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	8	785	5	8	735	8	13	0	7	3	0	14
Total Analysis Volume [veh/h]	34	3141	19	34	2939	31	51	0	29	13	0	55
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	6 - N/S
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	5	2	0	1	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	7	7	0	7	7	0	0	7	0	0	7	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	11	80	0	21	90	0	0	19	0	0	19	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No	No		No	No			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	L	C	R	L	C
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.00	0.00	2.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	5	87	87	5	87	87	16	16	16	16	16
g / C, Green / Cycle	0.04	0.72	0.72	0.04	0.72	0.72	0.14	0.14	0.14	0.14	0.14
(v / s)_i Volume / Saturation Flow Rate	0.02	0.58	0.59	0.02	0.55	0.55	0.04	0.00	0.02	0.01	0.03
s, saturation flow rate [veh/h]	1774	3547	1857	1774	3547	1853	1343	1863	1583	1412	1583
c, Capacity [veh/h]	70	2566	1344	70	2566	1341	184	255	216	234	216
d1, Uniform Delay [s]	56.40	11.03	11.08	56.40	10.17	10.24	51.35	0.00	45.54	46.55	46.32
k, delay calibration	0.11	0.11	0.33	0.11	0.11	0.29	0.50	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	5.03	0.63	3.58	5.03	0.47	2.46	3.69	0.00	1.28	0.45	2.81
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.48	0.81	0.81	0.48	0.76	0.76	0.28	0.00	0.13	0.06	0.25
d, Delay for Lane Group [s/veh]	61.43	11.66	14.66	61.43	10.64	12.70	55.05	0.00	46.82	47.01	49.13
Lane Group LOS	E	B	B	E	B	B	E	A	D	D	D
Critical Lane Group	No	No	Yes	Yes	No	No	Yes	No	No	No	No
50th-Percentile Queue Length [veh]	1.09	14.81	16.72	1.09	12.81	14.28	1.62	0.00	0.83	0.37	1.62
50th-Percentile Queue Length [ft]	27.31	370.14	417.99	27.31	320.15	356.95	40.42	0.00	20.73	9.23	40.49
95th-Percentile Queue Length [veh]	1.97	21.12	23.43	1.97	18.67	20.47	2.91	0.00	1.49	0.66	2.91
95th-Percentile Queue Length [ft]	49.16	527.90	585.63	49.16	466.87	511.87	72.76	0.00	37.31	16.62	72.87

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	61.43	12.68	14.66	61.43	11.34	12.70	55.05	0.00	46.82	47.01	49.13	49.13
Movement LOS	E	B	B	E	B	B	E	A	D	D	D	D
d_A, Approach Delay [s/veh]	13.21			11.92			52.07			48.72		
Approach LOS	B			B			D			D		
d_I, Intersection Delay [s/veh]	13.47											
Intersection LOS	B											
Intersection V/C	0.715											

Sequence

Ring 1	1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 1: North Project Driveway 1 / Buddy Rogers Avenue

Control Type:	Two-way stop	Delay (sec / veh):	14.1
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			No			No		

Volumes

Name												
Base Volume Input [veh/h]	0	0	0	0	0	0	0	29	0	0	31	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	40	0	103	0	0	0	0	15	52	133	12	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	40	0	103	0	0	0	0	54	52	133	53	0
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	11	0	28	0	0	0	0	15	14	36	14	0
Total Analysis Volume [veh/h]	43	0	112	0	0	0	0	59	57	145	58	0
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	No	No		
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	No	No		
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.09	0.00	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.00	0.00
d_M, Delay for Movement [s/veh]	13.06	13.28	9.19	14.05	13.09	8.57	7.33	0.00	0.00	7.71	0.00	0.00
Movement LOS	B	B	A	B	B	A	A	A	A	A	A	A
95th-Percentile Queue Length [veh]	0.29	0.39	0.39	0.00	0.00	0.00	0.00	0.00	0.00	0.48	0.48	0.48
95th-Percentile Queue Length [ft]	7.18	9.74	9.74	0.00	0.00	0.00	0.00	0.00	0.00	11.96	11.96	11.96
d_A, Approach Delay [s/veh]	10.26			11.90			0.00			5.51		
Approach LOS	B			B			A			A		
d_I, Intersection Delay [s/veh]	5.72											
Intersection LOS	B											

Intersection Level Of Service Report
Intersection 2: Date Palm Drive / Buddy Rogers Avenue

Control Type:	Two-way stop	Delay (sec / veh):	1,360.5
Analysis Method:	HCM 2010	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	3.352

Intersection Setup

Name						
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00		40.00		40.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

Volumes

Name						
Base Volume Input [veh/h]	4	492	513	25	29	14
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	2.97	2.97	2.97	2.97	1.33	1.33
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	40	0	0	93	72	31
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	52	1461	1524	167	111	50
Peak Hour Factor	0.9410	0.9410	0.9410	0.9410	0.9410	0.9410
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	14	388	405	44	29	13
Total Analysis Volume [veh/h]	55	1553	1620	177	118	53
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.35	0.02	0.02	0.00	3.35	0.22
d_M, Delay for Movement [s/veh]	39.37	0.00	0.00	0.00	1360.50	1273.09
Movement LOS	E	A	A	A	F	F
95th-Percentile Queue Length [veh]	1.44	0.00	0.00	0.00	18.80	18.80
95th-Percentile Queue Length [ft]	35.91	0.00	0.00	0.00	470.00	470.00
d_A, Approach Delay [s/veh]	1.35		0.00		1333.41	
Approach LOS	A		A		F	
d_I, Intersection Delay [s/veh]	64.37					
Intersection LOS	F					

Intersection Level Of Service Report
Intersection 3: Date Palm Drive / East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	15.1
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.918

Intersection Setup

Name						
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00		40.00		40.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		Yes		Yes	

Volumes

Name						
Base Volume Input [veh/h]	339	121	149	1198	1174	347
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.46	1.46	1.16	1.16	1.76	1.76
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	31	0	0	21	31	40
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	526	177	173	1411	2097	651
Peak Hour Factor	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	141	48	47	379	564	175
Total Analysis Volume [veh/h]	566	190	186	1517	2255	700
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Split	Split	ProtectedPermissi	Permissive	Permissive	Permissive
Signal group	1	0	3	8	4	0
Auxiliary Signal Groups						
Lead / Lag	Lead	-	Lead	-	-	-
Minimum Green [s]	7	0	7	7	7	0
Maximum Green [s]	30	0	7	30	30	0
Amber [s]	3.0	0.0	3.0	3.0	3.0	0.0
All red [s]	1.0	0.0	1.0	1.0	1.0	0.0
Split [s]	19	0	22	41	19	0
Vehicle Extension [s]	3.0	0.0	3.0	3.0	3.0	0.0
Walk [s]	5	0	0	5	5	0
Pedestrian Clearance [s]	10	0	0	10	10	0
Rest In Walk	No			No	No	
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	2.0	0.0
Minimum Recall	No		Yes	No	No	
Maximum Recall	No		No	No	No	
Pedestrian Recall	No		No	No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	R	L	C	C	R
C, Cycle Length [s]	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	0.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	10	10	42	42	31	31
g / C, Green / Cycle	0.17	0.17	0.70	0.70	0.52	0.52
(v / s)_i Volume / Saturation Flow Rate	0.11	0.12	0.37	0.30	0.44	0.44
s, saturation flow rate [veh/h]	5168	1583	500	5074	5074	1583
c, Capacity [veh/h]	889	272	461	3526	2626	819
d1, Uniform Delay [s]	23.15	23.43	11.58	3.99	12.60	12.55
k, delay calibration	0.11	0.11	0.43	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.76	3.22	2.27	0.38	3.92	11.02
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.64	0.70	0.40	0.43	0.86	0.85
d, Delay for Lane Group [s/veh]	23.91	26.64	13.85	4.38	16.53	23.57
Lane Group LOS	C	C	B	A	B	C
Critical Lane Group	No	Yes	Yes	No	No	No
50th-Percentile Queue Length [veh]	2.29	2.51	0.65	1.38	7.32	8.41
50th-Percentile Queue Length [ft]	57.16	62.74	16.28	34.49	182.99	210.32
95th-Percentile Queue Length [veh]	4.12	4.52	1.17	2.48	11.76	13.17
95th-Percentile Queue Length [ft]	102.89	112.92	29.30	62.08	293.92	329.24

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	23.91	26.64	13.85	4.38	16.53	23.57
Movement LOS	C	C	B	A	B	C
d_A, Approach Delay [s/veh]	24.60		5.41		18.20	
Approach LOS	C		A		B	
d_I, Intersection Delay [s/veh]	15.07					
Intersection LOS	B					
Intersection V/C	0.918					

Sequence

Ring 1	1	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 4: South Project Driveway-Allen Avenue / East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	3.3
Analysis Method:	HCM 2010	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.411

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	0	0	0	2	0	3	8	1365	0	0	1343	20
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	21	0	59	76	0	0	0	0	31
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	23	0	62	85	1583	0	0	1558	54
Peak Hour Factor	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	6	0	16	22	417	0	0	410	14
Total Analysis Volume [veh/h]	0	0	0	24	0	65	90	1668	0	0	1642	57
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	1 - E Palm Canyon Drive
Cycle Length [s]	80
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	0	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	7	0	0	7	0	0	7	0	0	7	0
Maximum Green [s]	0	30	0	0	30	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	19	0	0	19	0	0	61	0	0	61	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No			No			No			No	
Maximum Recall		No			No			No			No	
Pedestrian Recall		No			No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	L	C	L	C	R	C	C	R
C, Cycle Length [s]	80	80	80	80	80	80	80	80	80
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	2.00	0.00	2.00	0.00	0.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	6	6	6	66	66	66	66	66	66
g / C, Green / Cycle	0.08	0.08	0.08	0.82	0.82	0.82	0.82	0.82	0.82
(v / s)_i Volume / Saturation Flow Rate	0.00	0.02	0.04	0.30	0.33	0.00	0.32	0.32	0.04
s, saturation flow rate [veh/h]	1646	1412	1583	304	5074	1583	1863	3227	1583
c, Capacity [veh/h]	171	168	121	304	4178	1304	1579	2658	1304
d1, Uniform Delay [s]	0.00	36.31	35.55	4.94	1.86	0.00	1.84	1.84	1.29
k, delay calibration	0.11	0.11	0.11	0.50	0.50	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.00	0.39	3.65	2.46	0.29	0.00	0.70	0.44	0.06
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

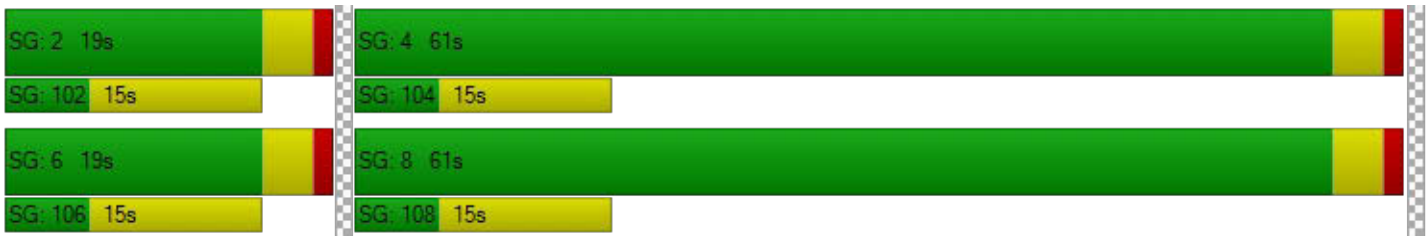
X, volume / capacity	0.00	0.14	0.54	0.30	0.40	0.00	0.38	0.39	0.04
d, Delay for Lane Group [s/veh]	0.00	36.70	39.21	7.40	2.14	0.00	2.54	2.28	1.36
Lane Group LOS	A	D	D	A	A	A	A	A	A
Critical Lane Group	No	No	Yes	No	Yes	No	No	No	No
50th-Percentile Queue Length [veh]	0.00	0.45	1.29	0.62	0.58	0.00	0.81	0.60	0.06
50th-Percentile Queue Length [ft]	0.00	11.23	32.20	15.44	14.60	0.00	20.34	15.00	1.42
95th-Percentile Queue Length [veh]	0.00	0.81	2.32	1.11	1.05	0.00	1.46	1.08	0.10
95th-Percentile Queue Length [ft]	0.00	20.22	57.97	27.78	26.28	0.00	36.61	27.00	2.55

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	36.70	39.21	39.21	7.40	2.14	0.00	2.54	2.37	1.36
Movement LOS	A	A	A	D	D	D	A	A	A	A	A	A
d_A, Approach Delay [s/veh]	0.00			38.53			2.41			2.34		
Approach LOS	A			D			A			A		
d_I, Intersection Delay [s/veh]	3.28											
Intersection LOS	A											
Intersection V/C	0.411											

Sequence

Ring 1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 5: Monty Hall Drive-Van Fleet Avenue / East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	10.8
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.487

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	1	0	1	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	45.00	100.00	100.00	105.00	100.00	130.00	125.00	100.00	180.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	11	1	44	10	9	12	13	1322	16	55	1290	10
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	18	0	0	52	67	58	0	14	45	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	13	1	69	12	10	66	82	1592	19	78	1541	12
Peak Hour Factor	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	0	18	3	3	17	21	415	5	20	402	3
Total Analysis Volume [veh/h]	14	1	72	13	10	69	86	1660	20	81	1607	13
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	1 - E Palm Canyon Drive
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	0	7	7	0	7	7	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	19	0	0	19	0	14	60	0	11	57	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	R	L	C	L	C	R	L	C	R
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	11	11	11	11	6	61	61	6	61	61
g / C, Green / Cycle	0.12	0.12	0.12	0.12	0.07	0.68	0.68	0.07	0.67	0.67
(v / s)_i Volume / Saturation Flow Rate	0.02	0.05	0.01	0.05	0.05	0.33	0.01	0.05	0.32	0.01
s, saturation flow rate [veh/h]	606	1583	1410	1614	1774	5074	1583	1774	5074	1583
c, Capacity [veh/h]	152	196	106	200	122	3427	1069	120	3421	1068
d1, Uniform Delay [s]	39.36	36.20	43.75	36.33	41.02	7.04	4.80	41.00	6.99	4.81
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.28	1.15	0.51	1.27	7.24	0.49	0.03	6.49	0.47	0.02
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.10	0.37	0.12	0.40	0.71	0.48	0.02	0.68	0.47	0.01
d, Delay for Lane Group [s/veh]	39.64	37.35	44.26	37.60	48.26	7.54	4.83	47.49	7.45	4.84
Lane Group LOS	D	D	D	D	D	A	A	D	A	A
Critical Lane Group	No	No	No	Yes	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh]	0.32	1.46	0.29	1.61	2.05	4.08	0.11	1.91	3.91	0.07
50th-Percentile Queue Length [ft]	7.98	36.59	7.33	40.34	51.20	101.98	2.65	47.78	97.77	1.73
95th-Percentile Queue Length [veh]	0.57	2.63	0.53	2.90	3.69	7.34	0.19	3.44	7.04	0.12
95th-Percentile Queue Length [ft]	14.37	65.87	13.20	72.60	92.15	183.56	4.78	86.01	175.98	3.11

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	39.64	39.64	37.35	44.26	37.60	37.60	48.26	7.54	4.83	47.49	7.45	4.84
Movement LOS	D	D	D	D	D	D	D	A	A	D	A	A
d_A, Approach Delay [s/veh]	37.74			38.54			9.49			9.34		
Approach LOS	D			D			A			A		
d_I, Intersection Delay [s/veh]	10.83											
Intersection LOS	B											
Intersection V/C	0.487											

Sequence

Ring 1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 8: Monty Hall Drive / Buddy Rogers Avenue

Control Type:	All-way stop	Delay (sec / veh):	7.9
Analysis Method:	HCM 2010	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.161

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			No			No		

Volumes

Name												
Base Volume Input [veh/h]	20	5	4	17	6	0	1	13	6	7	25	12
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	67	0	0	0	0	0	0	52	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	27	7	72	23	8	0	1	17	8	61	33	16
Peak Hour Factor	0.8290	0.8290	0.8290	0.8290	0.8290	0.8290	0.8290	0.8290	0.8290	0.8290	0.8290	0.8290
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	8	2	22	7	2	0	0	5	2	18	10	5
Total Analysis Volume [veh/h]	33	8	87	28	10	0	1	21	10	74	40	19
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	899	784	844	826
Degree of Utilization, x	0.14	0.05	0.04	0.16

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.50	0.15	0.12	0.57
95th-Percentile Queue Length [ft]	12.38	3.82	2.95	14.30
Approach Delay [s/veh]	7.66	7.83	7.43	8.19
Approach LOS	A	A	A	A
Intersection Delay [s/veh]	7.87			
Intersection LOS	A			

Intersection Level Of Service Report
Intersection 9: Buddy Rogers Avenue/ East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	3.5
Analysis Method:	HCM 2010	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.433

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	10	1	39	19	2	28	16	1309	2	16	1255	17
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	125	0	0	97	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	12	1	45	22	2	32	19	1643	2	19	1553	20
Peak Hour Factor	0.9360	0.9360	0.9360	0.9360	0.9360	0.9360	0.9360	0.9360	0.9360	0.9360	0.9360	0.9360
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	0	12	6	1	9	5	439	1	5	415	5
Total Analysis Volume [veh/h]	13	1	48	24	2	34	20	1755	2	20	1659	21
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	1 - E Palm Canyon Drive
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	7	0	0	7	0	0	7	0	0	7	0
Maximum Green [s]	0	30	0	0	30	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	19	0	0	19	0	0	101	0	0	101	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No			No			No			No	
Maximum Recall		No			No			No			No	
Pedestrian Recall		No			No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	C	L	C	R	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	2.00	2.00	0.00	0.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	6	6	106	106	106	106	106	106
g / C, Green / Cycle	0.05	0.05	0.88	0.88	0.88	0.88	0.88	0.88
(v / s)_i Volume / Saturation Flow Rate	0.04	0.04	0.07	0.35	0.00	0.07	0.33	0.01
s, saturation flow rate [veh/h]	1636	1360	299	5074	1583	272	5074	1583
c, Capacity [veh/h]	121	113	298	4472	1395	276	4472	1395
d1, Uniform Delay [s]	55.96	56.21	2.64	1.29	0.85	2.80	1.25	0.86
k, delay calibration	0.11	0.11	0.50	0.50	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	3.30	3.86	0.43	0.26	0.00	0.51	0.24	0.02
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.51	0.53	0.07	0.39	0.00	0.07	0.37	0.02
d, Delay for Lane Group [s/veh]	59.26	60.07	3.07	1.55	0.85	3.30	1.49	0.88
Lane Group LOS	E	E	A	A	A	A	A	A
Critical Lane Group	No	Yes	No	Yes	No	No	No	No
50th-Percentile Queue Length [veh]	1.93	1.89	0.11	0.66	0.00	0.12	0.61	0.02
50th-Percentile Queue Length [ft]	48.26	47.30	2.73	16.60	0.05	2.91	15.24	0.52
95th-Percentile Queue Length [veh]	3.47	3.41	0.20	1.20	0.00	0.21	1.10	0.04
95th-Percentile Queue Length [ft]	86.86	85.15	4.91	29.89	0.09	5.25	27.43	0.94

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	59.26	59.26	59.26	60.07	60.07	60.07	3.07	1.55	0.85	3.30	1.49	0.88
Movement LOS	E	E	E	E	E	E	A	A	A	A	A	A
d_A, Approach Delay [s/veh]	59.26			60.07			1.57			1.50		
Approach LOS	E			E			A			A		
d_I, Intersection Delay [s/veh]	3.51											
Intersection LOS	A											
Intersection V/C	0.433											

Sequence

Ring 1	2	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 10: Cathedral Canyon Drive / East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	25.1
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.623

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	0	1	0	0	1	0	1
Pocket Length [ft]	100.00	100.00	70.00	90.00	100.00	100.00	238.00	100.00	100.00	190.00	100.00	270.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	71	113	50	127	131	92	110	1151	77	61	1111	120
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.33	1.33	1.33	1.33	1.33	1.33	1.31	1.31	1.31	1.16	1.16	1.16
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	18	61	0	0	0	46	0	14	36	47
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	94	150	85	230	174	122	144	1554	101	85	1325	186
Peak Hour Factor	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	24	39	22	59	45	32	37	402	26	22	343	48
Total Analysis Volume [veh/h]	97	155	88	238	180	126	149	1607	104	88	1370	192
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	1 - E Palm Canyon Drive
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Overlap	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	6	3	8	0	7	4	0
Auxiliary Signal Groups						3,6						
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	7	7	7	0	7	7	0
Maximum Green [s]	0	30	0	0	30	30	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	1.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	37	0	0	37	37	40	71	0	12	43	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	5	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	10	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No	No	No	No		No	No	
Maximum Recall		No			No	No	No	No		No	No	
Pedestrian Recall		No			No	No	No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	0.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	33	33	33	33	33	49	12	67	67	7	63	63
g / C, Green / Cycle	0.28	0.28	0.28	0.28	0.28	0.41	0.10	0.56	0.56	0.06	0.52	0.52
(v / s)_i Volume / Saturation Flow Rate	0.08	0.08	0.06	0.19	0.10	0.08	0.08	0.32	0.07	0.05	0.27	0.12
s, saturation flow rate [veh/h]	1199	1863	1583	1227	1863	1583	1774	5074	1583	1774	5074	1583
c, Capacity [veh/h]	277	512	435	296	512	652	184	2854	890	111	2646	826
d1, Uniform Delay [s]	43.79	34.38	33.37	48.52	34.89	22.54	52.62	16.80	12.29	55.45	18.81	15.63
k, delay calibration	0.11	0.11	0.11	0.24	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.76	0.33	0.23	10.54	0.41	0.14	8.32	0.81	0.27	11.96	0.73	0.66
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.35	0.30	0.20	0.80	0.35	0.19	0.81	0.56	0.12	0.79	0.52	0.23
d, Delay for Lane Group [s/veh]	44.54	34.71	33.60	59.06	35.30	22.68	60.94	17.61	12.56	67.41	19.54	16.29
Lane Group LOS	D	C	C	E	D	C	E	B	B	E	B	B
Critical Lane Group	No	No	No	Yes	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh]	2.59	3.57	1.97	7.83	4.21	2.25	4.74	9.02	1.32	2.95	8.06	2.91
50th-Percentile Queue Length [ft]	64.68	89.18	49.19	195.70	105.18	56.31	118.53	225.56	32.92	73.81	201.62	72.64
95th-Percentile Queue Length [veh]	4.66	6.42	3.54	12.42	7.57	4.05	8.31	13.95	2.37	5.31	12.72	5.23
95th-Percentile Queue Length [ft]	116.42	160.52	88.53	310.41	189.28	101.35	207.81	348.71	59.25	132.86	318.05	130.76

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	44.54	34.71	33.60	59.06	35.30	22.68	60.94	17.61	12.56	67.41	19.54	16.29
Movement LOS	D	C	C	E	D	C	E	B	B	E	B	B
d_A, Approach Delay [s/veh]	37.23			42.77			20.80			21.71		
Approach LOS	D			D			C			C		
d_I, Intersection Delay [s/veh]	25.14											
Intersection LOS	C											
Intersection V/C	0.623											

Sequence

Ring 1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 11: Perez Road / East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	21.3
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.659

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	150.00	100.00	100.00	170.00	100.00	45.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	9	9	4	17	10	257	212	1274	4	4	1270	21
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.33	1.33	1.33	1.33	1.33	1.33	1.64	1.64	1.64	1.31	1.31	1.31
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	46	0	0	36	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	12	12	5	23	13	342	348	2135	7	5	1700	28
Peak Hour Factor	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	3	1	6	3	88	89	548	2	1	436	7
Total Analysis Volume [veh/h]	12	12	5	24	13	351	357	2192	7	5	1745	29
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	0	7	7	0	7	7	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	19	0	0	19	0	13	40	0	42	69	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	R	L	C	C	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	4	4	16	16	16	15	82	82	1	69	69
g / C, Green / Cycle	0.04	0.04	0.13	0.13	0.13	0.12	0.69	0.69	0.01	0.57	0.57
(v / s)_i Volume / Saturation Flow Rate	0.01	0.01	0.01	0.11	0.11	0.10	0.41	0.41	0.00	0.34	0.02
s, saturation flow rate [veh/h]	1774	1771	1774	1600	1583	3445	3547	1860	1774	5074	1583
c, Capacity [veh/h]	66	66	239	216	213	418	2430	1274	18	2911	908
d1, Uniform Delay [s]	56.05	56.21	45.56	50.74	50.75	51.71	10.04	10.04	59.01	16.63	11.11
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.32	2.06	0.18	8.92	9.02	5.07	1.08	2.05	8.54	0.92	0.07
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

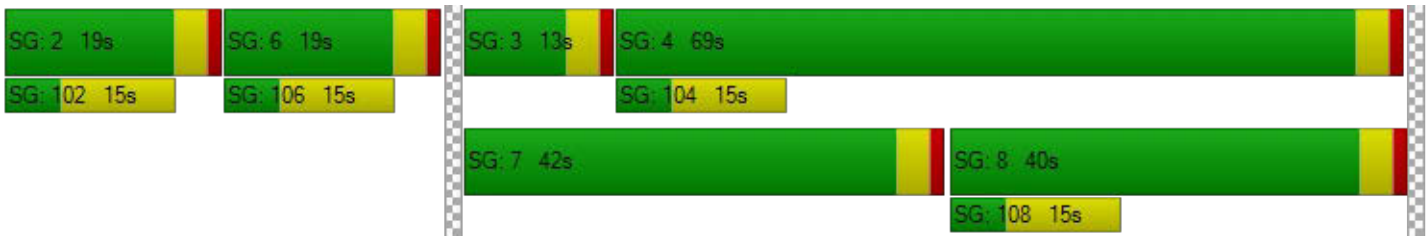
X, volume / capacity	0.18	0.26	0.10	0.85	0.85	0.85	0.59	0.59	0.28	0.60	0.03
d, Delay for Lane Group [s/veh]	57.36	58.27	45.74	59.66	59.77	56.78	11.11	12.09	67.55	17.55	11.18
Lane Group LOS	E	E	D	E	E	E	B	B	E	B	B
Critical Lane Group	No	Yes	No	No	Yes	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh]	0.37	0.53	0.63	5.80	5.75	5.46	9.04	9.83	0.19	9.89	0.34
50th-Percentile Queue Length [ft]	9.30	13.29	15.82	145.08	143.75	136.55	225.88	245.82	4.77	247.25	8.44
95th-Percentile Queue Length [veh]	0.67	0.96	1.14	9.75	9.68	9.29	13.96	14.98	0.34	15.05	0.61
95th-Percentile Queue Length [ft]	16.73	23.92	28.47	243.85	242.06	232.37	349.12	374.38	8.58	376.19	15.20

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	57.36	58.27	58.27	45.74	59.66	59.72	56.78	11.45	12.09	67.55	17.55	11.18
Movement LOS	E	E	E	D	E	E	E	B	B	E	B	B
d_A, Approach Delay [s/veh]	57.89			58.85			17.78			17.59		
Approach LOS	E			E			B			B		
d_I, Intersection Delay [s/veh]	21.31											
Intersection LOS	C											
Intersection V/C	0.659											

Sequence

Ring 1	2	6	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 12: Canyon Plaza Drive / East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	11.6
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.665

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	1	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	95.00	90.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	55	2	83	6	3	14	10	1457	39	56	1457	11
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.33	1.33	1.33	1.33	1.33	1.33	1.55	1.55	1.55	1.64	1.64	1.64
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	15	0	0	0	31	0	0	24	12
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	73	3	110	23	4	19	16	2289	60	92	2413	30
Peak Hour Factor	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	19	1	29	6	1	5	4	597	16	24	629	8
Total Analysis Volume [veh/h]	76	3	115	24	4	20	17	2387	63	96	2516	31
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	0	7	7	0	7	7	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	19	0	0	19	0	11	90	0	11	90	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	L	C	R	L	C	C
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	12	12	12	12	3	88	88	8	93	93
g / C, Green / Cycle	0.10	0.10	0.10	0.10	0.03	0.73	0.73	0.07	0.77	0.77
(v / s)_i Volume / Saturation Flow Rate	0.06	0.07	0.02	0.01	0.01	0.47	0.04	0.05	0.47	0.47
s, saturation flow rate [veh/h]	1381	1589	1269	1624	1774	5074	1583	1774	3547	1851
c, Capacity [veh/h]	158	162	75	166	45	3707	1157	119	2740	1430
d1, Uniform Delay [s]	54.83	52.23	59.54	49.08	57.55	8.23	4.54	55.18	5.87	5.90
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.28	6.05	2.40	0.40	5.18	0.87	0.09	11.80	1.02	1.97
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.48	0.73	0.32	0.14	0.38	0.64	0.05	0.80	0.61	0.61
d, Delay for Lane Group [s/veh]	57.11	58.29	61.94	49.48	62.73	9.10	4.63	66.98	6.90	7.86
Lane Group LOS	E	E	E	D	E	A	A	E	A	A
Critical Lane Group	No	Yes	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh]	2.32	3.66	0.77	0.67	0.57	8.81	0.40	3.21	7.12	7.86
50th-Percentile Queue Length [ft]	58.03	91.50	19.25	16.64	14.13	220.16	10.01	80.20	178.03	196.60
95th-Percentile Queue Length [veh]	4.18	6.59	1.39	1.20	1.02	13.67	0.72	5.77	11.50	12.46
95th-Percentile Queue Length [ft]	104.46	164.70	34.65	29.95	25.43	341.83	18.01	144.35	287.44	311.58

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	57.11	58.29	58.29	61.94	49.48	49.48	62.73	9.10	4.63	66.98	7.22	7.86
Movement LOS	E	E	E	E	D	D	E	A	A	E	A	A
d_A, Approach Delay [s/veh]	57.82			55.71			9.36			9.40		
Approach LOS	E			E			A			A		
d_I, Intersection Delay [s/veh]	11.55											
Intersection LOS	B											
Intersection V/C	0.665											

Sequence

Ring 1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 14: Cathedral Canyon Drive / Officer David Vasquez Road

Control Type:	Signalized	Delay (sec / veh):	4.3
Analysis Method:	HCM 2010	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.261

Intersection Setup

Name						
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	1	0	1	1
Pocket Length [ft]	100.00	100.00	205.00	100.00	120.00	120.00
Speed [mph]	40.00		40.00		40.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		Yes		Yes	

Volumes

Name						
Base Volume Input [veh/h]	344	7	17	370	7	32
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.33	1.33	1.33	1.33	1.33	1.33
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	47	0	0	61	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	505	9	23	553	9	43
Peak Hour Factor	0.8670	0.8670	0.8670	0.8670	0.8670	0.8670
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	146	3	7	159	3	12
Total Analysis Volume [veh/h]	582	10	27	638	10	50
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	2 - N. Cathedral Canyon Drive
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permissive	Permissive	Protected	Permissive	Split	Overlap
Signal group	2	0	1	6	7	7
Auxiliary Signal Groups						1,7
Lead / Lag	-	-	Lead	-	Lead	-
Minimum Green [s]	7	0	7	7	7	7
Maximum Green [s]	30	0	30	30	30	30
Amber [s]	3.0	0.0	3.0	3.0	3.0	3.0
All red [s]	1.0	0.0	1.0	1.0	1.0	1.0
Split [s]	30	0	11	41	19	19
Vehicle Extension [s]	3.0	0.0	3.0	3.0	3.0	3.0
Walk [s]	5	0	0	5	5	5
Pedestrian Clearance [s]	10	0	0	10	10	10
Rest In Walk	No			No	No	
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0
Minimum Recall	No		No	No	No	No
Maximum Recall	No		No	No	No	No
Pedestrian Recall	No		No	No	No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	C	L	C	L	R
C, Cycle Length [s]	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	0.00
g_i, Effective Green Time [s]	41	41	3	48	5	11
g / C, Green / Cycle	0.68	0.68	0.04	0.79	0.07	0.18
(v / s)_i Volume / Saturation Flow Rate	0.16	0.16	0.02	0.18	0.00	0.03
s, saturation flow rate [veh/h]	1863	1852	1774	3547	3445	1583
c, Capacity [veh/h]	1267	1259	79	2806	262	296
d1, Uniform Delay [s]	3.66	3.67	27.88	1.60	25.76	20.53
k, delay calibration	0.50	0.50	0.11	0.50	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.43	0.44	2.53	0.19	0.06	0.27
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

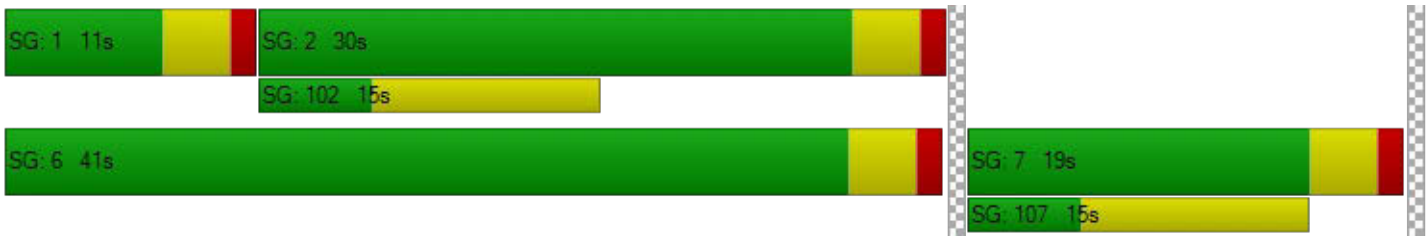
X, volume / capacity	0.23	0.24	0.34	0.23	0.04	0.17
d, Delay for Lane Group [s/veh]	4.10	4.11	30.41	1.79	25.82	20.80
Lane Group LOS	A	A	C	A	C	C
Critical Lane Group	No	No	No	Yes	No	Yes
50th-Percentile Queue Length [veh]	0.85	0.85	0.40	0.13	0.06	0.55
50th-Percentile Queue Length [ft]	21.15	21.20	10.04	3.15	1.57	13.80
95th-Percentile Queue Length [veh]	1.52	1.53	0.72	0.23	0.11	0.99
95th-Percentile Queue Length [ft]	38.08	38.16	18.08	5.67	2.83	24.84

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	4.10	4.11	30.41	1.79	25.82	20.80
Movement LOS	A	A	C	A	C	C
d_A, Approach Delay [s/veh]	4.10		2.95		21.63	
Approach LOS	A		A		C	
d_I, Intersection Delay [s/veh]	4.32					
Intersection LOS	A					
Intersection V/C	0.261					

Sequence

Ring 1	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 15: Cathedral Canyon Drive / Perez Road

Control Type:	Signalized	Delay (sec / veh):	23.4
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.588

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	1	1	0	0
Pocket Length [ft]	95.00	100.00	100.00	205.00	100.00	100.00	100.00	100.00	100.00	150.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	26	297	52	109	282	127	114	192	51	48	207	88
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	47	0	0	61	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	35	442	69	145	436	169	152	255	68	64	275	117
Peak Hour Factor	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	9	113	18	37	112	43	39	65	17	16	71	30
Total Analysis Volume [veh/h]	36	454	71	149	448	174	156	262	70	66	282	120
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	2 - N. Cathedral Canyon Drive
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	19	0	11	19	0	11	19	0	11	19	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	L	C	R	L	C	C
C, Cycle Length [s]	60	60	60	60	60	60	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	3	11	11	7	14	14	7	22	22	5	20	20
g / C, Green / Cycle	0.05	0.18	0.18	0.11	0.24	0.24	0.11	0.36	0.36	0.08	0.33	0.33
(v / s)_i Volume / Saturation Flow Rate	0.02	0.14	0.14	0.08	0.17	0.18	0.09	0.07	0.04	0.04	0.11	0.12
s, saturation flow rate [veh/h]	1774	1863	1776	1774	1863	1688	1774	3547	1583	1774	1863	1679
c, Capacity [veh/h]	98	342	326	194	442	400	202	1286	574	141	612	551
d1, Uniform Delay [s]	27.46	23.47	23.50	26.12	21.26	21.27	25.97	13.22	12.81	26.54	15.32	15.37
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.27	3.95	4.28	6.32	2.42	2.70	6.22	0.36	0.43	2.41	1.52	1.75
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.37	0.78	0.79	0.77	0.74	0.74	0.77	0.20	0.12	0.47	0.34	0.35
d, Delay for Lane Group [s/veh]	29.73	27.42	27.79	32.45	23.67	23.98	32.19	13.58	13.25	28.95	16.83	17.12
Lane Group LOS	C	C	C	C	C	C	C	B	B	C	B	B
Critical Lane Group	No	No	Yes	Yes	No	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh]	0.52	3.60	3.49	2.22	4.01	3.68	2.31	1.10	0.60	0.92	2.11	1.99
50th-Percentile Queue Length [ft]	13.00	89.89	87.24	55.53	100.21	92.01	57.81	27.38	15.08	23.02	52.66	49.65
95th-Percentile Queue Length [veh]	0.94	6.47	6.28	4.00	7.22	6.62	4.16	1.97	1.09	1.66	3.79	3.57
95th-Percentile Queue Length [ft]	23.40	161.81	157.03	99.95	180.38	165.61	104.06	49.29	27.15	41.43	94.78	89.36

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	29.73	27.57	27.79	32.45	23.75	23.98	32.19	13.58	13.25	28.95	16.91	17.12
Movement LOS	C	C	C	C	C	C	C	B	B	C	B	B
d_A, Approach Delay [s/veh]	27.74			25.48			19.48			18.66		
Approach LOS	C			C			B			B		
d_I, Intersection Delay [s/veh]	23.36											
Intersection LOS	C											
Intersection V/C	0.588											

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 16: Cathedral Canyon Drive / Paseo Real

Control Type:	Two-way stop	Delay (sec / veh):	46.5
Analysis Method:	HCM 2010	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.076

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	0	0	0	0	0	0
Pocket Length [ft]	55.00	100.00	100.00	55.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name												
Base Volume Input [veh/h]	11	482	9	16	509	19	11	5	16	9	6	14
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	40	7	0	52	0	0	0	0	9	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	15	681	19	21	729	25	15	7	21	21	8	19
Peak Hour Factor	0.9680	0.9680	0.9680	0.9680	0.9680	0.9680	0.9680	0.9680	0.9680	0.9680	0.9680	0.9680
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	176	5	5	188	6	4	2	5	5	2	5
Total Analysis Volume [veh/h]	15	704	20	22	753	26	15	7	22	22	8	20
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.02	0.01	0.00	0.03	0.01	0.00	0.12	0.07	0.04	0.17	0.08	0.03
d_M, Delay for Movement [s/veh]	9.40	0.00	0.00	9.22	0.00	0.00	38.90	44.14	16.03	39.68	46.49	17.99
Movement LOS	A	A	A	A	A	A	E	E	C	E	E	C
95th-Percentile Queue Length [veh]	0.05	0.00	0.00	0.08	0.00	0.00	0.82	0.82	0.82	1.07	1.07	1.07
95th-Percentile Queue Length [ft]	1.37	0.00	0.00	1.93	0.00	0.00	20.55	20.55	20.55	26.67	26.67	26.67
d_A, Approach Delay [s/veh]	0.19			0.25			28.30			32.10		
Approach LOS	A			A			D			D		
d_I, Intersection Delay [s/veh]	1.95											
Intersection LOS	E											

Intersection Level Of Service Report
Intersection 17: Cathedral Canyon Drive / Dinah Shore Drive

Control Type:	Signalized	Delay (sec / veh):	29.2
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.810

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	130.00	100.00	100.00	75.00	100.00	100.00	100.00	100.00	100.00	150.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	156	237	102	119	230	28	31	587	198	102	575	71
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	12	19	9	0	25	0	0	0	15	12	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	219	334	145	158	331	37	41	781	278	148	765	94
Peak Hour Factor	0.9700	0.9700	0.9700	0.9700	0.9700	0.9700	0.9700	0.9700	0.9700	0.9700	0.9700	0.9700
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	56	86	37	41	85	10	11	201	72	38	197	24
Total Analysis Volume [veh/h]	226	344	149	163	341	38	42	805	287	153	789	97
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	2 - N. Cathedral Canyon Drive
Cycle Length [s]	70
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	16	23	0	12	19	0	12	24	0	11	23	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	L	C	C	L	C	C
C, Cycle Length [s]	70	70	70	70	70	70	70	70	70	70	70	70
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	11	12	12	8	10	10	4	26	26	8	30	30
g / C, Green / Cycle	0.15	0.18	0.18	0.11	0.14	0.14	0.06	0.37	0.37	0.11	0.43	0.43
(v / s)_i Volume / Saturation Flow Rate	0.13	0.14	0.14	0.09	0.10	0.10	0.02	0.31	0.31	0.09	0.24	0.24
s, saturation flow rate [veh/h]	1774	1863	1675	1774	1863	1798	1774	1863	1698	1774	1863	1792
c, Capacity [veh/h]	273	328	295	204	256	247	101	692	630	195	790	760
d1, Uniform Delay [s]	28.83	27.68	27.71	30.31	29.15	29.17	31.98	20.01	20.04	30.47	15.39	15.39
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	6.36	4.21	4.80	7.08	4.41	4.68	2.68	10.79	11.84	6.84	3.00	3.11
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.83	0.79	0.79	0.80	0.75	0.76	0.41	0.82	0.83	0.79	0.57	0.57
d, Delay for Lane Group [s/veh]	35.19	31.89	32.51	37.39	33.55	33.85	34.67	30.80	31.88	37.31	18.39	18.50
Lane Group LOS	D	C	C	D	C	C	C	C	C	D	B	B
Critical Lane Group	No	No	Yes	Yes	No	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh]	3.89	4.21	3.86	2.90	3.20	3.13	0.72	9.38	8.76	2.72	5.34	5.16
50th-Percentile Queue Length [ft]	97.30	105.19	96.48	72.47	80.03	78.25	18.07	234.47	218.92	67.90	133.43	129.01
95th-Percentile Queue Length [veh]	7.01	7.57	6.95	5.22	5.76	5.63	1.30	14.40	13.61	4.89	9.13	8.89
95th-Percentile Queue Length [ft]	175.14	189.29	173.67	130.45	144.05	140.85	32.52	360.04	340.25	122.22	228.14	222.15

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	35.19	32.04	32.51	37.39	33.68	33.85	34.67	31.12	31.88	37.31	18.44	18.50
Movement LOS	D	C	C	D	C	C	C	C	C	D	B	B
d_A, Approach Delay [s/veh]	33.13			34.81			31.44			21.22		
Approach LOS	C			C			C			C		
d_I, Intersection Delay [s/veh]	29.23											
Intersection LOS	C											
Intersection V/C	0.810											

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	



Intersection Level Of Service Report
Intersection 18: Date Palm Drive / Gerald Ford Drive

Control Type:	Signalized	Delay (sec / veh):	36.8
Analysis Method:	HCM 2010	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.888

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	85.00	100.00	85.00	160.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			Yes			Yes			No		

Volumes

Name												
Base Volume Input [veh/h]	22	418	198	120	415	61	36	46	46	196	44	127
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	2.97	2.97	2.97	1.83	1.83	1.83	1.83	1.83	1.83	1.97	1.97	1.97
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	24	48	0	31	0	0	0	0	62	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	65	1265	636	220	790	112	66	84	84	448	87	250
Peak Hour Factor	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	17	330	166	57	206	29	17	22	22	117	23	65
Total Analysis Volume [veh/h]	68	1320	664	230	825	117	69	88	88	468	91	261
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	6 - N/S
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Split	Split	Split	Split	Split	Split
Signal group	5	2	0	1	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	7	7	0	7	7	0	0	7	0	0	7	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	17	59	0	22	64	0	0	11	0	0	28	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No	No		No	No			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	C	L	C	C	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	6	56	56	17	67	67	9	9	9	22	22	22
g / C, Green / Cycle	0.05	0.47	0.47	0.14	0.56	0.56	0.07	0.07	0.07	0.18	0.18	0.18
(v / s)_i Volume / Saturation Flow Rate	0.04	0.26	0.42	0.13	0.18	0.18	0.04	0.05	0.06	0.16	0.16	0.16
s, saturation flow rate [veh/h]	1774	5074	1583	1774	3547	1747	1774	1863	1583	1774	1802	1583
c, Capacity [veh/h]	96	2367	739	258	1978	974	125	132	112	327	332	292
d1, Uniform Delay [s]	55.91	23.11	29.44	50.42	14.28	14.29	53.98	54.45	54.93	47.38	47.32	47.83
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.18	0.17	0.20
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	9.37	0.95	16.03	10.36	0.43	0.86	3.74	5.75	11.47	9.71	9.07	15.67
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.71	0.56	0.90	0.89	0.32	0.32	0.55	0.67	0.79	0.85	0.84	0.89
d, Delay for Lane Group [s/veh]	65.28	24.06	45.48	60.79	14.71	15.16	57.71	60.20	66.40	57.09	56.39	63.50
Lane Group LOS	E	C	D	E	B	B	E	E	E	E	E	E
Critical Lane Group	No	No	Yes	Yes	No	No	No	No	Yes	No	No	Yes
50th-Percentile Queue Length [veh]	2.25	8.80	19.81	7.40	4.49	4.55	2.11	2.76	2.93	8.76	8.77	8.73
50th-Percentile Queue Length [ft]	56.14	220.06	495.33	184.91	112.13	113.75	52.86	69.08	73.30	219.07	219.34	218.29
95th-Percentile Queue Length [veh]	4.04	13.67	27.11	11.86	7.96	8.05	3.81	4.97	5.28	13.62	13.63	13.58
95th-Percentile Queue Length [ft]	101.06	341.70	677.83	296.42	198.96	201.20	95.15	124.35	131.94	340.44	340.79	339.44

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	65.28	24.06	45.48	60.79	14.81	15.16	57.71	60.20	66.40	56.81	56.39	63.50
Movement LOS	E	C	D	E	B	B	E	E	E	E	E	E
d_A, Approach Delay [s/veh]	32.36			23.87			61.73			58.89		
Approach LOS	C			C			E			E		
d_I, Intersection Delay [s/veh]	36.79											
Intersection LOS	D											
Intersection V/C	0.888											

Sequence

Ring 1	1	2	4	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 19: Date Palm Drive / Dinah Shore Drive

Control Type:	Signalized	Delay (sec / veh):	30.3
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.715

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	2	0	1	2	0	1	1	0	0	1	0	1
Pocket Length [ft]	225.00	100.00	125.00	170.00	100.00	50.00	150.00	100.00	100.00	130.00	100.00	180.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			No		

Volumes

Name												
Base Volume Input [veh/h]	185	483	58	114	538	75	103	483	173	59	427	115
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.83	1.83	1.83	1.44	1.44	1.44	1.67	1.67	1.67	1.67	1.67	1.67
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	24	0	0	31	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	339	908	106	164	806	108	172	807	289	99	713	192
Peak Hour Factor	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	90	240	28	43	213	29	46	214	77	26	189	51
Total Analysis Volume [veh/h]	359	962	112	174	854	114	182	855	306	105	755	203
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	1 - E Palm Canyon Drive
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Overlap
Signal group	5	2	0	1	6	0	3	8	0	7	4	4
Auxiliary Signal Groups												1,4
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	7
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	30
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	1.0
Split [s]	17	25	0	11	19	0	20	41	0	13	34	34
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	5
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	10
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0
Minimum Recall	No	No		No	No		No	No		No	No	No
Maximum Recall	No	No		No	No		No	No		No	No	No
Pedestrian Recall	No	No		No	No		No	No		No	No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	0.00
g_i, Effective Green Time [s]	11	33	33	7	29	29	11	27	27	7	23	34
g / C, Green / Cycle	0.13	0.37	0.37	0.08	0.32	0.32	0.12	0.30	0.30	0.08	0.25	0.37
(v / s)_i Volume / Saturation Flow Rate	0.10	0.19	0.07	0.05	0.17	0.07	0.10	0.24	0.19	0.06	0.21	0.13
s, saturation flow rate [veh/h]	3445	5074	1583	3445	5074	1583	1774	3547	1583	1774	3547	1583
c, Capacity [veh/h]	437	1875	585	269	1628	508	219	1061	474	134	890	592
d1, Uniform Delay [s]	38.33	22.10	19.27	40.31	24.99	22.39	38.55	29.16	27.43	40.91	32.10	20.27
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	3.89	1.01	0.73	2.59	1.21	1.02	7.83	1.50	1.49	9.53	2.35	0.34
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

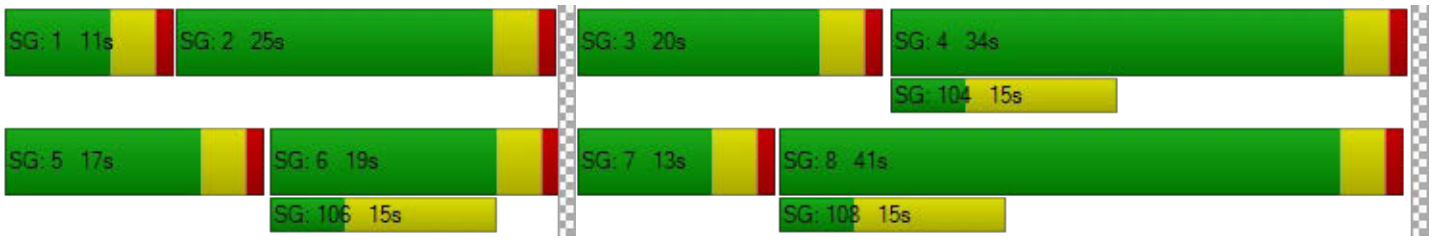
X, volume / capacity	0.82	0.51	0.19	0.65	0.52	0.22	0.83	0.81	0.65	0.78	0.85	0.34
d, Delay for Lane Group [s/veh]	42.22	23.10	20.00	42.90	26.20	23.42	46.38	30.65	28.91	50.44	34.45	20.61
Lane Group LOS	D	C	B	D	C	C	D	C	C	D	C	C
Critical Lane Group	Yes	No	No	No	Yes	No	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh]	3.94	5.09	1.61	1.90	4.85	1.82	4.25	8.22	5.58	2.56	7.68	2.93
50th-Percentile Queue Length [ft]	98.62	127.19	40.36	47.61	121.22	45.47	106.19	205.47	139.53	64.10	191.94	73.24
95th-Percentile Queue Length [veh]	7.10	8.79	2.91	3.43	8.46	3.27	7.63	12.92	9.46	4.62	12.22	5.27
95th-Percentile Queue Length [ft]	177.52	219.66	72.65	85.69	211.50	81.85	190.69	323.01	236.39	115.38	305.54	131.84

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	42.22	23.10	20.00	42.90	26.20	23.42	46.38	30.65	28.91	50.44	34.45	20.61
Movement LOS	D	C	B	D	C	C	D	C	C	D	C	C
d_A, Approach Delay [s/veh]	27.65			28.47			32.39			33.39		
Approach LOS	C			C			C			C		
d_I, Intersection Delay [s/veh]	30.34											
Intersection LOS	C											
Intersection V/C	0.715											

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 23: East Palm Canyon Drive / Frank Sinatra Drive

Control Type:	Signalized	Delay (sec / veh):	49.0
Analysis Method:	HCM 2010	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.015

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	1	1	0	0	2	0	1
Pocket Length [ft]	160.00	100.00	45.00	325.00	100.00	250.00	100.00	100.00	100.00	120.00	100.00	1200.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			No			Yes		

Volumes

Name												
Base Volume Input [veh/h]	47	1301	147	214	1244	33	34	18	13	141	24	199
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.95	1.95	1.95	1.76	1.76	1.76	1.15	1.15	1.15	1.15	1.15	1.15
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	40	0	24	28	0	0	0	0	0	0	31
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	92	2577	287	401	2217	58	39	21	15	162	28	260
Peak Hour Factor	0.9210	0.9210	0.9210	0.9210	0.9210	0.9210	0.9210	0.9210	0.9210	0.9210	0.9210	0.9210
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	25	700	78	109	602	16	11	6	4	44	8	71
Total Analysis Volume [veh/h]	100	2798	312	435	2407	63	42	23	16	176	30	282
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	6 - N/S
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Overlap	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Overlap
Signal group	5	2	2	1	6	0	3	8	0	7	4	4
Auxiliary Signal Groups			2									4
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	7	7	7	0	7	7	0	7	7	7
Maximum Green [s]	30	30	30	30	30	0	30	30	0	30	30	30
Amber [s]	3.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0
All red [s]	1.0	1.0	1.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	1.0
Split [s]	11	66	66	19	74	0	11	19	0	16	24	24
Vehicle Extension [s]	3.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0
Walk [s]	0	5	5	0	5	0	0	5	0	0	5	5
Pedestrian Clearance [s]	0	10	10	0	10	0	0	10	0	0	10	10
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0
Minimum Recall	No	No	No	No	No		No	No		No	No	No
Maximum Recall	No	No	No	No	No		No	No		No	No	No
Pedestrian Recall	No	No	No	No	No		No	No		No	No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	7	62	62	15	70	70	5	19	8	22	22
g / C, Green / Cycle	0.06	0.52	0.52	0.13	0.58	0.58	0.04	0.16	0.07	0.18	0.18
(v / s)_i Volume / Saturation Flow Rate	0.06	0.55	0.20	0.13	0.47	0.04	0.02	0.02	0.05	0.02	0.18
s, saturation flow rate [veh/h]	1774	5074	1583	3445	5074	1583	1774	1737	3445	1863	1583
c, Capacity [veh/h]	104	2629	820	431	2967	926	78	270	234	334	284
d1, Uniform Delay [s]	56.38	28.91	17.35	52.50	19.68	10.77	56.17	43.77	54.93	41.05	49.15
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.24
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	33.38	37.64	1.34	22.60	2.53	0.14	5.65	0.24	4.81	0.11	35.08
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.97	1.06	0.38	1.01	0.81	0.07	0.54	0.14	0.75	0.09	0.99
d, Delay for Lane Group [s/veh]	89.76	66.55	18.69	75.10	22.21	10.92	61.82	44.01	59.74	41.17	84.23
Lane Group LOS	F	F	B	F	C	B	E	D	E	D	F
Critical Lane Group	No	Yes	No	Yes	No	No	Yes	No	No	No	Yes
50th-Percentile Queue Length [veh]	3.93	32.35	5.26	7.71	16.76	0.73	1.35	1.01	2.73	0.74	11.00
50th-Percentile Queue Length [ft]	98.33	808.66	131.48	192.75	419.08	18.18	33.75	25.18	68.21	18.55	275.00
95th-Percentile Queue Length [veh]	7.08	43.80	9.02	12.32	23.48	1.31	2.43	1.81	4.91	1.34	16.44
95th-Percentile Queue Length [ft]	176.99	1094.88	225.50	307.88	586.95	32.72	60.74	45.32	122.77	33.39	410.99

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	89.76	66.55	18.69	75.10	22.21	10.92	61.82	44.01	44.01	59.74	41.17	84.23
Movement LOS	F	F	B	F	C	B	E	D	D	E	D	F
d_A, Approach Delay [s/veh]	62.63			29.89			53.24			72.75		
Approach LOS	E			C			D			E		
d_I, Intersection Delay [s/veh]	49.02											
Intersection LOS	D											
Intersection V/C	1.015											

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 24: East Palm Canyon Drive / Mirage Cove Drive

Control Type:	Signalized	Delay (sec / veh):	12.4
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.705

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	1	1	0	0
Pocket Length [ft]	150.00	100.00	100.00	110.00	100.00	100.00	75.00	100.00	75.00	75.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	40	1394	6	23	1334	43	39	0	21	4	0	23
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.95	1.95	1.95	1.95	1.95	1.95	1.33	1.33	1.33	1.95	1.95	1.95
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	40	0	0	28	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	78	2758	12	45	2629	84	52	0	28	8	0	45
Peak Hour Factor	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	20	723	3	12	689	22	14	0	7	2	0	12
Total Analysis Volume [veh/h]	82	2891	13	47	2756	88	55	0	29	8	0	47
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	6 - N/S
Cycle Length [s]	100
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	5	2	0	1	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	7	7	0	7	7	0	0	7	0	0	7	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	11	70	0	11	70	0	0	19	0	0	19	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No	No		No	No			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	L	C	R	L	C
C, Cycle Length [s]	100	100	100	100	100	100	100	100	100	100	100
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.00	0.00	2.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	6	73	73	5	72	72	10	10	10	10	10
g / C, Green / Cycle	0.06	0.73	0.73	0.05	0.72	0.72	0.10	0.10	0.10	0.10	0.10
(v / s)_i Volume / Saturation Flow Rate	0.05	0.54	0.54	0.03	0.53	0.53	0.04	0.00	0.02	0.01	0.03
s, saturation flow rate [veh/h]	1774	3547	1858	1774	3547	1834	1353	1863	1583	1412	1583
c, Capacity [veh/h]	112	2589	1357	91	2547	1317	139	184	156	181	156
d1, Uniform Delay [s]	46.03	7.87	7.89	46.24	8.37	8.52	47.11	0.00	41.37	42.84	41.85
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	8.96	1.90	3.61	4.51	1.90	3.83	1.83	0.00	0.56	0.10	1.06
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.73	0.74	0.74	0.52	0.73	0.74	0.40	0.00	0.19	0.04	0.30
d, Delay for Lane Group [s/veh]	54.99	9.77	11.50	50.75	10.27	12.35	48.94	0.00	41.93	42.94	42.91
Lane Group LOS	D	A	B	D	B	B	D	A	D	D	D
Critical Lane Group	Yes	No	No	No	No	Yes	Yes	No	No	No	No
50th-Percentile Queue Length [veh]	2.23	9.26	10.39	1.23	9.52	10.85	1.39	0.00	0.67	0.18	1.10
50th-Percentile Queue Length [ft]	55.72	231.38	259.69	30.63	237.97	271.19	34.82	0.00	16.63	4.61	27.42
95th-Percentile Queue Length [veh]	4.01	14.24	15.67	2.21	14.58	16.25	2.51	0.00	1.20	0.33	1.97
95th-Percentile Queue Length [ft]	100.30	356.11	391.84	55.13	364.46	406.22	62.67	0.00	29.93	8.30	49.35

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	54.99	10.36	11.50	50.75	10.94	12.35	48.94	0.00	41.93	42.94	42.91	42.91
Movement LOS	D	B	B	D	B	B	D	A	D	D	D	D
d_A, Approach Delay [s/veh]	11.59			11.63			46.52			42.92		
Approach LOS	B			B			D			D		
d_I, Intersection Delay [s/veh]	12.38											
Intersection LOS	B											
Intersection V/C	0.705											

Sequence

Ring 1	1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Year 2040 Conditions
Alternative B

Intersection Level Of Service Report

Intersection 1: North Project Driveway 1 / Buddy Rogers Avenue

Control Type:	Two-way stop	Delay (sec / veh):	11.4
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			No			No		

Volumes

Name												
Base Volume Input [veh/h]	0	0	0	0	0	0	0	29	0	0	31	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	35	0	80	0	0	0	0	0	33	73	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	35	0	80	0	0	0	0	39	33	73	41	0
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	10	0	22	0	0	0	0	11	9	20	11	0
Total Analysis Volume [veh/h]	38	0	87	0	0	0	0	42	36	79	45	0
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	No	No		
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	No	No		
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.06	0.00	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.00
d_M, Delay for Movement [s/veh]	10.77	11.26	8.92	11.36	11.06	8.51	7.30	0.00	0.00	7.50	0.00	0.00
Movement LOS	B	B	A	B	B	A	A	A	A	A	A	A
95th-Percentile Queue Length [veh]	0.18	0.28	0.28	0.00	0.00	0.00	0.00	0.00	0.00	0.27	0.27	0.27
95th-Percentile Queue Length [ft]	4.56	7.09	7.09	0.00	0.00	0.00	0.00	0.00	0.00	6.65	6.65	6.65
d_A, Approach Delay [s/veh]	9.48			10.31			0.00			4.78		
Approach LOS	A			B			A			A		
d_I, Intersection Delay [s/veh]	5.44											
Intersection LOS	B											

Intersection Level Of Service Report
Intersection 2: Date Palm Drive / Buddy Rogers Avenue

Control Type:	Two-way stop	Delay (sec / veh):	1,237.8
Analysis Method:	HCM 2010	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	3.086

Intersection Setup

Name						
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00		40.00		40.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

Volumes

Name						
Base Volume Input [veh/h]	4	671	533	27	23	6
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	2.97	2.97	2.97	2.97	1.33	1.33
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	25	0	0	57	63	27
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	37	1993	1583	137	94	35
Peak Hour Factor	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	10	520	413	36	25	9
Total Analysis Volume [veh/h]	39	2080	1652	143	98	37
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.25	0.02	0.02	0.00	3.09	0.15
d_M, Delay for Movement [s/veh]	34.91	0.00	0.00	0.00	1237.84	1139.33
Movement LOS	D	A	A	A	F	F
95th-Percentile Queue Length [veh]	0.92	0.00	0.00	0.00	15.03	15.03
95th-Percentile Queue Length [ft]	23.01	0.00	0.00	0.00	375.79	375.79
d_A, Approach Delay [s/veh]	0.64		0.00		1210.84	
Approach LOS	A		A		F	
d_I, Intersection Delay [s/veh]	40.71					
Intersection LOS	F					

Intersection Level Of Service Report
Intersection 3: Date Palm Drive / East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	21.8
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.877

Intersection Setup

Name						
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	1	2	0	0	0
Pocket Length [ft]	230.00	230.00	195.00	100.00	100.00	100.00
Speed [mph]	40.00		40.00		40.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		Yes		No	

Volumes

Name						
Base Volume Input [veh/h]	409	118	143	1125	1247	472
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.46	1.46	1.16	1.16	1.76	1.76
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	27	0	0	21	19	25
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	624	172	166	1326	2214	856
Peak Hour Factor	0.9560	0.9560	0.9560	0.9560	0.9560	0.9560
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	163	45	43	347	579	224
Total Analysis Volume [veh/h]	653	180	174	1387	2316	895
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	1 - E Palm Canyon Drive
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Split	Split	Protected	Permissive	Permissive	Overlap
Signal group	1	0	3	8	4	4
Auxiliary Signal Groups						4
Lead / Lag	Lead	-	Lead	-	-	-
Minimum Green [s]	7	0	7	7	7	7
Maximum Green [s]	30	0	30	30	30	30
Amber [s]	3.0	0.0	3.0	3.0	3.0	3.0
All red [s]	1.0	0.0	1.0	1.0	1.0	1.0
Split [s]	22	0	17	98	81	81
Vehicle Extension [s]	3.0	0.0	3.0	3.0	3.0	3.0
Walk [s]	5	0	0	5	5	5
Pedestrian Clearance [s]	10	0	0	10	10	10
Rest In Walk	No			No	No	
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0
Minimum Recall	No		No	No	No	No
Maximum Recall	No		No	No	No	No
Pedestrian Recall	No		No	No	No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	R	L	C	C	R
C, Cycle Length [s]	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	17	17	14	95	77	77
g / C, Green / Cycle	0.14	0.14	0.11	0.79	0.64	0.64
(v / s)_i Volume / Saturation Flow Rate	0.13	0.11	0.10	0.27	0.46	0.57
s, saturation flow rate [veh/h]	5168	1583	1774	5074	5074	1583
c, Capacity [veh/h]	743	228	199	4006	3267	1020
d1, Uniform Delay [s]	50.31	49.59	52.40	3.66	13.99	17.49
k, delay calibration	0.11	0.11	0.11	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	3.55	6.05	11.31	0.24	1.33	10.63
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.88	0.79	0.87	0.35	0.71	0.88
d, Delay for Lane Group [s/veh]	53.86	55.64	63.71	3.90	15.32	28.12
Lane Group LOS	D	E	E	A	B	C
Critical Lane Group	Yes	No	Yes	No	No	Yes
50th-Percentile Queue Length [veh]	6.52	5.50	5.69	2.43	12.53	20.59
50th-Percentile Queue Length [ft]	163.03	137.48	142.17	60.70	313.21	514.75
95th-Percentile Queue Length [veh]	10.71	9.34	9.60	4.37	18.33	28.03
95th-Percentile Queue Length [ft]	267.73	233.62	239.95	109.26	458.34	700.79

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	53.86	55.64	63.71	3.90	15.32	28.12
Movement LOS	D	E	E	A	B	C
d_A, Approach Delay [s/veh]	54.25		10.56		18.89	
Approach LOS	D		B		B	
d_I, Intersection Delay [s/veh]	21.82					
Intersection LOS	C					
Intersection V/C	0.877					

Sequence

Ring 1	1	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 4: South Project Driveway-Allen Avenue / East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	3.2
Analysis Method:	HCM 2010	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.431

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	1	0	1	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	95.00	100.00	185.00	135.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	0	0	0	0	0	1	4	1262	0	0	1341	11
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	21	0	65	57	0	0	0	0	19
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	21	0	66	62	1464	0	0	1556	32
Peak Hour Factor	0.9120	0.9120	0.9120	0.9120	0.9120	0.9120	0.9120	0.9120	0.9120	0.9120	0.9120	0.9120
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	6	0	18	17	401	0	0	427	9
Total Analysis Volume [veh/h]	0	0	0	23	0	72	68	1605	0	0	1706	35
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	1 - E Palm Canyon Drive
Cycle Length [s]	70
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	0	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	7	0	0	7	0	0	7	0	0	7	0
Maximum Green [s]	0	30	0	0	30	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	33	0	0	33	0	0	37	0	0	37	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No			No			No			No	
Maximum Recall		No			No			No			No	
Pedestrian Recall		No			No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	L	C	C	R	L	C	R
C, Cycle Length [s]	70	70	70	70	70	70	70	70
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	2.00	0.00	0.00	0.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	6	6	6	56	56	56	56	56
g / C, Green / Cycle	0.08	0.08	0.08	0.80	0.80	0.80	0.80	0.80
(v / s)_i Volume / Saturation Flow Rate	0.00	0.02	0.05	0.32	0.00	0.00	0.34	0.02
s, saturation flow rate [veh/h]	1652	1412	1583	5074	1583	315	5074	1583
c, Capacity [veh/h]	193	189	135	4060	1267	313	4060	1267
d1, Uniform Delay [s]	0.00	31.35	30.66	2.04	0.00	0.00	2.11	1.43
k, delay calibration	0.11	0.11	0.11	0.50	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.00	0.28	3.21	0.29	0.00	0.00	0.32	0.04
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.00	0.12	0.53	0.40	0.00	0.00	0.42	0.03
d, Delay for Lane Group [s/veh]	0.00	31.64	33.86	2.33	0.00	0.00	2.43	1.47
Lane Group LOS	A	C	C	A	A	A	A	A
Critical Lane Group	No	No	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh]	0.00	0.36	1.21	0.53	0.00	0.00	0.58	0.03
50th-Percentile Queue Length [ft]	0.00	9.10	30.28	13.19	0.00	0.00	14.48	0.83
95th-Percentile Queue Length [veh]	0.00	0.66	2.18	0.95	0.00	0.00	1.04	0.06
95th-Percentile Queue Length [ft]	0.00	16.38	54.50	23.74	0.00	0.00	26.06	1.50

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	31.64	33.86	33.86	0.00	2.33	0.00	0.00	2.43	1.47
Movement LOS	A	A	A	C	C	C		A	A	A	A	A
d_A, Approach Delay [s/veh]	0.00			33.33			2.33			2.41		
Approach LOS	A			C			A			A		
d_I, Intersection Delay [s/veh]	3.23											
Intersection LOS	A											
Intersection V/C	0.431											

Sequence

Ring 1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 5: Monty Hall Drive-Van Fleet Avenue / East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	8.9
Analysis Method:	HCM 2010	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.526

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	1	0	1	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	45.00	100.00	100.00	105.00	100.00	130.00	125.00	100.00	180.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	11	7	55	12	6	12	6	1211	9	92	1276	16
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	11	0	0	35	33	46	0	13	52	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	13	8	75	14	7	49	40	1451	10	120	1532	19
Peak Hour Factor	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	2	20	4	2	13	10	380	3	31	401	5
Total Analysis Volume [veh/h]	14	8	79	15	7	51	42	1521	10	126	1606	20
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	1 - E Palm Canyon Drive
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	0	7	7	0	7	7	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	19	0	0	19	0	11	30	0	11	30	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	R	L	C	L	C	R	L	C	R
C, Cycle Length [s]	60	60	60	60	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	6	6	6	6	4	36	36	6	39	39
g / C, Green / Cycle	0.10	0.10	0.10	0.10	0.06	0.60	0.60	0.10	0.64	0.64
(v / s)_i Volume / Saturation Flow Rate	0.02	0.05	0.01	0.04	0.02	0.30	0.01	0.07	0.32	0.01
s, saturation flow rate [veh/h]	899	1583	1402	1613	1774	5074	1583	1774	5074	1583
c, Capacity [veh/h]	185	154	145	156	108	3045	950	184	3261	1018
d1, Uniform Delay [s]	24.88	25.82	29.30	25.44	27.18	6.87	4.84	26.03	5.62	3.89
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.28	2.65	0.31	1.46	2.28	0.59	0.02	4.50	0.53	0.04
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.12	0.51	0.10	0.37	0.39	0.50	0.01	0.69	0.49	0.02
d, Delay for Lane Group [s/veh]	25.16	28.47	29.61	26.90	29.46	7.46	4.86	30.53	6.15	3.92
Lane Group LOS	C	C	C	C	C	A	A	C	A	A
Critical Lane Group	No	Yes	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh]	0.28	1.09	0.21	0.77	0.60	2.57	0.04	1.81	2.20	0.06
50th-Percentile Queue Length [ft]	6.90	27.25	5.26	19.25	14.99	64.19	0.97	45.18	54.88	1.57
95th-Percentile Queue Length [veh]	0.50	1.96	0.38	1.39	1.08	4.62	0.07	3.25	3.95	0.11
95th-Percentile Queue Length [ft]	12.43	49.05	9.47	34.66	26.99	115.54	1.74	81.32	98.79	2.82

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	25.16	25.16	28.47	29.61	26.90	26.90	29.46	7.46	4.86	30.53	6.15	3.92
Movement LOS	C	C	C	C	C	C	C	A	A	C	A	A
d_A, Approach Delay [s/veh]	27.75			27.46			8.03			7.88		
Approach LOS	C			C			A			A		
d_I, Intersection Delay [s/veh]	8.93											
Intersection LOS	A											
Intersection V/C	0.526											

Sequence

Ring 1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 7: North Project Driveway 2 / Buddy Rogers Avenue

Control Type:	Two-way stop	Delay (sec / veh):	10.0
Analysis Method:	HCM 2010	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

Intersection Setup

Name						
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00		40.00		40.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name						
Base Volume Input [veh/h]	0	0	29	0	0	31
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.33	1.00	1.00	1.33	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	11	80	0	10	73
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	11	109	0	10	104
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	3	30	0	3	28
Total Analysis Volume [veh/h]	0	12	118	0	11	113
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.01	0.00	0.00	0.01	0.00
d_M, Delay for Movement [s/veh]	9.98	8.91	0.00	0.00	7.47	0.00
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh]	0.04	0.04	0.00	0.00	0.28	0.28
95th-Percentile Queue Length [ft]	0.98	0.98	0.00	0.00	6.90	6.90
d_A, Approach Delay [s/veh]	8.91		0.00		0.66	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	0.74					
Intersection LOS	A					

Intersection Level Of Service Report
Intersection 8: Monty Hall Drive / Buddy Rogers Avenue

Control Type:	All-way stop	Delay (sec / veh):	7.7
Analysis Method:	HCM 2010	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.113

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			No			No		

Volumes

Name												
Base Volume Input [veh/h]	13	7	3	23	12	0	4	15	21	9	11	5
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	33	0	0	0	0	0	0	35	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	17	9	37	31	16	0	5	20	28	47	15	7
Peak Hour Factor	0.7500	0.7500	0.7500	0.7500	0.7500	0.7500	0.7500	0.7500	0.7500	0.7500	0.7500	0.7500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	6	3	12	10	5	0	2	7	9	16	5	2
Total Analysis Volume [veh/h]	23	12	49	41	21	0	7	27	37	63	20	9
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	883	796	884	816
Degree of Utilization, x	0.10	0.08	0.08	0.11

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.31	0.25	0.26	0.38
95th-Percentile Queue Length [ft]	7.86	6.32	6.53	9.50
Approach Delay [s/veh]	7.50	7.90	7.43	7.98
Approach LOS	A	A	A	A
Intersection Delay [s/veh]	7.71			
Intersection LOS	A			

Intersection Level Of Service Report

Intersection 9: Buddy Rogers Avenue/ East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	2.9
Analysis Method:	HCM 2010	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.400

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	13	2	28	10	5	22	23	1186	3	42	1227	15
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	79	0	0	87	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	15	2	32	12	6	26	27	1455	3	49	1510	17
Peak Hour Factor	0.9310	0.9310	0.9310	0.9310	0.9310	0.9310	0.9310	0.9310	0.9310	0.9310	0.9310	0.9310
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	1	9	3	2	7	7	391	1	13	405	5
Total Analysis Volume [veh/h]	16	2	34	13	6	28	29	1563	3	53	1622	18
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	1 - E Palm Canyon Drive
Cycle Length [s]	100
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	7	0	0	7	0	0	7	0	0	7	0
Maximum Green [s]	0	30	0	0	30	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	19	0	0	19	0	0	70	0	0	70	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No			No			No			No	
Maximum Recall		No			No			No			No	
Pedestrian Recall		No			No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	C	L	C	R	L	C	R
C, Cycle Length [s]	100	100	100	100	100	100	100	100
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	2.00	2.00	0.00	0.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	5	5	87	87	87	87	87	87
g / C, Green / Cycle	0.05	0.05	0.87	0.87	0.87	0.87	0.87	0.87
(v / s)_i Volume / Saturation Flow Rate	0.03	0.03	0.09	0.31	0.00	0.16	0.32	0.01
s, saturation flow rate [veh/h]	1613	1637	310	5074	1583	328	5074	1583
c, Capacity [veh/h]	134	134	313	4395	1371	328	4395	1371
d1, Uniform Delay [s]	46.18	46.02	2.74	1.30	0.90	2.87	1.32	0.91
k, delay calibration	0.11	0.11	0.50	0.50	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.83	1.55	0.59	0.23	0.00	1.05	0.24	0.02
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.39	0.35	0.09	0.36	0.00	0.16	0.37	0.01
d, Delay for Lane Group [s/veh]	48.01	47.58	3.32	1.52	0.90	3.92	1.56	0.92
Lane Group LOS	D	D	A	A	A	A	A	A
Critical Lane Group	Yes	No	No	No	No	No	Yes	No
50th-Percentile Queue Length [veh]	1.30	1.17	0.14	0.37	0.00	0.27	0.40	0.01
50th-Percentile Queue Length [ft]	32.50	29.19	3.55	9.36	0.06	6.74	9.89	0.34
95th-Percentile Queue Length [veh]	2.34	2.10	0.26	0.67	0.00	0.49	0.71	0.02
95th-Percentile Queue Length [ft]	58.50	52.54	6.39	16.84	0.10	12.14	17.80	0.61

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	48.01	48.01	48.01	47.58	47.58	47.58	3.32	1.52	0.90	3.92	1.56	0.92
Movement LOS	D	D	D	D	D	D	A	A	A	A	A	A
d_A, Approach Delay [s/veh]	48.01			47.58			1.55			1.62		
Approach LOS	D			D			A			A		
d_I, Intersection Delay [s/veh]	2.94											
Intersection LOS	A											
Intersection V/C	0.400											

Sequence

Ring 1	2	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 10: Cathedral Canyon Drive / East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	16.3
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.656

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	0	1	0	0	1	0	1
Pocket Length [ft]	100.00	100.00	70.00	90.00	100.00	100.00	238.00	100.00	100.00	190.00	100.00	270.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	62	124	46	129	147	74	119	1056	74	66	998	157
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.33	1.33	1.33	1.33	1.33	1.33	1.31	1.31	1.31	1.16	1.16	1.16
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	11	39	0	0	0	29	0	13	32	42
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	82	165	72	211	196	98	156	1412	97	90	1190	224
Peak Hour Factor	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	21	43	19	55	51	26	41	368	25	23	310	58
Total Analysis Volume [veh/h]	86	172	75	220	204	102	163	1472	101	94	1241	234
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	1 - E Palm Canyon Drive
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Overlap	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	6	3	8	0	7	4	0
Auxiliary Signal Groups						3,6						
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	7	7	7	0	7	7	0
Maximum Green [s]	0	30	0	0	30	30	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	1.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	19	0	0	19	19	11	30	0	11	30	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	5	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	10	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No	No	No	No		No	No	
Maximum Recall		No			No	No	No	No		No	No	
Pedestrian Recall		No			No	No	No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	60	60	60	60	60	60	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	0.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	15	15	15	15	15	26	7	27	27	6	26	26
g / C, Green / Cycle	0.25	0.25	0.25	0.25	0.25	0.43	0.11	0.46	0.46	0.09	0.44	0.44
(v / s)_i Volume / Saturation Flow Rate	0.07	0.09	0.05	0.18	0.11	0.06	0.09	0.29	0.06	0.05	0.24	0.15
s, saturation flow rate [veh/h]	1173	1863	1583	1208	1863	1583	1774	5074	1583	1774	5074	1583
c, Capacity [veh/h]	267	466	396	291	466	680	201	2323	725	164	2218	692
d1, Uniform Delay [s]	24.79	18.61	17.73	26.73	18.97	10.44	26.02	12.44	9.43	26.14	12.60	11.17
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.69	0.49	0.23	4.00	0.65	0.10	7.71	1.33	0.40	3.15	1.03	1.32
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.32	0.37	0.19	0.76	0.44	0.15	0.81	0.63	0.14	0.57	0.56	0.34
d, Delay for Lane Group [s/veh]	25.48	19.10	17.96	30.73	19.62	10.54	33.74	13.77	9.83	29.29	13.63	12.49
Lane Group LOS	C	B	B	C	B	B	C	B	A	C	B	B
Critical Lane Group	No	No	No	Yes	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh]	1.10	1.80	0.75	3.26	2.18	0.69	2.48	4.23	0.70	1.31	3.53	1.92
50th-Percentile Queue Length [ft]	27.38	45.02	18.68	81.45	54.61	17.26	62.07	105.75	17.41	32.86	88.35	48.02
95th-Percentile Queue Length [veh]	1.97	3.24	1.34	5.86	3.93	1.24	4.47	7.60	1.25	2.37	6.36	3.46
95th-Percentile Queue Length [ft]	49.28	81.03	33.62	146.61	98.31	31.06	111.72	190.07	31.34	59.16	159.02	86.43

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	25.48	19.10	17.96	30.73	19.62	10.54	33.74	13.77	9.83	29.29	13.63	12.49
Movement LOS	C	B	B	C	B	B	C	B	A	C	B	B
d_A, Approach Delay [s/veh]	20.49			22.51			15.41			14.40		
Approach LOS	C			C			B			B		
d_I, Intersection Delay [s/veh]	16.33											
Intersection LOS	B											
Intersection V/C	0.656											

Sequence

Ring 1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 11: Perez Road / East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	28.9
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.737

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	150.00	100.00	100.00	170.00	100.00	45.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	34	24	15	19	8	347	269	1161	7	7	1128	12
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.33	1.33	1.33	1.33	1.33	1.33	1.64	1.64	1.64	1.31	1.31	1.31
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	29	0	0	32	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	45	32	20	25	11	462	441	1933	11	9	1510	16
Peak Hour Factor	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	12	8	5	7	3	122	117	511	3	2	399	4
Total Analysis Volume [veh/h]	48	34	21	26	12	488	466	2043	12	10	1596	17
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	0	7	7	0	7	7	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	19	0	0	19	0	20	71	0	11	62	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	R	L	C	C	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	7	7	21	21	21	18	74	74	2	58	58
g / C, Green / Cycle	0.06	0.06	0.17	0.17	0.17	0.15	0.62	0.62	0.02	0.49	0.49
(v / s)_i Volume / Saturation Flow Rate	0.03	0.03	0.01	0.16	0.16	0.14	0.38	0.38	0.01	0.31	0.01
s, saturation flow rate [veh/h]	1774	1745	1774	1595	1583	3445	3547	1857	1774	5074	1583
c, Capacity [veh/h]	100	99	308	277	275	519	2197	1150	30	2463	769
d1, Uniform Delay [s]	54.89	55.14	41.57	48.60	48.60	50.05	14.02	14.03	58.34	23.18	16.06
k, delay calibration	0.11	0.11	0.11	0.18	0.18	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	3.49	4.82	0.12	16.05	16.14	5.82	1.29	2.46	6.47	1.33	0.05
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

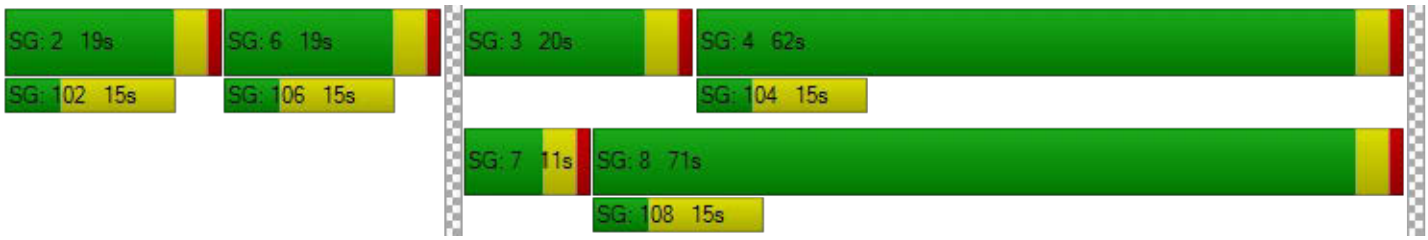
X, volume / capacity	0.48	0.56	0.08	0.90	0.90	0.90	0.61	0.61	0.34	0.65	0.02
d, Delay for Lane Group [s/veh]	58.38	59.96	41.68	64.65	64.75	55.87	15.31	16.50	64.81	24.51	16.11
Lane Group LOS	E	E	D	E	E	E	B	B	E	C	B
Critical Lane Group	No	Yes	No	No	Yes	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh]	1.48	1.73	0.65	8.44	8.38	7.15	10.57	11.47	0.35	11.03	0.25
50th-Percentile Queue Length [ft]	37.11	43.22	16.20	210.92	209.60	178.78	264.25	286.76	8.74	275.73	6.22
95th-Percentile Queue Length [veh]	2.67	3.11	1.17	13.20	13.13	11.54	15.90	17.02	0.63	16.48	0.45
95th-Percentile Queue Length [ft]	66.79	77.80	29.17	330.01	328.32	288.42	397.55	425.62	15.73	411.89	11.19

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	58.38	59.96	59.96	41.68	64.65	64.70	55.87	15.72	16.50	64.81	24.51	16.11
Movement LOS	E	E	E	D	E	E	E	B	B	E	C	B
d_A, Approach Delay [s/veh]	59.22			63.56			23.14			24.67		
Approach LOS	E			E			C			C		
d_I, Intersection Delay [s/veh]	28.89											
Intersection LOS	C											
Intersection V/C	0.737											

Sequence

Ring 1	2	6	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 12: Canyon Plaza Drive / East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	10.5
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.635

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	1	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	95.00	90.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	51	1	74	5	2	12	13	1375	26	51	1443	10
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.33	1.33	1.33	1.33	1.33	1.33	1.55	1.55	1.55	1.64	1.64	1.64
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	10	0	0	0	19	0	0	21	11
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	68	1	98	17	3	16	20	2150	40	84	2388	27
Peak Hour Factor	0.9550	0.9550	0.9550	0.9550	0.9550	0.9550	0.9550	0.9550	0.9550	0.9550	0.9550	0.9550
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	18	0	26	4	1	4	5	563	10	22	625	7
Total Analysis Volume [veh/h]	71	1	103	18	3	17	21	2251	42	88	2501	28
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	100
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	0	7	7	0	7	7	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	23	0	0	23	0	11	66	0	11	66	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	L	C	R	L	C	C
C, Cycle Length [s]	100	100	100	100	100	100	100	100	100	100
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	10	10	10	10	3	71	71	6	74	74
g / C, Green / Cycle	0.10	0.10	0.10	0.10	0.03	0.71	0.71	0.06	0.74	0.74
(v / s)_i Volume / Saturation Flow Rate	0.05	0.07	0.01	0.01	0.01	0.44	0.03	0.05	0.47	0.47
s, saturation flow rate [veh/h]	1386	1586	1285	1620	1774	5074	1583	1774	3547	1852
c, Capacity [veh/h]	170	165	97	169	55	3612	1127	114	2642	1380
d1, Uniform Delay [s]	45.48	42.95	48.79	40.64	47.51	7.46	4.26	46.09	6.12	6.13
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.62	3.92	0.92	0.31	4.28	0.82	0.06	10.67	1.14	2.20
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.42	0.63	0.19	0.12	0.38	0.62	0.04	0.77	0.63	0.63
d, Delay for Lane Group [s/veh]	47.10	46.88	49.71	40.95	51.79	8.28	4.32	56.76	7.26	8.33
Lane Group LOS	D	D	D	D	D	A	A	E	A	A
Critical Lane Group	No	Yes	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh]	1.76	2.58	0.46	0.45	0.57	6.58	0.22	2.44	6.28	7.00
50th-Percentile Queue Length [ft]	43.93	64.43	11.52	11.27	14.17	164.43	5.52	60.88	156.96	175.06
95th-Percentile Queue Length [veh]	3.16	4.64	0.83	0.81	1.02	10.78	0.40	4.38	10.39	11.34
95th-Percentile Queue Length [ft]	79.07	115.97	20.74	20.28	25.50	269.58	9.94	109.58	259.69	283.55

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	47.10	46.88	46.88	49.71	40.95	40.95	51.79	8.28	4.32	56.76	7.62	8.33
Movement LOS	D	D	D	D	D	D	D	A	A	E	A	A
d_A, Approach Delay [s/veh]	46.97			45.10			8.60			9.28		
Approach LOS	D			D			A			A		
d_I, Intersection Delay [s/veh]	10.52											
Intersection LOS	B											
Intersection V/C	0.635											

Sequence

Ring 1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 14: Cathedral Canyon Drive / Officer David Vasquez Road

Control Type:	Signalized	Delay (sec / veh):	6.6
Analysis Method:	HCM 2010	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.271

Intersection Setup

Name						
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	1	0	1	1
Pocket Length [ft]	100.00	100.00	205.00	100.00	120.00	120.00
Speed [mph]	40.00		40.00		40.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		Yes		Yes	

Volumes

Name						
Base Volume Input [veh/h]	417	5	25	404	6	53
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.33	1.33	1.33	1.33	1.33	1.33
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	42	0	0	39	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	597	7	33	576	8	70
Peak Hour Factor	0.9140	0.9140	0.9140	0.9140	0.9140	0.9140
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	163	2	9	158	2	19
Total Analysis Volume [veh/h]	653	8	36	630	9	77
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	2 - N. Cathedral Canyon Drive
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permissive	Permissive	Protected	Permissive	Split	Overlap
Signal group	2	0	1	6	7	7
Auxiliary Signal Groups						1,7
Lead / Lag	-	-	Lead	-	Lead	-
Minimum Green [s]	7	0	7	7	7	7
Maximum Green [s]	30	0	30	30	30	30
Amber [s]	3.0	0.0	3.0	3.0	3.0	3.0
All red [s]	1.0	0.0	1.0	1.0	1.0	1.0
Split [s]	86	0	15	101	19	19
Vehicle Extension [s]	3.0	0.0	3.0	3.0	3.0	3.0
Walk [s]	5	0	0	5	5	5
Pedestrian Clearance [s]	10	0	0	10	10	10
Rest In Walk	No			No	No	
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0
Minimum Recall	No		No	No	No	No
Maximum Recall	No		No	No	No	No
Pedestrian Recall	No		No	No	No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	C	L	C	L	R
C, Cycle Length [s]	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	0.00
g_i, Effective Green Time [s]	96	96	5	105	7	16
g / C, Green / Cycle	0.80	0.80	0.04	0.88	0.06	0.13
(v / s)_i Volume / Saturation Flow Rate	0.18	0.18	0.02	0.18	0.00	0.05
s, saturation flow rate [veh/h]	1863	1855	1774	3547	3445	1583
c, Capacity [veh/h]	1488	1481	77	3104	201	213
d1, Uniform Delay [s]	2.96	2.96	56.06	1.14	53.34	47.21
k, delay calibration	0.50	0.50	0.11	0.50	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.35	0.35	4.43	0.15	0.09	1.03
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.22	0.22	0.47	0.20	0.04	0.36
d, Delay for Lane Group [s/veh]	3.30	3.31	60.49	1.29	53.43	48.23
Lane Group LOS	A	A	E	A	D	D
Critical Lane Group	No	Yes	Yes	No	No	Yes
50th-Percentile Queue Length [veh]	1.50	1.50	1.14	0.38	0.13	2.13
50th-Percentile Queue Length [ft]	37.40	37.45	28.59	9.47	3.23	53.13
95th-Percentile Queue Length [veh]	2.69	2.70	2.06	0.68	0.23	3.83
95th-Percentile Queue Length [ft]	67.33	67.42	51.46	17.05	5.81	95.63

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	3.31	3.31	60.49	1.29	53.43	48.23
Movement LOS	A	A	E	A	D	D
d_A, Approach Delay [s/veh]	3.31		4.49		48.78	
Approach LOS	A		A		D	
d_I, Intersection Delay [s/veh]	6.63					
Intersection LOS	A					
Intersection V/C	0.271					

Sequence

Ring 1	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	7	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 15: Cathedral Canyon Drive / Perez Road

Control Type:	Signalized	Delay (sec / veh):	42.4
Analysis Method:	HCM 2010	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.679

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	1	1	0	0
Pocket Length [ft]	95.00	100.00	100.00	205.00	100.00	100.00	100.00	100.00	100.00	150.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	38	379	64	148	314	119	152	252	46	63	222	202
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	42	0	0	39	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	51	546	85	197	457	158	202	335	61	84	295	269
Peak Hour Factor	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	13	141	22	51	118	41	52	87	16	22	76	70
Total Analysis Volume [veh/h]	53	565	88	204	473	163	209	346	63	87	305	278
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	2 - N. Cathedral Canyon Drive
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	5.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	34	0	25	48	0	25	47	0	14	36	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	L	C	R	L	C	C
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	6	24	24	16	34	34	16	56	56	8	48	48
g / C, Green / Cycle	0.05	0.20	0.20	0.13	0.29	0.29	0.14	0.47	0.47	0.06	0.40	0.40
(v / s)_i Volume / Saturation Flow Rate	0.03	0.18	0.18	0.11	0.18	0.18	0.12	0.10	0.04	0.05	0.16	0.18
s, saturation flow rate [veh/h]	1774	1863	1776	1774	1863	1702	1774	3547	1583	1774	1863	1583
c, Capacity [veh/h]	89	378	360	234	531	485	241	1662	742	112	738	627
d1, Uniform Delay [s]	55.88	46.49	46.52	51.14	37.38	37.39	50.83	18.80	17.66	55.42	26.21	26.58
k, delay calibration	0.11	0.17	0.17	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	6.29	10.29	11.04	9.64	1.22	1.34	9.09	0.28	0.23	10.75	1.71	2.27
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

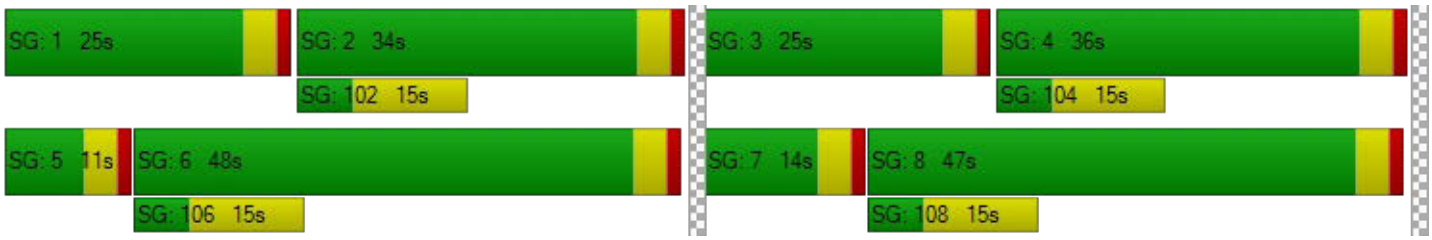
X, volume / capacity	0.60	0.88	0.89	0.87	0.63	0.63	0.87	0.21	0.08	0.77	0.41	0.44
d, Delay for Lane Group [s/veh]	62.17	56.78	57.57	60.78	38.59	38.73	59.91	19.08	17.89	66.17	27.92	28.85
Lane Group LOS	E	E	E	E	D	D	E	B	B	E	C	C
Critical Lane Group	No	No	Yes	Yes	No	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh]	1.71	10.53	10.16	6.53	8.47	7.77	6.65	2.82	0.99	2.89	6.47	6.05
50th-Percentile Queue Length [ft]	42.63	263.32	253.95	163.35	211.68	194.15	166.19	70.42	24.70	72.24	161.75	151.32
95th-Percentile Queue Length [veh]	3.07	15.86	15.39	10.73	13.24	12.34	10.88	5.07	1.78	5.20	10.64	10.09
95th-Percentile Queue Length [ft]	76.73	396.38	384.63	268.15	330.98	308.41	271.90	126.75	44.45	130.03	266.03	252.19

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	62.17	57.10	57.57	60.78	38.63	38.73	59.91	19.08	17.89	66.17	27.92	28.85
Movement LOS	E	E	E	E	D	D	E	B	B	E	C	C
d_A, Approach Delay [s/veh]	57.54			44.03			32.77			33.27		
Approach LOS	E			D			C			C		
d_I, Intersection Delay [s/veh]	42.40											
Intersection LOS	D											
Intersection V/C	0.679											

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	



Intersection Level Of Service Report
Intersection 16: Cathedral Canyon Drive / Paseo Real

Control Type:	Two-way stop	Delay (sec / veh):	98.9
Analysis Method:	HCM 2010	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.082

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	0	0	0	0	0	0
Pocket Length [ft]	55.00	100.00	100.00	55.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name												
Base Volume Input [veh/h]	25	749	6	12	578	8	6	1	16	5	3	8
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	36	6	0	33	0	0	0	0	6	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	33	1032	14	16	802	11	8	1	21	13	4	11
Peak Hour Factor	0.9370	0.9370	0.9370	0.9370	0.9370	0.9370	0.9370	0.9370	0.9370	0.9370	0.9370	0.9370
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	9	275	4	4	214	3	2	0	6	3	1	3
Total Analysis Volume [veh/h]	35	1101	15	17	856	12	9	1	22	14	4	12
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.05	0.01	0.00	0.03	0.01	0.00	0.13	0.02	0.04	0.24	0.08	0.03
d_M, Delay for Movement [s/veh]	9.89	0.00	0.00	10.95	0.00	0.00	60.81	83.58	16.08	86.21	98.94	32.89
Movement LOS	A	A	A	B	A	A	F	F	C	F	F	D
95th-Percentile Queue Length [veh]	0.14	0.00	0.00	0.08	0.00	0.00	0.66	0.66	0.66	1.33	1.33	1.33
95th-Percentile Queue Length [ft]	3.56	0.00	0.00	2.11	0.00	0.00	16.59	16.59	16.59	33.19	33.19	33.19
d_A, Approach Delay [s/veh]	0.30			0.21			30.77			66.58		
Approach LOS	A			A			D			F		
d_I, Intersection Delay [s/veh]	1.68											
Intersection LOS	F											

Intersection Level Of Service Report
Intersection 17: Cathedral Canyon Drive / Dinah Shore Drive

Control Type:	Signalized	Delay (sec / veh):	51.8
Analysis Method:	HCM 2010	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.914

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	130.00	100.00	100.00	75.00	100.00	100.00	100.00	100.00	100.00	150.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	228	474	97	113	260	28	59	775	189	95	652	83
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	11	17	8	0	15	0	0	0	10	8	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	314	647	137	150	361	37	78	1031	261	134	867	110
Peak Hour Factor	0.9340	0.9340	0.9340	0.9340	0.9340	0.9340	0.9340	0.9340	0.9340	0.9340	0.9340	0.9340
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	84	173	37	40	97	10	21	276	70	36	232	29
Total Analysis Volume [veh/h]	336	693	147	161	387	40	84	1104	279	143	928	118
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	2 - N. Cathedral Canyon Drive
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	104.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	29	34	0	16	21	0	11	55	0	15	59	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	L	C	C	L	C	C
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	24	30	30	12	17	17	7	51	51	11	55	55
g / C, Green / Cycle	0.20	0.25	0.25	0.10	0.14	0.14	0.06	0.43	0.43	0.09	0.46	0.46
(v / s)_i Volume / Saturation Flow Rate	0.19	0.23	0.23	0.09	0.12	0.12	0.05	0.38	0.39	0.08	0.29	0.29
s, saturation flow rate [veh/h]	1774	1863	1751	1774	1863	1802	1774	1863	1736	1774	1863	1790
c, Capacity [veh/h]	361	458	430	178	265	257	105	793	739	168	859	825
d1, Uniform Delay [s]	46.96	44.48	44.52	53.42	49.94	49.98	55.75	31.98	32.34	53.51	24.42	24.44
k, delay calibration	0.27	0.40	0.40	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	21.45	26.15	27.75	15.06	6.03	6.37	12.76	14.74	17.38	11.29	3.36	3.51
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.93	0.94	0.95	0.90	0.82	0.82	0.80	0.89	0.91	0.85	0.62	0.62
d, Delay for Lane Group [s/veh]	68.41	70.63	72.26	68.47	55.97	56.35	68.51	46.73	49.72	64.80	27.78	27.95
Lane Group LOS	E	E	E	E	E	E	E	D	D	E	C	C
Critical Lane Group	No	No	Yes	Yes	No	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh]	11.78	15.60	14.89	5.47	6.63	6.47	2.84	21.40	20.98	4.70	11.73	11.34
50th-Percentile Queue Length [ft]	294.44	389.92	372.34	136.67	165.66	161.76	71.10	534.97	524.41	117.53	293.31	283.45
95th-Percentile Queue Length [veh]	17.41	22.07	21.22	9.30	10.85	10.64	5.12	28.99	28.49	8.26	17.35	16.86
95th-Percentile Queue Length [ft]	435.14	551.84	530.57	232.53	271.20	266.05	127.98	724.63	712.19	206.43	433.75	421.50

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	68.41	71.24	72.26	68.47	56.14	56.35	68.51	47.80	49.72	64.80	27.85	27.95
Movement LOS	E	E	E	E	E	E	E	D	D	E	C	C
d_A, Approach Delay [s/veh]	70.56			59.53			49.35			32.30		
Approach LOS	E			E			D			C		
d_I, Intersection Delay [s/veh]	51.76											
Intersection LOS	D											
Intersection V/C	0.914											

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	



Intersection Level Of Service Report
Intersection 18: Date Palm Drive / Gerald Ford Drive

Control Type:	Signalized	Delay (sec / veh):	49.0
Analysis Method:	HCM 2010	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.141

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	85.00	100.00	85.00	160.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			Yes			Yes			No		

Volumes

Name												
Base Volume Input [veh/h]	20	597	290	119	438	44	58	56	18	167	42	148
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	2.97	2.97	2.97	1.83	1.83	1.83	1.83	1.83	1.83	1.97	1.97	1.97
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	21	42	0	19	0	0	0	0	38	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	59	1794	903	218	821	81	106	102	33	367	83	292
Peak Hour Factor	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	16	473	238	57	216	21	28	27	9	97	22	77
Total Analysis Volume [veh/h]	62	1890	952	230	865	85	112	107	35	387	87	308
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	6 - N/S
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Split	Split	Split	Split	Split	Split
Signal group	5	2	0	1	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	7	7	0	7	7	0	0	7	0	0	7	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	17	66	0	18	67	0	0	11	0	0	25	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No	No		No	No			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	C	L	C	C	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	6	62	62	14	70	70	7	7	7	21	21	21
g / C, Green / Cycle	0.05	0.52	0.52	0.12	0.58	0.58	0.06	0.06	0.06	0.18	0.18	0.18
(v / s)_i Volume / Saturation Flow Rate	0.03	0.37	0.60	0.13	0.18	0.18	0.06	0.04	0.04	0.13	0.13	0.19
s, saturation flow rate [veh/h]	1774	5074	1583	1774	3547	1779	1774	1863	1711	1774	1805	1583
c, Capacity [veh/h]	92	2627	820	208	2068	1037	101	106	97	311	316	277
d1, Uniform Delay [s]	54.90	13.24	18.60	50.66	6.27	6.27	56.62	55.57	55.67	47.10	47.05	49.51
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.29
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	8.33	1.73	86.04	62.92	0.38	0.76	75.87	7.58	9.42	3.79	3.64	74.66
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.33	1.33	1.33	1.33	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.68	0.72	1.16	1.11	0.31	0.31	1.11	0.68	0.72	0.76	0.75	1.11
d, Delay for Lane Group [s/veh]	63.24	14.97	104.64	113.58	6.65	7.04	132.49	63.15	65.10	50.89	50.69	124.18
Lane Group LOS	E	B	F	F	A	A	F	E	E	D	D	F
Critical Lane Group	No	No	Yes	Yes	No	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh]	2.00	7.80	35.18	9.47	2.08	2.20	5.12	2.34	2.29	6.90	6.96	13.88
50th-Percentile Queue Length [ft]	49.91	194.99	879.57	236.77	52.09	55.09	128.05	58.47	57.30	172.38	173.88	347.03
95th-Percentile Queue Length [veh]	3.59	12.38	50.19	15.12	3.75	3.97	9.10	4.21	4.13	11.20	11.28	21.04
95th-Percentile Queue Length [ft]	89.83	309.50	1254.77	378.11	93.77	99.16	227.61	105.24	103.15	280.04	282.01	525.90

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	63.24	14.97	104.64	113.58	6.76	7.04	132.49	63.78	65.10	50.81	50.69	124.18
Movement LOS	E	B	F	F	A	A	F	E	E	D	D	F
d_A, Approach Delay [s/veh]	45.40			27.60			94.26			79.69		
Approach LOS	D			C			F			E		
d_I, Intersection Delay [s/veh]	48.96											
Intersection LOS	D											
Intersection V/C	1.141											

Sequence

Ring 1	1	2	4	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 19: Date Palm Drive / Dinah Shore Drive

Control Type:	Signalized	Delay (sec / veh):	41.1
Analysis Method:	HCM 2010	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.805

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	2	0	1	2	0	1	1	0	0	1	0	1
Pocket Length [ft]	225.00	100.00	125.00	170.00	100.00	50.00	150.00	100.00	100.00	130.00	100.00	180.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			No		

Volumes

Name												
Base Volume Input [veh/h]	231	614	79	115	586	73	102	576	215	69	537	117
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.83	1.83	1.83	1.44	1.44	1.44	1.67	1.67	1.67	1.67	1.67	1.67
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	21	0	0	19	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	423	1145	145	166	863	105	170	962	359	115	897	195
Peak Hour Factor	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	115	311	39	45	235	29	46	262	98	31	244	53
Total Analysis Volume [veh/h]	460	1246	158	181	939	114	185	1047	391	125	976	212
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	1 - E Palm Canyon Drive
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Overlap
Signal group	5	2	0	1	6	0	3	8	0	7	4	4
Auxiliary Signal Groups												1,4
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	7
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	30
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	1.0
Split [s]	22	49	0	11	38	0	18	46	0	14	42	42
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	5
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	10
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0
Minimum Recall	No	No		No	No		No	No		No	No	No
Maximum Recall	No	No		No	No		No	No		No	No	No
Pedestrian Recall	No	No		No	No		No	No		No	No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	0.00
g_i, Effective Green Time [s]	18	47	47	7	37	37	14	40	40	10	36	47
g / C, Green / Cycle	0.15	0.39	0.39	0.06	0.30	0.30	0.12	0.33	0.33	0.08	0.30	0.39
(v / s)_i Volume / Saturation Flow Rate	0.13	0.25	0.10	0.05	0.19	0.07	0.10	0.30	0.25	0.07	0.28	0.13
s, saturation flow rate [veh/h]	3445	5074	1583	3445	5074	1583	1774	3547	1583	1774	3547	1583
c, Capacity [veh/h]	512	2005	626	203	1550	484	208	1166	520	149	1048	614
d1, Uniform Delay [s]	50.21	29.12	24.40	56.10	35.54	31.21	52.24	38.39	35.93	54.19	41.11	25.97
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.25	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	5.92	1.46	0.97	12.35	1.77	1.14	12.19	2.77	4.93	11.74	4.40	0.34
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.90	0.62	0.25	0.89	0.61	0.24	0.89	0.90	0.75	0.84	0.93	0.35
d, Delay for Lane Group [s/veh]	56.13	30.58	25.37	68.44	37.30	32.35	64.43	41.16	40.86	65.94	45.51	26.31
Lane Group LOS	E	C	C	E	D	C	E	D	D	E	D	C
Critical Lane Group	Yes	No	No	No	Yes	No	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh]	7.07	9.54	3.12	3.03	7.87	2.59	6.10	14.57	10.59	4.15	14.19	4.23
50th-Percentile Queue Length [ft]	176.78	238.57	78.11	75.70	196.80	64.76	152.38	364.33	264.64	103.64	354.75	105.82
95th-Percentile Queue Length [veh]	11.43	14.61	5.62	5.45	12.47	4.66	10.14	20.83	15.92	7.46	20.37	7.61
95th-Percentile Queue Length [ft]	285.81	365.23	140.60	136.26	311.84	116.57	253.61	520.85	398.04	186.55	509.20	190.17

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	56.13	30.58	25.37	68.44	37.30	32.35	64.43	41.16	40.86	65.94	45.51	26.31
Movement LOS	E	C	C	E	D	C	E	D	D	E	D	C
d_A, Approach Delay [s/veh]	36.44			41.41			43.74			44.36		
Approach LOS	D			D			D			D		
d_I, Intersection Delay [s/veh]	41.14											
Intersection LOS	D											
Intersection V/C	0.805											

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	



Intersection Level Of Service Report
Intersection 23: East Palm Canyon Drive / Frank Sinatra Drive

Control Type:	Signalized	Delay (sec / veh):	19.2
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.050

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	1	1	0	0	2	0	1
Pocket Length [ft]	160.00	100.00	45.00	325.00	100.00	250.00	100.00	100.00	100.00	120.00	100.00	1200.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			No			Yes		

Volumes

Name												
Base Volume Input [veh/h]	43	1314	198	296	1170	20	44	53	19	144	29	302
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.95	1.95	1.95	1.76	1.76	1.76	1.15	1.15	1.15	1.15	1.15	1.15
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	25	0	21	27	0	0	0	0	0	0	19
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	84	2587	386	542	2086	35	51	61	22	166	33	366
Peak Hour Factor	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	23	699	104	146	564	9	14	16	6	45	9	99
Total Analysis Volume [veh/h]	91	2797	417	586	2255	38	55	66	24	179	36	396
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	6 - N/S
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	66.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Overlap	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Overlap
Signal group	5	2	2	1	6	0	3	8	0	7	4	4
Auxiliary Signal Groups			1,2,3,4,									1,2,3,4,
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	7	7	7	0	7	7	0	7	7	7
Maximum Green [s]	30	30	30	30	30	0	30	30	0	30	30	30
Amber [s]	3.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0
All red [s]	1.0	1.0	1.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	1.0
Split [s]	13	63	63	27	77	0	11	19	0	11	19	19
Vehicle Extension [s]	3.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0
Walk [s]	0	5	5	0	5	0	0	5	0	0	5	5
Pedestrian Clearance [s]	0	10	10	0	10	0	0	10	0	0	10	10
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0
Minimum Recall	No	No	No	No	No		No	No		No	No	No
Maximum Recall	No	No	No	No	No		No	No		No	No	No
Pedestrian Recall	No	No	No	No	No		No	No		No	No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	L	C	R
C, Cycle Length [s]	101	101	101	101	101	101	101	101	101	101	101
L, Total Lost Time per Cycle [s]	4.00	4.00	0.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	0.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	0.00	2.00	0.00	0.00	2.00	0.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	9	59	277	23	73	73	6	97	7	98	277
g / C, Green / Cycle	0.09	0.58	2.74	0.23	0.72	0.72	0.06	0.96	0.07	0.97	2.74
(v / s)_i Volume / Saturation Flow Rate	0.07	0.55	0.26	0.24	0.44	0.02	0.04	0.05	0.07	0.02	0.25
s, saturation flow rate [veh/h]	1260	5074	1583	2446	5074	1583	1367	1779	2527	1863	1583
c, Capacity [veh/h]	156	2958	4312	574	3661	1142	129	1709	200	1804	4312
d1, Uniform Delay [s]	47.42	19.59	0.00	41.45	7.06	4.02	48.30	0.08	48.71	0.05	0.00
k, delay calibration	0.11	0.11	0.37	0.11	0.11	0.11	0.11	0.50	0.11	0.50	0.34
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	3.46	2.10	0.03	22.94	0.17	0.01	2.21	0.06	13.15	0.02	0.03
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.58	0.95	0.10	1.02	0.62	0.03	0.43	0.05	0.90	0.02	0.09
d, Delay for Lane Group [s/veh]	50.87	21.69	0.03	64.39	7.23	4.03	50.50	0.14	61.86	0.07	0.03
Lane Group LOS	D	C	A	F	A	A	D	A	E	A	A
Critical Lane Group	No	Yes	Yes	Yes	No	No	No	No	No	No	No
50th-Percentile Queue Length [veh]	2.39	17.94	0.04	8.93	6.11	0.18	1.43	0.03	2.61	0.01	0.03
50th-Percentile Queue Length [ft]	59.78	448.55	0.99	223.22	152.64	4.44	35.70	0.69	65.28	0.25	0.85
95th-Percentile Queue Length [veh]	4.30	24.89	0.07	13.98	10.16	0.32	2.57	0.05	4.70	0.02	0.06
95th-Percentile Queue Length [ft]	107.60	622.22	1.78	349.50	253.94	8.00	64.27	1.25	117.50	0.46	1.53

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	50.87	21.69	0.03	64.39	7.23	4.03	50.50	0.14	0.14	61.86	0.07	0.03
Movement LOS	D	C	A	F	A	A	D	A	A	E	A	A
d_A, Approach Delay [s/veh]	19.76			18.82			19.24			18.15		
Approach LOS	B			B			B			B		
d_I, Intersection Delay [s/veh]	19.22											
Intersection LOS	B											
Intersection V/C	1.050											

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 24: East Palm Canyon Drive / Mirage Cove Drive

Control Type:	Signalized	Delay (sec / veh):	3.5
Analysis Method:	HCM 2010	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	22.077

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	1	1	0	0
Pocket Length [ft]	150.00	100.00	100.00	110.00	100.00	100.00	75.00	100.00	75.00	75.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	16	1475	9	16	1379	15	35	0	20	6	0	26
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.95	1.95	1.95	1.95	1.95	1.95	1.33	1.33	1.33	1.95	1.95	1.95
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	25	0	0	27	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	31	2901	18	31	2716	29	47	0	27	12	0	51
Peak Hour Factor	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	8	784	5	8	734	8	13	0	7	3	0	14
Total Analysis Volume [veh/h]	34	3136	19	34	2936	31	51	0	29	13	0	55
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	6 - N/S
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	5	2	0	1	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	7	7	0	7	7	0	0	7	0	0	7	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	11	90	0	11	90	0	0	19	0	0	19	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No	No		No	No			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	L	C	R	L	C
C, Cycle Length [s]	97	97	97	97	97	97	97	97	97	97	97
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	0.00	2.00	0.00	0.00	2.00	0.00	0.00	2.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	4	85	85	4	85	85	93	93	93	93	93
g / C, Green / Cycle	0.04	0.87	0.87	0.04	0.87	0.87	0.96	0.96	0.96	0.96	0.96
(v / s)_i Volume / Saturation Flow Rate	0.03	0.58	0.59	0.03	0.55	0.55	18.74	0.00	0.02	4.50	0.03
s, saturation flow rate [veh/h]	1343	3547	1857	1343	3547	1853	3	1863	1583	3	1583
c, Capacity [veh/h]	104	3099	1622	104	3099	1619	76	1787	1519	76	1519
d1, Uniform Delay [s]	47.57	1.86	1.86	47.57	1.71	1.72	47.04	0.00	0.08	42.46	0.08
k, delay calibration	0.11	0.11	0.21	0.11	0.11	0.18	0.50	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.82	0.25	0.92	1.82	0.21	0.67	37.94	0.00	0.02	4.77	0.04
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.33	0.67	0.67	0.33	0.63	0.63	0.67	0.00	0.02	0.17	0.04
d, Delay for Lane Group [s/veh]	49.39	2.11	2.79	49.39	1.93	2.40	84.98	0.00	0.11	47.22	0.13
Lane Group LOS	D	A	A	D	A	A	F	A	A	D	A
Critical Lane Group	No	No	Yes	Yes	No	No	Yes	No	No	No	No
50th-Percentile Queue Length [veh]	0.86	0.25	0.57	0.86	0.22	0.44	2.12	0.00	0.01	0.44	0.02
50th-Percentile Queue Length [ft]	21.39	6.30	14.17	21.39	5.39	10.88	53.06	0.00	0.24	10.93	0.47
95th-Percentile Queue Length [veh]	1.54	0.45	1.02	1.54	0.39	0.78	3.82	0.00	0.02	0.79	0.03
95th-Percentile Queue Length [ft]	38.51	11.34	25.51	38.51	9.71	19.58	95.51	0.00	0.44	19.68	0.85

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	49.39	2.34	2.79	49.39	2.09	2.40	84.98	0.00	0.11	47.22	0.13	0.13
Movement LOS	D	A	A	D	A	A	F	A	A	D	A	A
d_A, Approach Delay [s/veh]	2.84			2.62			54.22			9.13		
Approach LOS	A			A			D			A		
d_I, Intersection Delay [s/veh]	3.46											
Intersection LOS	A											
Intersection V/C	22.077											

Sequence

Ring 1	1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 1: North Project Driveway 1 / Buddy Rogers Avenue

Control Type:	Two-way stop	Delay (sec / veh):	12.5
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			No			No		

Volumes

Name												
Base Volume Input [veh/h]	0	0	0	0	0	0	0	29	0	0	31	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	35	0	80	0	0	0	0	13	44	99	11	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	35	0	80	0	0	0	0	52	44	99	52	0
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	10	0	22	0	0	0	0	14	12	27	14	0
Total Analysis Volume [veh/h]	38	0	87	0	0	0	0	57	48	108	57	0
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	No	No		
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	No	No		
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.07	0.00	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.07	0.00	0.00
d_M, Delay for Movement [s/veh]	11.81	12.17	9.04	12.45	12.03	8.57	7.33	0.00	0.00	7.61	0.00	0.00
Movement LOS	B	B	A	B	B	A	A	A	A	A	A	A
95th-Percentile Queue Length [veh]	0.21	0.29	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.37	0.37	0.37
95th-Percentile Queue Length [ft]	5.37	7.30	7.30	0.00	0.00	0.00	0.00	0.00	0.00	9.34	9.34	9.34
d_A, Approach Delay [s/veh]	9.88			11.02			0.00			4.98		
Approach LOS	A			B			A			A		
d_I, Intersection Delay [s/veh]	5.21											
Intersection LOS	B											

Intersection Level Of Service Report
Intersection 2: Date Palm Drive / Buddy Rogers Avenue

Control Type:	Two-way stop	Delay (sec / veh):	1,095.3
Analysis Method:	HCM 2010	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	2.807

Intersection Setup

Name						
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00		40.00		40.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

Volumes

Name						
Base Volume Input [veh/h]	4	492	513	25	29	14
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	2.97	2.97	2.97	2.97	1.33	1.33
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	34	0	0	78	63	27
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	46	1461	1524	152	102	46
Peak Hour Factor	0.9410	0.9410	0.9410	0.9410	0.9410	0.9410
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	12	388	405	40	27	12
Total Analysis Volume [veh/h]	49	1553	1620	162	108	49
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.30	0.02	0.02	0.00	2.81	0.20
d_M, Delay for Movement [s/veh]	36.82	0.00	0.00	0.00	1095.32	1016.44
Movement LOS	E	A	A	A	F	F
95th-Percentile Queue Length [veh]	1.21	0.00	0.00	0.00	16.64	16.64
95th-Percentile Queue Length [ft]	30.17	0.00	0.00	0.00	415.93	415.93
d_A, Approach Delay [s/veh]	1.13		0.00		1070.71	
Approach LOS	A		A		F	
d_I, Intersection Delay [s/veh]	47.98					
Intersection LOS	F					

Intersection Level Of Service Report
Intersection 3: Date Palm Drive / East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	44.8
Analysis Method:	HCM 2010	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.023

Intersection Setup

Name						
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	1	2	0	0	0
Pocket Length [ft]	230.00	230.00	195.00	100.00	100.00	100.00
Speed [mph]	40.00		40.00		40.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		Yes		No	

Volumes

Name						
Base Volume Input [veh/h]	339	121	149	1198	1174	347
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.46	1.46	1.16	1.16	1.76	1.76
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	27	0	0	21	26	34
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	522	177	173	1411	2092	645
Peak Hour Factor	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	140	48	47	379	562	173
Total Analysis Volume [veh/h]	561	190	186	1517	2249	694
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	1 - E Palm Canyon Drive
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Split	Split	Protected	Permissive	Permissive	Overlap
Signal group	1	0	3	8	4	4
Auxiliary Signal Groups						3,4
Lead / Lag	Lead	-	Lead	-	-	-
Minimum Green [s]	7	0	7	7	7	7
Maximum Green [s]	30	0	30	30	30	30
Amber [s]	3.0	0.0	3.0	3.0	3.0	3.0
All red [s]	1.0	0.0	1.0	1.0	1.0	1.0
Split [s]	22	0	11	38	27	27
Vehicle Extension [s]	3.0	0.0	3.0	3.0	3.0	3.0
Walk [s]	5	0	0	5	5	5
Pedestrian Clearance [s]	10	0	0	10	10	10
Rest In Walk	No			No	No	
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0
Minimum Recall	No		No	No	No	No
Maximum Recall	No		No	No	No	No
Pedestrian Recall	No		No	No	No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	R	L	C	C	R
C, Cycle Length [s]	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	2.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	0.00
g_i, Effective Green Time [s]	10	10	14	42	23	42
g / C, Green / Cycle	0.17	0.17	0.24	0.69	0.38	0.69
(v / s)_i Volume / Saturation Flow Rate	0.11	0.12	0.13	0.30	0.44	0.44
s, saturation flow rate [veh/h]	5168	1583	1412	5074	5074	1583
c, Capacity [veh/h]	905	277	406	3510	1956	1095
d1, Uniform Delay [s]	22.91	23.21	21.97	4.07	18.44	5.08
k, delay calibration	0.11	0.11	0.11	0.50	0.50	0.36
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.70	3.00	0.81	0.39	73.80	2.03
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

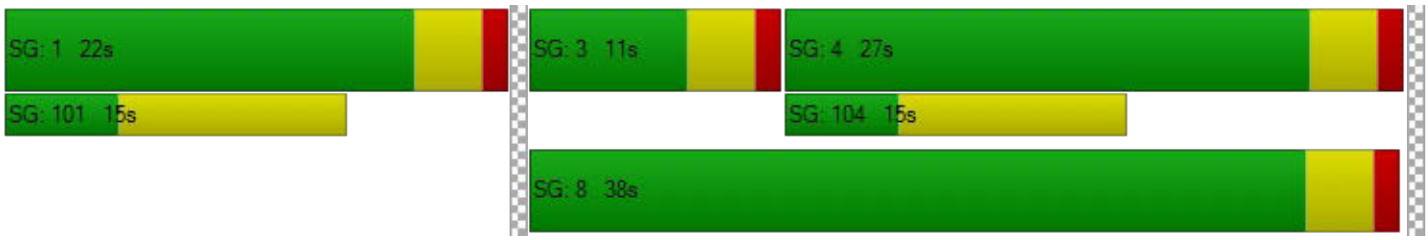
X, volume / capacity	0.62	0.69	0.46	0.43	1.15	0.63
d, Delay for Lane Group [s/veh]	23.61	26.20	22.78	4.46	92.24	7.10
Lane Group LOS	C	C	C	A	F	A
Critical Lane Group	No	Yes	No	No	Yes	Yes
50th-Percentile Queue Length [veh]	2.24	2.48	2.22	1.43	20.71	2.84
50th-Percentile Queue Length [ft]	56.09	61.99	55.48	35.64	517.79	71.02
95th-Percentile Queue Length [veh]	4.04	4.46	3.99	2.57	30.82	5.11
95th-Percentile Queue Length [ft]	100.96	111.58	99.87	64.14	770.40	127.84

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	23.61	26.20	22.78	4.46	92.24	7.10
Movement LOS	C	C	C	A	F	A
d_A, Approach Delay [s/veh]	24.27		6.46		72.16	
Approach LOS	C		A		E	
d_I, Intersection Delay [s/veh]	44.76					
Intersection LOS	D					
Intersection V/C	1.023					

Sequence

Ring 1	1	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 4: South Project Driveway-Allen Avenue / East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	3.0
Analysis Method:	HCM 2010	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.393

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	1	0	1	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	95.00	100.00	185.00	135.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	0	0	0	2	0	3	8	1365	0	0	1343	20
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	21	0	54	66	0	0	0	0	26
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	23	0	57	75	1583	0	0	1558	49
Peak Hour Factor	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	6	0	15	20	417	0	0	410	13
Total Analysis Volume [veh/h]	0	0	0	24	0	60	79	1668	0	0	1642	52
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	1 - E Palm Canyon Drive
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	0	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	7	0	0	7	0	0	7	0	0	7	0
Maximum Green [s]	0	30	0	0	30	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	19	0	0	19	0	0	101	0	0	101	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No			No			No			No	
Maximum Recall		No			No			No			No	
Pedestrian Recall		No			No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	L	C	C	R	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	2.00	0.00	0.00	0.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	7	7	7	105	105	105	105	105
g / C, Green / Cycle	0.05	0.05	0.05	0.88	0.88	0.88	0.88	0.88
(v / s)_i Volume / Saturation Flow Rate	0.00	0.02	0.04	0.33	0.00	0.00	0.32	0.03
s, saturation flow rate [veh/h]	1397	1412	1583	5074	1583	296	5074	1583
c, Capacity [veh/h]	107	116	87	4456	1390	296	4456	1390
d1, Uniform Delay [s]	0.00	56.23	55.63	1.33	0.00	0.00	1.32	0.92
k, delay calibration	0.11	0.11	0.11	0.50	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.00	0.87	9.19	0.24	0.00	0.00	0.24	0.05
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.00	0.21	0.69	0.37	0.00	0.00	0.37	0.04
d, Delay for Lane Group [s/veh]	0.00	57.10	64.81	1.57	0.00	0.00	1.55	0.97
Lane Group LOS	A	E	E	A	A	A	A	A
Critical Lane Group	No	No	Yes	Yes	No	No	No	No
50th-Percentile Queue Length [veh]	0.00	0.73	1.98	0.69	0.00	0.00	0.68	0.06
50th-Percentile Queue Length [ft]	0.00	18.20	49.46	17.31	0.00	0.00	16.91	1.45
95th-Percentile Queue Length [veh]	0.00	1.31	3.56	1.25	0.00	0.00	1.22	0.10
95th-Percentile Queue Length [ft]	0.00	32.75	89.03	31.16	0.00	0.00	30.44	2.61

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	57.10	64.81	64.81	0.00	1.57	0.00	0.00	1.55	0.97
Movement LOS	A	A	A	E	E	E		A	A	A	A	A
d_A, Approach Delay [s/veh]	0.00			62.61			1.57			1.53		
Approach LOS	A			E			A			A		
d_I, Intersection Delay [s/veh]	3.04											
Intersection LOS	A											
Intersection V/C	0.393											

Sequence

Ring 1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 5: Monty Hall Drive-Van Fleet Avenue / East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	9.0
Analysis Method:	HCM 2010	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.520

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	1	0	1	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	45.00	100.00	100.00	105.00	100.00	130.00	125.00	100.00	180.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	11	1	44	10	9	12	13	1322	16	55	1290	10
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	16	0	0	46	57	50	0	13	41	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	13	1	67	12	10	60	72	1584	19	77	1537	12
Peak Hour Factor	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	0	17	3	3	16	19	413	5	20	401	3
Total Analysis Volume [veh/h]	14	1	70	13	10	63	75	1652	20	80	1603	13
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	1 - E Palm Canyon Drive
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	0	7	7	0	7	7	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	24	0	0	24	0	14	53	0	13	52	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	R	L	C	L	C	R	L	C	R
C, Cycle Length [s]	60	60	60	60	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	6	6	6	6	5	37	37	5	37	37
g / C, Green / Cycle	0.10	0.10	0.10	0.10	0.08	0.61	0.61	0.09	0.62	0.62
(v / s)_i Volume / Saturation Flow Rate	0.04	0.04	0.01	0.05	0.04	0.33	0.01	0.05	0.32	0.01
s, saturation flow rate [veh/h]	346	1583	1410	1617	1774	5074	1583	1774	5074	1583
c, Capacity [veh/h]	150	157	121	161	148	3118	973	153	3132	977
d1, Uniform Delay [s]	27.50	25.47	30.01	25.49	26.32	6.61	4.52	26.24	6.43	4.43
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.29	1.97	0.38	2.00	2.66	0.65	0.04	2.76	0.60	0.02
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.10	0.44	0.11	0.45	0.51	0.53	0.02	0.52	0.51	0.01
d, Delay for Lane Group [s/veh]	27.79	27.43	30.39	27.49	28.98	7.26	4.56	29.00	7.03	4.46
Lane Group LOS	C	C	C	C	C	A	A	C	A	A
Critical Lane Group	No	No	No	Yes	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh]	0.21	0.94	0.19	0.98	1.04	2.73	0.07	1.11	2.57	0.05
50th-Percentile Queue Length [ft]	5.18	23.48	4.68	24.50	26.12	68.22	1.84	27.85	64.28	1.17
95th-Percentile Queue Length [veh]	0.37	1.69	0.34	1.76	1.88	4.91	0.13	2.00	4.63	0.08
95th-Percentile Queue Length [ft]	9.33	42.26	8.43	44.09	47.01	122.80	3.31	50.12	115.70	2.11

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	27.79	27.79	27.43	30.39	27.49	27.49	28.98	7.26	4.56	29.00	7.03	4.46
Movement LOS	C	C	C	C	C	C	C	A	A	C	A	A
d_A, Approach Delay [s/veh]	27.50			27.93			8.16			8.05		
Approach LOS	C			C			A			A		
d_I, Intersection Delay [s/veh]	9.03											
Intersection LOS	A											
Intersection V/C	0.520											

Sequence

Ring 1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 7: North Project Driveway 2 / Buddy Rogers Avenue

Control Type:	Two-way stop	Delay (sec / veh):	10.4
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.017

Intersection Setup

Name						
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00		40.00		40.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name						
Base Volume Input [veh/h]	0	0	29	0	0	31
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.33	1.00	1.00	1.33	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	11	11	80	13	13	99
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	11	11	109	13	13	130
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	3	30	4	4	35
Total Analysis Volume [veh/h]	12	12	118	14	14	141
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.02	0.01	0.00	0.00	0.01	0.00
d_M, Delay for Movement [s/veh]	10.36	9.03	0.00	0.00	7.50	0.00
Movement LOS	B	A	A	A	A	A
95th-Percentile Queue Length [veh]	0.09	0.09	0.00	0.00	0.36	0.36
95th-Percentile Queue Length [ft]	2.35	2.35	0.00	0.00	8.94	8.94
d_A, Approach Delay [s/veh]	9.70		0.00		0.68	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	1.09					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 8: Monty Hall Drive / Buddy Rogers Avenue

Control Type:	All-way stop	Delay (sec / veh):	7.8
Analysis Method:	HCM 2010	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.150

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			No			No		

Volumes

Name												
Base Volume Input [veh/h]	20	5	4	17	6	0	1	13	6	7	25	12
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	57	0	0	0	0	0	0	46	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	27	7	62	23	8	0	1	17	8	55	33	16
Peak Hour Factor	0.8290	0.8290	0.8290	0.8290	0.8290	0.8290	0.8290	0.8290	0.8290	0.8290	0.8290	0.8290
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	8	2	19	7	2	0	0	5	2	17	10	5
Total Analysis Volume [veh/h]	33	8	75	28	10	0	1	21	10	66	40	19
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	899	790	852	833
Degree of Utilization, x	0.13	0.05	0.04	0.15

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.44	0.15	0.12	0.53
95th-Percentile Queue Length [ft]	11.06	3.79	2.92	13.16
Approach Delay [s/veh]	7.60	7.79	7.39	8.08
Approach LOS	A	A	A	A
Intersection Delay [s/veh]	7.79			
Intersection LOS	A			

Intersection Level Of Service Report

Intersection 9: Buddy Rogers Avenue/ East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	3.4
Analysis Method:	HCM 2010	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.433

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	10	1	39	19	2	28	16	1309	2	16	1255	17
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	107	0	0	87	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	12	1	45	22	2	32	19	1625	2	19	1543	20
Peak Hour Factor	0.9360	0.9360	0.9360	0.9360	0.9360	0.9360	0.9360	0.9360	0.9360	0.9360	0.9360	0.9360
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	0	12	6	1	9	5	434	1	5	412	5
Total Analysis Volume [veh/h]	13	1	48	24	2	34	20	1736	2	20	1649	21
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	1 - E Palm Canyon Drive
Cycle Length [s]	110
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	7	0	0	7	0	0	7	0	0	7	0
Maximum Green [s]	0	30	0	0	30	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	28	0	0	28	0	0	82	0	0	82	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No			No			No			No	
Maximum Recall		No			No			No			No	
Pedestrian Recall		No			No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	C	L	C	R	L	C	R
C, Cycle Length [s]	110	110	110	110	110	110	110	110
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	2.00	2.00	0.00	0.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	6	6	96	96	96	96	96	96
g / C, Green / Cycle	0.05	0.05	0.87	0.87	0.87	0.87	0.87	0.87
(v / s)_i Volume / Saturation Flow Rate	0.04	0.04	0.07	0.34	0.00	0.07	0.32	0.01
s, saturation flow rate [veh/h]	1642	1375	302	5074	1583	277	5074	1583
c, Capacity [veh/h]	129	121	303	4429	1382	283	4429	1382
d1, Uniform Delay [s]	51.07	51.26	2.66	1.35	0.89	2.80	1.32	0.90
k, delay calibration	0.11	0.11	0.50	0.50	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.76	3.14	0.42	0.26	0.00	0.48	0.24	0.02
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.48	0.50	0.07	0.39	0.00	0.07	0.37	0.02
d, Delay for Lane Group [s/veh]	53.83	54.40	3.08	1.61	0.89	3.29	1.56	0.92
Lane Group LOS	D	D	A	A	A	A	A	A
Critical Lane Group	No	Yes	No	Yes	No	No	No	No
50th-Percentile Queue Length [veh]	1.75	1.71	0.10	0.58	0.00	0.11	0.54	0.02
50th-Percentile Queue Length [ft]	43.63	42.68	2.57	14.58	0.05	2.73	13.48	0.48
95th-Percentile Queue Length [veh]	3.14	3.07	0.18	1.05	0.00	0.20	0.97	0.03
95th-Percentile Queue Length [ft]	78.53	76.82	4.62	26.25	0.08	4.91	24.27	0.87

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	53.83	53.83	53.83	54.40	54.40	54.40	3.08	1.61	0.89	3.29	1.56	0.92
Movement LOS	D	D	D	D	D	D	A	A	A	A	A	A
d_A, Approach Delay [s/veh]	53.83			54.40			1.63			1.57		
Approach LOS	D			D			A			A		
d_I, Intersection Delay [s/veh]	3.40											
Intersection LOS	A											
Intersection V/C	0.433											

Sequence

Ring 1	2	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 10: Cathedral Canyon Drive / East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	16.4
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.689

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	0	1	0	0	1	0	1
Pocket Length [ft]	100.00	100.00	70.00	90.00	100.00	100.00	238.00	100.00	100.00	190.00	100.00	270.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	71	113	50	127	131	92	110	1151	77	61	1111	120
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.33	1.33	1.33	1.33	1.33	1.33	1.31	1.31	1.31	1.16	1.16	1.16
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	16	52	0	0	0	39	0	13	32	42
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	94	150	83	221	174	122	144	1547	101	84	1321	181
Peak Hour Factor	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	24	39	21	57	45	32	37	400	26	22	342	47
Total Analysis Volume [veh/h]	97	155	86	229	180	126	149	1600	104	87	1366	187
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	1 - E Palm Canyon Drive
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Overlap	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	6	3	8	0	7	4	0
Auxiliary Signal Groups						3,6						
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	7	7	7	0	7	7	0
Maximum Green [s]	0	30	0	0	30	30	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	1.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	19	0	0	19	19	19	30	0	11	22	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	5	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	10	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No	No	No	No		No	No	
Maximum Recall		No			No	No	No	No		No	No	
Pedestrian Recall		No			No	No	No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	60	60	60	60	60	60	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	0.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	15	15	15	15	15	26	7	28	28	5	26	26
g / C, Green / Cycle	0.25	0.25	0.25	0.25	0.25	0.43	0.11	0.46	0.46	0.09	0.44	0.44
(v / s)_i Volume / Saturation Flow Rate	0.08	0.08	0.05	0.19	0.10	0.08	0.08	0.32	0.07	0.05	0.27	0.12
s, saturation flow rate [veh/h]	1199	1863	1583	1227	1863	1583	1774	5074	1583	1774	5074	1583
c, Capacity [veh/h]	286	466	396	305	466	681	201	2339	730	159	2217	692
d1, Uniform Delay [s]	24.28	18.44	17.88	26.41	18.72	10.62	25.82	12.77	9.36	26.23	13.05	10.81
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.70	0.41	0.27	3.73	0.52	0.13	5.30	1.65	0.41	2.94	1.29	0.96
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

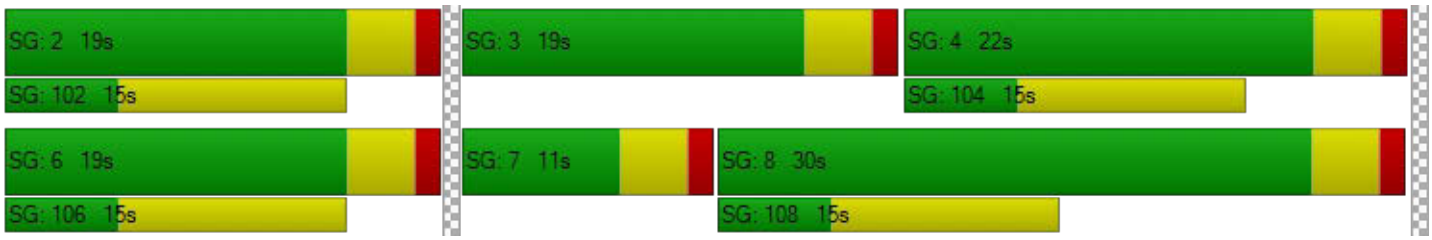
X, volume / capacity	0.34	0.33	0.22	0.75	0.39	0.19	0.74	0.68	0.14	0.55	0.62	0.27
d, Delay for Lane Group [s/veh]	24.98	18.86	18.15	30.13	19.24	10.75	31.12	14.42	9.77	29.17	14.34	11.78
Lane Group LOS	C	B	B	C	B	B	C	B	A	C	B	B
Critical Lane Group	No	No	No	Yes	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh]	1.22	1.61	0.86	3.37	1.90	0.87	2.16	4.77	0.71	1.21	4.03	1.47
50th-Percentile Queue Length [ft]	30.52	40.13	21.61	84.17	47.41	21.79	54.06	119.19	17.83	30.36	100.85	36.68
95th-Percentile Queue Length [veh]	2.20	2.89	1.56	6.06	3.41	1.57	3.89	8.35	1.28	2.19	7.26	2.64
95th-Percentile Queue Length [ft]	54.93	72.24	38.90	151.50	85.34	39.22	97.30	208.71	32.10	54.65	181.53	66.02

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	24.98	18.86	18.15	30.13	19.24	10.75	31.12	14.42	9.77	29.17	14.34	11.78
Movement LOS	C	B	B	C	B	B	C	B	A	C	B	B
d_A, Approach Delay [s/veh]	20.43			21.90			15.50			14.84		
Approach LOS	C			C			B			B		
d_I, Intersection Delay [s/veh]	16.42											
Intersection LOS	B											
Intersection V/C	0.689											

Sequence

Ring 1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 11: Perez Road / East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	19.4
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.739

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	150.00	100.00	100.00	170.00	100.00	45.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	9	9	4	17	10	257	212	1274	4	4	1270	21
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.33	1.33	1.33	1.33	1.33	1.33	1.64	1.64	1.64	1.31	1.31	1.31
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	39	0	0	32	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	12	12	5	23	13	342	348	2128	7	5	1696	28
Peak Hour Factor	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	3	1	6	3	88	89	546	2	1	435	7
Total Analysis Volume [veh/h]	12	12	5	24	13	351	357	2185	7	5	1741	29
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	70
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	0	7	7	0	7	7	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	19	0	0	19	0	11	21	0	11	21	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	R	L	C	C	L	C	R
C, Cycle Length [s]	70	70	70	70	70	70	70	70	70	70	70
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	3	3	11	11	11	10	40	40	1	30	30
g / C, Green / Cycle	0.04	0.04	0.15	0.15	0.15	0.14	0.57	0.57	0.01	0.43	0.43
(v / s)_i Volume / Saturation Flow Rate	0.01	0.01	0.01	0.11	0.11	0.10	0.41	0.41	0.00	0.34	0.02
s, saturation flow rate [veh/h]	1774	1771	1774	1600	1583	3445	3547	1860	1774	5074	1583
c, Capacity [veh/h]	80	80	272	245	242	487	1996	1047	20	2195	685
d1, Uniform Delay [s]	32.24	32.33	25.54	28.45	28.45	28.90	11.29	11.30	34.45	17.21	11.52
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.85	1.30	0.14	4.50	4.55	2.16	2.28	4.29	6.61	3.04	0.12
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

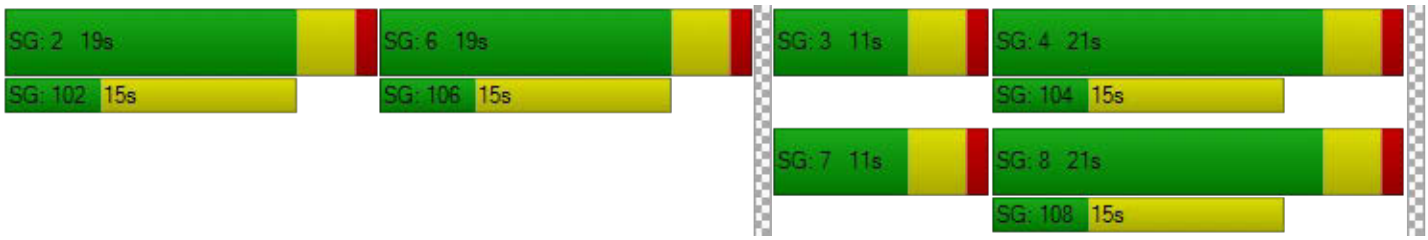
X, volume / capacity	0.15	0.21	0.09	0.75	0.75	0.73	0.72	0.72	0.25	0.79	0.04
d, Delay for Lane Group [s/veh]	33.09	33.64	25.68	32.94	33.00	31.06	13.57	15.59	41.06	20.26	11.64
Lane Group LOS	C	C	C	C	C	C	B	B	D	C	B
Critical Lane Group	No	Yes	No	No	Yes	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh]	0.20	0.29	0.33	3.03	3.00	2.81	6.84	7.77	0.12	7.40	0.25
50th-Percentile Queue Length [ft]	5.09	7.28	8.28	75.69	75.00	70.35	170.94	194.16	2.90	185.09	6.22
95th-Percentile Queue Length [veh]	0.37	0.52	0.60	5.45	5.40	5.07	11.13	12.34	0.21	11.87	0.45
95th-Percentile Queue Length [ft]	9.16	13.11	14.90	136.24	135.00	126.63	278.15	308.41	5.22	296.65	11.20

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	33.09	33.64	33.64	25.68	32.94	32.97	31.06	14.26	15.59	41.06	20.26	11.64
Movement LOS	C	C	C	C	C	C	C	B	B	D	C	B
d_A, Approach Delay [s/veh]	33.41			32.52			16.62			20.18		
Approach LOS	C			C			B			C		
d_I, Intersection Delay [s/veh]	19.35											
Intersection LOS	B											
Intersection V/C	0.739											

Sequence

Ring 1	2	6	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 12: Canyon Plaza Drive / East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	11.3
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.679

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	1	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	95.00	90.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	55	2	83	6	3	14	10	1457	39	56	1457	11
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.33	1.33	1.33	1.33	1.33	1.33	1.55	1.55	1.55	1.64	1.64	1.64
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	13	0	0	0	26	0	0	21	11
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	73	3	110	21	4	19	16	2284	60	92	2410	29
Peak Hour Factor	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	19	1	29	5	1	5	4	595	16	24	628	8
Total Analysis Volume [veh/h]	76	3	115	22	4	20	17	2382	63	96	2513	30
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	100
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	0	7	7	0	7	7	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	70	0	0	70	0	11	19	0	11	19	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	L	C	R	L	C	C
C, Cycle Length [s]	100	100	100	100	100	100	100	100	100	100
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	11	11	11	11	3	70	70	7	74	74
g / C, Green / Cycle	0.11	0.11	0.11	0.11	0.03	0.70	0.70	0.07	0.74	0.74
(v / s)_i Volume / Saturation Flow Rate	0.06	0.07	0.02	0.01	0.01	0.47	0.04	0.05	0.47	0.47
s, saturation flow rate [veh/h]	1381	1589	1269	1624	1774	5074	1583	1774	3547	1852
c, Capacity [veh/h]	177	177	95	181	47	3543	1106	125	2631	1374
d1, Uniform Delay [s]	45.16	42.63	49.06	40.06	47.83	8.58	4.74	45.70	6.29	6.31
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.64	4.25	1.23	0.33	4.56	1.04	0.10	9.61	1.18	2.26
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.43	0.67	0.23	0.13	0.36	0.67	0.06	0.77	0.63	0.64
d, Delay for Lane Group [s/veh]	46.80	46.88	50.29	40.39	52.39	9.62	4.84	55.31	7.47	8.58
Lane Group LOS	D	D	D	D	D	A	A	E	A	A
Critical Lane Group	No	Yes	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh]	1.87	2.93	0.57	0.54	0.47	7.92	0.36	2.62	6.51	7.25
50th-Percentile Queue Length [ft]	46.85	73.15	14.20	13.39	11.67	198.11	9.07	65.38	162.63	181.36
95th-Percentile Queue Length [veh]	3.37	5.27	1.02	0.96	0.84	12.54	0.65	4.71	10.69	11.67
95th-Percentile Queue Length [ft]	84.33	131.67	25.55	24.11	21.00	313.53	16.32	117.69	267.21	291.79

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	46.80	46.88	46.88	50.29	40.39	40.39	52.39	9.62	4.84	55.31	7.84	8.58
Movement LOS	D	D	D	D	D	D	D	A	A	E	A	A
d_A, Approach Delay [s/veh]	46.85			45.13			9.79			9.58		
Approach LOS	D			D			A			A		
d_I, Intersection Delay [s/veh]	11.34											
Intersection LOS	B											
Intersection V/C	0.679											

Sequence

Ring 1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 14: Cathedral Canyon Drive / Officer David Vasquez Road

Control Type:	Signalized	Delay (sec / veh):	4.3
Analysis Method:	HCM 2010	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.257

Intersection Setup

Name						
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	1	0	1	1
Pocket Length [ft]	100.00	100.00	205.00	100.00	120.00	120.00
Speed [mph]	40.00		40.00		40.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		Yes		Yes	

Volumes

Name						
Base Volume Input [veh/h]	344	7	17	370	7	32
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.33	1.33	1.33	1.33	1.33	1.33
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	42	0	0	52	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	500	9	23	544	9	43
Peak Hour Factor	0.8670	0.8670	0.8670	0.8670	0.8670	0.8670
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	144	3	7	157	3	12
Total Analysis Volume [veh/h]	577	10	27	627	10	50
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	2 - N. Cathedral Canyon Drive
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permissive	Permissive	Protected	Permissive	Split	Overlap
Signal group	2	0	1	6	7	7
Auxiliary Signal Groups						1,7
Lead / Lag	-	-	Lead	-	Lead	-
Minimum Green [s]	7	0	7	7	7	7
Maximum Green [s]	30	0	30	30	30	30
Amber [s]	3.0	0.0	3.0	3.0	3.0	3.0
All red [s]	1.0	0.0	1.0	1.0	1.0	1.0
Split [s]	30	0	11	41	19	19
Vehicle Extension [s]	3.0	0.0	3.0	3.0	3.0	3.0
Walk [s]	5	0	0	5	5	5
Pedestrian Clearance [s]	10	0	0	10	10	10
Rest In Walk	No			No	No	
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0
Minimum Recall	No		No	No	No	No
Maximum Recall	No		No	No	No	No
Pedestrian Recall	No		No	No	No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	C	L	C	L	R
C, Cycle Length [s]	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	0.00
g_i, Effective Green Time [s]	41	41	3	48	5	11
g / C, Green / Cycle	0.68	0.68	0.04	0.79	0.07	0.18
(v / s)_i Volume / Saturation Flow Rate	0.16	0.16	0.02	0.18	0.00	0.03
s, saturation flow rate [veh/h]	1863	1852	1774	3547	3445	1583
c, Capacity [veh/h]	1267	1259	79	2806	262	296
d1, Uniform Delay [s]	3.66	3.66	27.88	1.60	25.76	20.53
k, delay calibration	0.50	0.50	0.11	0.50	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.43	0.43	2.53	0.18	0.06	0.27
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

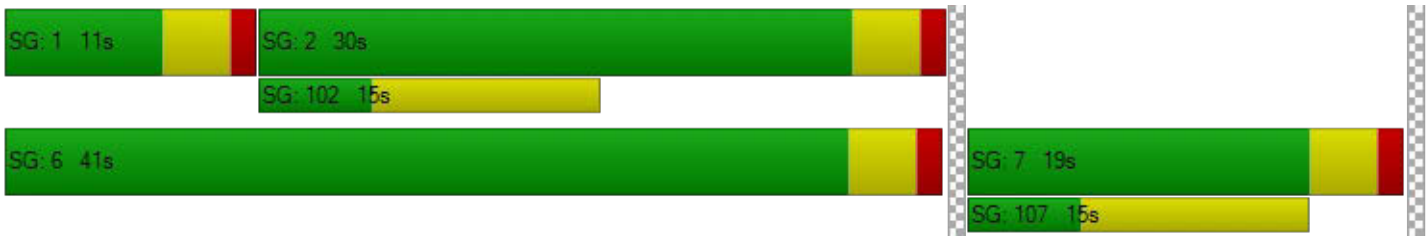
X, volume / capacity	0.23	0.23	0.34	0.22	0.04	0.17
d, Delay for Lane Group [s/veh]	4.08	4.09	30.41	1.78	25.82	20.80
Lane Group LOS	A	A	C	A	C	C
Critical Lane Group	No	No	No	Yes	No	Yes
50th-Percentile Queue Length [veh]	0.84	0.84	0.40	0.12	0.06	0.55
50th-Percentile Queue Length [ft]	20.94	20.99	10.04	3.08	1.57	13.80
95th-Percentile Queue Length [veh]	1.51	1.51	0.72	0.22	0.11	0.99
95th-Percentile Queue Length [ft]	37.69	37.78	18.08	5.55	2.83	24.84

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	4.09	4.09	30.41	1.78	25.82	20.80
Movement LOS	A	A	C	A	C	C
d_A, Approach Delay [s/veh]	4.09		2.96		21.63	
Approach LOS	A		A		C	
d_I, Intersection Delay [s/veh]	4.33					
Intersection LOS	A					
Intersection V/C	0.257					

Sequence

Ring 1	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 15: Cathedral Canyon Drive / Perez Road

Control Type:	Signalized	Delay (sec / veh):	23.3
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.587

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	1	1	0	0
Pocket Length [ft]	95.00	100.00	100.00	205.00	100.00	100.00	100.00	100.00	100.00	150.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	26	297	52	109	282	127	114	192	51	48	207	88
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	42	0	0	52	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	35	437	69	145	427	169	152	255	68	64	275	117
Peak Hour Factor	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	9	112	18	37	110	43	39	65	17	16	71	30
Total Analysis Volume [veh/h]	36	449	71	149	438	174	156	262	70	66	282	120
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	2 - N. Cathedral Canyon Drive
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	19	0	11	19	0	11	19	0	11	19	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	L	C	R	L	C	C
C, Cycle Length [s]	60	60	60	60	60	60	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	3	11	11	7	14	14	7	22	22	5	20	20
g / C, Green / Cycle	0.05	0.18	0.18	0.11	0.24	0.24	0.11	0.37	0.37	0.08	0.33	0.33
(v / s)_i Volume / Saturation Flow Rate	0.02	0.14	0.14	0.08	0.17	0.17	0.09	0.07	0.04	0.04	0.11	0.12
s, saturation flow rate [veh/h]	1774	1863	1775	1774	1863	1685	1774	3547	1583	1774	1863	1679
c, Capacity [veh/h]	98	339	324	194	440	398	202	1291	576	141	614	553
d1, Uniform Delay [s]	27.46	23.51	23.54	26.12	21.26	21.28	25.97	13.17	12.76	26.54	15.26	15.31
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.27	3.93	4.27	6.32	2.34	2.62	6.21	0.35	0.43	2.41	1.50	1.74
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.37	0.78	0.79	0.77	0.73	0.73	0.77	0.20	0.12	0.47	0.34	0.35
d, Delay for Lane Group [s/veh]	29.73	27.43	27.81	32.45	23.59	23.90	32.18	13.53	13.20	28.95	16.76	17.05
Lane Group LOS	C	C	C	C	C	C	C	B	B	C	B	B
Critical Lane Group	No	No	Yes	Yes	No	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh]	0.52	3.56	3.46	2.22	3.94	3.61	2.31	1.09	0.60	0.92	2.10	1.98
50th-Percentile Queue Length [ft]	13.00	89.06	86.43	55.53	98.40	90.25	57.80	27.30	15.04	23.02	52.50	49.49
95th-Percentile Queue Length [veh]	0.94	6.41	6.22	4.00	7.08	6.50	4.16	1.97	1.08	1.66	3.78	3.56
95th-Percentile Queue Length [ft]	23.40	160.32	155.57	99.95	177.12	162.46	104.04	49.14	27.07	41.43	94.50	89.09

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	29.73	27.59	27.81	32.45	23.68	23.90	32.18	13.53	13.20	28.95	16.84	17.05
Movement LOS	C	C	C	C	C	C	C	B	B	C	B	B
d_A, Approach Delay [s/veh]	27.75			25.44			19.44			18.60		
Approach LOS	C			C			B			B		
d_I, Intersection Delay [s/veh]	23.31											
Intersection LOS	C											
Intersection V/C	0.587											

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 16: Cathedral Canyon Drive / Paseo Real

Control Type:	Two-way stop	Delay (sec / veh):	45.3
Analysis Method:	HCM 2010	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.074

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	0	0	0	0	0	0
Pocket Length [ft]	55.00	100.00	100.00	55.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name												
Base Volume Input [veh/h]	11	482	9	16	509	19	11	5	16	9	6	14
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	36	6	0	44	0	0	0	0	8	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	15	677	18	21	721	25	15	7	21	20	8	19
Peak Hour Factor	0.9680	0.9680	0.9680	0.9680	0.9680	0.9680	0.9680	0.9680	0.9680	0.9680	0.9680	0.9680
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	175	5	5	186	6	4	2	5	5	2	5
Total Analysis Volume [veh/h]	15	699	19	22	745	26	15	7	22	21	8	20
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.02	0.01	0.00	0.03	0.01	0.00	0.12	0.06	0.04	0.16	0.07	0.03
d_M, Delay for Movement [s/veh]	9.37	0.00	0.00	9.20	0.00	0.00	38.15	43.27	15.80	38.62	45.25	17.38
Movement LOS	A	A	A	A	A	A	E	E	C	E	E	C
95th-Percentile Queue Length [veh]	0.05	0.00	0.00	0.08	0.00	0.00	0.81	0.81	0.81	1.01	1.01	1.01
95th-Percentile Queue Length [ft]	1.36	0.00	0.00	1.92	0.00	0.00	20.13	20.13	20.13	25.24	25.24	25.24
d_A, Approach Delay [s/veh]	0.19			0.26			27.79			31.03		
Approach LOS	A			A			D			D		
d_I, Intersection Delay [s/veh]	1.91											
Intersection LOS	E											

Intersection Level Of Service Report

Intersection 17: Cathedral Canyon Drive / Dinah Shore Drive

Control Type:	Signalized	Delay (sec / veh):	29.2
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.807

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	130.00	100.00	100.00	75.00	100.00	100.00	100.00	100.00	100.00	150.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	156	237	102	119	230	28	31	587	198	102	575	71
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	11	17	8	0	21	0	0	0	13	10	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	218	332	144	158	327	37	41	781	276	146	765	94
Peak Hour Factor	0.9700	0.9700	0.9700	0.9700	0.9700	0.9700	0.9700	0.9700	0.9700	0.9700	0.9700	0.9700
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	56	86	37	41	84	10	11	201	71	38	197	24
Total Analysis Volume [veh/h]	225	342	148	163	337	38	42	805	285	151	789	97
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	2 - N. Cathedral Canyon Drive
Cycle Length [s]	70
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	21	19	0	21	19	0	11	19	0	11	19	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	L	C	C	L	C	C
C, Cycle Length [s]	70	70	70	70	70	70	70	70	70	70	70	70
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	11	12	12	8	10	10	4	26	26	8	30	30
g / C, Green / Cycle	0.15	0.18	0.18	0.12	0.14	0.14	0.06	0.37	0.37	0.11	0.42	0.42
(v / s)_i Volume / Saturation Flow Rate	0.13	0.14	0.14	0.09	0.10	0.10	0.02	0.31	0.31	0.09	0.24	0.24
s, saturation flow rate [veh/h]	1774	1863	1675	1774	1863	1798	1774	1863	1699	1774	1863	1792
c, Capacity [veh/h]	274	329	296	208	259	250	101	687	627	194	785	755
d1, Uniform Delay [s]	28.70	27.58	27.61	30.10	28.94	28.96	31.96	20.12	20.14	30.41	15.50	15.50
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	6.02	4.06	4.63	6.39	4.00	4.24	2.74	11.09	12.16	6.65	3.06	3.18
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

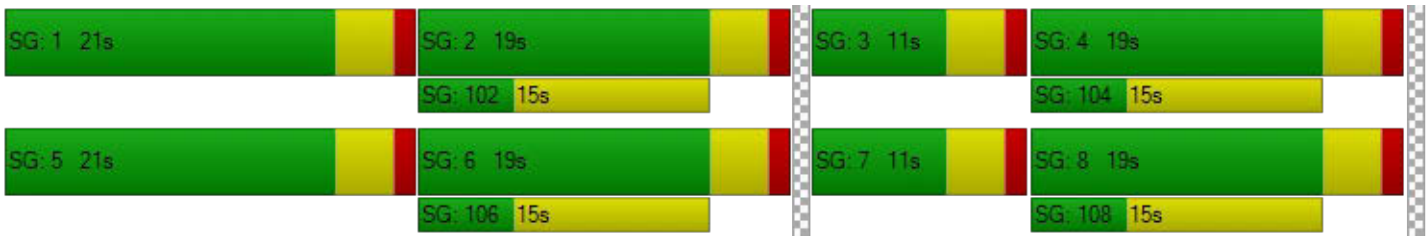
X, volume / capacity	0.82	0.78	0.79	0.78	0.73	0.74	0.42	0.83	0.83	0.78	0.58	0.58
d, Delay for Lane Group [s/veh]	34.72	31.64	32.24	36.49	32.94	33.20	34.69	31.20	32.30	37.06	18.56	18.68
Lane Group LOS	C	C	C	D	C	C	C	C	C	D	B	B
Critical Lane Group	No	No	Yes	Yes	No	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh]	3.84	4.16	3.81	2.86	3.13	3.06	0.72	9.44	8.81	2.67	5.38	5.20
50th-Percentile Queue Length [ft]	96.04	103.96	95.36	71.40	78.28	76.51	18.08	235.89	220.34	66.74	134.38	129.94
95th-Percentile Queue Length [veh]	6.91	7.48	6.87	5.14	5.64	5.51	1.30	14.47	13.68	4.81	9.18	8.94
95th-Percentile Queue Length [ft]	172.87	187.12	171.65	128.51	140.91	137.71	32.54	361.83	342.06	120.13	229.43	223.41

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	34.72	31.79	32.24	36.49	33.05	33.20	34.69	31.52	32.30	37.06	18.61	18.68
Movement LOS	C	C	C	D	C	C	C	C	C	D	B	B
d_A, Approach Delay [s/veh]	32.80			34.10			31.84			21.30		
Approach LOS	C			C			C			C		
d_I, Intersection Delay [s/veh]	29.20											
Intersection LOS	C											
Intersection V/C	0.807											

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 18: Date Palm Drive / Gerald Ford Drive

Control Type:	Signalized	Delay (sec / veh):	35.7
Analysis Method:	HCM 2010	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.079

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	85.00	100.00	85.00	160.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			Yes			Yes			No		

Volumes

Name												
Base Volume Input [veh/h]	22	418	198	120	415	61	36	46	46	196	44	127
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	2.97	2.97	2.97	1.83	1.83	1.83	1.83	1.83	1.83	1.97	1.97	1.97
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	21	42	0	26	0	0	0	0	52	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	65	1262	630	220	785	112	66	84	84	438	87	250
Peak Hour Factor	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	17	329	164	57	205	29	17	22	22	114	23	65
Total Analysis Volume [veh/h]	68	1317	658	230	819	117	69	88	88	457	91	261
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	6 - N/S
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Split	Split	Split	Split	Split	Split
Signal group	5	2	0	1	6	0	3	8	0	7	4	4
Auxiliary Signal Groups												1,4
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	7	7	0	7	7	0	0	7	0	0	7	7
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	30
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	3.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	1.0
Split [s]	11	25	0	11	30	0	0	19	0	0	19	19
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	3.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	5
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	10
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	2.0
Minimum Recall	No	No		No	No			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	C	L	C	C	L	C	R
C, Cycle Length [s]	60	60	60	60	60	60	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.00	0.00	2.00	2.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	5	22	22	7	24	24	19	19	19	19	19	19
g / C, Green / Cycle	0.08	0.36	0.36	0.12	0.40	0.40	0.32	0.32	0.32	0.32	0.32	0.32
(v / s)_i Volume / Saturation Flow Rate	0.04	0.26	0.42	0.13	0.18	0.18	0.05	0.05	0.06	0.22	0.25	0.16
s, saturation flow rate [veh/h]	1774	5074	1583	1774	3547	1746	1300	1863	1583	1204	1154	1583
c, Capacity [veh/h]	144	1830	571	209	1409	694	182	600	510	423	472	510
d1, Uniform Delay [s]	26.40	16.61	19.23	26.54	13.28	13.28	28.76	14.51	14.64	21.56	19.75	16.56
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.38	2.48	87.23	60.34	1.02	2.07	1.29	0.11	0.16	1.51	1.24	0.80
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

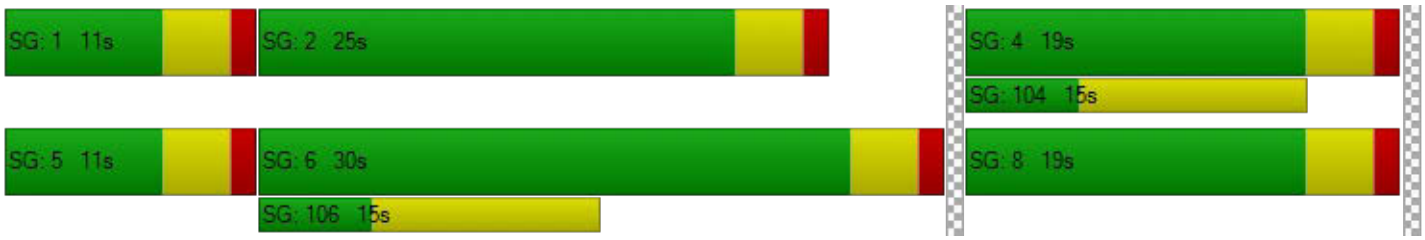
X, volume / capacity	0.47	0.72	1.15	1.10	0.44	0.45	0.38	0.15	0.17	0.62	0.60	0.51
d, Delay for Lane Group [s/veh]	28.78	19.08	106.46	86.88	14.30	15.35	30.05	14.62	14.80	23.07	20.99	17.35
Lane Group LOS	C	B	F	F	B	B	C	B	B	C	C	B
Critical Lane Group	No	No	Yes	Yes	No	No	No	No	No	No	Yes	No
50th-Percentile Queue Length [veh]	0.94	4.76	20.37	6.20	2.75	2.92	0.98	0.76	0.77	3.28	3.32	2.61
50th-Percentile Queue Length [ft]	23.62	118.91	509.29	155.12	68.71	72.92	24.52	18.91	19.17	81.89	83.01	65.24
95th-Percentile Queue Length [veh]	1.70	8.33	30.36	10.66	4.95	5.25	1.77	1.36	1.38	5.90	5.98	4.70
95th-Percentile Queue Length [ft]	42.52	208.33	758.90	266.62	123.69	131.26	44.14	34.04	34.51	147.40	149.42	117.43

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	28.78	19.08	106.46	86.88	14.54	15.35	30.05	14.62	14.80	22.20	20.99	17.35
Movement LOS	C	B	F	F	B	B	C	B	B	C	C	B
d_A, Approach Delay [s/veh]	47.55			28.89			19.03			20.49		
Approach LOS	D			C			B			C		
d_I, Intersection Delay [s/veh]	35.67											
Intersection LOS	D											
Intersection V/C	1.079											

Sequence

Ring 1	1	2	-	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 19: Date Palm Drive / Dinah Shore Drive

Control Type:	Signalized	Delay (sec / veh):	189.4
Analysis Method:	HCM 2010	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.677

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	2	0	1	2	0	1	1	0	0	1	0	1
Pocket Length [ft]	225.00	100.00	125.00	170.00	100.00	50.00	150.00	100.00	100.00	130.00	100.00	180.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			No		

Volumes

Name												
Base Volume Input [veh/h]	185	483	58	114	538	75	103	483	173	59	427	115
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.83	1.83	1.83	1.44	1.44	1.44	1.67	1.67	1.67	1.67	1.67	1.67
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	21	0	0	26	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	339	905	106	164	801	108	172	807	289	99	713	192
Peak Hour Factor	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	90	240	28	43	212	29	46	214	77	26	189	51
Total Analysis Volume [veh/h]	359	959	112	174	849	114	182	855	306	105	755	203
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	1 - E Palm Canyon Drive
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Overlap
Signal group	5	2	0	1	6	0	3	8	0	7	4	4
Auxiliary Signal Groups												1,4
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	7
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	30
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	1.0
Split [s]	35	79	0	11	55	0	11	19	0	11	19	19
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	5
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	10
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0
Minimum Recall	No	No		No	No		No	No		No	No	No
Maximum Recall	No	No		No	No		No	No		No	No	No
Pedestrian Recall	No	No		No	No		No	No		No	No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	0.00
g_i, Effective Green Time [s]	15	75	75	7	67	67	7	15	15	7	15	26
g / C, Green / Cycle	0.13	0.63	0.63	0.06	0.56	0.56	0.06	0.12	0.12	0.06	0.12	0.22
(v / s)_i Volume / Saturation Flow Rate	0.10	0.19	0.07	0.05	0.17	0.07	0.10	0.24	0.19	0.06	0.21	0.13
s, saturation flow rate [veh/h]	3445	5074	1583	3445	5074	1583	1774	3547	1583	1774	3547	1583
c, Capacity [veh/h]	434	3176	991	201	2832	884	104	440	196	104	440	342
d1, Uniform Delay [s]	51.16	10.36	9.04	56.03	14.06	12.62	56.50	52.57	52.57	56.50	52.57	42.34
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.28	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	4.06	0.25	0.23	10.51	0.27	0.30	348.70	426.93	265.35	44.41	324.87	1.65
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.83	0.30	0.11	0.86	0.30	0.13	1.76	1.94	1.56	1.01	1.72	0.59
d, Delay for Lane Group [s/veh]	55.22	10.60	9.27	66.54	14.34	12.92	405.20	479.49	317.92	100.90	377.43	43.99
Lane Group LOS	E	B	A	E	B	B	F	F	F	F	F	D
Critical Lane Group	Yes	No	No	No	Yes	No	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh]	5.41	3.68	1.17	2.86	3.95	1.47	13.13	32.56	20.26	4.37	26.32	5.46
50th-Percentile Queue Length [ft]	135.34	91.93	29.15	71.60	98.66	36.87	328.17	813.90	506.46	109.15	658.10	136.60
95th-Percentile Queue Length [veh]	9.23	6.62	2.10	5.16	7.10	2.65	21.78	51.30	32.27	7.82	41.55	9.30
95th-Percentile Queue Length [ft]	230.73	165.48	52.47	128.88	177.59	66.36	544.41	1282.50	806.79	195.57	1038.73	232.44

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	55.22	10.60	9.27	66.54	14.34	12.92	405.20	479.49	317.92	100.90	377.43	43.99
Movement LOS	E	B	A	E	B	B	F	F	F	F	F	D
d_A, Approach Delay [s/veh]	21.70			22.18			432.61			286.44		
Approach LOS	C			C			F			F		
d_I, Intersection Delay [s/veh]	189.37											
Intersection LOS	F											
Intersection V/C	0.677											

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 23: East Palm Canyon Drive / Frank Sinatra Drive

Control Type:	Signalized	Delay (sec / veh):	67.7
Analysis Method:	HCM 2010	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.951

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	1	1	0	0	2	0	1
Pocket Length [ft]	160.00	100.00	45.00	325.00	100.00	250.00	100.00	100.00	100.00	120.00	100.00	1200.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			No			Yes		

Volumes

Name												
Base Volume Input [veh/h]	47	1301	147	214	1244	33	34	18	13	141	24	199
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.95	1.95	1.95	1.76	1.76	1.76	1.15	1.15	1.15	1.15	1.15	1.15
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	34	0	21	27	0	0	0	0	0	0	26
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	92	2571	287	398	2216	58	39	21	15	162	28	255
Peak Hour Factor	0.9210	0.9210	0.9210	0.9210	0.9210	0.9210	0.9210	0.9210	0.9210	0.9210	0.9210	0.9210
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	25	698	78	108	602	16	11	6	4	44	8	69
Total Analysis Volume [veh/h]	100	2792	312	432	2406	63	42	23	16	176	30	277
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	6 - N/S
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Overlap	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Overlap
Signal group	5	2	2	1	6	0	3	8	0	7	4	4
Auxiliary Signal Groups			1,2,3,4,									1,2,3,4,
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	7	7	7	0	7	7	0	7	7	7
Maximum Green [s]	30	30	30	30	30	0	30	30	0	30	30	30
Amber [s]	3.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0
All red [s]	1.0	1.0	1.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	1.0
Split [s]	11	47	47	13	36	0	11	19	0	11	19	19
Vehicle Extension [s]	3.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0
Walk [s]	0	5	5	0	5	0	0	5	0	0	5	5
Pedestrian Clearance [s]	0	10	10	0	10	0	0	10	0	0	10	10
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0
Minimum Recall	No	No	No	No	No		No	No		No	No	No
Maximum Recall	No	No	No	No	No		No	No		No	No	No
Pedestrian Recall	No	No	No	No	No		No	No		No	No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	L	C	R
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	0.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	0.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	2.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	7	43	152	9	45	45	5	15	7	18	152
g / C, Green / Cycle	0.08	0.48	1.69	0.10	0.50	0.50	0.05	0.17	0.08	0.19	1.69
(v / s)_i Volume / Saturation Flow Rate	0.06	0.55	0.20	0.16	0.47	0.04	0.03	0.02	0.05	0.02	0.17
s, saturation flow rate [veh/h]	1774	5074	1583	2741	5074	1583	1412	1737	3445	1863	1583
c, Capacity [veh/h]	138	2417	2674	293	2530	789	121	291	270	363	2674
d1, Uniform Delay [s]	40.56	23.56	0.00	42.45	21.51	11.78	43.72	31.90	40.29	29.64	0.00
k, delay calibration	0.11	0.11	0.15	0.11	0.11	0.11	0.11	0.50	0.11	0.50	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	7.02	70.94	0.03	217.02	2.66	0.04	1.69	0.95	2.67	0.45	0.02
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.72	1.16	0.12	1.47	0.95	0.08	0.35	0.13	0.65	0.08	0.10
d, Delay for Lane Group [s/veh]	47.58	94.51	0.03	259.48	24.18	11.82	45.41	32.85	42.96	30.08	0.02
Lane Group LOS	D	F	A	F	C	B	D	C	D	C	A
Critical Lane Group	No	Yes	Yes	Yes	No	No	No	No	Yes	No	No
50th-Percentile Queue Length [veh]	2.36	30.86	0.02	12.08	14.62	0.61	0.96	0.77	1.93	0.56	0.01
50th-Percentile Queue Length [ft]	58.97	771.48	0.50	301.89	365.61	15.29	24.08	19.37	48.20	13.93	0.31
95th-Percentile Queue Length [veh]	4.25	44.32	0.04	20.11	20.90	1.10	1.73	1.39	3.47	1.00	0.02
95th-Percentile Queue Length [ft]	106.14	1108.10	0.89	502.74	522.40	27.52	43.35	34.86	86.76	25.08	0.56

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	47.58	94.51	0.03	259.48	24.18	11.82	45.41	32.85	32.85	42.96	30.08	0.02
Movement LOS	D	F	A	F	C	B	D	C	C	D	C	A
d_A, Approach Delay [s/veh]	83.84			58.95			39.36			17.53		
Approach LOS	F			E			D			B		
d_I, Intersection Delay [s/veh]	67.67											
Intersection LOS	E											
Intersection V/C	0.951											

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 24: East Palm Canyon Drive / Mirage Cove Drive

Control Type:	Signalized	Delay (sec / veh):	12.4
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.705

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	1	1	0	0
Pocket Length [ft]	150.00	100.00	100.00	110.00	100.00	100.00	75.00	100.00	75.00	75.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	40	1394	6	23	1334	43	39	0	21	4	0	23
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.95	1.95	1.95	1.95	1.95	1.95	1.33	1.33	1.33	1.95	1.95	1.95
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	34	0	0	27	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	78	2752	12	45	2628	84	52	0	28	8	0	45
Peak Hour Factor	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	20	721	3	12	689	22	14	0	7	2	0	12
Total Analysis Volume [veh/h]	82	2885	13	47	2755	88	55	0	29	8	0	47
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	6 - N/S
Cycle Length [s]	100
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	5	2	0	1	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	7	7	0	7	7	0	0	7	0	0	7	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	11	70	0	11	70	0	0	19	0	0	19	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No	No		No	No			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	L	C	R	L	C
C, Cycle Length [s]	100	100	100	100	100	100	100	100	100	100	100
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.00	0.00	2.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	6	73	73	5	72	72	10	10	10	10	10
g / C, Green / Cycle	0.06	0.73	0.73	0.05	0.72	0.72	0.10	0.10	0.10	0.10	0.10
(v / s)_i Volume / Saturation Flow Rate	0.05	0.54	0.54	0.03	0.53	0.53	0.04	0.00	0.02	0.01	0.03
s, saturation flow rate [veh/h]	1774	3547	1858	1774	3547	1834	1353	1863	1583	1412	1583
c, Capacity [veh/h]	112	2589	1357	91	2547	1317	139	184	156	181	156
d1, Uniform Delay [s]	46.03	7.85	7.87	46.24	8.37	8.51	47.11	0.00	41.37	42.84	41.85
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	8.96	1.89	3.58	4.51	1.90	3.83	1.83	0.00	0.56	0.10	1.06
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.73	0.73	0.74	0.52	0.73	0.74	0.40	0.00	0.19	0.04	0.30
d, Delay for Lane Group [s/veh]	54.99	9.74	11.45	50.75	10.27	12.34	48.94	0.00	41.93	42.94	42.91
Lane Group LOS	D	A	B	D	B	B	D	A	D	D	D
Critical Lane Group	Yes	No	No	No	No	Yes	Yes	No	No	No	No
50th-Percentile Queue Length [veh]	2.23	9.21	10.34	1.23	9.51	10.84	1.39	0.00	0.67	0.18	1.10
50th-Percentile Queue Length [ft]	55.72	230.30	258.43	30.63	237.78	270.96	34.82	0.00	16.63	4.61	27.42
95th-Percentile Queue Length [veh]	4.01	14.19	15.61	2.21	14.57	16.24	2.51	0.00	1.20	0.33	1.97
95th-Percentile Queue Length [ft]	100.30	354.74	390.26	55.13	364.23	405.94	62.67	0.00	29.93	8.30	49.35

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	54.99	10.32	11.45	50.75	10.94	12.34	48.94	0.00	41.93	42.94	42.91	42.91
Movement LOS	D	B	B	D	B	B	D	A	D	D	D	D
d_A, Approach Delay [s/veh]	11.56			11.63			46.52			42.92		
Approach LOS	B			B			D			D		
d_I, Intersection Delay [s/veh]	12.37											
Intersection LOS	B											
Intersection V/C	0.705											

Sequence

Ring 1	1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Year 2040 Conditions
Alternative C

Intersection Level Of Service Report

Intersection 1: North Project Driveway 1 / Buddy Rogers Avenue

Control Type:	Two-way stop	Delay (sec / veh):	12.3
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			No			No		

Volumes

Name												
Base Volume Input [veh/h]	0	0	0	0	0	0	0	29	0	0	31	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	44	0	73	0	0	0	0	0	63	104	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	44	0	73	0	0	0	0	39	63	104	41	0
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	12	0	20	0	0	0	0	11	17	28	11	0
Total Analysis Volume [veh/h]	48	0	79	0	0	0	0	42	68	113	45	0
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	No	No		
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	No	No		
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.08	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.00	0.00
d_M, Delay for Movement [s/veh]	11.88	12.09	8.97	12.28	12.08	8.51	7.30	0.00	0.00	7.63	0.00	0.00
Movement LOS	B	B	A	B	B	A	A	A	A	A	A	A
95th-Percentile Queue Length [veh]	0.27	0.26	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.36	0.36	0.36
95th-Percentile Queue Length [ft]	6.85	6.52	6.52	0.00	0.00	0.00	0.00	0.00	0.00	8.94	8.94	8.94
d_A, Approach Delay [s/veh]	10.07			10.96			0.00			5.46		
Approach LOS	B			B			A			A		
d_I, Intersection Delay [s/veh]	5.42											
Intersection LOS	B											

Intersection Level Of Service Report
Intersection 2: Date Palm Drive / Buddy Rogers Avenue

Control Type:	Two-way stop	Delay (sec / veh):	1,255.3
Analysis Method:	HCM 2010	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	3.220

Intersection Setup

Name						
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00		40.00		40.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

Volumes

Name						
Base Volume Input [veh/h]	4	671	533	27	23	6
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	2.97	2.97	2.97	2.97	1.33	1.33
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	11	0	0	111	78	8
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	23	1993	1583	191	109	16
Peak Hour Factor	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	6	520	413	50	28	4
Total Analysis Volume [veh/h]	24	2080	1652	199	114	17
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.16	0.02	0.02	0.00	3.22	0.07
d_M, Delay for Movement [s/veh]	33.80	0.00	0.00	0.00	1255.34	1169.14
Movement LOS	D	A	A	A	F	F
95th-Percentile Queue Length [veh]	0.56	0.00	0.00	0.00	14.74	14.74
95th-Percentile Queue Length [ft]	13.93	0.00	0.00	0.00	368.40	368.40
d_A, Approach Delay [s/veh]	0.39		0.00		1244.16	
Approach LOS	A		A		F	
d_I, Intersection Delay [s/veh]	40.09					
Intersection LOS	F					

Intersection Level Of Service Report
Intersection 3: Date Palm Drive / East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	24.9
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.883

Intersection Setup

Name						
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00		40.00		40.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		Yes		Yes	

Volumes

Name						
Base Volume Input [veh/h]	409	118	143	1125	1247	472
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.46	1.46	1.16	1.16	1.76	1.76
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	33	0	0	26	74	11
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	630	172	166	1331	2269	842
Peak Hour Factor	0.9560	0.9560	0.9560	0.9560	0.9560	0.9560
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	165	45	43	348	593	220
Total Analysis Volume [veh/h]	659	180	174	1392	2373	881
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Split	Split	ProtectedPermissi	Permissive	Permissive	Permissive
Signal group	1	0	3	8	4	4
Auxiliary Signal Groups						4
Lead / Lag	Lead	-	Lead	-	-	-
Minimum Green [s]	7	0	7	7	7	7
Maximum Green [s]	30	0	7	30	30	30
Amber [s]	3.0	0.0	3.0	3.0	3.0	3.0
All red [s]	1.0	0.0	1.0	1.0	1.0	1.0
Split [s]	19	0	16	41	25	25
Vehicle Extension [s]	3.0	0.0	3.0	3.0	3.0	3.0
Walk [s]	5	0	0	5	5	5
Pedestrian Clearance [s]	10	0	0	10	10	10
Rest In Walk	No			No	No	
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0
Minimum Recall	No		Yes	No	No	
Maximum Recall	No		No	No	No	
Pedestrian Recall	No		No	No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	R	L	C	C	R
C, Cycle Length [s]	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	0.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	11	11	41	41	31	31
g / C, Green / Cycle	0.18	0.18	0.69	0.69	0.51	0.51
(v / s)_i Volume / Saturation Flow Rate	0.13	0.11	0.18	0.27	0.47	0.56
s, saturation flow rate [veh/h]	5168	1583	944	5074	5074	1583
c, Capacity [veh/h]	934	286	757	3482	2590	808
d1, Uniform Delay [s]	23.14	22.78	11.43	4.08	13.54	14.73
k, delay calibration	0.11	0.11	0.11	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.99	2.27	0.15	0.34	6.49	59.10
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.71	0.63	0.23	0.40	0.92	1.09
d, Delay for Lane Group [s/veh]	24.13	25.05	11.58	4.42	20.04	73.82
Lane Group LOS	C	C	B	A	C	F
Critical Lane Group	Yes	No	Yes	No	No	Yes
50th-Percentile Queue Length [veh]	2.69	2.28	0.19	1.31	8.73	21.23
50th-Percentile Queue Length [ft]	67.29	57.07	4.72	32.87	218.25	530.82
95th-Percentile Queue Length [veh]	4.85	4.11	0.34	2.37	13.58	30.69
95th-Percentile Queue Length [ft]	121.13	102.73	8.49	59.17	339.40	767.18

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	24.13	25.05	11.58	4.42	20.04	73.82
Movement LOS	C	C	B	A	C	F
d_A, Approach Delay [s/veh]	24.33		5.22		34.60	
Approach LOS	C		A		C	
d_I, Intersection Delay [s/veh]	24.95					
Intersection LOS	C					
Intersection V/C	0.883					

Sequence

Ring 1	1	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 4: South Project Driveway-Allen Avenue / East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	4.0
Analysis Method:	HCM 2010	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.563

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	0	0	0	0	0	1	4	1262	0	0	1341	11
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	26	0	77	111	0	0	0	0	74
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	26	0	78	116	1464	0	0	1556	87
Peak Hour Factor	0.9120	0.9120	0.9120	0.9120	0.9120	0.9120	0.9120	0.9120	0.9120	0.9120	0.9120	0.9120
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	7	0	21	32	401	0	0	427	24
Total Analysis Volume [veh/h]	0	0	0	29	0	86	127	1605	0	0	1706	95
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	1 - E Palm Canyon Drive
Cycle Length [s]	70
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	0	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	7	0	0	7	0	0	7	0	0	7	0
Maximum Green [s]	0	30	0	0	30	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	33	0	0	33	0	0	37	0	0	37	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No			No			No			No	
Maximum Recall		No			No			No			No	
Pedestrian Recall		No			No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	L	C	L	C	R	C	C	R
C, Cycle Length [s]	70	70	70	70	70	70	70	70	70
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	2.00	0.00	2.00	0.00	0.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	6	6	6	56	56	56	56	56	56
g / C, Green / Cycle	0.09	0.09	0.09	0.80	0.80	0.80	0.80	0.80	0.80
(v / s)_i Volume / Saturation Flow Rate	0.00	0.02	0.05	0.44	0.32	0.00	0.34	0.34	0.06
s, saturation flow rate [veh/h]	1709	1412	1583	286	5074	1583	1863	3227	1583
c, Capacity [veh/h]	209	202	146	286	4028	1257	1530	2562	1257
d1, Uniform Delay [s]	0.00	30.87	30.51	8.05	2.18	0.00	2.24	2.24	1.58
k, delay calibration	0.11	0.11	0.11	0.50	0.50	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.00	0.32	3.78	4.91	0.30	0.00	0.81	0.51	0.12
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.00	0.14	0.59	0.44	0.40	0.00	0.41	0.42	0.08
d, Delay for Lane Group [s/veh]	0.00	31.19	34.29	12.97	2.47	0.00	3.05	2.75	1.70
Lane Group LOS	A	C	C	B	A	A	A	A	A
Critical Lane Group	No	No	Yes	Yes	No	No	No	No	No
50th-Percentile Queue Length [veh]	0.00	0.46	1.46	1.21	0.62	0.00	0.95	0.71	0.11
50th-Percentile Queue Length [ft]	0.00	11.38	36.43	30.28	15.41	0.00	23.77	17.71	2.66
95th-Percentile Queue Length [veh]	0.00	0.82	2.62	2.18	1.11	0.00	1.71	1.27	0.19
95th-Percentile Queue Length [ft]	0.00	20.48	65.57	54.50	27.73	0.00	42.78	31.87	4.78

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	31.19	34.29	34.29	12.97	2.47	0.00	3.05	2.86	1.70
Movement LOS	A	A	A	C	C	C	B	A	A	A	A	A
d_A, Approach Delay [s/veh]	0.00			33.51			3.24			2.80		
Approach LOS	A			C			A			A		
d_I, Intersection Delay [s/veh]	3.98											
Intersection LOS	A											
Intersection V/C	0.563											

Sequence

Ring 1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 5: Monty Hall Drive-Van Fleet Avenue / East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	9.8
Analysis Method:	HCM 2010	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.547

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	1	0	1	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	45.00	100.00	100.00	105.00	100.00	130.00	125.00	100.00	180.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	11	7	55	12	6	12	6	1211	9	92	1276	16
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	22	0	0	44	63	89	0	15	62	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	13	8	86	14	7	58	70	1494	10	122	1542	19
Peak Hour Factor	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	2	23	4	2	15	18	392	3	32	404	5
Total Analysis Volume [veh/h]	14	8	90	15	7	61	73	1566	10	128	1616	20
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	1 - E Palm Canyon Drive
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	0	7	7	0	7	7	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	19	0	0	19	0	11	30	0	11	30	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	R	L	C	L	C	R	L	C	R
C, Cycle Length [s]	60	60	60	60	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	6	6	6	6	5	36	36	6	37	37
g / C, Green / Cycle	0.10	0.10	0.10	0.10	0.08	0.60	0.60	0.10	0.62	0.62
(v / s)_i Volume / Saturation Flow Rate	0.03	0.06	0.01	0.04	0.04	0.31	0.01	0.07	0.32	0.01
s, saturation flow rate [veh/h]	829	1583	1402	1608	1774	5074	1583	1774	5074	1583
c, Capacity [veh/h]	181	159	142	162	149	3024	944	184	3127	976
d1, Uniform Delay [s]	24.70	25.80	29.46	25.41	26.34	7.10	4.94	26.03	6.50	4.49
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.30	3.12	0.32	1.73	2.50	0.64	0.02	4.64	0.61	0.04
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.12	0.57	0.11	0.42	0.49	0.52	0.01	0.69	0.52	0.02
d, Delay for Lane Group [s/veh]	24.99	28.92	29.78	27.14	28.84	7.74	4.96	30.67	7.12	4.53
Lane Group LOS	C	C	C	C	C	A	A	C	A	A
Critical Lane Group	No	Yes	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh]	0.28	1.25	0.21	0.91	1.01	2.73	0.04	1.84	2.58	0.07
50th-Percentile Queue Length [ft]	6.88	31.34	5.29	22.69	25.36	68.35	0.99	46.03	64.59	1.80
95th-Percentile Queue Length [veh]	0.50	2.26	0.38	1.63	1.83	4.92	0.07	3.31	4.65	0.13
95th-Percentile Queue Length [ft]	12.38	56.41	9.52	40.85	45.64	123.03	1.77	82.86	116.26	3.25

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	24.99	24.99	28.92	29.78	27.14	27.14	28.84	7.74	4.96	30.67	7.12	4.53
Movement LOS	C	C	C	C	C	C	C	A	A	C	A	A
d_A, Approach Delay [s/veh]	28.15			27.62			8.65			8.80		
Approach LOS	C			C			A			A		
d_I, Intersection Delay [s/veh]	9.77											
Intersection LOS	A											
Intersection V/C	0.547											

Sequence

Ring 1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 6: Date Palm Drive / East Palm Drive

Control Type:	Two-way stop	Delay (sec / veh):	21.0
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.107

Intersection Setup

Name						
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00		40.00		40.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

Volumes

Name						
Base Volume Input [veh/h]	0	8	539	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	2.97	2.97	2.97	1.04	1.33
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	11	8	0	0	25
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	35	1609	0	0	25
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	10	437	0	0	7
Total Analysis Volume [veh/h]	0	38	1749	0	0	27
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.02	0.00	0.00	0.11
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	0.00	0.00	21.04
Movement LOS		A	A	A		C
95th-Percentile Queue Length [veh]	0.00	0.00	0.00	0.00	0.00	0.36
95th-Percentile Queue Length [ft]	0.00	0.00	0.00	0.00	0.00	8.91
d_A, Approach Delay [s/veh]	0.00		0.00		21.04	
Approach LOS	A		A		C	
d_I, Intersection Delay [s/veh]	0.31					
Intersection LOS	C					

Intersection Level Of Service Report
Intersection 7: North Project Driveway 2 / Buddy Rogers Avenue

Control Type:	Two-way stop	Delay (sec / veh):	10.3
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

Intersection Setup

Name						
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00		40.00		40.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name						
Base Volume Input [veh/h]	0	0	29	0	0	31
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.33	1.00	1.00	1.33	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	13	73	0	19	104
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	13	102	0	19	135
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	4	28	0	5	37
Total Analysis Volume [veh/h]	0	14	111	0	21	147
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.01	0.00	0.00	0.01	0.00
d_M, Delay for Movement [s/veh]	10.35	8.88	0.00	0.00	7.47	0.00
Movement LOS	B	A	A	A	A	A
95th-Percentile Queue Length [veh]	0.05	0.05	0.00	0.00	0.38	0.38
95th-Percentile Queue Length [ft]	1.13	1.13	0.00	0.00	9.59	9.59
d_A, Approach Delay [s/veh]	8.88		0.00		0.93	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	0.96					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 8: Monty Hall Drive / Buddy Rogers Avenue

Control Type:	All-way stop	Delay (sec / veh):	7.8
Analysis Method:	HCM 2010	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.138

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			No			No		

Volumes

Name												
Base Volume Input [veh/h]	13	7	3	23	12	0	4	15	21	9	11	5
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	63	0	0	0	0	0	0	44	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	17	9	67	31	16	0	5	20	28	56	15	7
Peak Hour Factor	0.7500	0.7500	0.7500	0.7500	0.7500	0.7500	0.7500	0.7500	0.7500	0.7500	0.7500	0.7500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	6	3	22	10	5	0	2	7	9	19	5	2
Total Analysis Volume [veh/h]	23	12	89	41	21	0	7	27	37	75	20	9
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	897	783	862	797
Degree of Utilization, x	0.14	0.08	0.08	0.13

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.48	0.26	0.27	0.45
95th-Percentile Queue Length [ft]	11.98	6.43	6.71	11.20
Approach Delay [s/veh]	7.66	7.99	7.55	8.19
Approach LOS	A	A	A	A
Intersection Delay [s/veh]	7.85			
Intersection LOS	A			

Intersection Level Of Service Report

Intersection 9: Buddy Rogers Avenue/ East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	2.9
Analysis Method:	HCM 2010	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.404

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	13	2	28	10	5	22	23	1186	3	42	1227	15
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	151	0	0	106	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	15	2	32	12	6	26	27	1527	3	49	1529	17
Peak Hour Factor	0.9310	0.9310	0.9310	0.9310	0.9310	0.9310	0.9310	0.9310	0.9310	0.9310	0.9310	0.9310
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	1	9	3	2	7	7	410	1	13	411	5
Total Analysis Volume [veh/h]	16	2	34	13	6	28	29	1640	3	53	1642	18
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	1 - E Palm Canyon Drive
Cycle Length [s]	100
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	7	0	0	7	0	0	7	0	0	7	0
Maximum Green [s]	0	30	0	0	30	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	19	0	0	19	0	0	70	0	0	70	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No			No			No			No	
Maximum Recall		No			No			No			No	
Pedestrian Recall		No			No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	C	L	C	R	L	C	R
C, Cycle Length [s]	100	100	100	100	100	100	100	100
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	2.00	2.00	0.00	0.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	5	5	87	87	87	87	87	87
g / C, Green / Cycle	0.05	0.05	0.87	0.87	0.87	0.87	0.87	0.87
(v / s)_i Volume / Saturation Flow Rate	0.03	0.03	0.10	0.32	0.00	0.17	0.32	0.01
s, saturation flow rate [veh/h]	1613	1637	304	5074	1583	304	5074	1583
c, Capacity [veh/h]	134	134	308	4395	1371	308	4395	1371
d1, Uniform Delay [s]	46.18	46.02	2.77	1.32	0.90	3.03	1.33	0.91
k, delay calibration	0.11	0.11	0.50	0.50	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.83	1.55	0.61	0.24	0.00	1.21	0.24	0.02
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.39	0.35	0.09	0.37	0.00	0.17	0.37	0.01
d, Delay for Lane Group [s/veh]	48.01	47.58	3.38	1.57	0.90	4.24	1.57	0.92
Lane Group LOS	D	D	A	A	A	A	A	A
Critical Lane Group	Yes	No	No	No	No	No	Yes	No
50th-Percentile Queue Length [veh]	1.30	1.17	0.14	0.40	0.00	0.29	0.40	0.01
50th-Percentile Queue Length [ft]	32.50	29.19	3.60	10.05	0.06	7.19	10.07	0.34
95th-Percentile Queue Length [veh]	2.34	2.10	0.26	0.72	0.00	0.52	0.73	0.02
95th-Percentile Queue Length [ft]	58.50	52.54	6.48	18.09	0.10	12.95	18.13	0.61

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	48.01	48.01	48.01	47.58	47.58	47.58	3.38	1.57	0.90	4.24	1.57	0.92
Movement LOS	D	D	D	D	D	D	A	A	A	A	A	A
d_A, Approach Delay [s/veh]	48.01			47.58			1.60			1.65		
Approach LOS	D			D			A			A		
d_I, Intersection Delay [s/veh]	2.93											
Intersection LOS	A											
Intersection V/C	0.404											

Sequence

Ring 1	2	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 10: Cathedral Canyon Drive / East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	16.8
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.703

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	0	1	0	0	1	0	1
Pocket Length [ft]	100.00	100.00	70.00	90.00	100.00	100.00	238.00	100.00	100.00	190.00	100.00	270.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	62	124	46	129	147	74	119	1056	74	66	998	157
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.33	1.33	1.33	1.33	1.33	1.33	1.31	1.31	1.31	1.16	1.16	1.16
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	22	74	0	0	0	55	0	15	39	52
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	82	165	83	246	196	98	156	1438	97	92	1197	234
Peak Hour Factor	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	21	43	22	64	51	26	41	375	25	24	312	61
Total Analysis Volume [veh/h]	86	172	87	257	204	102	163	1499	101	96	1248	244
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	1 - E Palm Canyon Drive
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Overlap	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	6	3	8	0	7	4	0
Auxiliary Signal Groups						3,6						
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	7	7	7	0	7	7	0
Maximum Green [s]	0	30	0	0	30	30	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	1.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	19	0	0	19	19	11	30	0	11	30	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	5	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	10	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No	No	No	No		No	No	
Maximum Recall		No			No	No	No	No		No	No	
Pedestrian Recall		No			No	No	No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	60	60	60	60	60	60	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	0.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	15	15	15	15	15	26	7	27	27	6	26	26
g / C, Green / Cycle	0.25	0.25	0.25	0.25	0.25	0.43	0.11	0.46	0.46	0.09	0.44	0.44
(v / s)_i Volume / Saturation Flow Rate	0.07	0.09	0.05	0.21	0.11	0.06	0.09	0.30	0.06	0.05	0.25	0.15
s, saturation flow rate [veh/h]	1173	1863	1583	1208	1863	1583	1774	5074	1583	1774	5074	1583
c, Capacity [veh/h]	267	466	396	291	466	680	201	2319	724	165	2218	692
d1, Uniform Delay [s]	24.79	18.61	17.87	27.21	18.97	10.44	26.02	12.57	9.46	26.12	12.62	11.25
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.69	0.49	0.28	8.68	0.65	0.10	7.71	1.41	0.40	3.22	1.04	1.41
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.32	0.37	0.22	0.88	0.44	0.15	0.81	0.65	0.14	0.58	0.56	0.35
d, Delay for Lane Group [s/veh]	25.48	19.10	18.15	35.89	19.62	10.54	33.74	13.97	9.86	29.34	13.66	12.66
Lane Group LOS	C	B	B	D	B	B	C	B	A	C	B	B
Critical Lane Group	No	No	No	Yes	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh]	1.10	1.80	0.87	4.13	2.18	0.69	2.48	4.36	0.70	1.34	3.56	2.02
50th-Percentile Queue Length [ft]	27.38	45.02	21.86	103.25	54.61	17.26	62.07	108.95	17.45	33.60	89.03	50.54
95th-Percentile Queue Length [veh]	1.97	3.24	1.57	7.43	3.93	1.24	4.47	7.78	1.26	2.42	6.41	3.64
95th-Percentile Queue Length [ft]	49.28	81.03	39.35	185.85	98.31	31.06	111.72	194.54	31.41	60.48	160.26	90.97

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	25.48	19.10	18.15	35.89	19.62	10.54	33.74	13.97	9.86	29.34	13.66	12.66
Movement LOS	C	B	B	D	B	B	C	B	A	C	B	B
d_A, Approach Delay [s/veh]	20.45			25.40			15.57			14.46		
Approach LOS	C			C			B			B		
d_I, Intersection Delay [s/veh]	16.85											
Intersection LOS	B											
Intersection V/C	0.703											

Sequence

Ring 1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 11: Perez Road / East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	28.9
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.739

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	150.00	100.00	100.00	170.00	100.00	45.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	34	24	15	19	8	347	269	1161	7	7	1128	12
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.33	1.33	1.33	1.33	1.33	1.33	1.64	1.64	1.64	1.31	1.31	1.31
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	55	0	0	39	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	45	32	20	25	11	462	441	1959	11	9	1517	16
Peak Hour Factor	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	12	8	5	7	3	122	117	518	3	2	401	4
Total Analysis Volume [veh/h]	48	34	21	26	12	488	466	2071	12	10	1604	17
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	0	7	7	0	7	7	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	19	0	0	19	0	20	71	0	11	62	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	R	L	C	C	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	7	7	21	21	21	18	74	74	2	58	58
g / C, Green / Cycle	0.06	0.06	0.17	0.17	0.17	0.15	0.62	0.62	0.02	0.49	0.49
(v / s)_i Volume / Saturation Flow Rate	0.03	0.03	0.01	0.16	0.16	0.14	0.39	0.39	0.01	0.32	0.01
s, saturation flow rate [veh/h]	1774	1745	1774	1595	1583	3445	3547	1857	1774	5074	1583
c, Capacity [veh/h]	100	99	308	277	275	519	2197	1150	30	2463	769
d1, Uniform Delay [s]	54.89	55.14	41.57	48.60	48.60	50.05	14.14	14.15	58.34	23.23	16.06
k, delay calibration	0.11	0.11	0.11	0.18	0.18	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	3.49	4.82	0.12	16.05	16.14	5.82	1.34	2.55	6.47	1.35	0.05
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

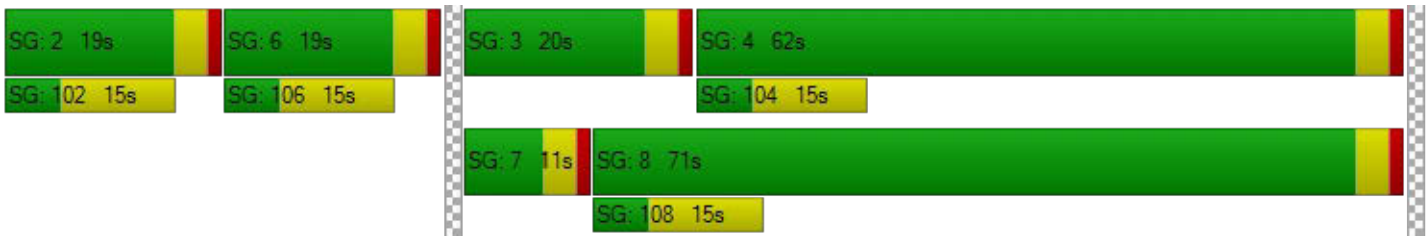
X, volume / capacity	0.48	0.56	0.08	0.90	0.90	0.90	0.62	0.62	0.34	0.65	0.02
d, Delay for Lane Group [s/veh]	58.38	59.96	41.68	64.65	64.75	55.87	15.48	16.70	64.81	24.58	16.11
Lane Group LOS	E	E	D	E	E	E	B	B	E	C	B
Critical Lane Group	No	Yes	No	No	Yes	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh]	1.48	1.73	0.65	8.44	8.38	7.15	10.81	11.74	0.35	11.11	0.25
50th-Percentile Queue Length [ft]	37.11	43.22	16.20	210.92	209.60	178.78	270.22	293.40	8.74	277.80	6.22
95th-Percentile Queue Length [veh]	2.67	3.11	1.17	13.20	13.13	11.54	16.20	17.35	0.63	16.58	0.45
95th-Percentile Queue Length [ft]	66.79	77.80	29.17	330.01	328.32	288.42	405.02	433.86	15.73	414.48	11.19

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	58.38	59.96	59.96	41.68	64.65	64.70	55.87	15.89	16.70	64.81	24.58	16.11
Movement LOS	E	E	E	D	E	E	E	B	B	E	C	B
d_A, Approach Delay [s/veh]	59.22			63.56			23.20			24.74		
Approach LOS	E			E			C			C		
d_I, Intersection Delay [s/veh]	28.91											
Intersection LOS	C											
Intersection V/C	0.739											

Sequence

Ring 1	2	6	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 12: Canyon Plaza Drive / East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	10.6
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.639

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	1	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	95.00	90.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	51	1	74	5	2	12	13	1375	26	51	1443	10
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.33	1.33	1.33	1.33	1.33	1.33	1.55	1.55	1.55	1.64	1.64	1.64
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	19	0	0	0	37	0	0	26	13
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	68	1	98	26	3	16	20	2168	40	84	2393	29
Peak Hour Factor	0.9550	0.9550	0.9550	0.9550	0.9550	0.9550	0.9550	0.9550	0.9550	0.9550	0.9550	0.9550
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	18	0	26	7	1	4	5	568	10	22	626	8
Total Analysis Volume [veh/h]	71	1	103	27	3	17	21	2270	42	88	2506	30
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	100
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	0	7	7	0	7	7	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	23	0	0	23	0	11	66	0	11	66	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	L	C	R	L	C	C
C, Cycle Length [s]	100	100	100	100	100	100	100	100	100	100
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	10	10	10	10	3	71	71	6	74	74
g / C, Green / Cycle	0.10	0.10	0.10	0.10	0.03	0.71	0.71	0.06	0.74	0.74
(v / s)_i Volume / Saturation Flow Rate	0.05	0.07	0.02	0.01	0.01	0.45	0.03	0.05	0.47	0.47
s, saturation flow rate [veh/h]	1386	1586	1285	1620	1774	5074	1583	1774	3547	1852
c, Capacity [veh/h]	170	165	97	169	55	3612	1127	114	2642	1379
d1, Uniform Delay [s]	45.48	42.95	49.13	40.64	47.51	7.51	4.26	46.09	6.13	6.15
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.62	3.92	1.56	0.31	4.28	0.84	0.06	10.67	1.15	2.21
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.42	0.63	0.28	0.12	0.38	0.63	0.04	0.77	0.63	0.63
d, Delay for Lane Group [s/veh]	47.10	46.88	50.69	40.95	51.79	8.35	4.32	56.76	7.28	8.37
Lane Group LOS	D	D	D	D	D	A	A	E	A	A
Critical Lane Group	No	Yes	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh]	1.76	2.58	0.70	0.45	0.57	6.68	0.22	2.44	6.31	7.04
50th-Percentile Queue Length [ft]	43.93	64.43	17.52	11.27	14.17	166.99	5.52	60.88	157.81	176.07
95th-Percentile Queue Length [veh]	3.16	4.64	1.26	0.81	1.02	10.92	0.40	4.38	10.43	11.40
95th-Percentile Queue Length [ft]	79.07	115.97	31.54	20.28	25.50	272.96	9.94	109.58	260.82	284.88

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	47.10	46.88	46.88	50.69	40.95	40.95	51.79	8.35	4.32	56.76	7.65	8.37
Movement LOS	D	D	D	D	D	D	D	A	A	E	A	A
d_A, Approach Delay [s/veh]	46.97			46.54			8.67			9.30		
Approach LOS	D			D			A			A		
d_I, Intersection Delay [s/veh]	10.63											
Intersection LOS	B											
Intersection V/C	0.639											

Sequence

Ring 1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 13: Golf Club Drive / East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	12.7
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.922

Intersection Setup

Name						
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	0
Pocket Length [ft]	100.00	100.00	90.00	95.00	100.00	100.00
Speed [mph]	40.00		40.00		40.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		Yes		No	

Volumes

Name						
Base Volume Input [veh/h]	146	51	83	1246	1366	113
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.55	1.55	1.55	1.55	1.55	1.55
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	19	0	0	18	13	13
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	245	79	129	1949	2130	188
Peak Hour Factor	0.9240	0.9240	0.9240	0.9240	0.9240	0.9240
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	66	21	35	527	576	51
Total Analysis Volume [veh/h]	265	85	140	2109	2305	203
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Split	Split	ProtectedPermissi	Permissive	Permissive	Permissive
Signal group	1	0	3	8	4	0
Auxiliary Signal Groups						
Lead / Lag	Lead	-	Lead	-	-	-
Minimum Green [s]	7	0	7	7	7	0
Maximum Green [s]	30	0	7	30	30	0
Amber [s]	3.0	0.0	3.0	3.0	3.0	0.0
All red [s]	1.0	0.0	1.0	1.0	1.0	0.0
Split [s]	19	0	11	101	90	0
Vehicle Extension [s]	3.0	0.0	3.0	3.0	3.0	0.0
Walk [s]	5	0	0	5	5	0
Pedestrian Clearance [s]	10	0	0	10	10	0
Rest In Walk	No			No	No	
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	2.0	0.0
Minimum Recall	No		Yes	No	No	
Maximum Recall	No		No	No	No	
Pedestrian Recall	No		No	No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	C	C
C, Cycle Length [s]	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	0.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	8	8	44	44	33	33
g / C, Green / Cycle	0.14	0.14	0.73	0.73	0.56	0.56
(v / s)_i Volume / Saturation Flow Rate	0.10	0.10	0.32	0.42	0.47	0.47
s, saturation flow rate [veh/h]	1774	1673	439	5074	3547	1786
c, Capacity [veh/h]	251	237	446	3680	1971	993
d1, Uniform Delay [s]	24.65	24.66	11.83	3.89	11.23	11.16
k, delay calibration	0.11	0.11	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	3.76	4.04	1.84	0.65	4.77	8.63
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.71	0.72	0.31	0.57	0.85	0.84
d, Delay for Lane Group [s/veh]	28.41	28.70	13.67	4.54	16.01	19.79
Lane Group LOS	C	C	B	A	B	B
Critical Lane Group	No	Yes	Yes	No	No	No
50th-Percentile Queue Length [veh]	2.46	2.35	0.41	1.70	7.76	8.79
50th-Percentile Queue Length [ft]	61.61	58.82	10.35	42.48	193.90	219.69
95th-Percentile Queue Length [veh]	4.44	4.23	0.75	3.06	12.32	13.65
95th-Percentile Queue Length [ft]	110.89	105.87	18.63	76.46	308.08	341.23

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	28.51	28.70	13.67	4.54	17.05	19.79
Movement LOS	C	C	B	A	B	B
d_A, Approach Delay [s/veh]	28.55		5.11		17.27	
Approach LOS	C		A		B	
d_I, Intersection Delay [s/veh]	12.69					
Intersection LOS	B					
Intersection V/C	0.922					

Sequence

Ring 1	1	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 14: Cathedral Canyon Drive / Officer David Vasquez Road

Control Type:	Signalized	Delay (sec / veh):	6.5
Analysis Method:	HCM 2010	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.275

Intersection Setup

Name						
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	1	0	1	1
Pocket Length [ft]	100.00	100.00	205.00	100.00	120.00	120.00
Speed [mph]	40.00		40.00		40.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		Yes		Yes	

Volumes

Name						
Base Volume Input [veh/h]	417	5	25	404	6	53
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.33	1.33	1.33	1.33	1.33	1.33
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	52	0	0	74	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	607	7	33	611	8	70
Peak Hour Factor	0.9140	0.9140	0.9140	0.9140	0.9140	0.9140
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	166	2	9	167	2	19
Total Analysis Volume [veh/h]	664	8	36	668	9	77
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	2 - N. Cathedral Canyon Drive
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permissive	Permissive	Protected	Permissive	Split	Overlap
Signal group	2	0	1	6	7	7
Auxiliary Signal Groups						1,7
Lead / Lag	-	-	Lead	-	Lead	-
Minimum Green [s]	7	0	7	7	7	7
Maximum Green [s]	30	0	30	30	30	30
Amber [s]	3.0	0.0	3.0	3.0	3.0	3.0
All red [s]	1.0	0.0	1.0	1.0	1.0	1.0
Split [s]	86	0	15	101	19	19
Vehicle Extension [s]	3.0	0.0	3.0	3.0	3.0	3.0
Walk [s]	5	0	0	5	5	5
Pedestrian Clearance [s]	10	0	0	10	10	10
Rest In Walk	No			No	No	
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0
Minimum Recall	No		No	No	No	No
Maximum Recall	No		No	No	No	No
Pedestrian Recall	No		No	No	No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	C	L	C	L	R
C, Cycle Length [s]	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	0.00
g_i, Effective Green Time [s]	96	96	5	105	7	16
g / C, Green / Cycle	0.80	0.80	0.04	0.88	0.06	0.13
(v / s)_i Volume / Saturation Flow Rate	0.18	0.18	0.02	0.19	0.00	0.05
s, saturation flow rate [veh/h]	1863	1855	1774	3547	3445	1583
c, Capacity [veh/h]	1488	1481	77	3104	201	213
d1, Uniform Delay [s]	2.97	2.97	56.06	1.15	53.34	47.21
k, delay calibration	0.50	0.50	0.11	0.50	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.35	0.36	4.43	0.16	0.09	1.03
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.23	0.23	0.47	0.22	0.04	0.36
d, Delay for Lane Group [s/veh]	3.32	3.33	60.49	1.31	53.43	48.23
Lane Group LOS	A	A	E	A	D	D
Critical Lane Group	No	Yes	Yes	No	No	Yes
50th-Percentile Queue Length [veh]	1.53	1.53	1.14	0.41	0.13	2.13
50th-Percentile Queue Length [ft]	38.17	38.22	28.59	10.18	3.23	53.13
95th-Percentile Queue Length [veh]	2.75	2.75	2.06	0.73	0.23	3.83
95th-Percentile Queue Length [ft]	68.70	68.79	51.46	18.33	5.81	95.63

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	3.32	3.33	60.49	1.31	53.43	48.23
Movement LOS	A	A	E	A	D	D
d_A, Approach Delay [s/veh]	3.32		4.34		48.78	
Approach LOS	A		A		D	
d_I, Intersection Delay [s/veh]	6.49					
Intersection LOS	A					
Intersection V/C	0.275					

Sequence

Ring 1	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	7	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 15: Cathedral Canyon Drive / Perez Road

Control Type:	Signalized	Delay (sec / veh):	42.6
Analysis Method:	HCM 2010	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.682

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	1	1	0	0
Pocket Length [ft]	95.00	100.00	100.00	205.00	100.00	100.00	100.00	100.00	100.00	150.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	38	379	64	148	314	119	152	252	46	63	222	202
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	52	0	0	74	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	51	556	85	197	492	158	202	335	61	84	295	269
Peak Hour Factor	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	13	144	22	51	127	41	52	87	16	22	76	70
Total Analysis Volume [veh/h]	53	575	88	204	509	163	209	346	63	87	305	278
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	2 - N. Cathedral Canyon Drive
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	5.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	34	0	25	48	0	25	47	0	14	36	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	L	C	R	L	C	C
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	6	25	25	16	35	35	16	56	56	8	47	47
g / C, Green / Cycle	0.05	0.21	0.21	0.13	0.29	0.29	0.14	0.47	0.47	0.06	0.39	0.39
(v / s)_i Volume / Saturation Flow Rate	0.03	0.18	0.18	0.11	0.19	0.19	0.12	0.10	0.04	0.05	0.16	0.18
s, saturation flow rate [veh/h]	1774	1863	1778	1774	1863	1710	1774	3547	1583	1774	1863	1583
c, Capacity [veh/h]	89	383	365	234	536	492	241	1653	738	112	733	623
d1, Uniform Delay [s]	55.88	46.33	46.36	51.14	37.54	37.55	50.83	18.98	17.84	55.42	26.44	26.82
k, delay calibration	0.11	0.18	0.18	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	6.29	10.66	11.40	9.64	1.36	1.48	9.10	0.29	0.23	10.76	1.74	2.31
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

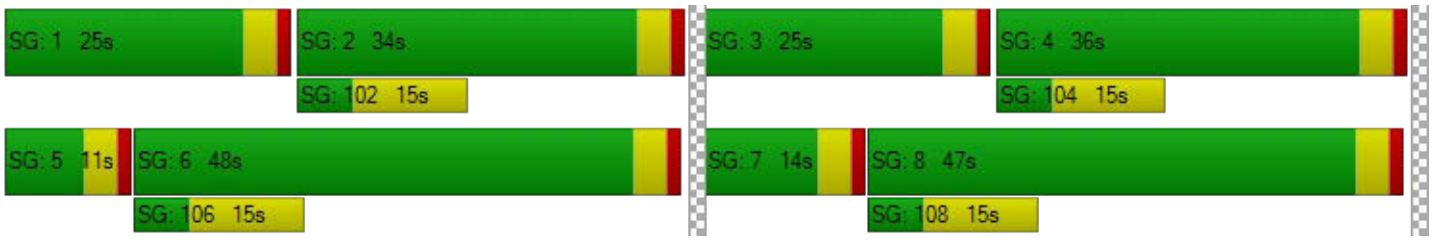
X, volume / capacity	0.60	0.88	0.89	0.87	0.65	0.65	0.87	0.21	0.09	0.77	0.42	0.45
d, Delay for Lane Group [s/veh]	62.17	56.99	57.76	60.78	38.90	39.03	59.93	19.27	18.07	66.18	28.18	29.13
Lane Group LOS	E	E	E	E	D	D	E	B	B	E	C	C
Critical Lane Group	No	No	Yes	Yes	No	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh]	1.71	10.72	10.34	6.53	9.01	8.29	6.65	2.83	0.99	2.89	6.51	6.09
50th-Percentile Queue Length [ft]	42.63	268.10	258.61	163.35	225.22	207.36	166.21	70.85	24.85	72.25	162.65	152.18
95th-Percentile Queue Length [veh]	3.07	16.09	15.62	10.73	13.93	13.02	10.88	5.10	1.79	5.20	10.69	10.13
95th-Percentile Queue Length [ft]	76.73	402.36	390.48	268.15	348.28	325.44	271.92	127.53	44.73	130.05	267.23	253.34

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	62.17	57.31	57.76	60.78	38.94	39.03	59.93	19.27	18.07	66.18	28.18	29.13
Movement LOS	E	E	E	E	D	D	E	B	B	E	C	C
d_A, Approach Delay [s/veh]	57.72			44.05			32.90			33.51		
Approach LOS	E			D			C			C		
d_I, Intersection Delay [s/veh]	42.60											
Intersection LOS	D											
Intersection V/C	0.682											

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	



Intersection Level Of Service Report
Intersection 16: Cathedral Canyon Drive / Paseo Real

Control Type:	Two-way stop	Delay (sec / veh):	116.9
Analysis Method:	HCM 2010	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.087

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	0	0	0	0	0	0
Pocket Length [ft]	55.00	100.00	100.00	55.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name												
Base Volume Input [veh/h]	25	749	6	12	578	8	6	1	16	5	3	8
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	44	8	0	63	0	0	0	0	11	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	33	1040	16	16	832	11	8	1	21	18	4	11
Peak Hour Factor	0.9370	0.9370	0.9370	0.9370	0.9370	0.9370	0.9370	0.9370	0.9370	0.9370	0.9370	0.9370
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	9	277	4	4	222	3	2	0	6	5	1	3
Total Analysis Volume [veh/h]	35	1110	17	17	888	12	9	1	22	19	4	12
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.05	0.01	0.00	0.03	0.01	0.00	0.14	0.02	0.04	0.34	0.09	0.03
d_M, Delay for Movement [s/veh]	10.03	0.00	0.00	11.01	0.00	0.00	65.11	89.16	16.89	102.36	116.86	46.08
Movement LOS	B	A	A	B	A	A	F	F	C	F	F	E
95th-Percentile Queue Length [veh]	0.15	0.00	0.00	0.09	0.00	0.00	0.71	0.71	0.71	1.83	1.83	1.83
95th-Percentile Queue Length [ft]	3.66	0.00	0.00	2.13	0.00	0.00	17.75	17.75	17.75	45.75	45.75	45.75
d_A, Approach Delay [s/veh]	0.30			0.20			32.71			84.72		
Approach LOS	A			A			D			F		
d_I, Intersection Delay [s/veh]	2.12											
Intersection LOS	F											

Intersection Level Of Service Report
Intersection 17: Cathedral Canyon Drive / Dinah Shore Drive

Control Type:	Signalized	Delay (sec / veh):	52.7
Analysis Method:	HCM 2010	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.925

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	130.00	100.00	100.00	75.00	100.00	100.00	100.00	100.00	100.00	150.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	228	474	97	113	260	28	59	775	189	95	652	83
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	13	21	10	0	30	0	0	0	18	15	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	316	651	139	150	376	37	78	1031	269	141	867	110
Peak Hour Factor	0.9340	0.9340	0.9340	0.9340	0.9340	0.9340	0.9340	0.9340	0.9340	0.9340	0.9340	0.9340
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	85	174	37	40	101	10	21	276	72	38	232	29
Total Analysis Volume [veh/h]	338	697	149	161	403	40	84	1104	288	151	928	118
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	2 - N. Cathedral Canyon Drive
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	104.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	29	34	0	16	21	0	11	55	0	15	59	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	L	C	C	L	C	C
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	25	30	30	12	17	17	7	51	51	11	55	55
g / C, Green / Cycle	0.20	0.25	0.25	0.10	0.14	0.14	0.06	0.42	0.42	0.09	0.46	0.46
(v / s)_i Volume / Saturation Flow Rate	0.19	0.23	0.23	0.09	0.12	0.12	0.05	0.38	0.39	0.09	0.29	0.29
s, saturation flow rate [veh/h]	1774	1863	1751	1774	1863	1804	1774	1863	1733	1774	1863	1790
c, Capacity [veh/h]	363	460	432	178	265	257	105	791	736	168	857	824
d1, Uniform Delay [s]	46.90	44.46	44.50	53.42	50.19	50.22	55.76	32.23	32.61	53.77	24.50	24.53
k, delay calibration	0.28	0.40	0.41	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	21.69	26.80	28.48	15.06	7.27	7.67	12.79	15.62	18.60	15.34	3.38	3.54
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.93	0.95	0.95	0.90	0.85	0.85	0.80	0.90	0.92	0.90	0.62	0.62
d, Delay for Lane Group [s/veh]	68.60	71.26	72.97	68.47	57.46	57.89	68.55	47.85	51.22	69.11	27.89	28.06
Lane Group LOS	E	E	E	E	E	E	E	D	D	E	C	C
Critical Lane Group	No	No	Yes	Yes	No	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh]	11.87	15.79	15.08	5.47	6.98	6.82	2.84	21.81	21.43	5.15	11.76	11.37
50th-Percentile Queue Length [ft]	296.72	394.68	377.02	136.67	174.44	170.50	71.12	545.25	535.78	128.70	294.10	284.27
95th-Percentile Queue Length [veh]	17.52	22.30	21.45	9.30	11.31	11.10	5.12	29.47	29.02	8.87	17.39	16.90
95th-Percentile Queue Length [ft]	437.98	557.59	536.24	232.53	282.74	277.57	128.02	736.73	725.58	221.73	434.72	422.53

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	68.60	71.90	72.97	68.47	57.65	57.89	68.55	49.04	51.22	69.11	27.96	28.06
Movement LOS	E	E	E	E	E	E	E	D	D	E	C	C
d_A, Approach Delay [s/veh]	71.09			60.55			50.57			33.16		
Approach LOS	E			E			D			C		
d_I, Intersection Delay [s/veh]	52.70											
Intersection LOS	D											
Intersection V/C	0.925											

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 18: Date Palm Drive / Gerald Ford Drive

Control Type:	Signalized	Delay (sec / veh):	46.7
Analysis Method:	HCM 2010	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.128

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	85.00	100.00	85.00	160.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			Yes			Yes			No		

Volumes

Name												
Base Volume Input [veh/h]	20	597	290	119	438	44	58	56	18	167	42	148
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	2.97	2.97	2.97	1.83	1.83	1.83	1.83	1.83	1.83	1.97	1.97	1.97
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	52	26	0	74	0	0	0	0	37	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	59	1825	887	218	876	81	106	102	33	366	83	292
Peak Hour Factor	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	16	481	234	57	231	21	28	27	9	96	22	77
Total Analysis Volume [veh/h]	62	1923	935	230	923	85	112	107	35	386	87	308
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	6 - N/S
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Split	Split	Split	Split	Split	Split
Signal group	5	2	0	1	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	7	7	0	7	7	0	0	7	0	0	7	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	52	66	0	18	32	0	0	11	0	0	25	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No	No		No	No			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	C	L	C	C	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	6	62	62	14	70	70	7	7	7	21	21	21
g / C, Green / Cycle	0.05	0.52	0.52	0.12	0.58	0.58	0.06	0.06	0.06	0.18	0.18	0.18
(v / s)_i Volume / Saturation Flow Rate	0.03	0.38	0.59	0.13	0.19	0.19	0.06	0.04	0.04	0.13	0.13	0.19
s, saturation flow rate [veh/h]	1774	5074	1583	1774	3547	1783	1774	1863	1711	1774	1805	1583
c, Capacity [veh/h]	92	2627	820	208	2068	1040	101	106	97	311	316	277
d1, Uniform Delay [s]	54.90	13.39	18.60	50.66	6.33	6.33	56.62	55.57	55.67	47.08	47.03	49.51
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.29
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	8.33	1.84	77.85	62.92	0.42	0.83	75.87	7.58	9.42	3.76	3.61	74.66
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.33	1.33	1.33	1.33	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.68	0.73	1.14	1.11	0.32	0.32	1.11	0.68	0.72	0.76	0.75	1.11
d, Delay for Lane Group [s/veh]	63.24	15.23	96.45	113.58	6.74	7.16	132.49	63.15	65.10	50.84	50.64	124.18
Lane Group LOS	E	B	F	F	A	A	F	E	E	D	D	F
Critical Lane Group	No	No	Yes	Yes	No	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh]	2.00	8.09	33.32	9.47	2.23	2.36	5.12	2.34	2.29	6.88	6.94	13.88
50th-Percentile Queue Length [ft]	49.91	202.17	832.94	236.77	55.65	59.01	128.05	58.47	57.30	171.90	173.42	347.03
95th-Percentile Queue Length [veh]	3.59	12.75	47.23	15.12	4.01	4.25	9.10	4.21	4.13	11.18	11.26	21.04
95th-Percentile Queue Length [ft]	89.83	318.77	1180.72	378.11	100.17	106.21	227.61	105.24	103.15	279.41	281.40	525.90

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	63.24	15.23	96.45	113.58	6.86	7.16	132.49	63.78	65.10	50.76	50.64	124.18
Movement LOS	E	B	F	F	A	A	F	E	E	D	D	F
d_A, Approach Delay [s/veh]	42.26			26.70			94.26			79.70		
Approach LOS	D			C			F			E		
d_I, Intersection Delay [s/veh]	46.72											
Intersection LOS	D											
Intersection V/C	1.128											

Sequence

Ring 1	1	2	4	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 19: Date Palm Drive / Dinah Shore Drive

Control Type:	Signalized	Delay (sec / veh):	42.8
Analysis Method:	HCM 2010	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.820

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	2	0	1	2	0	1	1	0	0	1	0	1
Pocket Length [ft]	225.00	100.00	125.00	170.00	100.00	50.00	150.00	100.00	100.00	130.00	100.00	180.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			No		

Volumes

Name												
Base Volume Input [veh/h]	231	614	79	115	586	73	102	576	215	69	537	117
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.83	1.83	1.83	1.44	1.44	1.44	1.67	1.67	1.67	1.67	1.67	1.67
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	26	26	0	37	0	0	0	0	37	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	423	1150	171	166	881	105	170	962	359	152	897	195
Peak Hour Factor	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	115	313	47	45	240	29	46	262	98	41	244	53
Total Analysis Volume [veh/h]	460	1251	186	181	959	114	185	1047	391	165	976	212
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	1 - E Palm Canyon Drive
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Overlap
Signal group	5	2	0	1	6	0	3	8	0	7	4	4
Auxiliary Signal Groups												1,4
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	7
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	30
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	1.0
Split [s]	22	49	0	11	38	0	18	46	0	14	42	42
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	5
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	10
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0
Minimum Recall	No	No		No	No		No	No		No	No	No
Maximum Recall	No	No		No	No		No	No		No	No	No
Pedestrian Recall	No	No		No	No		No	No		No	No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	0.00
g_i, Effective Green Time [s]	18	47	47	7	37	37	14	40	40	10	36	47
g / C, Green / Cycle	0.15	0.39	0.39	0.06	0.30	0.30	0.12	0.33	0.33	0.08	0.30	0.39
(v / s)_i Volume / Saturation Flow Rate	0.13	0.25	0.12	0.05	0.19	0.07	0.10	0.30	0.25	0.09	0.28	0.13
s, saturation flow rate [veh/h]	3445	5074	1583	3445	5074	1583	1774	3547	1583	1774	3547	1583
c, Capacity [veh/h]	512	2005	626	203	1550	484	208	1166	520	149	1048	614
d1, Uniform Delay [s]	50.21	29.16	24.89	56.10	35.71	31.21	52.24	38.39	35.93	54.99	41.11	25.97
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.25	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	5.92	1.48	1.21	12.35	1.86	1.14	12.19	2.77	4.93	67.81	4.40	0.34
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.90	0.62	0.30	0.89	0.62	0.24	0.89	0.90	0.75	1.11	0.93	0.35
d, Delay for Lane Group [s/veh]	56.13	30.63	26.10	68.44	37.57	32.35	64.43	41.16	40.86	122.80	45.51	26.31
Lane Group LOS	E	C	C	E	D	C	E	D	D	F	D	C
Critical Lane Group	Yes	No	No	No	Yes	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh]	7.07	9.60	3.76	3.03	8.09	2.59	6.10	14.57	10.59	7.23	14.19	4.23
50th-Percentile Queue Length [ft]	176.78	239.88	94.01	75.70	202.15	64.76	152.38	364.33	264.64	180.73	354.75	105.82
95th-Percentile Queue Length [veh]	11.43	14.68	6.77	5.45	12.75	4.66	10.14	20.83	15.92	12.06	20.37	7.61
95th-Percentile Queue Length [ft]	285.81	366.88	169.21	136.26	318.74	116.57	253.61	520.85	398.04	301.43	509.20	190.17

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	56.13	30.63	26.10	68.44	37.57	32.35	64.43	41.16	40.86	122.80	45.51	26.31
Movement LOS	E	C	C	E	D	C	E	D	D	F	D	C
d_A, Approach Delay [s/veh]	36.37			41.56			43.74			51.93		
Approach LOS	D			D			D			D		
d_I, Intersection Delay [s/veh]	42.82											
Intersection LOS	D											
Intersection V/C	0.820											

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	



Intersection Level Of Service Report
Intersection 20: Date Palm Drive / Ramon Road

Control Type:	Signalized	Delay (sec / veh):	48.1
Analysis Method:	HCM 2010	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.836

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	215.00	100.00	80.00	180.00	100.00	100.00	350.00	100.00	100.00	230.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			No		

Volumes

Name												
Base Volume Input [veh/h]	241	564	82	189	486	156	192	754	157	136	717	147
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.44	1.44	1.44	1.44	1.44	1.44	1.44	1.44	1.44	1.44	1.44	1.44
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	5	13	8	0	19	0	0	0	7	11	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	352	825	126	272	719	225	276	1086	233	207	1032	212
Peak Hour Factor	0.9770	0.9770	0.9770	0.9770	0.9770	0.9770	0.9770	0.9770	0.9770	0.9770	0.9770	0.9770
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	90	211	32	70	184	58	71	278	60	53	264	54
Total Analysis Volume [veh/h]	360	844	129	278	736	230	282	1112	238	212	1056	217
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	7 - E/W
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	22	35	0	24	37	0	25	42	0	19	36	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	C	L	C	C
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	15	32	32	20	37	37	21	37	37	15	31	31
g / C, Green / Cycle	0.12	0.27	0.27	0.17	0.31	0.31	0.17	0.31	0.31	0.13	0.26	0.26
(v / s)_i Volume / Saturation Flow Rate	0.10	0.17	0.08	0.16	0.15	0.15	0.16	0.26	0.26	0.12	0.24	0.24
s, saturation flow rate [veh/h]	3445	5074	1583	1774	5074	1583	1774	3547	1700	1774	3547	1705
c, Capacity [veh/h]	423	1353	422	296	1577	492	308	1091	523	223	921	443
d1, Uniform Delay [s]	51.58	38.72	35.14	49.41	33.35	33.36	48.76	38.73	38.75	52.15	43.43	43.43
k, delay calibration	0.11	0.50	0.50	0.18	0.50	0.50	0.18	0.11	0.32	0.11	0.11	0.38
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	4.88	2.18	1.86	19.39	0.99	3.17	16.39	1.77	10.06	18.74	5.07	24.27
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

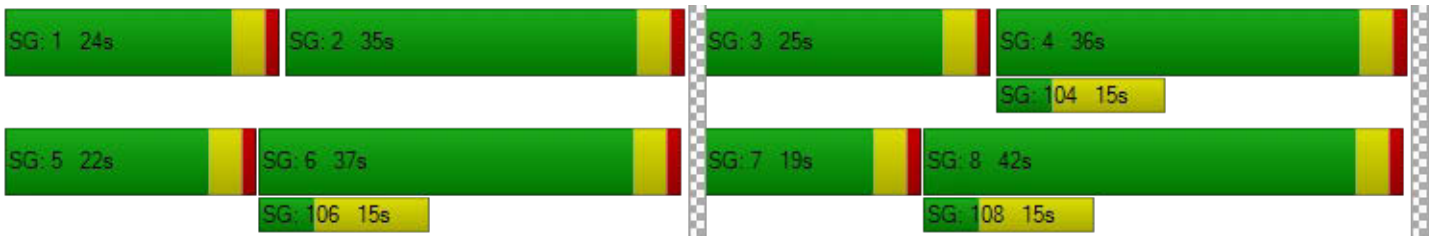
X, volume / capacity	0.85	0.62	0.31	0.94	0.47	0.47	0.92	0.84	0.84	0.95	0.93	0.93
d, Delay for Lane Group [s/veh]	56.46	40.90	37.01	68.79	34.35	36.53	65.16	40.51	48.81	70.89	48.50	67.70
Lane Group LOS	E	D	D	E	C	D	E	D	D	E	D	E
Critical Lane Group	No	Yes	No	Yes	No	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh]	5.50	7.40	3.18	9.65	5.78	5.72	9.52	12.38	13.09	7.38	12.75	14.62
50th-Percentile Queue Length [ft]	137.41	184.98	79.61	241.31	144.56	142.98	238.11	309.61	327.33	184.43	318.82	365.51
95th-Percentile Queue Length [veh]	9.34	11.86	5.73	14.75	9.73	9.64	14.59	18.16	19.03	11.83	18.61	20.89
95th-Percentile Queue Length [ft]	233.53	296.51	143.30	368.69	243.15	241.03	364.64	453.89	475.68	295.79	465.24	522.28

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	56.46	40.90	37.01	68.79	34.35	36.53	65.16	42.00	48.81	70.89	52.07	67.70
Movement LOS	E	D	D	E	C	D	E	D	D	E	D	E
d_A, Approach Delay [s/veh]	44.73			42.45			46.99			57.04		
Approach LOS	D			D			D			E		
d_I, Intersection Delay [s/veh]	48.09											
Intersection LOS	D											
Intersection V/C	0.836											

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 21: Da Vall Drive / Dinah Shore Drive

Control Type:	Signalized	Delay (sec / veh):	39.1
Analysis Method:	HCM 2010	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.881

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	0	1	0	1	1	0	0
Pocket Length [ft]	120.00	100.00	120.00	130.00	100.00	100.00	175.00	100.00	215.00	185.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	173	327	44	48	197	85	60	533	174	59	544	107
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.67
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	19	13	13	0	0	19	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	289	546	73	80	329	161	113	903	291	99	927	179
Peak Hour Factor	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	79	150	20	22	90	44	31	248	80	27	255	49
Total Analysis Volume [veh/h]	318	600	80	88	362	177	124	992	320	109	1019	197
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	6 - N/S
Cycle Length [s]	100
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	30	19	0	30	19	0	11	39	0	12	40	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	C	L	C	R	L	C	C
C, Cycle Length [s]	100	100	100	100	100	100	100	100	100	100	100	100
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	20	31	31	6	18	18	9	39	39	8	38	38
g / C, Green / Cycle	0.20	0.31	0.31	0.06	0.18	0.18	0.09	0.39	0.39	0.08	0.38	0.38
(v / s)_i Volume / Saturation Flow Rate	0.18	0.17	0.05	0.05	0.15	0.15	0.07	0.28	0.20	0.06	0.33	0.34
s, saturation flow rate [veh/h]	1774	3547	1583	1774	1863	1660	1774	3547	1583	1774	1863	1760
c, Capacity [veh/h]	355	1104	493	116	329	293	152	1370	612	137	704	665
d1, Uniform Delay [s]	39.03	28.59	25.02	46.03	40.05	40.16	44.99	26.18	23.63	45.41	29.11	29.22
k, delay calibration	0.16	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	11.00	0.42	0.15	9.78	6.67	8.06	10.02	3.36	3.18	9.83	15.22	16.60
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

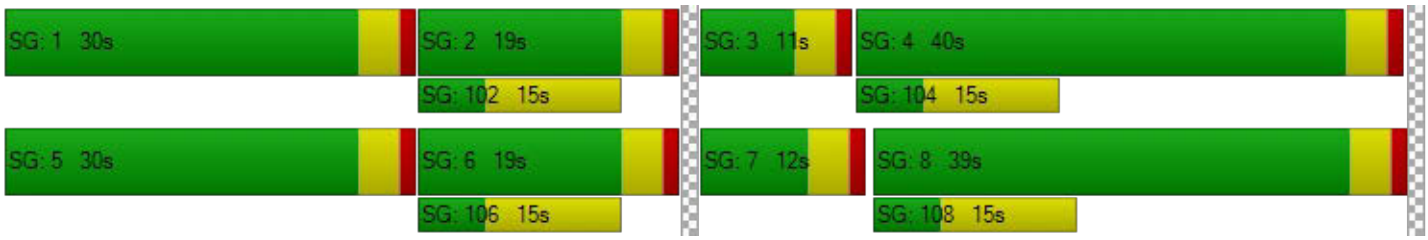
X, volume / capacity	0.90	0.54	0.16	0.76	0.86	0.87	0.81	0.72	0.52	0.79	0.89	0.89
d, Delay for Lane Group [s/veh]	50.03	29.01	25.17	55.81	46.73	48.22	55.01	29.54	26.82	55.24	44.33	45.83
Lane Group LOS	D	C	C	E	D	D	E	C	C	E	D	D
Critical Lane Group	Yes	No	No	No	No	Yes	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh]	8.41	5.77	1.35	2.41	7.14	6.57	3.37	10.08	6.04	2.97	16.04	15.54
50th-Percentile Queue Length [ft]	210.27	144.31	33.82	60.31	178.49	164.30	84.14	251.90	150.93	74.16	400.90	388.50
95th-Percentile Queue Length [veh]	13.17	9.71	2.44	4.34	11.52	10.78	6.06	15.28	10.07	5.34	22.60	22.01
95th-Percentile Queue Length [ft]	329.18	242.81	60.88	108.56	288.04	269.40	151.46	382.04	251.66	133.49	565.09	550.13

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	50.03	29.01	25.17	55.81	47.05	48.22	55.01	29.54	26.82	55.24	44.91	45.83
Movement LOS	D	C	C	E	D	D	E	C	C	E	D	D
d_A, Approach Delay [s/veh]	35.40			48.61			31.13			45.90		
Approach LOS	D			D			C			D		
d_I, Intersection Delay [s/veh]	39.06											
Intersection LOS	D											
Intersection V/C	0.881											

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	



Intersection Level Of Service Report
Intersection 22: Da Vall Drive / Gerald Ford Drive

Control Type:	Signalized	Delay (sec / veh):	70.2
Analysis Method:	HCM 2010	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.888

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	200.00	100.00	175.00	140.00	100.00	100.00	175.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	125	374	36	96	268	64	40	349	83	42	295	120
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.97	1.97	1.97	1.97	1.97	1.97	1.97	1.97	1.97	1.97	1.97	1.97
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	11	0	0	0	0	7	5	13	8	0	19	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	257	737	71	189	528	133	84	701	172	83	600	236
Peak Hour Factor	0.9480	0.9480	0.9480	0.9480	0.9480	0.9480	0.9480	0.9480	0.9480	0.9480	0.9480	0.9480
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	68	194	19	50	139	35	22	185	45	22	158	62
Total Analysis Volume [veh/h]	271	777	75	199	557	140	89	739	181	88	633	249
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	6 - N/S
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	28	41	0	22	35	0	12	45	0	12	45	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	C	L	C	C	L	C	C
C, Cycle Length [s]	60	60	60	60	60	60	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	11	12	12	9	9	9	5	19	19	5	19	19
g / C, Green / Cycle	0.19	0.19	0.19	0.14	0.15	0.15	0.09	0.31	0.31	0.09	0.31	0.31
(v / s)_i Volume / Saturation Flow Rate	0.15	0.22	0.05	0.11	0.19	0.19	0.05	0.26	0.26	0.05	0.25	0.25
s, saturation flow rate [veh/h]	1774	3547	1583	1774	1863	1735	1774	1863	1738	1774	1863	1686
c, Capacity [veh/h]	332	678	302	252	272	253	161	577	538	161	576	522
d1, Uniform Delay [s]	23.41	24.30	20.64	24.89	25.65	25.65	26.14	19.22	19.22	26.15	19.06	19.06
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	4.88	82.63	1.95	5.43	170.39	172.11	2.92	3.05	3.26	2.90	2.67	2.94
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

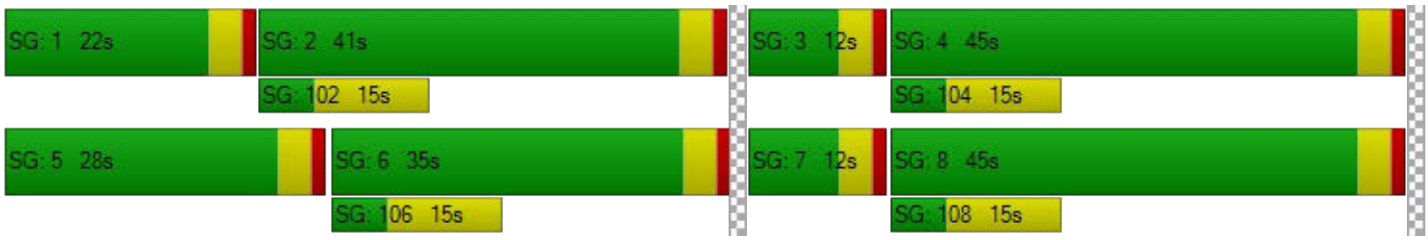
X, volume / capacity	0.82	1.15	0.25	0.79	1.33	1.33	0.55	0.82	0.82	0.55	0.80	0.80
d, Delay for Lane Group [s/veh]	28.29	106.93	22.59	30.33	196.05	197.77	29.06	22.26	22.48	29.04	21.74	22.01
Lane Group LOS	C	F	C	C	F	F	C	C	C	C	C	C
Critical Lane Group	Yes	No	No	No	No	Yes	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh]	3.72	12.02	0.96	2.84	16.33	15.34	1.24	5.72	5.37	1.23	5.47	4.99
50th-Percentile Queue Length [ft]	93.01	300.53	24.05	71.02	408.33	383.41	30.99	142.93	134.15	30.63	136.78	124.79
95th-Percentile Queue Length [veh]	6.70	18.91	1.73	5.11	25.78	24.40	2.23	9.64	9.17	2.21	9.31	8.66
95th-Percentile Queue Length [ft]	167.41	472.64	43.29	127.84	644.38	610.11	55.77	240.97	229.13	55.13	232.69	216.39

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	28.29	106.93	22.59	30.33	196.65	197.77	29.06	22.34	22.48	29.04	21.81	22.01
Movement LOS	C	F	C	C	F	F	C	C	C	C	C	C
d_A, Approach Delay [s/veh]	82.32			159.89			22.96			22.52		
Approach LOS	F			F			C			C		
d_I, Intersection Delay [s/veh]	70.21											
Intersection LOS	E											
Intersection V/C	0.888											

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	



Intersection Level Of Service Report
Intersection 23: East Palm Canyon Drive / Frank Sinatra Drive

Control Type:	Signalized	Delay (sec / veh):	19.6
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.058

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	1	1	0	0	2	0	1
Pocket Length [ft]	160.00	100.00	45.00	325.00	100.00	250.00	100.00	100.00	100.00	120.00	100.00	1200.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			No			Yes		

Volumes

Name												
Base Volume Input [veh/h]	43	1314	198	296	1170	20	44	53	19	144	29	302
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.95	1.95	1.95	1.76	1.76	1.76	1.15	1.15	1.15	1.15	1.15	1.15
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	48	0	25	34	0	0	0	0	0	0	37
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	84	2610	386	546	2093	35	51	61	22	166	33	384
Peak Hour Factor	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	23	705	104	148	566	9	14	16	6	45	9	104
Total Analysis Volume [veh/h]	91	2822	417	590	2263	38	55	66	24	179	36	415
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	6 - N/S
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	66.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Overlap	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Overlap
Signal group	5	2	2	1	6	0	3	8	0	7	4	4
Auxiliary Signal Groups			1,2,3,4,									1,2,3,4,
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	7	7	7	0	7	7	0	7	7	7
Maximum Green [s]	30	30	30	30	30	0	30	30	0	30	30	30
Amber [s]	3.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0
All red [s]	1.0	1.0	1.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	1.0
Split [s]	13	63	63	27	77	0	11	19	0	11	19	19
Vehicle Extension [s]	3.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0
Walk [s]	0	5	5	0	5	0	0	5	0	0	5	5
Pedestrian Clearance [s]	0	10	10	0	10	0	0	10	0	0	10	10
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0
Minimum Recall	No	No	No	No	No		No	No		No	No	No
Maximum Recall	No	No	No	No	No		No	No		No	No	No
Pedestrian Recall	No	No	No	No	No		No	No		No	No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	L	C	R
C, Cycle Length [s]	101	101	101	101	101	101	101	101	101	101	101
L, Total Lost Time per Cycle [s]	4.00	4.00	0.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	0.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	0.00	2.00	0.00	0.00	2.00	0.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	9	59	277	23	73	73	6	97	7	98	277
g / C, Green / Cycle	0.09	0.58	2.74	0.23	0.72	0.72	0.06	0.96	0.07	0.97	2.74
(v / s)_i Volume / Saturation Flow Rate	0.07	0.56	0.26	0.24	0.45	0.02	0.04	0.05	0.07	0.02	0.26
s, saturation flow rate [veh/h]	1260	5074	1583	2446	5074	1583	1367	1779	2527	1863	1583
c, Capacity [veh/h]	156	2959	4312	574	3661	1143	129	1709	199	1804	4312
d1, Uniform Delay [s]	47.42	19.80	0.00	41.45	7.07	4.02	48.30	0.08	48.72	0.05	0.00
k, delay calibration	0.11	0.11	0.37	0.11	0.11	0.11	0.11	0.50	0.11	0.50	0.37
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	3.46	2.43	0.03	25.03	0.17	0.01	2.21	0.06	13.29	0.02	0.03
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.58	0.95	0.10	1.03	0.62	0.03	0.43	0.05	0.90	0.02	0.10
d, Delay for Lane Group [s/veh]	50.87	22.22	0.03	66.49	7.25	4.03	50.51	0.14	62.01	0.07	0.03
Lane Group LOS	D	C	A	F	A	A	D	A	E	A	A
Critical Lane Group	No	Yes	Yes	Yes	No	No	No	No	No	No	No
50th-Percentile Queue Length [veh]	2.39	18.37	0.04	9.10	6.14	0.18	1.43	0.03	2.61	0.01	0.04
50th-Percentile Queue Length [ft]	59.78	459.32	0.99	227.38	153.48	4.44	35.71	0.69	65.37	0.25	0.97
95th-Percentile Queue Length [veh]	4.30	25.40	0.07	14.25	10.20	0.32	2.57	0.05	4.71	0.02	0.07
95th-Percentile Queue Length [ft]	107.60	635.06	1.78	356.13	255.07	7.99	64.27	1.25	117.67	0.46	1.75

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	50.87	22.22	0.03	66.49	7.25	4.03	50.51	0.14	0.14	62.01	0.07	0.03
Movement LOS	D	C	A	F	A	A	D	A	A	E	A	A
d_A, Approach Delay [s/veh]	20.23			19.29			19.25			17.64		
Approach LOS	C			B			B			B		
d_I, Intersection Delay [s/veh]	19.59											
Intersection LOS	B											
Intersection V/C	1.058											

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 24: East Palm Canyon Drive / Mirage Cove Drive

Control Type:	Signalized	Delay (sec / veh):	3.6
Analysis Method:	HCM 2010	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	22.637

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	1	1	0	0
Pocket Length [ft]	150.00	100.00	100.00	110.00	100.00	100.00	75.00	100.00	75.00	75.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	16	1475	9	16	1379	15	35	0	20	6	0	26
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.95	1.95	1.95	1.95	1.95	1.95	1.33	1.33	1.33	1.95	1.95	1.95
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	37	0	8	26	0	0	0	0	0	0	11
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	31	2913	18	39	2715	29	47	0	27	12	0	62
Peak Hour Factor	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	8	787	5	11	734	8	13	0	7	3	0	17
Total Analysis Volume [veh/h]	34	3149	19	42	2935	31	51	0	29	13	0	67
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	6 - N/S
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	5	2	0	1	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	7	7	0	7	7	0	0	7	0	0	7	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	11	90	0	11	90	0	0	19	0	0	19	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No	No		No	No			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	L	C	R	L	C
C, Cycle Length [s]	98	98	98	98	98	98	98	98	98	98	98
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	0.00	2.00	0.00	0.00	2.00	0.00	0.00	2.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	4	85	85	5	85	85	94	94	94	94	94
g / C, Green / Cycle	0.04	0.87	0.87	0.05	0.87	0.87	0.96	0.96	0.96	0.96	0.96
(v / s)_i Volume / Saturation Flow Rate	0.03	0.59	0.59	0.03	0.55	0.55	19.24	0.00	0.02	4.56	0.04
s, saturation flow rate [veh/h]	1329	3547	1857	1329	3547	1853	3	1863	1583	3	1583
c, Capacity [veh/h]	102	3081	1613	111	3102	1620	76	1787	1519	76	1519
d1, Uniform Delay [s]	47.94	2.03	2.04	47.62	1.70	1.71	47.40	0.00	0.08	42.88	0.08
k, delay calibration	0.11	0.11	0.21	0.11	0.11	0.18	0.50	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.89	0.26	0.99	2.14	0.21	0.68	38.78	0.00	0.02	4.84	0.05
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.33	0.67	0.68	0.38	0.63	0.63	0.67	0.00	0.02	0.17	0.04
d, Delay for Lane Group [s/veh]	49.83	2.29	3.03	49.75	1.91	2.39	86.18	0.00	0.11	47.72	0.14
Lane Group LOS	D	A	A	D	A	A	F	A	A	D	A
Critical Lane Group	No	No	Yes	Yes	No	No	Yes	No	No	No	No
50th-Percentile Queue Length [veh]	0.86	0.65	1.01	1.07	0.22	0.44	2.14	0.00	0.01	0.44	0.02
50th-Percentile Queue Length [ft]	21.59	16.25	25.33	26.63	5.44	11.02	53.57	0.00	0.24	11.01	0.58
95th-Percentile Queue Length [veh]	1.55	1.17	1.82	1.92	0.39	0.79	3.86	0.00	0.02	0.79	0.04
95th-Percentile Queue Length [ft]	38.87	29.24	45.60	47.94	9.78	19.84	96.43	0.00	0.44	19.81	1.04

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	49.83	2.54	3.03	49.75	2.07	2.39	86.18	0.00	0.11	47.72	0.14	0.14
Movement LOS	D	A	A	D	A	A	F	A	A	D	A	A
d_A, Approach Delay [s/veh]	3.05			2.74			54.98			7.87		
Approach LOS	A			A			D			A		
d_I, Intersection Delay [s/veh]	3.62											
Intersection LOS	A											
Intersection V/C	22.637											

Sequence

Ring 1	1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 25: East Palm Canyon Drive / Country Club Drive

Control Type:	Signalized	Delay (sec / veh):	11.0
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	17.579

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	2	0	0	1	0	0	1	0	0
Pocket Length [ft]	160.00	100.00	45.00	190.00	100.00	100.00	30.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			Yes			Yes			No		

Volumes

Name												
Base Volume Input [veh/h]	8	1344	49	145	1218	3	3	8	9	41	4	207
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.95	1.95	1.95	1.95	1.95	1.95	1.33	1.33	1.33	1.95	1.95	1.95
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	18	0	13	13	0	0	0	0	0	0	19
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	16	2639	96	296	2388	6	4	11	12	80	8	423
Peak Hour Factor	0.9370	0.9370	0.9370	0.9370	0.9370	0.9370	0.9370	0.9370	0.9370	0.9370	0.9370	0.9370
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	704	26	79	637	2	1	3	3	21	2	113
Total Analysis Volume [veh/h]	17	2816	102	316	2549	6	4	12	13	85	9	451
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	6 - N/S
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	61.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Protecte	Permiss	Overlap	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	5	2	2	1	6	0	0	8	0	0	4	0
Auxiliary Signal Groups			1,2,4,5,									
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	7	7	7	7	7	0	0	7	0	0	7	0
Maximum Green [s]	30	30	30	30	30	0	0	30	0	0	30	0
Amber [s]	3.0	3.0	3.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	1.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	11	78	78	19	86	0	0	23	0	0	23	0
Vehicle Extension [s]	3.0	3.0	3.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	5	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	10	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	2.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	2.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No	No	No	No	No			No			No	
Maximum Recall	No	No	No	No	No			No			No	
Pedestrian Recall	No	No	No	No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	C	L	C	L	C	R
C, Cycle Length [s]	60	60	60	60	60	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	0.00	4.00	4.00	4.00	2.21	2.21	2.21	2.21	2.21
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	0.00	2.00	0.00	0.00	1.10	0.00	1.10	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	1.10	1.10	1.10	1.10	1.10
g_i, Effective Green Time [s]	6	34	160	15	43	43	59	59	59	59	59
g / C, Green / Cycle	0.10	0.57	2.67	0.24	0.72	0.72	0.98	0.98	0.98	0.98	0.98
(v / s)_i Volume / Saturation Flow Rate	0.02	0.55	0.06	0.18	0.47	0.47	1.01	0.01	13.33	0.14	0.14
s, saturation flow rate [veh/h]	907	5074	1583	1761	3547	1861	4	1706	6	1593	1583
c, Capacity [veh/h]	180	2908	4223	487	2545	1335	121	1674	123	1563	1554
d1, Uniform Delay [s]	26.73	12.31	0.00	22.94	4.54	4.54	24.43	0.01	29.64	0.01	0.01
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.23	3.33	0.00	1.46	0.29	0.56	0.50	0.02	27.71	0.20	0.20
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.09	0.97	0.02	0.65	0.66	0.66	0.03	0.01	0.69	0.15	0.15
d, Delay for Lane Group [s/veh]	26.96	15.64	0.00	24.40	4.83	5.10	24.93	0.03	57.34	0.21	0.21
Lane Group LOS	C	B	A	C	A	A	C	A	E	A	A
Critical Lane Group	No	Yes	No	Yes	No	No	No	No	Yes	No	No
50th-Percentile Queue Length [veh]	0.22	8.86	0.00	2.00	2.29	2.50	0.08	0.01	2.34	0.09	0.09
50th-Percentile Queue Length [ft]	5.59	221.52	0.07	50.05	57.18	62.59	2.06	0.19	58.38	2.16	2.16
95th-Percentile Queue Length [veh]	0.40	13.74	0.00	3.60	4.12	4.51	0.15	0.01	4.20	0.16	0.16
95th-Percentile Queue Length [ft]	10.06	343.57	0.12	90.09	102.93	112.66	3.71	0.34	105.08	3.89	3.89

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	26.96	15.64	0.00	24.40	4.93	5.10	24.93	0.03	0.03	57.34	0.21	0.21
Movement LOS	C	B	A	C	A	A	C	A	A	E	A	A
d_A, Approach Delay [s/veh]	15.17			7.07			3.46			9.12		
Approach LOS	B			A			A			A		
d_I, Intersection Delay [s/veh]	10.95											
Intersection LOS	B											
Intersection V/C	17.579											

Sequence

Ring 1	1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 26: Thompson Road-Morningside Drive / Frank Sinatra Drive

Control Type:	Signalized	Delay (sec / veh):	8.7
Analysis Method:	HCM 2010	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.402

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	150.00	100.00	100.00	90.00	100.00	100.00	90.00	100.00	100.00	130.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	163	22	37	11	15	8	10	434	102	46	476	19
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	13	13	0	37	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	187	25	43	13	17	9	12	512	130	53	584	22
Peak Hour Factor	0.9030	0.9030	0.9030	0.9030	0.9030	0.9030	0.9030	0.9030	0.9030	0.9030	0.9030	0.9030
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	52	7	12	4	5	2	3	142	36	15	162	6
Total Analysis Volume [veh/h]	207	28	48	14	19	10	13	567	144	59	647	24
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	7 - E/W
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	0	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	7	0	0	7	0	0	7	0	0	7	0
Maximum Green [s]	0	30	0	0	30	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	31	0	0	31	0	0	29	0	0	29	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No			No			No			No	
Maximum Recall		No			No			No			No	
Pedestrian Recall		No			No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	C	L	C	C	L	C	C
C, Cycle Length [s]	60	60	60	60	60	60	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	0.00	2.00	0.00	0.00	2.00	0.00	0.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	14	14	14	14	14	14	38	38	38	38	38	38
g / C, Green / Cycle	0.23	0.23	0.23	0.23	0.23	0.23	0.64	0.64	0.64	0.64	0.64	0.64
(v / s)_i Volume / Saturation Flow Rate	0.15	0.02	0.03	0.01	0.01	0.01	0.02	0.20	0.20	0.08	0.18	0.18
s, saturation flow rate [veh/h]	1375	1863	1583	1377	1863	1660	763	1863	1734	736	1863	1839
c, Capacity [veh/h]	370	423	359	364	423	377	527	1192	1110	506	1192	1177
d1, Uniform Delay [s]	23.63	18.21	18.49	20.53	18.08	18.09	6.63	4.85	4.86	7.37	4.76	4.76
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.32	0.07	0.17	0.04	0.03	0.04	0.09	0.67	0.73	0.47	0.60	0.60
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.56	0.07	0.13	0.04	0.03	0.04	0.02	0.31	0.31	0.12	0.28	0.28
d, Delay for Lane Group [s/veh]	24.95	18.27	18.66	20.57	18.11	18.13	6.72	5.52	5.58	7.83	5.35	5.36
Lane Group LOS	C	B	B	C	B	B	A	A	A	A	A	A
Critical Lane Group	Yes	No	No	No	No	No	No	No	Yes	No	No	No
50th-Percentile Queue Length [veh]	2.64	0.28	0.49	0.15	0.14	0.14	0.07	1.45	1.38	0.36	1.31	1.29
50th-Percentile Queue Length [ft]	65.95	6.96	12.20	3.77	3.59	3.57	1.79	36.37	34.44	9.04	32.68	32.36
95th-Percentile Queue Length [veh]	4.75	0.50	0.88	0.27	0.26	0.26	0.13	2.62	2.48	0.65	2.35	2.33
95th-Percentile Queue Length [ft]	118.72	12.53	21.96	6.78	6.47	6.43	3.22	65.46	62.00	16.27	58.82	58.25

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	24.95	18.27	18.66	20.57	18.11	18.13	6.72	5.54	5.58	7.83	5.36	5.36
Movement LOS	C	B	B	C	B	B	A	A	A	A	A	A
d_A, Approach Delay [s/veh]	23.22			18.92			5.57			5.56		
Approach LOS	C			B			A			A		
d_I, Intersection Delay [s/veh]	8.69											
Intersection LOS	A											
Intersection V/C	0.402											

Sequence

Ring 1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 1: North Project Driveway 1 / Buddy Rogers Avenue

Control Type:	Two-way stop	Delay (sec / veh):	14.9
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			No			No		

Volumes

Name												
Base Volume Input [veh/h]	0	0	0	0	0	0	0	29	0	0	31	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	48	0	112	0	0	0	0	25	60	140	20	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	48	0	112	0	0	0	0	64	60	140	61	0
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	13	0	30	0	0	0	0	17	16	38	17	0
Total Analysis Volume [veh/h]	52	0	122	0	0	0	0	70	65	152	66	0
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	No	No		
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	No	No		
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.11	0.00	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.00	0.00
d_M, Delay for Movement [s/veh]	13.82	13.80	9.33	14.85	13.60	8.61	7.34	0.00	0.00	7.77	0.00	0.00
Movement LOS	B	B	A	B	B	A	A	A	A	A	A	A
95th-Percentile Queue Length [veh]	0.38	0.44	0.44	0.00	0.00	0.00	0.00	0.00	0.00	0.53	0.53	0.53
95th-Percentile Queue Length [ft]	9.49	10.97	10.97	0.00	0.00	0.00	0.00	0.00	0.00	13.23	13.23	13.23
d_A, Approach Delay [s/veh]	10.67			12.35			0.00			5.42		
Approach LOS	B			B			A			A		
d_I, Intersection Delay [s/veh]	5.77											
Intersection LOS	B											

Intersection Level Of Service Report
Intersection 2: Date Palm Drive / Buddy Rogers Avenue

Control Type:	Two-way stop	Delay (sec / veh):	1,496.0
Analysis Method:	HCM 2010	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	3.795

Intersection Setup

Name						
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00		40.00		40.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

Volumes

Name						
Base Volume Input [veh/h]	4	492	513	25	29	14
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	2.97	2.97	2.97	2.97	1.33	1.33
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	15	0	0	150	120	12
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	27	1461	1524	224	159	31
Peak Hour Factor	0.9410	0.9410	0.9410	0.9410	0.9410	0.9410
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	7	388	405	60	42	8
Total Analysis Volume [veh/h]	29	1553	1620	238	169	33
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.20	0.02	0.02	0.00	3.79	0.14
d_M, Delay for Movement [s/veh]	35.27	0.00	0.00	0.00	1495.98	1430.71
Movement LOS	E	A	A	A	F	F
95th-Percentile Queue Length [veh]	0.70	0.00	0.00	0.00	22.24	22.24
95th-Percentile Queue Length [ft]	17.52	0.00	0.00	0.00	556.08	556.08
d_A, Approach Delay [s/veh]	0.65		0.00		1485.32	
Approach LOS	A		A		F	
d_I, Intersection Delay [s/veh]	82.66					
Intersection LOS	F					

Intersection Level Of Service Report
Intersection 3: Date Palm Drive / East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	15.3
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.754

Intersection Setup

Name						
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00		40.00		40.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		Yes		Yes	

Volumes

Name						
Base Volume Input [veh/h]	339	121	149	1198	1174	347
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.46	1.46	1.16	1.16	1.76	1.76
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	56	0	0	40	100	15
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	551	177	173	1430	2166	626
Peak Hour Factor	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	148	48	47	384	582	168
Total Analysis Volume [veh/h]	592	190	186	1538	2329	673
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Split	Split	ProtectedPermissi	Permissive	Permissive	Permissive
Signal group	1	0	3	8	4	4
Auxiliary Signal Groups						3,4
Lead / Lag	Lead	-	Lead	-	-	-
Minimum Green [s]	7	0	7	7	7	7
Maximum Green [s]	30	0	7	30	30	30
Amber [s]	3.0	0.0	3.0	3.0	3.0	3.0
All red [s]	1.0	0.0	1.0	1.0	1.0	1.0
Split [s]	19	0	16	41	25	25
Vehicle Extension [s]	3.0	0.0	3.0	3.0	3.0	3.0
Walk [s]	5	0	0	5	5	5
Pedestrian Clearance [s]	10	0	0	10	10	10
Rest In Walk	No			No	No	
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0
Minimum Recall	No		Yes	No	No	
Maximum Recall	No		No	No	No	
Pedestrian Recall	No		No	No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	R	L	C	C	R
C, Cycle Length [s]	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	0.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	10	10	42	42	31	31
g / C, Green / Cycle	0.17	0.17	0.69	0.69	0.52	0.52
(v / s)_i Volume / Saturation Flow Rate	0.11	0.12	0.20	0.30	0.46	0.43
s, saturation flow rate [veh/h]	5168	1583	952	5074	5074	1583
c, Capacity [veh/h]	893	274	770	3522	2624	819
d1, Uniform Delay [s]	23.24	23.38	11.20	4.04	12.96	12.20
k, delay calibration	0.11	0.11	0.11	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.85	3.15	0.16	0.40	4.94	9.12
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.66	0.69	0.24	0.44	0.89	0.82
d, Delay for Lane Group [s/veh]	24.09	26.53	11.36	4.43	17.90	21.31
Lane Group LOS	C	C	B	A	B	C
Critical Lane Group	No	Yes	Yes	No	Yes	No
50th-Percentile Queue Length [veh]	2.41	2.50	0.19	1.42	7.97	7.59
50th-Percentile Queue Length [ft]	60.16	62.57	4.74	35.45	199.15	189.82
95th-Percentile Queue Length [veh]	4.33	4.51	0.34	2.55	12.59	12.11
95th-Percentile Queue Length [ft]	108.29	112.63	8.52	63.81	314.87	302.79

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	24.09	26.53	11.36	4.43	17.90	21.31
Movement LOS	C	C	B	A	B	C
d_A, Approach Delay [s/veh]	24.68		5.18		18.67	
Approach LOS	C		A		B	
d_I, Intersection Delay [s/veh]	15.30					
Intersection LOS	B					
Intersection V/C	0.754					

Sequence

Ring 1	1	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 4: South Project Driveway-Allen Avenue / East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	5.1
Analysis Method:	HCM 2010	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.733

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	0	0	0	2	0	3	8	1365	0	0	1343	20
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	40	0	120	150	0	0	0	0	100
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	42	0	123	159	1583	0	0	1558	123
Peak Hour Factor	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	11	0	32	42	417	0	0	410	32
Total Analysis Volume [veh/h]	0	0	0	44	0	130	168	1668	0	0	1642	130
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	1 - E Palm Canyon Drive
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	0	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	7	0	0	7	0	0	7	0	0	7	0
Maximum Green [s]	0	30	0	0	30	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	19	0	0	19	0	0	41	0	0	41	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No			No			No			No	
Maximum Recall		No			No			No			No	
Pedestrian Recall		No			No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	L	C	L	C	R	C	C	R
C, Cycle Length [s]	60	60	60	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	2.00	0.00	2.00	0.00	0.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	7	7	7	45	45	45	45	45	45
g / C, Green / Cycle	0.11	0.11	0.11	0.75	0.75	0.75	0.75	0.75	0.75
(v / s)_i Volume / Saturation Flow Rate	0.00	0.03	0.08	0.55	0.33	0.00	0.32	0.32	0.08
s, saturation flow rate [veh/h]	1491	1412	1583	304	5074	1583	1863	3227	1583
c, Capacity [veh/h]	229	245	180	299	3823	1193	1463	2432	1193
d1, Uniform Delay [s]	0.00	25.75	25.72	11.41	2.72	0.00	2.70	2.70	1.99
k, delay calibration	0.11	0.11	0.11	0.50	0.50	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.00	0.35	5.44	7.48	0.36	0.00	0.85	0.55	0.18
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

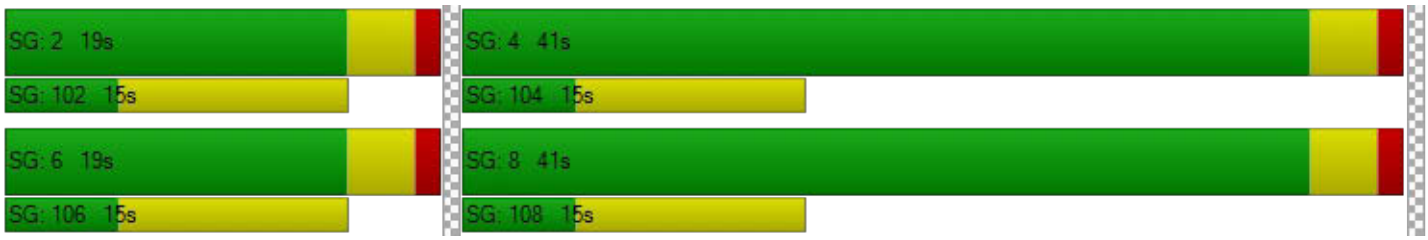
X, volume / capacity	0.00	0.18	0.72	0.56	0.44	0.00	0.41	0.43	0.11
d, Delay for Lane Group [s/veh]	0.00	26.10	31.16	18.89	3.08	0.00	3.55	3.25	2.17
Lane Group LOS	A	C	C	B	A	A	A	A	A
Critical Lane Group	No	No	Yes	Yes	No	No	No	No	No
50th-Percentile Queue Length [veh]	0.00	0.56	1.90	1.94	0.75	0.00	1.01	0.76	0.17
50th-Percentile Queue Length [ft]	0.00	14.09	47.41	48.49	18.75	0.00	25.31	19.08	4.18
95th-Percentile Queue Length [veh]	0.00	1.01	3.41	3.49	1.35	0.00	1.82	1.37	0.30
95th-Percentile Queue Length [ft]	0.00	25.36	85.33	87.28	33.75	0.00	45.56	34.34	7.53

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	26.10	31.16	31.16	18.89	3.08	0.00	3.55	3.36	2.17
Movement LOS	A	A	A	C	C	C	B	A	A	A	A	A
d_A, Approach Delay [s/veh]	0.00			29.88			4.53			3.27		
Approach LOS	A			C			A			A		
d_I, Intersection Delay [s/veh]	5.11											
Intersection LOS	A											
Intersection V/C	0.733											

Sequence

Ring 1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 5: Monty Hall Drive-Van Fleet Avenue / East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	11.5
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.564

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	1	0	1	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	45.00	100.00	100.00	105.00	100.00	130.00	125.00	100.00	180.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	11	1	44	10	9	12	13	1322	16	55	1290	10
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	30	0	0	68	85	120	0	24	96	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	13	1	81	12	10	82	100	1654	19	88	1592	12
Peak Hour Factor	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	0	21	3	3	21	26	431	5	23	415	3
Total Analysis Volume [veh/h]	14	1	84	13	10	86	104	1725	20	92	1660	13
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	1 - E Palm Canyon Drive
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	0	7	7	0	7	7	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	19	0	0	19	0	52	60	0	11	19	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	R	L	C	L	C	R	L	C	R
C, Cycle Length [s]	60	60	60	60	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	9	9	9	9	6	34	34	5	33	33
g / C, Green / Cycle	0.15	0.15	0.15	0.15	0.10	0.56	0.56	0.09	0.56	0.56
(v / s)_i Volume / Saturation Flow Rate	0.03	0.05	0.01	0.06	0.06	0.34	0.01	0.05	0.33	0.01
s, saturation flow rate [veh/h]	546	1583	1410	1608	1774	5074	1583	1774	5074	1583
c, Capacity [veh/h]	197	235	139	238	170	2843	887	162	2820	880
d1, Uniform Delay [s]	25.19	22.99	29.47	23.15	26.04	8.79	5.87	26.12	8.80	5.97
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.16	0.92	0.29	1.10	3.50	0.97	0.05	3.09	0.91	0.03
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.08	0.36	0.09	0.40	0.61	0.61	0.02	0.57	0.59	0.01
d, Delay for Lane Group [s/veh]	25.35	23.91	29.76	24.25	29.54	9.76	5.92	29.20	9.71	6.00
Lane Group LOS	C	C	C	C	C	A	A	C	A	A
Critical Lane Group	No	No	No	Yes	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh]	0.20	1.02	0.18	1.18	1.46	3.74	0.09	1.28	3.59	0.06
50th-Percentile Queue Length [ft]	4.89	25.56	4.57	29.51	36.54	93.51	2.31	32.11	89.74	1.52
95th-Percentile Queue Length [veh]	0.35	1.84	0.33	2.12	2.63	6.73	0.17	2.31	6.46	0.11
95th-Percentile Queue Length [ft]	8.80	46.01	8.23	53.11	65.77	168.33	4.17	57.80	161.53	2.74

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	25.35	25.35	23.91	29.76	24.25	24.25	29.54	9.76	5.92	29.20	9.71	6.00
Movement LOS	C	C	C	C	C	C	C	A	A	C	A	A
d_A, Approach Delay [s/veh]	24.13			24.90			10.83			10.70		
Approach LOS	C			C			B			B		
d_I, Intersection Delay [s/veh]	11.51											
Intersection LOS	B											
Intersection V/C	0.564											

Sequence

Ring 1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 6: Date Palm Drive / East Palm Drive

Control Type:	Two-way stop	Delay (sec / veh):	22.7
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.192

Intersection Setup

Name						
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00		40.00		40.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

Volumes

Name						
Base Volume Input [veh/h]	0	8	539	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	2.97	2.97	2.97	1.04	1.33
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	15	12	0	0	44
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	39	1613	0	0	44
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	11	438	0	0	12
Total Analysis Volume [veh/h]	0	42	1753	0	0	48
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.02	0.00	0.00	0.19
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	0.00	0.00	22.74
Movement LOS		A	A	A		C
95th-Percentile Queue Length [veh]	0.00	0.00	0.00	0.00	0.00	0.69
95th-Percentile Queue Length [ft]	0.00	0.00	0.00	0.00	0.00	17.30
d_A, Approach Delay [s/veh]	0.00		0.00		22.74	
Approach LOS	A		A		C	
d_I, Intersection Delay [s/veh]	0.59					
Intersection LOS	C					

Intersection Level Of Service Report
Intersection 7: North Project Driveway 2 / Buddy Rogers Avenue

Control Type:	Two-way stop	Delay (sec / veh):	11.5
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.037

Intersection Setup

Name						
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00		40.00		40.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name						
Base Volume Input [veh/h]	0	0	29	0	0	31
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.33	1.00	1.00	1.33	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	20	20	112	25	25	140
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	20	20	141	25	25	171
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	5	5	38	7	7	46
Total Analysis Volume [veh/h]	22	22	153	27	27	186
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.04	0.03	0.00	0.00	0.02	0.00
d_M, Delay for Movement [s/veh]	11.47	9.44	0.00	0.00	7.63	0.00
Movement LOS	B	A	A	A	A	A
95th-Percentile Queue Length [veh]	0.20	0.20	0.00	0.00	0.54	0.54
95th-Percentile Queue Length [ft]	4.99	4.99	0.00	0.00	13.46	13.46
d_A, Approach Delay [s/veh]	10.45		0.00		0.97	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	1.52					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 8: Monty Hall Drive / Buddy Rogers Avenue

Control Type:	All-way stop	Delay (sec / veh):	8.1
Analysis Method:	HCM 2010	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.187

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			No			No		

Volumes

Name												
Base Volume Input [veh/h]	20	5	4	17	6	0	1	13	6	7	25	12
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	85	0	0	0	0	0	0	68	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	27	7	90	23	8	0	1	17	8	77	33	16
Peak Hour Factor	0.8290	0.8290	0.8290	0.8290	0.8290	0.8290	0.8290	0.8290	0.8290	0.8290	0.8290	0.8290
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	8	2	27	7	2	0	0	5	2	23	10	5
Total Analysis Volume [veh/h]	33	8	109	28	10	0	1	21	10	93	40	19
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	896	771	830	812
Degree of Utilization, x	0.17	0.05	0.04	0.19

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.60	0.16	0.12	0.68
95th-Percentile Queue Length [ft]	14.98	3.88	3.00	17.12
Approach Delay [s/veh]	7.82	7.91	7.51	8.45
Approach LOS	A	A	A	A
Intersection Delay [s/veh]	8.06			
Intersection LOS	A			

Intersection Level Of Service Report

Intersection 9: Buddy Rogers Avenue/ East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	3.5
Analysis Method:	HCM 2010	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.452

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	10	1	39	19	2	28	16	1309	2	16	1255	17
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	205	0	0	164	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	12	1	45	22	2	32	19	1723	2	19	1620	20
Peak Hour Factor	0.9360	0.9360	0.9360	0.9360	0.9360	0.9360	0.9360	0.9360	0.9360	0.9360	0.9360	0.9360
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	0	12	6	1	9	5	460	1	5	433	5
Total Analysis Volume [veh/h]	13	1	48	24	2	34	20	1841	2	20	1731	21
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	1 - E Palm Canyon Drive
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	7	0	0	7	0	0	7	0	0	7	0
Maximum Green [s]	0	30	0	0	30	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	19	0	0	19	0	0	101	0	0	101	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No			No			No			No	
Maximum Recall		No			No			No			No	
Pedestrian Recall		No			No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	C	L	C	R	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	2.00	2.00	0.00	0.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	6	6	106	106	106	106	106	106
g / C, Green / Cycle	0.05	0.05	0.88	0.88	0.88	0.88	0.88	0.88
(v / s)_i Volume / Saturation Flow Rate	0.04	0.04	0.07	0.36	0.00	0.08	0.34	0.01
s, saturation flow rate [veh/h]	1636	1360	279	5074	1583	250	5074	1583
c, Capacity [veh/h]	121	113	281	4472	1395	257	4472	1395
d1, Uniform Delay [s]	55.96	56.21	2.75	1.32	0.85	2.95	1.28	0.86
k, delay calibration	0.11	0.11	0.50	0.50	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	3.30	3.86	0.49	0.28	0.00	0.59	0.25	0.02
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.51	0.53	0.07	0.41	0.00	0.08	0.39	0.02
d, Delay for Lane Group [s/veh]	59.26	60.07	3.24	1.61	0.85	3.54	1.53	0.88
Lane Group LOS	E	E	A	A	A	A	A	A
Critical Lane Group	No	Yes	No	Yes	No	No	No	No
50th-Percentile Queue Length [veh]	1.93	1.89	0.11	0.72	0.00	0.12	0.65	0.02
50th-Percentile Queue Length [ft]	48.26	47.30	2.87	17.90	0.05	3.09	16.26	0.52
95th-Percentile Queue Length [veh]	3.47	3.41	0.21	1.29	0.00	0.22	1.17	0.04
95th-Percentile Queue Length [ft]	86.86	85.15	5.16	32.22	0.09	5.57	29.26	0.94

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	59.26	59.26	59.26	60.07	60.07	60.07	3.24	1.61	0.85	3.54	1.53	0.88
Movement LOS	E	E	E	E	E	E	A	A	A	A	A	A
d_A, Approach Delay [s/veh]	59.26			60.07			1.62			1.55		
Approach LOS	E			E			A			A		
d_I, Intersection Delay [s/veh]	3.47											
Intersection LOS	A											
Intersection V/C	0.452											

Sequence

Ring 1	2	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 10: Cathedral Canyon Drive / East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	25.3
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.678

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	0	1	0	0	1	0	1
Pocket Length [ft]	100.00	100.00	70.00	90.00	100.00	100.00	238.00	100.00	100.00	190.00	100.00	270.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	71	113	50	127	131	92	110	1151	77	61	1111	120
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.33	1.33	1.33	1.33	1.33	1.33	1.31	1.31	1.31	1.16	1.16	1.16
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	30	100	0	0	0	75	0	24	60	80
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	94	150	97	269	174	122	144	1583	101	95	1349	219
Peak Hour Factor	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	24	39	25	70	45	32	37	409	26	25	349	57
Total Analysis Volume [veh/h]	97	155	100	278	180	126	149	1637	104	98	1395	226
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	1 - E Palm Canyon Drive
Cycle Length [s]	110
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Overlap	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	6	3	8	0	7	4	0
Auxiliary Signal Groups						3,6						
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	7	7	7	0	7	7	0
Maximum Green [s]	0	30	0	0	30	30	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	1.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	36	0	0	36	36	15	63	0	11	59	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	5	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	10	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No	No	No	No		No	No	
Maximum Recall		No			No	No	No	No		No	No	
Pedestrian Recall		No			No	No	No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	110	110	110	110	110	110	110	110	110	110	110	110
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	0.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	32	32	32	32	32	47	11	59	59	7	55	55
g / C, Green / Cycle	0.29	0.29	0.29	0.29	0.29	0.43	0.10	0.54	0.54	0.06	0.50	0.50
(v / s)_i Volume / Saturation Flow Rate	0.08	0.08	0.06	0.23	0.10	0.08	0.08	0.32	0.07	0.06	0.27	0.14
s, saturation flow rate [veh/h]	1199	1863	1583	1227	1863	1583	1774	5074	1583	1774	5074	1583
c, Capacity [veh/h]	301	542	461	321	542	676	177	2715	847	115	2537	792
d1, Uniform Delay [s]	38.59	30.15	29.51	44.46	30.60	19.60	48.63	17.54	12.72	50.90	18.96	16.03
k, delay calibration	0.11	0.11	0.11	0.29	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.61	0.29	0.23	16.54	0.36	0.13	10.13	1.00	0.30	15.72	0.86	0.91
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

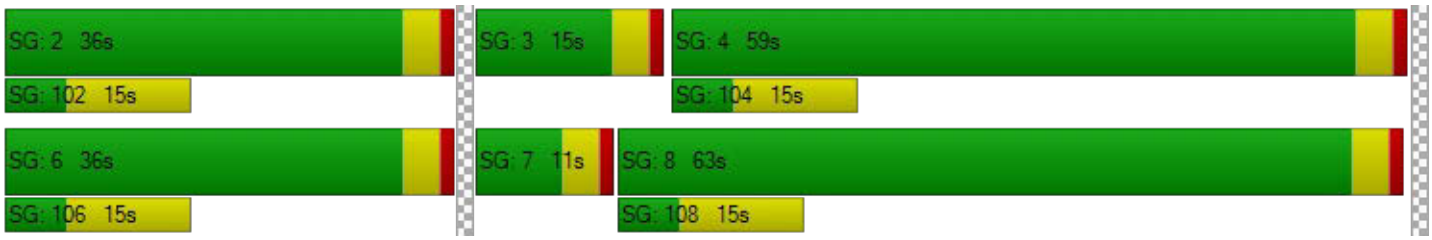
X, volume / capacity	0.32	0.29	0.22	0.87	0.33	0.19	0.84	0.60	0.12	0.85	0.55	0.29
d, Delay for Lane Group [s/veh]	39.20	30.44	29.74	61.00	30.96	19.73	58.76	18.54	13.02	66.62	19.82	16.94
Lane Group LOS	D	C	C	E	C	B	E	B	B	E	B	B
Critical Lane Group	No	No	No	Yes	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh]	2.29	3.14	1.99	8.97	3.71	1.96	4.43	8.99	1.28	3.12	7.85	3.34
50th-Percentile Queue Length [ft]	57.21	78.54	49.65	224.23	92.63	49.10	110.74	224.74	31.93	78.04	196.37	83.62
95th-Percentile Queue Length [veh]	4.12	5.65	3.57	13.88	6.67	3.54	7.88	13.91	2.30	5.62	12.45	6.02
95th-Percentile Queue Length [ft]	102.99	141.37	89.37	347.02	166.73	88.38	197.03	347.67	57.48	140.47	311.27	150.51

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	39.20	30.44	29.74	61.00	30.96	19.73	58.76	18.54	13.02	66.62	19.82	16.94
Movement LOS	D	C	C	E	C	B	E	B	B	E	B	B
d_A, Approach Delay [s/veh]	32.66			42.83			21.41			22.11		
Approach LOS	C			D			C			C		
d_I, Intersection Delay [s/veh]	25.30											
Intersection LOS	C											
Intersection V/C	0.678											

Sequence

Ring 1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 11: Perez Road / East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	21.4
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.665

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	150.00	100.00	100.00	170.00	100.00	45.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	9	9	4	17	10	257	212	1274	4	4	1270	21
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.33	1.33	1.33	1.33	1.33	1.33	1.64	1.64	1.64	1.31	1.31	1.31
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	75	0	0	60	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	12	12	5	23	13	342	348	2164	7	5	1724	28
Peak Hour Factor	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	3	1	6	3	88	89	555	2	1	443	7
Total Analysis Volume [veh/h]	12	12	5	24	13	351	357	2222	7	5	1770	29
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	0	7	7	0	7	7	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	19	0	0	19	0	11	71	0	11	71	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	R	L	C	C	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	4	4	16	16	16	14	82	82	1	69	69
g / C, Green / Cycle	0.04	0.04	0.13	0.13	0.13	0.12	0.69	0.69	0.01	0.58	0.58
(v / s)_i Volume / Saturation Flow Rate	0.01	0.01	0.01	0.11	0.11	0.10	0.41	0.41	0.00	0.35	0.02
s, saturation flow rate [veh/h]	1774	1771	1774	1600	1583	3445	3547	1860	1774	5074	1583
c, Capacity [veh/h]	66	66	239	216	213	411	2430	1274	18	2921	911
d1, Uniform Delay [s]	56.05	56.21	45.56	50.74	50.75	51.94	10.13	10.14	59.01	16.61	11.02
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.32	2.06	0.18	8.92	9.02	5.68	1.11	2.11	8.54	0.94	0.06
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

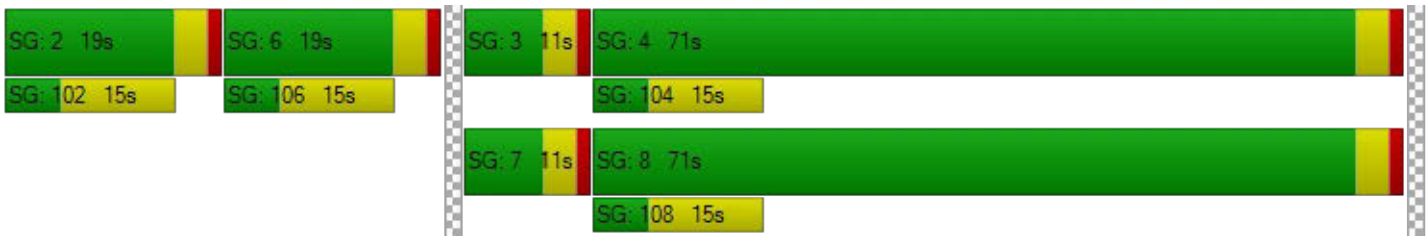
X, volume / capacity	0.18	0.26	0.10	0.85	0.85	0.87	0.60	0.60	0.28	0.61	0.03
d, Delay for Lane Group [s/veh]	57.36	58.27	45.74	59.66	59.77	57.62	11.24	12.25	67.55	17.55	11.08
Lane Group LOS	E	E	D	E	E	E	B	B	E	B	B
Critical Lane Group	No	Yes	No	No	Yes	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh]	0.37	0.53	0.63	5.80	5.75	5.50	9.25	10.07	0.19	10.06	0.34
50th-Percentile Queue Length [ft]	9.30	13.29	15.82	145.08	143.75	137.57	231.21	251.73	4.77	251.52	8.40
95th-Percentile Queue Length [veh]	0.67	0.96	1.14	9.75	9.68	9.35	14.24	15.27	0.34	15.26	0.61
95th-Percentile Queue Length [ft]	16.73	23.92	28.47	243.85	242.06	233.74	355.90	381.83	8.58	381.57	15.13

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	57.36	58.27	58.27	45.74	59.66	59.72	57.62	11.59	12.25	67.55	17.55	11.08
Movement LOS	E	E	E	D	E	E	E	B	B	E	B	B
d_A, Approach Delay [s/veh]	57.89			58.85			17.94			17.58		
Approach LOS	E			E			B			B		
d_I, Intersection Delay [s/veh]	21.35											
Intersection LOS	C											
Intersection V/C	0.665											

Sequence

Ring 1	2	6	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 12: Canyon Plaza Drive / East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	11.7
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.670

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	1	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	95.00	90.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	55	2	83	6	3	14	10	1457	39	56	1457	11
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.33	1.33	1.33	1.33	1.33	1.33	1.55	1.55	1.55	1.64	1.64	1.64
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	25	0	0	0	50	0	0	40	20
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	73	3	110	33	4	19	16	2308	60	92	2429	38
Peak Hour Factor	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	19	1	29	9	1	5	4	602	16	24	633	10
Total Analysis Volume [veh/h]	76	3	115	34	4	20	17	2407	63	96	2533	40
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	0	7	7	0	7	7	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	19	0	0	19	0	11	90	0	11	90	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	L	C	R	L	C	C
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	12	12	12	12	3	88	88	8	93	93
g / C, Green / Cycle	0.10	0.10	0.10	0.10	0.03	0.73	0.73	0.07	0.77	0.77
(v / s)_i Volume / Saturation Flow Rate	0.06	0.07	0.03	0.01	0.01	0.47	0.04	0.05	0.48	0.48
s, saturation flow rate [veh/h]	1381	1589	1269	1624	1774	5074	1583	1774	3547	1848
c, Capacity [veh/h]	161	161	79	164	46	3716	1159	118	2741	1428
d1, Uniform Delay [s]	54.55	52.32	59.48	49.17	57.46	8.18	4.48	55.25	5.90	5.93
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.15	6.32	3.70	0.40	4.93	0.89	0.09	12.59	1.05	2.03
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.47	0.73	0.43	0.15	0.37	0.65	0.05	0.81	0.62	0.62
d, Delay for Lane Group [s/veh]	56.70	58.64	63.18	49.57	62.39	9.06	4.57	67.84	6.95	7.96
Lane Group LOS	E	E	E	D	E	A	A	E	A	A
Critical Lane Group	No	Yes	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh]	2.31	3.68	1.10	0.67	0.56	8.84	0.40	3.23	7.19	7.95
50th-Percentile Queue Length [ft]	57.82	91.89	27.51	16.67	14.07	220.97	9.89	80.73	179.64	198.77
95th-Percentile Queue Length [veh]	4.16	6.62	1.98	1.20	1.01	13.71	0.71	5.81	11.58	12.58
95th-Percentile Queue Length [ft]	104.08	165.39	49.52	30.01	25.33	342.87	17.80	145.31	289.54	314.38

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	56.70	58.64	58.64	63.18	49.57	49.57	62.39	9.06	4.57	67.84	7.29	7.96
Movement LOS	E	E	E	E	D	D	E	A	A	E	A	A
d_A, Approach Delay [s/veh]	57.88			57.55			9.31			9.47		
Approach LOS	E			E			A			A		
d_I, Intersection Delay [s/veh]	11.65											
Intersection LOS	B											
Intersection V/C	0.670											

Sequence

Ring 1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 13: Golf Club Drive / East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	14.6
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.809

Intersection Setup

Name						
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	0
Pocket Length [ft]	100.00	100.00	90.00	95.00	100.00	100.00
Speed [mph]	40.00		40.00		40.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		Yes		No	

Volumes

Name						
Base Volume Input [veh/h]	179	70	73	1477	1407	141
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.55	1.55	1.55	1.55	1.55	1.55
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	25	0	0	25	20	20
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	302	109	113	2314	2201	239
Peak Hour Factor	0.9660	0.9660	0.9660	0.9660	0.9660	0.9660
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	78	28	29	599	570	62
Total Analysis Volume [veh/h]	313	113	117	2395	2278	247
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Split	Split	ProtectedPermissi	Permissive	Permissive	Permissive
Signal group	1	0	3	8	4	0
Auxiliary Signal Groups						
Lead / Lag	Lead	-	Lead	-	-	-
Minimum Green [s]	7	0	7	7	7	0
Maximum Green [s]	30	0	7	30	30	0
Amber [s]	3.0	0.0	3.0	3.0	3.0	0.0
All red [s]	1.0	0.0	1.0	1.0	1.0	0.0
Split [s]	20	0	11	100	89	0
Vehicle Extension [s]	3.0	0.0	3.0	3.0	3.0	0.0
Walk [s]	5	0	0	5	5	0
Pedestrian Clearance [s]	10	0	0	10	10	0
Rest In Walk	No			No	No	
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	2.0	0.0
Minimum Recall	No		Yes	No	No	
Maximum Recall	No		No	No	No	
Pedestrian Recall	No		No	No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	C	C
C, Cycle Length [s]	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	0.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	10	10	42	42	32	32
g / C, Green / Cycle	0.16	0.16	0.70	0.70	0.54	0.54
(v / s)_i Volume / Saturation Flow Rate	0.12	0.12	0.27	0.47	0.47	0.48
s, saturation flow rate [veh/h]	1774	1664	435	5074	3547	1771
c, Capacity [veh/h]	293	275	431	3562	1906	952
d1, Uniform Delay [s]	23.93	23.93	11.87	5.06	12.25	12.26
k, delay calibration	0.11	0.11	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	3.86	4.12	1.55	1.03	6.36	11.78
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.75	0.75	0.27	0.67	0.88	0.88
d, Delay for Lane Group [s/veh]	27.79	28.06	13.42	6.09	18.61	24.04
Lane Group LOS	C	C	B	A	B	C
Critical Lane Group	No	Yes	Yes	No	No	No
50th-Percentile Queue Length [veh]	2.98	2.81	0.39	2.79	8.70	10.14
50th-Percentile Queue Length [ft]	74.41	70.36	9.70	69.63	217.60	253.56
95th-Percentile Queue Length [veh]	5.36	5.07	0.70	5.01	13.54	15.37
95th-Percentile Queue Length [ft]	133.93	126.65	17.45	125.33	338.56	384.14

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	27.87	28.06	13.42	6.09	20.03	24.04
Movement LOS	C	C	B	A	C	C
d_A, Approach Delay [s/veh]	27.92		6.43		20.42	
Approach LOS	C		A		C	
d_I, Intersection Delay [s/veh]	14.57					
Intersection LOS	B					
Intersection V/C	0.809					

Sequence

Ring 1	1	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 14: Cathedral Canyon Drive / Officer David Vasquez Road

Control Type:	Signalized	Delay (sec / veh):	4.3
Analysis Method:	HCM 2010	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.277

Intersection Setup

Name						
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	1	0	1	1
Pocket Length [ft]	100.00	100.00	205.00	100.00	120.00	120.00
Speed [mph]	40.00		40.00		40.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		Yes		Yes	

Volumes

Name						
Base Volume Input [veh/h]	344	7	17	370	7	32
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.33	1.33	1.33	1.33	1.33	1.33
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	80	0	0	100	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	538	9	23	592	9	43
Peak Hour Factor	0.8670	0.8670	0.8670	0.8670	0.8670	0.8670
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	155	3	7	171	3	12
Total Analysis Volume [veh/h]	621	10	27	683	10	50
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	2 - N. Cathedral Canyon Drive
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permissive	Permissive	Protected	Permissive	Split	Overlap
Signal group	2	0	1	6	7	7
Auxiliary Signal Groups						1,7
Lead / Lag	-	-	Lead	-	Lead	-
Minimum Green [s]	7	0	7	7	7	7
Maximum Green [s]	30	0	30	30	30	30
Amber [s]	3.0	0.0	3.0	3.0	3.0	3.0
All red [s]	1.0	0.0	1.0	1.0	1.0	1.0
Split [s]	30	0	11	41	19	19
Vehicle Extension [s]	3.0	0.0	3.0	3.0	3.0	3.0
Walk [s]	5	0	0	5	5	5
Pedestrian Clearance [s]	10	0	0	10	10	10
Rest In Walk	No			No	No	
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0
Minimum Recall	No		No	No	No	No
Maximum Recall	No		No	No	No	No
Pedestrian Recall	No		No	No	No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	C	L	C	L	R
C, Cycle Length [s]	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	0.00
g_i, Effective Green Time [s]	41	41	3	48	5	11
g / C, Green / Cycle	0.68	0.68	0.04	0.79	0.07	0.18
(v / s)_i Volume / Saturation Flow Rate	0.17	0.17	0.02	0.19	0.00	0.03
s, saturation flow rate [veh/h]	1863	1852	1774	3547	3445	1583
c, Capacity [veh/h]	1267	1260	79	2806	262	296
d1, Uniform Delay [s]	3.71	3.71	27.88	1.63	25.76	20.53
k, delay calibration	0.50	0.50	0.11	0.50	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.47	0.48	2.53	0.21	0.06	0.27
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

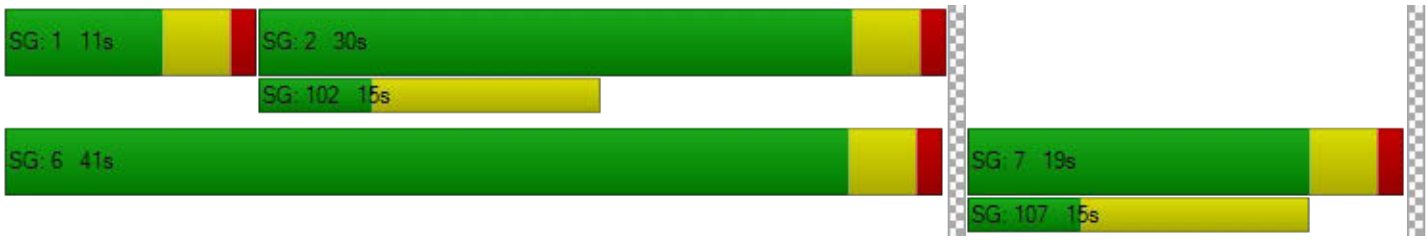
X, volume / capacity	0.25	0.25	0.34	0.24	0.04	0.17
d, Delay for Lane Group [s/veh]	4.18	4.19	30.41	1.83	25.82	20.80
Lane Group LOS	A	A	C	A	C	C
Critical Lane Group	No	No	No	Yes	No	Yes
50th-Percentile Queue Length [veh]	0.91	0.92	0.40	0.14	0.06	0.55
50th-Percentile Queue Length [ft]	22.86	22.91	10.04	3.44	1.57	13.80
95th-Percentile Queue Length [veh]	1.65	1.65	0.72	0.25	0.11	0.99
95th-Percentile Queue Length [ft]	41.15	41.25	18.08	6.19	2.83	24.84

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	4.18	4.19	30.41	1.83	25.82	20.80
Movement LOS	A	A	C	A	C	C
d_A, Approach Delay [s/veh]	4.18		2.92		21.63	
Approach LOS	A		A		C	
d_I, Intersection Delay [s/veh]	4.29					
Intersection LOS	A					
Intersection V/C	0.277					

Sequence

Ring 1	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 15: Cathedral Canyon Drive / Perez Road

Control Type:	Signalized	Delay (sec / veh):	26.2
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.571

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	1	1	0	0
Pocket Length [ft]	95.00	100.00	100.00	205.00	100.00	100.00	100.00	100.00	100.00	150.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	26	297	52	109	282	127	114	192	51	48	207	88
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	80	0	0	100	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	35	475	69	145	475	169	152	255	68	64	275	117
Peak Hour Factor	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	9	122	18	37	122	43	39	65	17	16	71	30
Total Analysis Volume [veh/h]	36	488	71	149	488	174	156	262	70	66	282	120
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	2 - N. Cathedral Canyon Drive
Cycle Length [s]	70
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	27	0	13	29	0	11	19	0	11	19	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	L	C	R	L	C	C
C, Cycle Length [s]	70	70	70	70	70	70	70	70	70	70	70	70
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	4	13	13	7	17	17	8	28	28	5	25	25
g / C, Green / Cycle	0.05	0.19	0.19	0.11	0.25	0.25	0.11	0.40	0.40	0.07	0.36	0.36
(v / s)_i Volume / Saturation Flow Rate	0.02	0.15	0.15	0.08	0.19	0.19	0.09	0.07	0.04	0.04	0.11	0.12
s, saturation flow rate [veh/h]	1774	1863	1781	1774	1863	1698	1774	3547	1583	1774	1863	1679
c, Capacity [veh/h]	93	359	344	190	462	421	201	1412	630	131	668	602
d1, Uniform Delay [s]	32.19	27.01	27.04	30.56	24.41	24.42	30.29	13.74	13.31	31.30	16.26	16.32
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.61	3.96	4.26	6.88	2.47	2.73	6.36	0.29	0.36	2.98	1.22	1.40
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

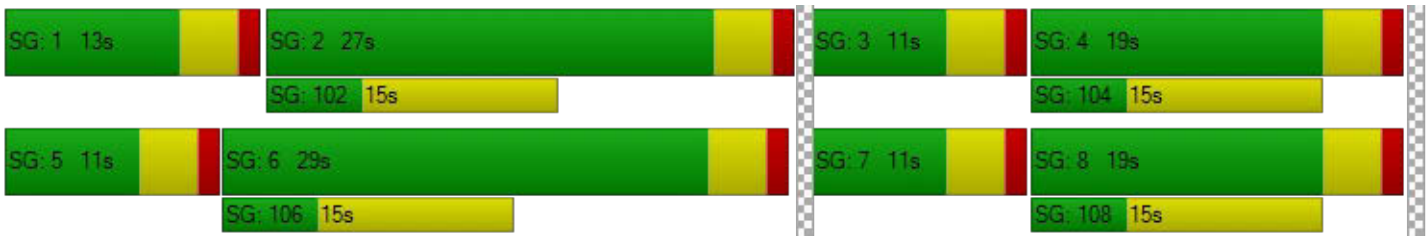
X, volume / capacity	0.39	0.79	0.80	0.78	0.75	0.75	0.78	0.19	0.11	0.50	0.31	0.32
d, Delay for Lane Group [s/veh]	34.80	30.97	31.30	37.45	26.88	27.15	36.65	14.03	13.67	34.28	17.48	17.72
Lane Group LOS	C	C	C	D	C	C	D	B	B	C	B	B
Critical Lane Group	No	No	Yes	Yes	No	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh]	0.62	4.56	4.42	2.65	5.13	4.72	2.74	1.24	0.67	1.12	2.37	2.23
50th-Percentile Queue Length [ft]	15.59	114.10	110.61	66.33	128.25	117.98	68.52	30.93	16.84	27.93	59.21	55.63
95th-Percentile Queue Length [veh]	1.12	8.07	7.87	4.78	8.84	8.28	4.93	2.23	1.21	2.01	4.26	4.01
95th-Percentile Queue Length [ft]	28.07	201.68	196.84	119.39	221.11	207.05	123.33	55.68	30.31	50.28	106.57	100.14

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	34.80	31.11	31.30	37.45	26.96	27.15	36.65	14.03	13.67	34.28	17.54	17.72
Movement LOS	C	C	C	D	C	C	D	B	B	C	B	B
d_A, Approach Delay [s/veh]	31.35			28.93			21.21			19.95		
Approach LOS	C			C			C			B		
d_I, Intersection Delay [s/veh]	26.16											
Intersection LOS	C											
Intersection V/C	0.571											

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 16: Cathedral Canyon Drive / Paseo Real

Control Type:	Two-way stop	Delay (sec / veh):	54.0
Analysis Method:	HCM 2010	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.083

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	0	0	0	0	0	0
Pocket Length [ft]	55.00	100.00	100.00	55.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name												
Base Volume Input [veh/h]	11	482	9	16	509	19	11	5	16	9	6	14
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	68	12	0	85	0	0	0	0	15	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	15	709	24	21	762	25	15	7	21	27	8	19
Peak Hour Factor	0.9680	0.9680	0.9680	0.9680	0.9680	0.9680	0.9680	0.9680	0.9680	0.9680	0.9680	0.9680
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	183	6	5	197	6	4	2	5	7	2	5
Total Analysis Volume [veh/h]	15	732	25	22	787	26	15	7	22	28	8	20
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.02	0.01	0.00	0.03	0.01	0.00	0.13	0.07	0.04	0.23	0.08	0.03
d_M, Delay for Movement [s/veh]	9.53	0.00	0.00	9.35	0.00	0.00	42.62	48.61	17.21	46.36	53.97	22.30
Movement LOS	A	A	A	A	A	A	E	E	C	E	F	C
95th-Percentile Queue Length [veh]	0.06	0.00	0.00	0.08	0.00	0.00	0.91	0.91	0.91	1.44	1.44	1.44
95th-Percentile Queue Length [ft]	1.42	0.00	0.00	1.99	0.00	0.00	22.63	22.63	22.63	36.06	36.06	36.06
d_A, Approach Delay [s/veh]	0.19			0.25			30.87			38.86		
Approach LOS	A			A			D			E		
d_I, Intersection Delay [s/veh]	2.27											
Intersection LOS	F											

Intersection Level Of Service Report

Intersection 17: Cathedral Canyon Drive / Dinah Shore Drive

Control Type:	Signalized	Delay (sec / veh):	32.4
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.780

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	130.00	100.00	100.00	75.00	100.00	100.00	100.00	100.00	100.00	150.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	156	237	102	119	230	28	31	587	198	102	575	71
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	20	32	16	0	40	0	0	0	25	20	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	227	347	152	158	346	37	41	781	288	156	765	94
Peak Hour Factor	0.9700	0.9700	0.9700	0.9700	0.9700	0.9700	0.9700	0.9700	0.9700	0.9700	0.9700	0.9700
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	59	89	39	41	89	10	11	201	74	40	197	24
Total Analysis Volume [veh/h]	234	358	157	163	357	38	42	805	297	161	789	97
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	2 - N. Cathedral Canyon Drive
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	41	46	0	14	19	0	11	19	0	11	19	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	L	C	C	L	C	C
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	14	16	16	10	12	12	5	37	37	10	43	43
g / C, Green / Cycle	0.16	0.18	0.18	0.11	0.14	0.14	0.05	0.42	0.42	0.11	0.48	0.48
(v / s)_i Volume / Saturation Flow Rate	0.13	0.15	0.15	0.09	0.11	0.11	0.02	0.31	0.31	0.09	0.24	0.24
s, saturation flow rate [veh/h]	1774	1863	1673	1774	1863	1801	1774	1863	1694	1774	1863	1792
c, Capacity [veh/h]	278	341	306	198	256	248	92	773	703	201	887	854
d1, Uniform Delay [s]	36.92	35.21	35.24	39.21	37.58	37.60	41.53	22.36	22.39	38.98	16.32	16.32
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	6.74	4.19	4.76	8.39	5.16	5.46	3.52	6.48	7.16	7.18	2.08	2.16
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.84	0.79	0.80	0.82	0.78	0.79	0.46	0.75	0.75	0.80	0.51	0.51
d, Delay for Lane Group [s/veh]	43.66	39.40	40.00	47.59	42.73	43.07	45.05	28.84	29.55	46.17	18.40	18.48
Lane Group LOS	D	D	D	D	D	D	D	C	C	D	B	B
Critical Lane Group	Yes	No	No	No	No	Yes	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh]	5.31	5.82	5.31	3.85	4.46	4.36	0.97	10.80	9.99	3.74	6.31	6.09
50th-Percentile Queue Length [ft]	132.82	145.46	132.63	96.37	111.59	109.08	24.19	269.96	249.68	93.53	157.76	152.31
95th-Percentile Queue Length [veh]	9.09	9.77	9.08	6.94	7.93	7.79	1.74	16.19	15.17	6.73	10.43	10.14
95th-Percentile Queue Length [ft]	227.32	244.36	227.07	173.47	198.21	194.72	43.54	404.69	379.25	168.36	260.75	253.51

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	43.66	39.55	40.00	47.59	42.88	43.07	45.05	29.04	29.55	46.17	18.44	18.48
Movement LOS	D	D	D	D	D	D	D	C	C	D	B	B
d_A, Approach Delay [s/veh]	40.93			44.27			29.76			22.70		
Approach LOS	D			D			C			C		
d_I, Intersection Delay [s/veh]	32.36											
Intersection LOS	C											
Intersection V/C	0.780											

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 18: Date Palm Drive / Gerald Ford Drive

Control Type:	Signalized	Delay (sec / veh):	33.5
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.917

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	85.00	100.00	85.00	160.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			Yes			Yes			No		

Volumes

Name												
Base Volume Input [veh/h]	22	418	198	120	415	61	36	46	46	196	44	127
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	2.97	2.97	2.97	1.83	1.83	1.83	1.83	1.83	1.83	1.97	1.97	1.97
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	80	40	0	100	0	0	0	0	50	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	65	1321	628	220	859	112	66	84	84	436	87	250
Peak Hour Factor	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	17	345	164	57	224	29	17	22	22	114	23	65
Total Analysis Volume [veh/h]	68	1379	656	230	897	117	69	88	88	455	91	261
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	6 - N/S
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Split	Split	Split	Split	Split	Split
Signal group	5	2	0	1	6	0	3	8	0	7	4	4
Auxiliary Signal Groups												1,4
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	7	7	0	7	7	0	0	7	0	0	7	7
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	30
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	3.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	1.0
Split [s]	13	47	0	35	69	0	0	38	0	0	38	38
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	3.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	5
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	10
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	2.0
Minimum Recall	No	No		No	No			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	C	L	C	C	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.00	0.00	2.00	2.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	6	56	56	18	68	68	34	34	34	34	34	34
g / C, Green / Cycle	0.05	0.47	0.47	0.15	0.56	0.56	0.28	0.28	0.28	0.28	0.28	0.28
(v / s)_i Volume / Saturation Flow Rate	0.04	0.27	0.41	0.13	0.19	0.19	0.05	0.05	0.06	0.23	0.25	0.16
s, saturation flow rate [veh/h]	1774	5074	1583	1774	3547	1755	1300	1863	1583	1204	1096	1583
c, Capacity [veh/h]	94	2383	744	261	1999	989	82	528	449	330	361	449
d1, Uniform Delay [s]	55.92	23.16	28.80	50.14	14.12	14.13	59.66	32.32	32.61	46.57	44.67	36.87
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.30	0.37	0.15
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	9.98	1.03	14.28	9.49	0.46	0.93	20.26	0.15	0.21	13.14	10.78	1.62
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.72	0.58	0.88	0.88	0.34	0.34	0.85	0.17	0.20	0.82	0.76	0.58
d, Delay for Lane Group [s/veh]	65.90	24.19	43.08	59.63	14.58	15.06	79.92	32.47	32.82	59.71	55.45	38.50
Lane Group LOS	E	C	D	E	B	B	E	C	C	E	E	D
Critical Lane Group	No	No	Yes	Yes	No	No	No	No	No	No	Yes	No
50th-Percentile Queue Length [veh]	2.26	9.28	19.01	7.32	4.82	4.91	2.53	1.92	1.94	9.08	8.79	6.62
50th-Percentile Queue Length [ft]	56.43	231.93	475.20	182.91	120.49	122.66	63.20	47.98	48.51	227.05	219.75	165.56
95th-Percentile Queue Length [veh]	4.06	14.27	26.16	11.75	8.42	8.54	4.55	3.45	3.49	14.02	13.65	10.84
95th-Percentile Queue Length [ft]	101.57	356.81	653.95	293.81	210.51	213.48	113.77	86.36	87.33	350.61	341.31	271.07

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	65.90	24.19	43.08	59.63	14.70	15.06	79.92	32.47	32.82	57.99	55.45	38.50
Movement LOS	E	C	D	E	B	B	E	C	C	E	E	D
d_A, Approach Delay [s/veh]	31.43			23.04			45.96			51.40		
Approach LOS	C			C			D			D		
d_I, Intersection Delay [s/veh]	33.53											
Intersection LOS	C											
Intersection V/C	0.917											

Sequence

Ring 1	1	2	-	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 19: Date Palm Drive / Dinah Shore Drive

Control Type:	Signalized	Delay (sec / veh):	31.1
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.738

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	2	0	1	2	0	1	1	0	0	1	0	1
Pocket Length [ft]	225.00	100.00	125.00	170.00	100.00	50.00	150.00	100.00	100.00	130.00	100.00	180.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			No		

Volumes

Name												
Base Volume Input [veh/h]	185	483	58	114	538	75	103	483	173	59	427	115
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.83	1.83	1.83	1.44	1.44	1.44	1.67	1.67	1.67	1.67	1.67	1.67
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	40	40	0	50	0	0	0	0	50	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	339	924	146	164	825	108	172	807	289	149	713	192
Peak Hour Factor	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	90	245	39	43	218	29	46	214	77	39	189	51
Total Analysis Volume [veh/h]	359	979	155	174	874	114	182	855	306	158	755	203
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	1 - E Palm Canyon Drive
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Overlap
Signal group	5	2	0	1	6	0	3	8	0	7	4	4
Auxiliary Signal Groups												1,4
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	7
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	30
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	1.0
Split [s]	18	26	0	11	55	0	24	39	0	14	29	29
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	5
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	10
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0
Minimum Recall	No	No		No	No		No	No		No	No	No
Maximum Recall	No	No		No	No		No	No		No	No	No
Pedestrian Recall	No	No		No	No		No	No		No	No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	0.00
g_i, Effective Green Time [s]	11	32	32	7	27	27	11	25	25	10	24	35
g / C, Green / Cycle	0.13	0.35	0.35	0.08	0.30	0.30	0.13	0.28	0.28	0.11	0.26	0.39
(v / s)_i Volume / Saturation Flow Rate	0.10	0.19	0.10	0.05	0.17	0.07	0.10	0.24	0.19	0.09	0.21	0.13
s, saturation flow rate [veh/h]	3445	5074	1583	3445	5074	1583	1774	3547	1583	1774	3547	1583
c, Capacity [veh/h]	441	1794	560	269	1541	481	224	1002	448	192	939	613
d1, Uniform Delay [s]	38.24	23.33	20.87	40.31	26.38	23.53	38.33	30.54	28.73	39.34	30.95	19.40
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	3.71	1.20	1.23	2.59	1.52	1.16	7.00	2.18	1.85	8.57	1.67	0.31
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

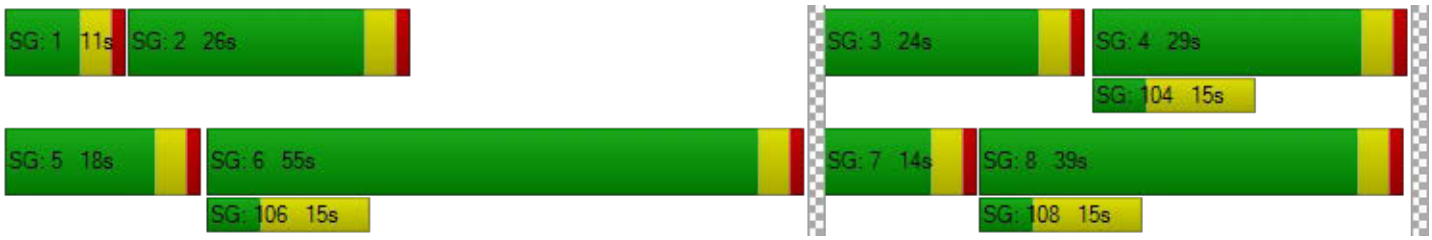
X, volume / capacity	0.81	0.55	0.28	0.65	0.57	0.24	0.81	0.85	0.68	0.82	0.80	0.33
d, Delay for Lane Group [s/veh]	41.95	24.53	22.10	42.90	27.90	24.69	45.33	32.72	30.59	47.91	32.62	19.71
Lane Group LOS	D	C	C	D	C	C	D	C	C	D	C	B
Critical Lane Group	Yes	No	No	No	Yes	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh]	3.93	5.38	2.39	1.90	5.16	1.88	4.19	8.53	5.77	3.75	7.44	2.85
50th-Percentile Queue Length [ft]	98.26	134.54	59.82	47.61	129.12	47.05	104.82	213.34	144.31	93.71	186.03	71.19
95th-Percentile Queue Length [veh]	7.07	9.19	4.31	3.43	8.89	3.39	7.55	13.32	9.71	6.75	11.91	5.13
95th-Percentile Queue Length [ft]	176.87	229.65	107.68	85.69	222.29	84.68	188.67	333.11	242.82	168.68	297.87	128.14

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	41.95	24.53	22.10	42.90	27.90	24.69	45.33	32.72	30.59	47.91	32.62	19.71
Movement LOS	D	C	C	D	C	C	D	C	C	D	C	B
d_A, Approach Delay [s/veh]	28.47			29.83			33.94			32.44		
Approach LOS	C			C			C			C		
d_I, Intersection Delay [s/veh]	31.08											
Intersection LOS	C											
Intersection V/C	0.738											

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 20: Date Palm Drive / Ramon Road

Control Type:	Signalized	Delay (sec / veh):	44.1
Analysis Method:	HCM 2010	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.835

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	215.00	100.00	80.00	180.00	100.00	100.00	350.00	100.00	100.00	230.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			No		

Volumes

Name												
Base Volume Input [veh/h]	215	474	82	221	460	139	193	684	133	104	610	117
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.44	1.44	1.44	1.44	1.44	1.44	1.44	1.44	1.44	1.44	1.44	1.44
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	8	20	12	0	25	0	0	0	10	15	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	318	703	130	318	687	200	278	985	202	165	878	168
Peak Hour Factor	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	84	186	34	84	182	53	74	261	53	44	233	44
Total Analysis Volume [veh/h]	337	745	138	337	728	212	294	1043	214	175	930	178
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	7 - E/W
Cycle Length [s]	110
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	21	29	0	27	35	0	25	38	0	16	29	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	C	L	C	C
C, Cycle Length [s]	110	110	110	110	110	110	110	110	110	110	110	110
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	13	26	26	23	36	36	20	33	33	12	25	25
g / C, Green / Cycle	0.12	0.24	0.24	0.21	0.33	0.33	0.18	0.30	0.30	0.11	0.23	0.23
(v / s)_i Volume / Saturation Flow Rate	0.10	0.15	0.09	0.19	0.14	0.13	0.17	0.24	0.24	0.10	0.21	0.21
s, saturation flow rate [veh/h]	3445	5074	1583	1774	5074	1583	1774	3547	1705	1774	3547	1714
c, Capacity [veh/h]	408	1212	378	365	1655	516	323	1066	513	194	809	391
d1, Uniform Delay [s]	47.43	37.38	34.94	42.89	29.19	28.86	44.13	35.40	35.40	48.42	41.55	41.57
k, delay calibration	0.11	0.50	0.50	0.23	0.50	0.50	0.16	0.11	0.29	0.11	0.11	0.28
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	4.31	2.34	2.71	17.95	0.85	2.41	13.69	1.40	7.43	13.76	5.05	20.13
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

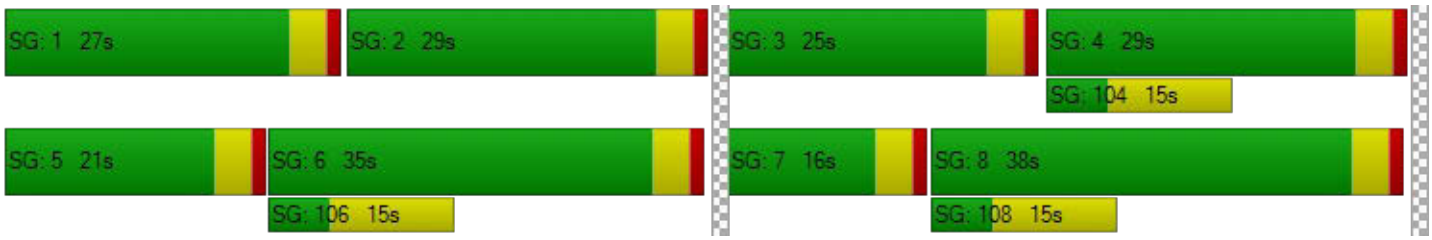
X, volume / capacity	0.83	0.61	0.36	0.92	0.44	0.41	0.91	0.80	0.80	0.90	0.92	0.92
d, Delay for Lane Group [s/veh]	51.75	39.72	37.65	60.83	30.04	31.27	57.82	36.80	42.83	62.18	46.60	61.69
Lane Group LOS	D	D	D	E	C	C	E	D	D	E	D	E
Critical Lane Group	No	Yes	No	Yes	No	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh]	4.66	6.06	3.30	10.54	5.02	4.57	8.87	10.26	10.73	5.38	10.14	11.45
50th-Percentile Queue Length [ft]	116.41	151.62	82.46	263.40	125.54	114.28	221.65	256.61	268.27	134.54	253.50	286.26
95th-Percentile Queue Length [veh]	8.20	10.10	5.94	15.86	8.70	8.08	13.75	15.52	16.10	9.19	15.36	17.00
95th-Percentile Queue Length [ft]	204.89	252.60	148.43	396.49	217.42	201.93	343.73	387.96	402.58	229.65	384.06	425.00

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	51.75	39.72	37.65	60.83	30.04	31.27	57.82	37.93	42.83	62.18	49.57	61.69
Movement LOS	D	D	D	E	C	C	E	D	D	E	D	E
d_A, Approach Delay [s/veh]	42.81			38.37			42.38			52.97		
Approach LOS	D			D			D			D		
d_I, Intersection Delay [s/veh]	44.07											
Intersection LOS	D											
Intersection V/C	0.835											

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 21: Da Vall Drive / Dinah Shore Drive

Control Type:	Signalized	Delay (sec / veh):	24.5
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.712

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	0	1	0	1	1	0	0
Pocket Length [ft]	120.00	100.00	120.00	130.00	100.00	100.00	175.00	100.00	215.00	185.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	127	128	47	52	160	41	43	448	134	50	469	59
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.67
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	25	20	20	0	0	25	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	212	214	78	87	267	93	92	768	224	84	808	99
Peak Hour Factor	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	56	56	21	23	70	24	24	202	59	22	213	26
Total Analysis Volume [veh/h]	223	226	82	92	281	98	97	809	236	89	851	104
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	6 - N/S
Cycle Length [s]	70
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	21	22	0	18	19	0	11	19	0	11	19	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	C	L	C	R	L	C	C
C, Cycle Length [s]	70	70	70	70	70	70	70	70	70	70	70	70
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	11	15	15	6	10	10	6	28	28	6	27	27
g / C, Green / Cycle	0.15	0.21	0.21	0.08	0.14	0.14	0.09	0.39	0.39	0.08	0.39	0.39
(v / s)_i Volume / Saturation Flow Rate	0.13	0.06	0.05	0.05	0.11	0.11	0.05	0.23	0.15	0.05	0.26	0.26
s, saturation flow rate [veh/h]	1774	3547	1583	1774	1863	1702	1774	3547	1583	1774	1863	1793
c, Capacity [veh/h]	274	756	338	151	268	244	152	1386	619	148	723	696
d1, Uniform Delay [s]	28.72	23.23	22.94	31.02	28.79	28.87	31.06	16.89	15.32	31.08	17.79	17.79
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	5.79	0.22	0.37	3.94	3.85	4.57	4.37	1.80	1.78	3.89	4.95	5.14
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.81	0.30	0.24	0.61	0.73	0.75	0.64	0.58	0.38	0.60	0.67	0.67
d, Delay for Lane Group [s/veh]	34.51	23.45	23.31	34.96	32.63	33.43	35.43	18.70	17.11	34.97	22.74	22.94
Lane Group LOS	C	C	C	C	C	C	D	B	B	C	C	C
Critical Lane Group	Yes	No	No	No	No	Yes	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh]	3.80	1.47	1.07	1.57	3.21	3.05	1.67	4.80	2.66	1.52	6.62	6.41
50th-Percentile Queue Length [ft]	94.89	36.81	26.83	39.31	80.24	76.29	41.76	119.96	66.55	38.03	165.55	160.27
95th-Percentile Queue Length [veh]	6.83	2.65	1.93	2.83	5.78	5.49	3.01	8.39	4.79	2.74	10.84	10.56
95th-Percentile Queue Length [ft]	170.80	66.26	48.29	70.76	144.42	137.33	75.18	209.78	119.80	68.45	271.06	264.08

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	34.51	23.45	23.31	34.96	32.88	33.43	35.43	18.70	17.11	34.97	22.83	22.94
Movement LOS	C	C	C	C	C	C	D	B	B	C	C	C
d_A, Approach Delay [s/veh]	28.07			33.40			19.79			23.87		
Approach LOS	C			C			B			C		
d_I, Intersection Delay [s/veh]	24.52											
Intersection LOS	C											
Intersection V/C	0.712											

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 22: Da Vall Drive / Gerald Ford Drive

Control Type:	Signalized	Delay (sec / veh):	30.6
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.693

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	200.00	100.00	175.00	140.00	100.00	100.00	175.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	94	178	44	73	199	50	30	285	97	34	245	90
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.97	1.97	1.97	1.97	1.97	1.97	1.97	1.97	1.97	1.97	1.97	1.97
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	15	0	0	0	0	10	8	20	12	0	25	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	200	351	87	144	392	109	67	581	203	67	508	177
Peak Hour Factor	0.9210	0.9210	0.9210	0.9210	0.9210	0.9210	0.9210	0.9210	0.9210	0.9210	0.9210	0.9210
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	54	95	24	39	106	30	18	158	55	18	138	48
Total Analysis Volume [veh/h]	217	381	94	156	426	118	73	631	220	73	552	192
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	6 - N/S
Cycle Length [s]	80
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	16	19	0	16	19	0	12	34	0	11	33	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	C	L	C	C	L	C	C
C, Cycle Length [s]	80	80	80	80	80	80	80	80	80	80	80	80
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	12	28	28	9	25	25	6	22	22	6	22	22
g / C, Green / Cycle	0.14	0.34	0.34	0.11	0.31	0.31	0.07	0.28	0.28	0.07	0.28	0.28
(v / s)_i Volume / Saturation Flow Rate	0.12	0.11	0.06	0.09	0.15	0.15	0.04	0.24	0.24	0.04	0.21	0.21
s, saturation flow rate [veh/h]	1774	3547	1583	1774	1863	1726	1774	1863	1700	1774	1863	1701
c, Capacity [veh/h]	257	1214	542	196	573	531	127	514	469	127	514	470
d1, Uniform Delay [s]	33.40	19.43	18.44	34.81	22.65	22.67	36.05	27.61	27.61	36.05	26.55	26.57
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.17	0.17	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	7.36	0.68	0.70	7.25	3.00	3.27	4.03	6.82	7.43	4.03	2.37	2.63
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.84	0.31	0.17	0.80	0.49	0.49	0.57	0.86	0.87	0.57	0.76	0.76
d, Delay for Lane Group [s/veh]	40.77	20.11	19.13	42.06	25.65	25.94	40.08	34.44	35.04	40.08	28.92	29.20
Lane Group LOS	D	C	B	D	C	C	D	C	D	D	C	C
Critical Lane Group	Yes	No	No	No	No	Yes	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh]	4.41	2.52	1.23	3.21	4.47	4.21	1.46	8.44	7.79	1.46	6.61	6.09
50th-Percentile Queue Length [ft]	110.22	62.92	30.74	80.31	111.72	105.14	36.55	211.11	194.70	36.55	165.30	152.18
95th-Percentile Queue Length [veh]	7.85	4.53	2.21	5.78	7.94	7.57	2.63	13.21	12.36	2.63	10.83	10.13
95th-Percentile Queue Length [ft]	196.31	113.25	55.34	144.56	198.39	189.22	65.80	330.25	309.12	65.80	270.73	253.34

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	40.77	20.11	19.13	42.06	25.75	25.94	40.08	34.61	35.04	40.08	29.01	29.20
Movement LOS	D	C	B	D	C	C	D	C	D	D	C	C
d_A, Approach Delay [s/veh]	26.45			29.41			35.15			30.04		
Approach LOS	C			C			D			C		
d_I, Intersection Delay [s/veh]	30.61											
Intersection LOS	C											
Intersection V/C	0.693											

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 23: East Palm Canyon Drive / Frank Sinatra Drive

Control Type:	Signalized	Delay (sec / veh):	20.3
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.979

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	1	1	0	0	2	0	1
Pocket Length [ft]	160.00	100.00	45.00	325.00	100.00	250.00	100.00	100.00	100.00	120.00	100.00	1200.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			No			Yes		

Volumes

Name												
Base Volume Input [veh/h]	47	1301	147	214	1244	33	34	18	13	141	24	199
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.95	1.95	1.95	1.76	1.76	1.76	1.15	1.15	1.15	1.15	1.15	1.15
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	65	0	44	52	0	0	0	0	0	0	50
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	92	2602	287	421	2241	58	39	21	15	162	28	279
Peak Hour Factor	0.9210	0.9210	0.9210	0.9210	0.9210	0.9210	0.9210	0.9210	0.9210	0.9210	0.9210	0.9210
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	25	706	78	114	608	16	11	6	4	44	8	76
Total Analysis Volume [veh/h]	100	2825	312	457	2433	63	42	23	16	176	30	303
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	6 - N/S
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Overlap	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Overlap
Signal group	5	2	2	1	6	0	3	8	0	7	4	4
Auxiliary Signal Groups			1,2,3,4,									1,2,3,4,
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	7	7	7	0	7	7	0	7	7	7
Maximum Green [s]	30	30	30	30	30	0	30	30	0	30	30	30
Amber [s]	3.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0
All red [s]	1.0	1.0	1.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	1.0
Split [s]	12	67	67	23	78	0	11	19	0	11	19	19
Vehicle Extension [s]	3.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0
Walk [s]	0	5	5	0	5	0	0	5	0	0	5	5
Pedestrian Clearance [s]	0	10	10	0	10	0	0	10	0	0	10	10
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0
Minimum Recall	No	No	No	No	No		No	No		No	No	No
Maximum Recall	No	No	No	No	No		No	No		No	No	No
Pedestrian Recall	No	No	No	No	No		No	No		No	No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	L	C	R
C, Cycle Length [s]	98	98	98	98	98	98	98	98	98	98	98
L, Total Lost Time per Cycle [s]	4.00	4.00	0.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	0.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	0.00	2.00	0.00	0.00	2.00	0.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	8	55	169	19	66	66	6	94	11	2	169
g / C, Green / Cycle	0.08	0.57	1.73	0.19	0.68	0.68	0.06	0.96	0.12	0.02	1.73
(v / s)_i Volume / Saturation Flow Rate	0.07	0.56	0.20	0.17	0.48	0.04	0.03	0.02	0.07	0.02	0.19
s, saturation flow rate [veh/h]	1363	5074	1583	2647	5074	1583	1412	1737	2647	1863	1583
c, Capacity [veh/h]	157	2867	2712	533	3440	1073	126	1666	326	35	2712
d1, Uniform Delay [s]	46.28	20.79	0.00	40.23	9.71	5.26	46.61	0.08	42.71	47.70	0.00
k, delay calibration	0.11	0.11	0.19	0.11	0.11	0.11	0.11	0.50	0.11	0.50	0.17
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	4.28	5.12	0.03	4.12	0.27	0.02	1.55	0.03	1.39	115.72	0.03
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.64	0.99	0.12	0.86	0.71	0.06	0.33	0.02	0.54	0.87	0.11
d, Delay for Lane Group [s/veh]	50.56	25.91	0.03	44.34	9.98	5.29	48.15	0.11	44.10	163.42	0.03
Lane Group LOS	D	C	A	D	A	A	D	A	D	F	A
Critical Lane Group	No	Yes	No	Yes	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh]	2.57	19.28	0.02	5.57	8.47	0.36	1.04	0.01	2.06	1.82	0.02
50th-Percentile Queue Length [ft]	64.31	481.96	0.61	139.20	211.70	8.99	25.99	0.30	51.47	45.52	0.54
95th-Percentile Queue Length [veh]	4.63	26.48	0.04	9.44	13.24	0.65	1.87	0.02	3.71	3.28	0.04
95th-Percentile Queue Length [ft]	115.76	661.97	1.09	235.95	331.01	16.18	46.77	0.54	92.65	81.94	0.98

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	50.56	25.91	0.03	44.34	9.98	5.29	48.15	0.11	0.11	44.10	163.42	0.03
Movement LOS	D	C	A	D	A	A	D	A	A	D	F	A
d_A, Approach Delay [s/veh]	24.18			15.20			25.02			24.90		
Approach LOS	C			B			C			C		
d_I, Intersection Delay [s/veh]	20.33											
Intersection LOS	C											
Intersection V/C	0.979											

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 24: East Palm Canyon Drive / Mirage Cove Drive

Control Type:	Signalized	Delay (sec / veh):	4.5
Analysis Method:	HCM 2010	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	16.946

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	1	1	0	0
Pocket Length [ft]	150.00	100.00	100.00	110.00	100.00	100.00	75.00	100.00	75.00	75.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	40	1394	6	23	1334	43	39	0	21	4	0	23
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.95	1.95	1.95	1.95	1.95	1.95	1.33	1.33	1.33	1.95	1.95	1.95
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	50	0	12	40	0	0	0	0	0	0	15
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	78	2768	12	57	2641	84	52	0	28	8	0	60
Peak Hour Factor	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	20	725	3	15	692	22	14	0	7	2	0	16
Total Analysis Volume [veh/h]	82	2901	13	60	2768	88	55	0	29	8	0	63
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	6 - N/S
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	5	2	0	1	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	7	7	0	7	7	0	0	7	0	0	7	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	11	72	0	29	90	0	0	19	0	0	19	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No	No		No	No			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	L	C	R	L	C
C, Cycle Length [s]	82	82	82	82	82	82	82	82	82	82	82
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	0.00	2.00	0.00	0.00	2.00	0.00	0.00	2.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	7	68	68	6	67	67	78	78	78	78	78
g / C, Green / Cycle	0.09	0.83	0.83	0.07	0.82	0.82	0.95	0.95	0.95	0.95	0.95
(v / s)_i Volume / Saturation Flow Rate	0.06	0.54	0.54	0.04	0.53	0.54	13.87	0.00	0.02	1.88	0.04
s, saturation flow rate [veh/h]	1334	3547	1858	1334	3547	1834	4	1863	1583	4	1583
c, Capacity [veh/h]	166	2946	1543	150	2897	1498	91	1772	1506	91	1506
d1, Uniform Delay [s]	38.70	2.56	2.56	39.02	2.91	2.97	39.52	0.00	0.10	29.92	0.10
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.25	0.24	0.47	1.71	0.24	0.49	26.69	0.00	0.02	1.91	0.05
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.49	0.65	0.65	0.40	0.65	0.66	0.61	0.00	0.02	0.09	0.04
d, Delay for Lane Group [s/veh]	40.95	2.80	3.03	40.73	3.16	3.46	66.20	0.00	0.12	31.82	0.15
Lane Group LOS	D	A	A	D	A	A	E	A	A	C	A
Critical Lane Group	Yes	No	No	No	No	Yes	Yes	No	No	No	No
50th-Percentile Queue Length [veh]	1.68	1.16	1.32	1.23	1.75	1.97	1.86	0.00	0.01	0.22	0.02
50th-Percentile Queue Length [ft]	42.11	29.07	33.00	30.64	43.72	49.25	46.57	0.00	0.25	5.53	0.55
95th-Percentile Queue Length [veh]	3.03	2.09	2.38	2.21	3.15	3.55	3.35	0.00	0.02	0.40	0.04
95th-Percentile Queue Length [ft]	75.80	52.33	59.40	55.16	78.69	88.66	83.83	0.00	0.44	9.96	0.98

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	40.95	2.88	3.03	40.73	3.26	3.46	66.20	0.00	0.12	31.82	0.15	0.15
Movement LOS	D	A	A	D	A	A	E	A	A	C	A	A
d_A, Approach Delay [s/veh]	3.92			4.03			43.39			3.72		
Approach LOS	A			A			D			A		
d_I, Intersection Delay [s/veh]	4.52											
Intersection LOS	A											
Intersection V/C	16.946											

Sequence

Ring 1	1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 25: East Palm Canyon Drive / Country Club Drive

Control Type:	Signalized	Delay (sec / veh):	25.8
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.860

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	2	0	0	1	0	0	1	0	0
Pocket Length [ft]	160.00	100.00	45.00	190.00	100.00	100.00	30.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			Yes			Yes			No		

Volumes

Name												
Base Volume Input [veh/h]	6	1285	78	134	1246	8	4	4	5	84	4	146
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.95	1.95	1.95	1.95	1.95	1.95	1.33	1.33	1.33	1.95	1.95	1.95
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	25	0	20	20	0	0	0	0	0	0	25
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	12	2531	152	281	2450	16	5	5	7	164	8	310
Peak Hour Factor	0.9380	0.9380	0.9380	0.9380	0.9380	0.9380	0.9380	0.9380	0.9380	0.9380	0.9380	0.9380
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	675	41	75	653	4	1	1	2	44	2	83
Total Analysis Volume [veh/h]	13	2698	162	300	2612	17	5	5	7	175	9	330
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	6 - N/S
Cycle Length [s]	110
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Protecte	Permiss	Overlap	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	5	2	2	1	6	0	0	8	0	0	4	0
Auxiliary Signal Groups			1,2,4,5,									
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	7	7	7	7	7	0	0	7	0	0	7	0
Maximum Green [s]	30	30	30	30	30	0	0	30	0	0	30	0
Amber [s]	3.0	3.0	3.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	1.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	11	41	41	50	80	0	0	19	0	0	19	0
Vehicle Extension [s]	3.0	3.0	3.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	5	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	10	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	2.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	2.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No	No	No	No	No			No			No	
Maximum Recall	No	No	No	No	No			No			No	
Pedestrian Recall	No	No	No	No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	C	L	C	L	C	R
C, Cycle Length [s]	110	110	110	110	110	110	110	110	110	110	110
L, Total Lost Time per Cycle [s]	4.00	4.00	0.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	2.00	0.00	0.00	2.00	0.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	7	59	200	17	69	69	22	22	22	22	22
g / C, Green / Cycle	0.06	0.54	1.82	0.15	0.63	0.63	0.20	0.20	0.20	0.20	0.20
(v / s)_i Volume / Saturation Flow Rate	0.01	0.53	0.10	0.11	0.49	0.49	0.00	0.01	0.13	0.11	0.11
s, saturation flow rate [veh/h]	1774	5074	1583	2741	3547	1857	1037	1689	1397	1596	1583
c, Capacity [veh/h]	113	2741	2879	426	2227	1166	159	337	316	318	316
d1, Uniform Delay [s]	48.59	24.83	0.00	46.58	14.82	14.87	45.74	35.49	42.36	39.44	39.44
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.26	0.50	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.45	5.15	0.01	2.14	0.60	2.67	0.37	0.20	6.86	6.30	6.35
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

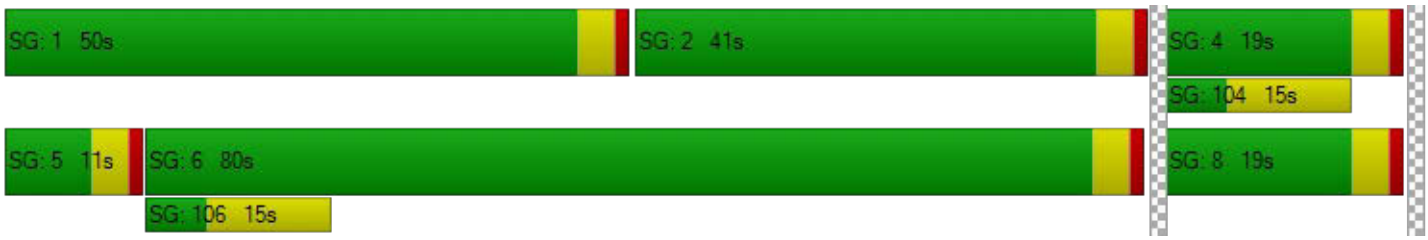
X, volume / capacity	0.12	0.98	0.06	0.70	0.77	0.78	0.03	0.04	0.55	0.53	0.53
d, Delay for Lane Group [s/veh]	49.03	29.97	0.01	48.71	15.42	17.54	46.11	35.69	49.22	45.74	45.79
Lane Group LOS	D	C	A	D	B	B	D	D	D	D	D
Critical Lane Group	No	Yes	No	Yes	No	No	No	No	Yes	No	No
50th-Percentile Queue Length [veh]	0.35	21.88	0.01	4.03	13.66	15.06	0.14	0.27	4.95	4.58	4.55
50th-Percentile Queue Length [ft]	8.63	546.90	0.16	100.87	341.48	376.60	3.48	6.84	123.76	114.47	113.67
95th-Percentile Queue Length [veh]	0.62	29.55	0.01	7.26	19.72	21.43	0.25	0.49	8.60	8.09	8.04
95th-Percentile Queue Length [ft]	15.53	738.66	0.29	181.56	493.01	535.73	6.26	12.31	214.98	202.21	201.10

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	49.03	29.97	0.01	48.71	16.14	17.54	46.11	35.69	35.69	49.22	45.74	45.76
Movement LOS	D	C	A	D	B	B	D	D	D	D	D	D
d_A, Approach Delay [s/veh]	28.37			19.48			38.75			46.94		
Approach LOS	C			B			D			D		
d_I, Intersection Delay [s/veh]	25.80											
Intersection LOS	C											
Intersection V/C	0.860											

Sequence

Ring 1	1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 26: Thompson Road-Morningside Drive / Frank Sinatra Drive

Control Type:	Signalized	Delay (sec / veh):	7.2
Analysis Method:	HCM 2010	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.436

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	150.00	100.00	100.00	90.00	100.00	100.00	90.00	100.00	100.00	130.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	85	16	30	19	36	13	12	459	227	63	457	18
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	22	22	0	50	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	98	18	35	22	41	15	14	550	283	72	576	21
Peak Hour Factor	0.8230	0.8230	0.8230	0.8230	0.8230	0.8230	0.8230	0.8230	0.8230	0.8230	0.8230	0.8230
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	30	5	11	7	12	5	4	167	86	22	175	6
Total Analysis Volume [veh/h]	119	22	43	27	50	18	17	668	344	87	700	26
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	7 - E/W
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	0	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	7	0	0	7	0	0	7	0	0	7	0
Maximum Green [s]	0	30	0	0	30	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	21	0	0	21	0	0	39	0	0	39	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No			No			No			No	
Maximum Recall		No			No			No			No	
Pedestrian Recall		No			No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	C	L	C	C	L	C	C
C, Cycle Length [s]	60	60	60	60	60	60	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	0.00	2.00	0.00	0.00	2.00	0.00	0.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	10	10	10	10	10	10	42	42	42	42	42	42
g / C, Green / Cycle	0.17	0.17	0.17	0.17	0.17	0.17	0.70	0.70	0.70	0.70	0.70	0.70
(v / s)_i Volume / Saturation Flow Rate	0.09	0.01	0.03	0.02	0.02	0.02	0.02	0.29	0.29	0.16	0.20	0.20
s, saturation flow rate [veh/h]	1328	1863	1583	1384	1863	1702	725	1863	1652	555	1863	1839
c, Capacity [veh/h]	274	315	268	290	315	288	552	1300	1152	424	1300	1283
d1, Uniform Delay [s]	25.77	20.96	21.29	23.55	21.10	21.13	5.03	3.85	3.85	7.28	3.41	3.41
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.09	0.09	0.28	0.14	0.15	0.18	0.10	0.97	1.09	1.09	0.54	0.55
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.43	0.07	0.16	0.09	0.11	0.12	0.03	0.41	0.41	0.21	0.28	0.28
d, Delay for Lane Group [s/veh]	26.86	21.06	21.57	23.69	21.26	21.31	5.13	4.82	4.95	8.37	3.95	3.96
Lane Group LOS	C	C	C	C	C	C	A	A	A	A	A	A
Critical Lane Group	Yes	No	No	No	No	No	No	No	Yes	No	No	No
50th-Percentile Queue Length [veh]	1.57	0.24	0.49	0.32	0.38	0.38	0.08	1.63	1.49	0.56	0.97	0.96
50th-Percentile Queue Length [ft]	39.33	6.05	12.13	8.05	9.51	9.39	1.88	40.79	37.18	14.05	24.21	23.98
95th-Percentile Queue Length [veh]	2.83	0.44	0.87	0.58	0.68	0.68	0.14	2.94	2.68	1.01	1.74	1.73
95th-Percentile Queue Length [ft]	70.79	10.90	21.84	14.48	17.12	16.91	3.38	73.42	66.93	25.29	43.58	43.16

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	26.86	21.06	21.57	23.69	21.27	21.31	5.13	4.85	4.95	8.37	3.96	3.96
Movement LOS	C	C	C	C	C	C	A	A	A	A	A	A
d_A, Approach Delay [s/veh]	24.93			21.97			4.88			4.43		
Approach LOS	C			C			A			A		
d_I, Intersection Delay [s/veh]	7.21											
Intersection LOS	A											
Intersection V/C	0.436											

Sequence

Ring 1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Year 2040 Conditions
Alternative D

Traffic Impact Analysis

Vistro File: G:\...\2040 Alt D.vistro
Report File: G:\...\2040 SAT MD ALT D.pdf

Scenario 5 2040 SAT MD ALT D
7/30/2018

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
2	Date Palm Drive / Buddy Rogers Avenue	Two-way stop	HCM 2010	EB Left	0.823	205.3	F
3	Date Palm Drive / East Palm Canyon Drive	Signalized	HCM 2010	EB Left	0.810	20.7	C
4	South Project Driveway-Allen Avenue / East Palm Canyon Drive	Signalized	HCM 2010	SB Left	0.787	4.7	A
5	Monty Hall Drive-Van Fleet Avenue / East Palm Canyon Drive	Signalized	HCM 2010	EB Left	0.501	8.9	A
9	Buddy Rogers Avenue/ East Palm Canyon Drive	Signalized	HCM 2010	SB Right	0.429	3.5	A
10	Cathedral Canyon Drive / East Palm Canyon Drive	Signalized	HCM 2010	WB Left	0.619	23.2	C
11	Perez Road / East Palm Canyon Drive	Signalized	HCM 2010	WB Left	0.830	24.6	C
12	Canyon Plaza Drive / East Palm Canyon Drive	Signalized	HCM 2010	WB Left	0.669	11.4	B
14	Cathedral Canyon Drive / Officer David Vasquez Road	Signalized	HCM 2010	SB Left	0.261	4.3	A
15	Cathedral Canyon Drive / Perez Road	Signalized	HCM 2010	SB Left	0.588	23.4	C
16	Cathedral Canyon Drive / Paseo Real	Two-way stop	HCM 2010	WB Thru	0.076	46.5	E
17	Cathedral Canyon Drive / Dinah Shore Drive	Signalized	HCM 2010	SB Left	0.810	29.2	C
18	Date Palm Drive / Gerald Ford Drive	Signalized	HCM 2010	NB Right	1.039	39.8	D
19	Date Palm Drive / Dinah Shore Drive	Signalized	HCM 2010	WB Left	0.704	33.4	C
23	East Palm Canyon Drive / Frank Sinatra Drive	Signalized	HCM 2010	WB Thru	0.969	19.9	B
24	East Palm Canyon Drive / Mirage Cove Drive	Signalized	HCM 2010	EB Left	16.332	4.4	A

27	Van Fleet Street / B Street-West Project Driveway	Two-way stop	HCM 2010	EB Left	0.020	13.4	B
28	Van Fleet Street / D Street	Two-way stop	HCM 2010	WB Thru	0.012	10.1	B
29	South Project Driveway / D Street	Two-way stop	HCM 2010	SB Left	0.000	9.0	A

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. for all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report
Intersection 2: Date Palm Drive / Buddy Rogers Avenue

Control Type:	Two-way stop	Delay (sec / veh):	205.3
Analysis Method:	HCM 2010	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.823

Intersection Setup

Name						
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	0	0	0
Pocket Length [ft]	150.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00		40.00		40.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

Volumes

Name						
Base Volume Input [veh/h]	4	492	513	25	29	14
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	2.97	2.97	2.97	2.97	1.33	1.33
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	72	93	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	12	1533	1617	74	39	19
Peak Hour Factor	0.9410	0.9410	0.9410	0.9410	0.9410	0.9410
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	407	430	20	10	5
Total Analysis Volume [veh/h]	13	1629	1718	79	41	20
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.08	0.02	0.02	0.00	0.82	0.08
d_M, Delay for Movement [s/veh]	29.76	0.00	0.00	0.00	205.26	147.83
Movement LOS	D	A	A	A	F	F
95th-Percentile Queue Length [veh]	0.26	0.00	0.00	0.00	4.40	4.40
95th-Percentile Queue Length [ft]	6.61	0.00	0.00	0.00	110.08	110.08
d_A, Approach Delay [s/veh]	0.24		0.00		186.43	
Approach LOS	A		A		F	
d_I, Intersection Delay [s/veh]	3.36					
Intersection LOS	F					

Intersection Level Of Service Report
Intersection 3: Date Palm Drive / East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	20.7
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.810

Intersection Setup

Name						
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	1	2	0	0	0
Pocket Length [ft]	230.00	230.00	195.00	100.00	100.00	100.00
Speed [mph]	40.00		40.00		40.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		Yes		No	

Volumes

Name						
Base Volume Input [veh/h]	339	121	149	1198	1174	347
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.46	1.46	1.16	1.16	1.76	1.76
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	93	72	52	71	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	495	270	245	1442	2137	611
Peak Hour Factor	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	133	73	66	388	574	164
Total Analysis Volume [veh/h]	532	290	263	1551	2298	657
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	1 - E Palm Canyon Drive
Cycle Length [s]	100
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Split	Split	Protected	Permissive	Permissive	Overlap
Signal group	1	0	3	8	4	4
Auxiliary Signal Groups						4
Lead / Lag	Lead	-	Lead	-	-	-
Minimum Green [s]	7	0	7	7	7	7
Maximum Green [s]	30	0	30	30	30	30
Amber [s]	3.0	0.0	3.0	3.0	3.0	3.0
All red [s]	1.0	0.0	1.0	1.0	1.0	1.0
Split [s]	70	0	11	30	19	19
Vehicle Extension [s]	3.0	0.0	3.0	3.0	3.0	3.0
Walk [s]	5	0	0	5	5	5
Pedestrian Clearance [s]	10	0	0	10	10	10
Rest In Walk	No			No	No	
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0
Minimum Recall	No		No	No	No	No
Maximum Recall	No		No	No	No	No
Pedestrian Recall	No		No	No	No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	R	L	C	C	R
C, Cycle Length [s]	100	100	100	100	100	100
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	22	22	10	70	56	56
g / C, Green / Cycle	0.22	0.22	0.10	0.70	0.56	0.56
(v / s)_i Volume / Saturation Flow Rate	0.10	0.18	0.08	0.31	0.45	0.41
s, saturation flow rate [veh/h]	5168	1583	3445	5074	5074	1583
c, Capacity [veh/h]	1140	349	352	3549	2829	883
d1, Uniform Delay [s]	33.87	37.20	43.65	6.50	17.90	16.74
k, delay calibration	0.11	0.11	0.11	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.30	5.12	3.19	0.39	2.67	5.66
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.47	0.83	0.75	0.44	0.81	0.74
d, Delay for Lane Group [s/veh]	34.17	42.31	46.84	6.90	20.57	22.40
Lane Group LOS	C	D	D	A	C	C
Critical Lane Group	No	Yes	Yes	No	Yes	No
50th-Percentile Queue Length [veh]	3.65	7.00	3.23	3.86	13.23	11.44
50th-Percentile Queue Length [ft]	91.31	174.98	80.82	96.48	330.73	285.93
95th-Percentile Queue Length [veh]	6.57	11.34	5.82	6.95	19.19	16.98
95th-Percentile Queue Length [ft]	164.35	283.45	145.48	173.67	479.85	424.59

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	34.17	42.31	46.84	6.90	20.57	22.40
Movement LOS	C	D	D	A	C	C
d_A, Approach Delay [s/veh]	37.04		12.69		20.98	
Approach LOS	D		B		C	
d_I, Intersection Delay [s/veh]	20.65					
Intersection LOS	C					
Intersection V/C	0.810					

Sequence

Ring 1	1	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 4: South Project Driveway-Allen Avenue / East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	4.7
Analysis Method:	HCM 2010	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.787

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	1	0	1	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	95.00	100.00	185.00	135.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	0	0	0	2	0	3	8	1365	0	0	1343	20
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	24	0	100	0	0	0	0	24	31	164	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	24	0	100	2	0	3	9	1607	31	164	1558	23
Peak Hour Factor	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	6	0	26	1	0	1	2	423	8	43	410	6
Total Analysis Volume [veh/h]	25	0	105	2	0	3	9	1693	33	173	1642	24
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	1 - E Palm Canyon Drive
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	0	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	7	0	0	7	0	0	7	0	0	7	0
Maximum Green [s]	0	30	0	0	30	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	19	0	0	19	0	0	41	0	0	41	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No			No			No			No	
Maximum Recall		No			No			No			No	
Pedestrian Recall		No			No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	L	C	L	C	R	L	C	R
C, Cycle Length [s]	60	60	60	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	2.00	0.00	2.00	0.00	0.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	6	6	6	46	46	46	46	46	46
g / C, Green / Cycle	0.11	0.11	0.11	0.76	0.76	0.76	0.76	0.76	0.76
(v / s)_i Volume / Saturation Flow Rate	0.08	0.00	0.00	0.03	0.33	0.02	0.60	0.32	0.02
s, saturation flow rate [veh/h]	1547	1284	1583	304	5074	1583	289	5074	1583
c, Capacity [veh/h]	237	130	169	301	3857	1203	291	3857	1203
d1, Uniform Delay [s]	26.14	29.61	24.01	5.02	2.59	1.77	12.46	2.56	1.76
k, delay calibration	0.11	0.11	0.11	0.50	0.50	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.99	0.05	0.04	0.18	0.36	0.04	8.66	0.35	0.03
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

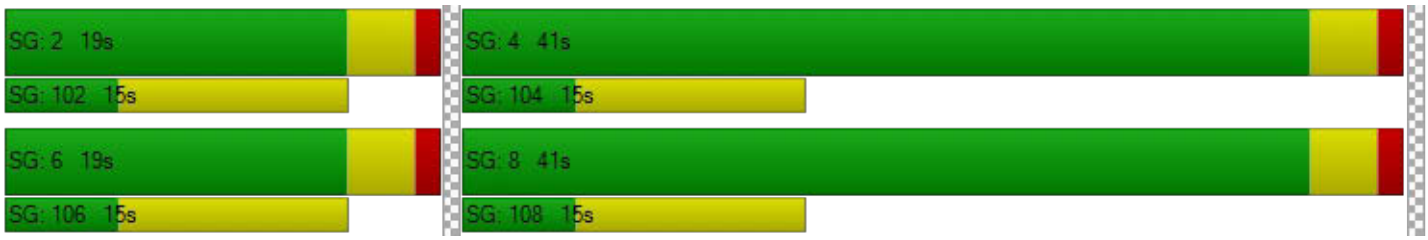
X, volume / capacity	0.55	0.02	0.02	0.03	0.44	0.03	0.59	0.43	0.02
d, Delay for Lane Group [s/veh]	28.13	29.66	24.05	5.20	2.96	1.81	21.12	2.90	1.79
Lane Group LOS	C	C	C	A	A	A	C	A	A
Critical Lane Group	Yes	No	No	No	No	No	Yes	No	No
50th-Percentile Queue Length [veh]	1.77	0.03	0.04	0.05	0.68	0.04	2.19	0.65	0.03
50th-Percentile Queue Length [ft]	44.34	0.70	0.92	1.16	16.93	0.90	54.71	16.15	0.65
95th-Percentile Queue Length [veh]	3.19	0.05	0.07	0.08	1.22	0.06	3.94	1.16	0.05
95th-Percentile Queue Length [ft]	79.81	1.27	1.65	2.10	30.47	1.61	98.47	29.06	1.17

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	28.13	28.13	28.13	29.66	24.05	24.05	5.20	2.96	1.81	21.12	2.90	1.79
Movement LOS	C	C	C	C	C	C	A	A	A	C	A	A
d_A, Approach Delay [s/veh]	28.13			26.29			2.95			4.60		
Approach LOS	C			C			A			A		
d_I, Intersection Delay [s/veh]	4.68											
Intersection LOS	A											
Intersection V/C	0.787											

Sequence

Ring 1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 5: Monty Hall Drive-Van Fleet Avenue / East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	8.9
Analysis Method:	HCM 2010	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.501

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	1	0	1	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	45.00	100.00	100.00	105.00	100.00	130.00	125.00	100.00	180.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	11	1	44	10	9	12	13	1322	16	55	1290	10
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	59	0	24	0	0	0	0	31	76	0	24	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	72	1	75	12	10	14	15	1565	95	64	1520	12
Peak Hour Factor	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	19	0	20	3	3	4	4	408	25	17	396	3
Total Analysis Volume [veh/h]	75	1	78	13	10	15	16	1632	99	67	1585	13
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	1 - E Palm Canyon Drive
Cycle Length [s]	100
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	0	7	7	0	7	7	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	19	0	0	19	0	11	70	0	11	70	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	R	L	C	L	C	R	L	C	R
C, Cycle Length [s]	100	100	100	100	100	100	100	100	100	100
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	11	11	11	11	3	71	71	6	75	75
g / C, Green / Cycle	0.11	0.11	0.11	0.11	0.03	0.71	0.71	0.06	0.75	0.75
(v / s)_i Volume / Saturation Flow Rate	0.08	0.05	0.01	0.01	0.01	0.32	0.06	0.04	0.31	0.01
s, saturation flow rate [veh/h]	935	1583	1410	1684	1774	5074	1583	1774	5074	1583
c, Capacity [veh/h]	173	171	73	182	45	3616	1128	105	3788	1182
d1, Uniform Delay [s]	45.43	41.82	50.00	40.36	47.94	6.09	4.41	46.00	4.67	3.24
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.76	1.88	1.16	0.34	4.75	0.41	0.15	6.30	0.34	0.02
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

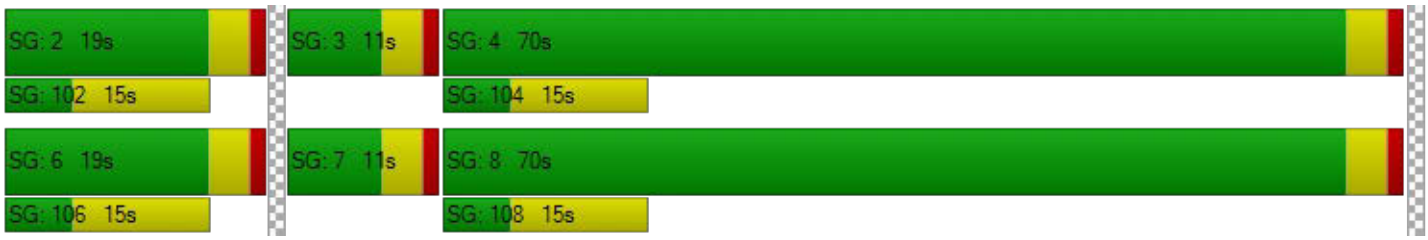
X, volume / capacity	0.44	0.46	0.18	0.14	0.36	0.45	0.09	0.64	0.42	0.01
d, Delay for Lane Group [s/veh]	47.19	43.70	51.16	40.70	52.69	6.50	4.56	52.29	5.01	3.26
Lane Group LOS	D	D	D	D	D	A	A	D	A	A
Critical Lane Group	Yes	No	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh]	1.89	1.85	0.34	0.56	0.44	3.87	0.54	1.77	2.97	0.05
50th-Percentile Queue Length [ft]	47.14	46.18	8.60	14.02	11.06	96.76	13.49	44.27	74.30	1.36
95th-Percentile Queue Length [veh]	3.39	3.32	0.62	1.01	0.80	6.97	0.97	3.19	5.35	0.10
95th-Percentile Queue Length [ft]	84.84	83.12	15.47	25.24	19.91	174.16	24.29	79.69	133.74	2.44

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	47.19	47.19	43.70	51.16	40.70	40.70	52.69	6.50	4.56	52.29	5.01	3.26
Movement LOS	D	D	D	D	D	D	D	A	A	D	A	A
d_A, Approach Delay [s/veh]	45.42			44.28			6.81			6.90		
Approach LOS	D			D			A			A		
d_I, Intersection Delay [s/veh]	8.90											
Intersection LOS	A											
Intersection V/C	0.501											

Sequence

Ring 1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 9: Buddy Rogers Avenue/ East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	3.5
Analysis Method:	HCM 2010	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.429

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	10	1	39	19	2	28	16	1309	2	16	1255	17
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	107	0	0	83	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	12	1	45	22	2	32	19	1625	2	19	1539	20
Peak Hour Factor	0.9360	0.9360	0.9360	0.9360	0.9360	0.9360	0.9360	0.9360	0.9360	0.9360	0.9360	0.9360
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	0	12	6	1	9	5	434	1	5	411	5
Total Analysis Volume [veh/h]	13	1	48	24	2	34	20	1736	2	20	1644	21
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	1 - E Palm Canyon Drive
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	7	0	0	7	0	0	7	0	0	7	0
Maximum Green [s]	0	30	0	0	30	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	19	0	0	19	0	0	101	0	0	101	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No			No			No			No	
Maximum Recall		No			No			No			No	
Pedestrian Recall		No			No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	C	L	C	R	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	2.00	2.00	0.00	0.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	6	6	106	106	106	106	106	106
g / C, Green / Cycle	0.05	0.05	0.88	0.88	0.88	0.88	0.88	0.88
(v / s)_i Volume / Saturation Flow Rate	0.04	0.04	0.07	0.34	0.00	0.07	0.32	0.01
s, saturation flow rate [veh/h]	1636	1360	303	5074	1583	277	5074	1583
c, Capacity [veh/h]	121	113	302	4472	1395	280	4472	1395
d1, Uniform Delay [s]	55.96	56.21	2.61	1.28	0.85	2.76	1.25	0.86
k, delay calibration	0.11	0.11	0.50	0.50	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	3.30	3.86	0.42	0.26	0.00	0.49	0.23	0.02
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.51	0.53	0.07	0.39	0.00	0.07	0.37	0.02
d, Delay for Lane Group [s/veh]	59.26	60.07	3.04	1.54	0.85	3.26	1.48	0.88
Lane Group LOS	E	E	A	A	A	A	A	A
Critical Lane Group	No	Yes	No	Yes	No	No	No	No
50th-Percentile Queue Length [veh]	1.93	1.89	0.11	0.65	0.00	0.12	0.60	0.02
50th-Percentile Queue Length [ft]	48.26	47.30	2.70	16.33	0.05	2.88	15.03	0.52
95th-Percentile Queue Length [veh]	3.47	3.41	0.19	1.18	0.00	0.21	1.08	0.04
95th-Percentile Queue Length [ft]	86.86	85.15	4.86	29.39	0.09	5.18	27.06	0.94

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	59.26	59.26	59.26	60.07	60.07	60.07	3.04	1.54	0.85	3.26	1.48	0.88
Movement LOS	E	E	E	E	E	E	A	A	A	A	A	A
d_A, Approach Delay [s/veh]	59.26			60.07			1.55			1.50		
Approach LOS	E			E			A			A		
d_I, Intersection Delay [s/veh]	3.52											
Intersection LOS	A											
Intersection V/C	0.429											

Sequence

Ring 1	2	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 10: Cathedral Canyon Drive / East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	23.2
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.619

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	0	1	0	0	1	0	1
Pocket Length [ft]	100.00	100.00	70.00	90.00	100.00	100.00	238.00	100.00	100.00	190.00	100.00	270.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	71	113	50	127	131	92	110	1151	77	61	1111	120
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.33	1.33	1.33	1.33	1.33	1.33	1.31	1.31	1.31	1.16	1.16	1.16
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	61	0	0	0	46	0	0	36	47
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	94	150	67	230	174	122	144	1554	101	71	1325	186
Peak Hour Factor	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	24	39	17	59	45	32	37	402	26	18	343	48
Total Analysis Volume [veh/h]	97	155	69	238	180	126	149	1607	104	73	1370	192
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	1 - E Palm Canyon Drive
Cycle Length [s]	110
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Overlap	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	6	3	8	0	7	4	0
Auxiliary Signal Groups						3,6						
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	7	7	7	0	7	7	0
Maximum Green [s]	0	30	0	0	30	30	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	1.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	34	0	0	34	34	26	65	0	11	50	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	5	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	10	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No	No	No	No		No	No	
Maximum Recall		No			No	No	No	No		No	No	
Pedestrian Recall		No			No	No	No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	110	110	110	110	110	110	110	110	110	110	110	110
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	0.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	30	30	30	30	30	45	11	62	62	6	57	57
g / C, Green / Cycle	0.27	0.27	0.27	0.27	0.27	0.41	0.10	0.56	0.56	0.06	0.51	0.51
(v / s)_i Volume / Saturation Flow Rate	0.08	0.08	0.04	0.19	0.10	0.08	0.08	0.32	0.07	0.04	0.27	0.12
s, saturation flow rate [veh/h]	1199	1863	1583	1227	1863	1583	1774	5074	1583	1774	5074	1583
c, Capacity [veh/h]	278	508	432	297	508	654	184	2844	887	102	2609	814
d1, Uniform Delay [s]	40.52	31.72	30.40	44.88	32.19	20.57	48.19	15.55	11.37	50.93	17.78	14.77
k, delay calibration	0.11	0.11	0.11	0.24	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.75	0.34	0.17	10.44	0.42	0.14	8.11	0.82	0.27	8.89	0.76	0.68
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

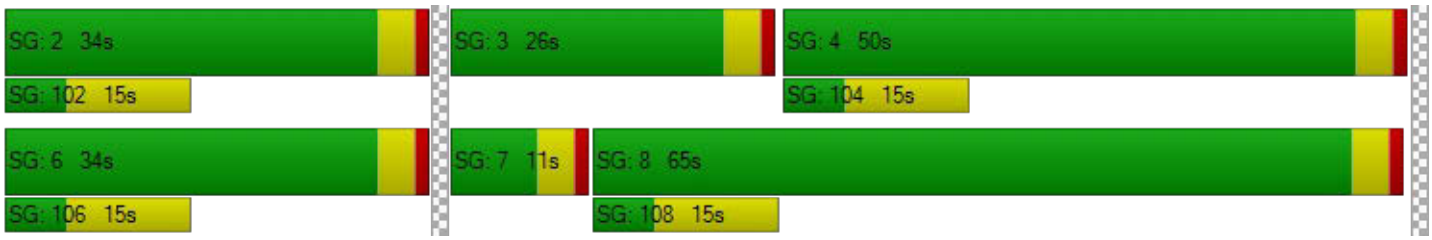
X, volume / capacity	0.35	0.31	0.16	0.80	0.35	0.19	0.81	0.57	0.12	0.71	0.53	0.24
d, Delay for Lane Group [s/veh]	41.27	32.05	30.57	55.32	32.61	20.72	56.30	16.37	11.64	59.81	18.54	15.45
Lane Group LOS	D	C	C	E	C	C	E	B	B	E	B	B
Critical Lane Group	No	No	No	Yes	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh]	2.36	3.24	1.38	7.19	3.82	2.02	4.33	8.12	1.19	2.19	7.38	2.67
50th-Percentile Queue Length [ft]	58.98	80.98	34.57	179.86	95.53	50.60	108.15	202.88	29.70	54.78	184.46	66.67
95th-Percentile Queue Length [veh]	4.25	5.83	2.49	11.59	6.88	3.64	7.74	12.79	2.14	3.94	11.83	4.80
95th-Percentile Queue Length [ft]	106.16	145.77	62.22	289.83	171.95	91.08	193.43	319.68	53.46	98.60	295.83	120.01

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	41.27	32.05	30.57	55.32	32.61	20.72	56.30	16.37	11.64	59.81	18.54	15.45
Movement LOS	D	C	C	E	C	C	E	B	B	E	B	B
d_A, Approach Delay [s/veh]	34.52			39.79			19.30			20.02		
Approach LOS	C			D			B			C		
d_I, Intersection Delay [s/veh]	23.25											
Intersection LOS	C											
Intersection V/C	0.619											

Sequence

Ring 1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 11: Perez Road / East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	24.6
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.830

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	150.00	100.00	100.00	170.00	100.00	45.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	9	9	4	17	10	257	212	1274	4	4	1270	21
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.33	1.33	1.33	1.33	1.33	1.33	1.64	1.64	1.64	1.31	1.31	1.31
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	46	0	0	36	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	12	12	5	23	13	342	348	2135	7	5	1700	28
Peak Hour Factor	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	3	1	6	3	88	89	548	2	1	436	7
Total Analysis Volume [veh/h]	12	12	5	24	13	351	357	2192	7	5	1745	29
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	0	7	7	0	7	7	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	19	0	0	19	0	13	40	0	42	69	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	R	L	C	C	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	4	4	16	16	16	15	82	82	1	69	69
g / C, Green / Cycle	0.04	0.04	0.13	0.13	0.13	0.12	0.69	0.69	0.01	0.57	0.57
(v / s)_i Volume / Saturation Flow Rate	0.01	0.01	0.01	0.11	0.11	0.10	0.41	0.41	0.00	0.49	0.02
s, saturation flow rate [veh/h]	1774	1771	1774	1600	1583	3445	3547	1860	1774	3547	1583
c, Capacity [veh/h]	66	66	239	216	213	418	2430	1274	18	2035	908
d1, Uniform Delay [s]	56.05	56.21	45.56	50.74	50.75	51.71	10.04	10.04	59.01	21.48	11.11
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.32	2.06	0.18	8.92	9.02	5.07	1.08	2.05	8.54	4.95	0.07
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

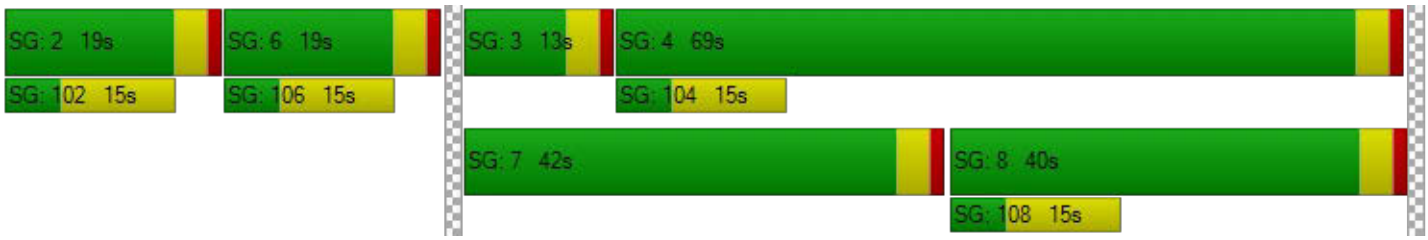
X, volume / capacity	0.18	0.26	0.10	0.85	0.85	0.85	0.59	0.59	0.28	0.86	0.03
d, Delay for Lane Group [s/veh]	57.36	58.27	45.74	59.66	59.77	56.78	11.11	12.09	67.55	26.43	11.18
Lane Group LOS	E	E	D	E	E	E	B	B	E	C	B
Critical Lane Group	No	Yes	No	No	Yes	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh]	0.37	0.53	0.63	5.80	5.75	5.46	9.04	9.83	0.19	20.08	0.34
50th-Percentile Queue Length [ft]	9.30	13.29	15.82	145.08	143.75	136.55	225.88	245.82	4.77	501.95	8.44
95th-Percentile Queue Length [veh]	0.67	0.96	1.14	9.75	9.68	9.29	13.96	14.98	0.34	27.43	0.61
95th-Percentile Queue Length [ft]	16.73	23.92	28.47	243.85	242.06	232.37	349.12	374.38	8.58	685.66	15.20

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	57.36	58.27	58.27	45.74	59.66	59.72	56.78	11.45	12.09	67.55	26.43	11.18
Movement LOS	E	E	E	D	E	E	E	B	B	E	C	B
d_A, Approach Delay [s/veh]	57.89			58.85			17.78			26.29		
Approach LOS	E			E			B			C		
d_I, Intersection Delay [s/veh]	24.57											
Intersection LOS	C											
Intersection V/C	0.830											

Sequence

Ring 1	2	6	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 12: Canyon Plaza Drive / East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	11.4
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.669

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	1	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	95.00	90.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	55	2	83	6	3	14	10	1457	39	56	1457	11
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.33	1.33	1.33	1.33	1.33	1.33	1.55	1.55	1.55	1.64	1.64	1.64
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	46	0	0	36	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	73	3	110	8	4	19	16	2304	60	92	2425	18
Peak Hour Factor	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	19	1	29	2	1	5	4	601	16	24	632	5
Total Analysis Volume [veh/h]	76	3	115	8	4	20	17	2403	63	96	2529	19
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	0	7	7	0	7	7	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	19	0	0	19	0	11	90	0	11	90	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	L	C	R	L	C	C
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	12	12	12	12	3	88	88	8	93	93
g / C, Green / Cycle	0.10	0.10	0.10	0.10	0.03	0.73	0.73	0.07	0.77	0.77
(v / s)_i Volume / Saturation Flow Rate	0.06	0.07	0.01	0.01	0.01	0.47	0.04	0.05	0.47	0.47
s, saturation flow rate [veh/h]	1381	1589	1269	1624	1774	5074	1583	1774	3547	1856
c, Capacity [veh/h]	158	162	75	166	45	3707	1157	119	2740	1433
d1, Uniform Delay [s]	54.83	52.23	58.94	49.08	57.55	8.28	4.54	55.18	5.87	5.89
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.28	6.05	0.61	0.40	5.18	0.89	0.09	11.80	1.02	1.96
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.48	0.73	0.11	0.14	0.38	0.65	0.05	0.80	0.61	0.61
d, Delay for Lane Group [s/veh]	57.11	58.29	59.55	49.48	62.73	9.17	4.63	66.98	6.90	7.84
Lane Group LOS	E	E	E	D	E	A	A	E	A	A
Critical Lane Group	No	Yes	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh]	2.32	3.66	0.25	0.67	0.57	8.92	0.40	3.21	7.12	7.86
50th-Percentile Queue Length [ft]	58.03	91.50	6.27	16.64	14.13	223.01	10.01	80.20	178.06	196.46
95th-Percentile Queue Length [veh]	4.18	6.59	0.45	1.20	1.02	13.82	0.72	5.77	11.50	12.46
95th-Percentile Queue Length [ft]	104.46	164.70	11.29	29.95	25.43	345.46	18.01	144.35	287.48	311.40

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	57.11	58.29	58.29	59.55	49.48	49.48	62.73	9.17	4.63	66.98	7.22	7.84
Movement LOS	E	E	E	E	D	D	E	A	A	E	A	A
d_A, Approach Delay [s/veh]	57.82			52.00			9.42			9.39		
Approach LOS	E			D			A			A		
d_I, Intersection Delay [s/veh]	11.42											
Intersection LOS	B											
Intersection V/C	0.669											

Sequence

Ring 1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 14: Cathedral Canyon Drive / Officer David Vasquez Road

Control Type:	Signalized	Delay (sec / veh):	4.3
Analysis Method:	HCM 2010	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.261

Intersection Setup

Name						
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	1	0	1	1
Pocket Length [ft]	100.00	100.00	205.00	100.00	120.00	120.00
Speed [mph]	40.00		40.00		40.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		Yes		Yes	

Volumes

Name						
Base Volume Input [veh/h]	344	7	17	370	7	32
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.33	1.33	1.33	1.33	1.33	1.33
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	47	0	0	61	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	505	9	23	553	9	43
Peak Hour Factor	0.8670	0.8670	0.8670	0.8670	0.8670	0.8670
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	146	3	7	159	3	12
Total Analysis Volume [veh/h]	582	10	27	638	10	50
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	2 - N. Cathedral Canyon Drive
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permissive	Permissive	Protected	Permissive	Split	Overlap
Signal group	2	0	1	6	7	7
Auxiliary Signal Groups						1,7
Lead / Lag	-	-	Lead	-	Lead	-
Minimum Green [s]	7	0	7	7	7	7
Maximum Green [s]	30	0	30	30	30	30
Amber [s]	3.0	0.0	3.0	3.0	3.0	3.0
All red [s]	1.0	0.0	1.0	1.0	1.0	1.0
Split [s]	30	0	11	41	19	19
Vehicle Extension [s]	3.0	0.0	3.0	3.0	3.0	3.0
Walk [s]	5	0	0	5	5	5
Pedestrian Clearance [s]	10	0	0	10	10	10
Rest In Walk	No			No	No	
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0
Minimum Recall	No		No	No	No	No
Maximum Recall	No		No	No	No	No
Pedestrian Recall	No		No	No	No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	C	L	C	L	R
C, Cycle Length [s]	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	0.00
g_i, Effective Green Time [s]	41	41	3	48	5	11
g / C, Green / Cycle	0.68	0.68	0.04	0.79	0.07	0.18
(v / s)_i Volume / Saturation Flow Rate	0.16	0.16	0.02	0.18	0.00	0.03
s, saturation flow rate [veh/h]	1863	1852	1774	3547	3445	1583
c, Capacity [veh/h]	1267	1259	79	2806	262	296
d1, Uniform Delay [s]	3.66	3.67	27.88	1.60	25.76	20.53
k, delay calibration	0.50	0.50	0.11	0.50	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.43	0.44	2.53	0.19	0.06	0.27
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

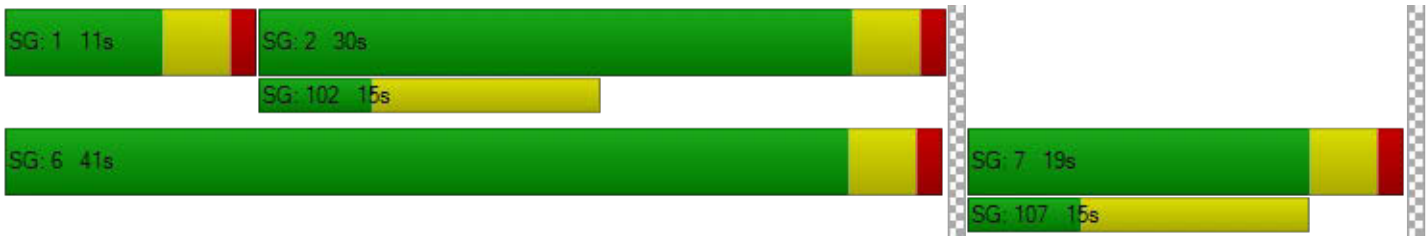
X, volume / capacity	0.23	0.24	0.34	0.23	0.04	0.17
d, Delay for Lane Group [s/veh]	4.10	4.11	30.41	1.79	25.82	20.80
Lane Group LOS	A	A	C	A	C	C
Critical Lane Group	No	No	No	Yes	No	Yes
50th-Percentile Queue Length [veh]	0.85	0.85	0.40	0.13	0.06	0.55
50th-Percentile Queue Length [ft]	21.15	21.20	10.04	3.15	1.57	13.80
95th-Percentile Queue Length [veh]	1.52	1.53	0.72	0.23	0.11	0.99
95th-Percentile Queue Length [ft]	38.08	38.16	18.08	5.67	2.83	24.84

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	4.10	4.11	30.41	1.79	25.82	20.80
Movement LOS	A	A	C	A	C	C
d_A, Approach Delay [s/veh]	4.10		2.95		21.63	
Approach LOS	A		A		C	
d_I, Intersection Delay [s/veh]	4.32					
Intersection LOS	A					
Intersection V/C	0.261					

Sequence

Ring 1	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	7	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 15: Cathedral Canyon Drive / Perez Road

Control Type:	Signalized	Delay (sec / veh):	23.4
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.588

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	1	1	0	0
Pocket Length [ft]	95.00	100.00	100.00	205.00	100.00	100.00	100.00	100.00	100.00	150.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	26	297	52	109	282	127	114	192	51	48	207	88
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	47	0	0	61	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	35	442	69	145	436	169	152	255	68	64	275	117
Peak Hour Factor	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	9	113	18	37	112	43	39	65	17	16	71	30
Total Analysis Volume [veh/h]	36	454	71	149	448	174	156	262	70	66	282	120
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	2 - N. Cathedral Canyon Drive
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	19	0	11	19	0	11	19	0	11	19	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	L	C	R	L	C	C
C, Cycle Length [s]	60	60	60	60	60	60	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	3	11	11	7	14	14	7	22	22	5	20	20
g / C, Green / Cycle	0.05	0.18	0.18	0.11	0.24	0.24	0.11	0.36	0.36	0.08	0.33	0.33
(v / s)_i Volume / Saturation Flow Rate	0.02	0.14	0.14	0.08	0.17	0.18	0.09	0.07	0.04	0.04	0.11	0.12
s, saturation flow rate [veh/h]	1774	1863	1776	1774	1863	1688	1774	3547	1583	1774	1863	1679
c, Capacity [veh/h]	98	342	326	194	442	400	202	1286	574	141	612	551
d1, Uniform Delay [s]	27.46	23.47	23.50	26.12	21.26	21.27	25.97	13.22	12.81	26.54	15.32	15.37
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.27	3.95	4.28	6.32	2.42	2.70	6.22	0.36	0.43	2.41	1.52	1.75
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.37	0.78	0.79	0.77	0.74	0.74	0.77	0.20	0.12	0.47	0.34	0.35
d, Delay for Lane Group [s/veh]	29.73	27.42	27.79	32.45	23.67	23.98	32.19	13.58	13.25	28.95	16.83	17.12
Lane Group LOS	C	C	C	C	C	C	C	B	B	C	B	B
Critical Lane Group	No	No	Yes	Yes	No	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh]	0.52	3.60	3.49	2.22	4.01	3.68	2.31	1.10	0.60	0.92	2.11	1.99
50th-Percentile Queue Length [ft]	13.00	89.89	87.24	55.53	100.21	92.01	57.81	27.38	15.08	23.02	52.66	49.65
95th-Percentile Queue Length [veh]	0.94	6.47	6.28	4.00	7.22	6.62	4.16	1.97	1.09	1.66	3.79	3.57
95th-Percentile Queue Length [ft]	23.40	161.81	157.03	99.95	180.38	165.61	104.06	49.29	27.15	41.43	94.78	89.36

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	29.73	27.57	27.79	32.45	23.75	23.98	32.19	13.58	13.25	28.95	16.91	17.12
Movement LOS	C	C	C	C	C	C	C	B	B	C	B	B
d_A, Approach Delay [s/veh]	27.74			25.48			19.48			18.66		
Approach LOS	C			C			B			B		
d_I, Intersection Delay [s/veh]	23.36											
Intersection LOS	C											
Intersection V/C	0.588											

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 16: Cathedral Canyon Drive / Paseo Real

Control Type:	Two-way stop	Delay (sec / veh):	46.5
Analysis Method:	HCM 2010	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.076

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	0	0	0	0	0	0
Pocket Length [ft]	55.00	100.00	100.00	55.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name												
Base Volume Input [veh/h]	11	482	9	16	509	19	11	5	16	9	6	14
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	40	7	0	52	0	0	0	0	9	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	15	681	19	21	729	25	15	7	21	21	8	19
Peak Hour Factor	0.9680	0.9680	0.9680	0.9680	0.9680	0.9680	0.9680	0.9680	0.9680	0.9680	0.9680	0.9680
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	176	5	5	188	6	4	2	5	5	2	5
Total Analysis Volume [veh/h]	15	704	20	22	753	26	15	7	22	22	8	20
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.02	0.01	0.00	0.03	0.01	0.00	0.12	0.07	0.04	0.17	0.08	0.03
d_M, Delay for Movement [s/veh]	9.40	0.00	0.00	9.22	0.00	0.00	38.90	44.14	16.03	39.68	46.49	17.99
Movement LOS	A	A	A	A	A	A	E	E	C	E	E	C
95th-Percentile Queue Length [veh]	0.05	0.00	0.00	0.08	0.00	0.00	0.82	0.82	0.82	1.07	1.07	1.07
95th-Percentile Queue Length [ft]	1.37	0.00	0.00	1.93	0.00	0.00	20.55	20.55	20.55	26.67	26.67	26.67
d_A, Approach Delay [s/veh]	0.19			0.25			28.30			32.10		
Approach LOS	A			A			D			D		
d_I, Intersection Delay [s/veh]	1.95											
Intersection LOS	E											

Intersection Level Of Service Report
Intersection 17: Cathedral Canyon Drive / Dinah Shore Drive

Control Type:	Signalized	Delay (sec / veh):	29.2
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.810

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	130.00	100.00	100.00	75.00	100.00	100.00	100.00	100.00	100.00	150.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	156	237	102	119	230	28	31	587	198	102	575	71
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	12	19	9	0	25	0	0	0	15	12	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	219	334	145	158	331	37	41	781	278	148	765	94
Peak Hour Factor	0.9700	0.9700	0.9700	0.9700	0.9700	0.9700	0.9700	0.9700	0.9700	0.9700	0.9700	0.9700
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	56	86	37	41	85	10	11	201	72	38	197	24
Total Analysis Volume [veh/h]	226	344	149	163	341	38	42	805	287	153	789	97
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	2 - N. Cathedral Canyon Drive
Cycle Length [s]	70
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	16	23	0	12	19	0	12	24	0	11	23	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	L	C	C	L	C	C
C, Cycle Length [s]	70	70	70	70	70	70	70	70	70	70	70	70
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	11	12	12	8	10	10	4	26	26	8	30	30
g / C, Green / Cycle	0.15	0.18	0.18	0.11	0.14	0.14	0.06	0.37	0.37	0.11	0.43	0.43
(v / s)_i Volume / Saturation Flow Rate	0.13	0.14	0.14	0.09	0.10	0.10	0.02	0.31	0.31	0.09	0.24	0.24
s, saturation flow rate [veh/h]	1774	1863	1675	1774	1863	1798	1774	1863	1698	1774	1863	1792
c, Capacity [veh/h]	273	328	295	204	256	247	101	692	630	195	790	760
d1, Uniform Delay [s]	28.83	27.68	27.71	30.31	29.15	29.17	31.98	20.01	20.04	30.47	15.39	15.39
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	6.36	4.21	4.80	7.08	4.41	4.68	2.68	10.79	11.84	6.84	3.00	3.11
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.83	0.79	0.79	0.80	0.75	0.76	0.41	0.82	0.83	0.79	0.57	0.57
d, Delay for Lane Group [s/veh]	35.19	31.89	32.51	37.39	33.55	33.85	34.67	30.80	31.88	37.31	18.39	18.50
Lane Group LOS	D	C	C	D	C	C	C	C	C	D	B	B
Critical Lane Group	No	No	Yes	Yes	No	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh]	3.89	4.21	3.86	2.90	3.20	3.13	0.72	9.38	8.76	2.72	5.34	5.16
50th-Percentile Queue Length [ft]	97.30	105.19	96.48	72.47	80.03	78.25	18.07	234.47	218.92	67.90	133.43	129.01
95th-Percentile Queue Length [veh]	7.01	7.57	6.95	5.22	5.76	5.63	1.30	14.40	13.61	4.89	9.13	8.89
95th-Percentile Queue Length [ft]	175.14	189.29	173.67	130.45	144.05	140.85	32.52	360.04	340.25	122.22	228.14	222.15

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	35.19	32.04	32.51	37.39	33.68	33.85	34.67	31.12	31.88	37.31	18.44	18.50
Movement LOS	D	C	C	D	C	C	C	C	C	D	B	B
d_A, Approach Delay [s/veh]	33.13			34.81			31.44			21.22		
Approach LOS	C			C			C			C		
d_I, Intersection Delay [s/veh]	29.23											
Intersection LOS	C											
Intersection V/C	0.810											

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	



Intersection Level Of Service Report
Intersection 18: Date Palm Drive / Gerald Ford Drive

Control Type:	Signalized	Delay (sec / veh):	39.8
Analysis Method:	HCM 2010	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.039

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	85.00	100.00	85.00	160.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			Yes			Yes			No		

Volumes

Name												
Base Volume Input [veh/h]	22	418	198	120	415	61	36	46	46	196	44	127
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	2.97	2.97	2.97	1.83	1.83	1.83	1.83	1.83	1.83	1.97	1.97	1.97
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	48	24	0	62	0	0	0	0	31	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	65	1289	612	220	821	112	66	84	84	417	87	250
Peak Hour Factor	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	17	336	160	57	214	29	17	22	22	109	23	65
Total Analysis Volume [veh/h]	68	1346	639	230	857	117	69	88	88	435	91	261
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	6 - N/S
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Split	Split	Split	Split	Split	Split
Signal group	5	2	0	1	6	0	3	8	0	7	4	4
Auxiliary Signal Groups												1,4
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	7	7	0	7	7	0	0	7	0	0	7	7
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	30
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	3.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	1.0
Split [s]	11	45	0	18	52	0	0	27	0	0	27	27
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	3.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	5
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	10
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	2.0
Minimum Recall	No	No		No	No			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	C	L	C	C	L	C	R
C, Cycle Length [s]	60	60	60	60	60	60	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.00	0.00	2.00	2.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	5	19	19	10	24	24	19	19	19	19	19	19
g / C, Green / Cycle	0.08	0.32	0.32	0.16	0.40	0.40	0.32	0.32	0.32	0.32	0.32	0.32
(v / s)_i Volume / Saturation Flow Rate	0.04	0.27	0.40	0.13	0.18	0.18	0.05	0.05	0.06	0.21	0.23	0.16
s, saturation flow rate [veh/h]	1774	5074	1583	1774	3547	1751	1300	1863	1583	1204	1194	1583
c, Capacity [veh/h]	141	1634	510	282	1424	703	229	594	505	428	481	505
d1, Uniform Delay [s]	26.44	18.78	20.35	24.38	13.17	13.18	26.61	14.62	14.75	21.02	19.21	16.68
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.52	4.85	129.26	5.65	1.06	2.15	0.73	0.11	0.16	1.30	1.06	0.82
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.48	0.82	1.25	0.81	0.46	0.46	0.30	0.15	0.17	0.59	0.57	0.52
d, Delay for Lane Group [s/veh]	28.96	23.62	149.61	30.04	14.23	15.32	27.34	14.73	14.91	22.32	20.27	17.50
Lane Group LOS	C	C	F	C	B	B	C	B	B	C	C	B
Critical Lane Group	No	No	Yes	Yes	No	No	No	No	No	No	Yes	No
50th-Percentile Queue Length [veh]	0.95	5.59	24.29	3.27	2.86	3.04	0.92	0.76	0.77	3.06	3.11	2.62
50th-Percentile Queue Length [ft]	23.71	139.77	607.35	81.68	71.40	75.94	22.92	19.00	19.27	76.46	77.70	65.59
95th-Percentile Queue Length [veh]	1.71	9.47	36.87	5.88	5.14	5.47	1.65	1.37	1.39	5.51	5.59	4.72
95th-Percentile Queue Length [ft]	42.67	236.71	921.64	147.02	128.53	136.70	41.26	34.21	34.68	137.63	139.86	118.06

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	28.96	23.62	149.61	30.04	14.49	15.32	27.34	14.73	14.91	21.47	20.27	17.50
Movement LOS	C	C	F	C	B	B	C	B	B	C	C	B
d_A, Approach Delay [s/veh]	63.01			17.54			18.35			20.01		
Approach LOS	E			B			B			C		
d_I, Intersection Delay [s/veh]	39.81											
Intersection LOS	D											
Intersection V/C	1.039											

Sequence

Ring 1	1	2	-	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 19: Date Palm Drive / Dinah Shore Drive

Control Type:	Signalized	Delay (sec / veh):	33.4
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.704

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	2	0	1	2	0	1	1	0	0	1	0	1
Pocket Length [ft]	225.00	100.00	125.00	170.00	100.00	50.00	150.00	100.00	100.00	130.00	100.00	180.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			No		

Volumes

Name												
Base Volume Input [veh/h]	185	483	58	114	538	75	103	483	173	59	427	115
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.83	1.83	1.83	1.44	1.44	1.44	1.67	1.67	1.67	1.67	1.67	1.67
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	24	24	0	31	0	0	0	0	31	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	339	908	130	164	806	108	172	807	289	130	713	192
Peak Hour Factor	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	90	240	34	43	213	29	46	214	77	34	189	51
Total Analysis Volume [veh/h]	359	962	138	174	854	114	182	855	306	138	755	203
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	1 - E Palm Canyon Drive
Cycle Length [s]	100
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Overlap
Signal group	5	2	0	1	6	0	3	8	0	7	4	4
Auxiliary Signal Groups												1,4
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	7
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	30
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	1.0
Split [s]	19	27	0	11	55	0	30	44	0	18	32	32
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	5
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	10
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0
Minimum Recall	No	No		No	No		No	No		No	No	No
Maximum Recall	No	No		No	No		No	No		No	No	No
Pedestrian Recall	No	No		No	No		No	No		No	No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	100	100	100	100	100	100	100	100	100	100	100	100
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	0.00
g_i, Effective Green Time [s]	13	39	39	7	34	34	12	28	28	10	25	36
g / C, Green / Cycle	0.13	0.39	0.39	0.07	0.34	0.34	0.12	0.28	0.28	0.10	0.25	0.36
(v / s)_i Volume / Saturation Flow Rate	0.10	0.19	0.09	0.05	0.17	0.07	0.10	0.24	0.19	0.08	0.21	0.13
s, saturation flow rate [veh/h]	3445	5074	1583	3445	5074	1583	1774	3547	1583	1774	3547	1583
c, Capacity [veh/h]	432	1994	622	243	1715	535	220	996	445	170	896	575
d1, Uniform Delay [s]	42.72	22.74	20.19	45.54	26.36	23.63	42.78	34.09	32.07	44.36	35.50	23.29
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	4.18	0.84	0.82	3.95	1.04	0.91	7.70	2.28	1.90	8.97	2.25	0.37
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

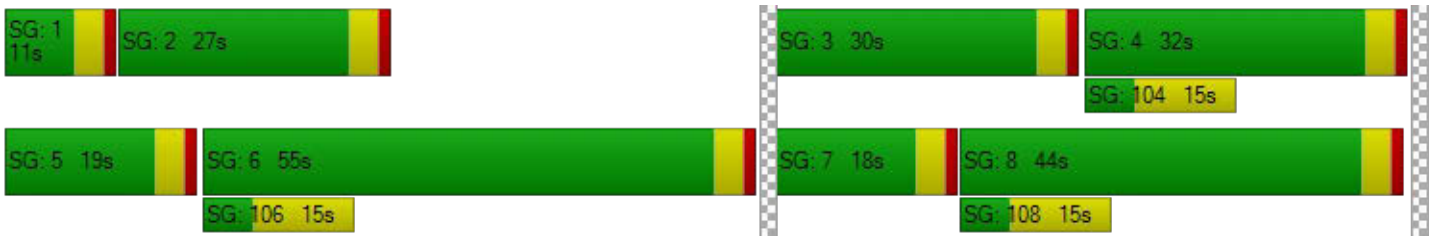
X, volume / capacity	0.83	0.48	0.22	0.72	0.50	0.21	0.83	0.86	0.69	0.81	0.84	0.35
d, Delay for Lane Group [s/veh]	46.91	23.58	21.01	49.49	27.40	24.54	50.48	36.37	33.97	53.34	37.76	23.66
Lane Group LOS	D	C	C	D	C	C	D	D	C	D	D	C
Critical Lane Group	Yes	No	No	No	Yes	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh]	4.45	5.50	2.18	2.19	5.31	1.98	4.73	9.69	6.55	3.68	8.64	3.41
50th-Percentile Queue Length [ft]	111.33	137.52	54.62	54.86	132.80	49.56	118.29	242.35	163.75	92.12	216.06	85.15
95th-Percentile Queue Length [veh]	7.91	9.35	3.93	3.95	9.09	3.57	8.30	14.80	10.75	6.63	13.46	6.13
95th-Percentile Queue Length [ft]	197.85	233.68	98.31	98.75	227.30	89.21	207.47	370.00	268.69	165.82	336.59	153.27

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	46.91	23.58	21.01	49.49	27.40	24.54	50.48	36.37	33.97	53.34	37.76	23.66
Movement LOS	D	C	C	D	C	C	D	D	C	D	D	C
d_A, Approach Delay [s/veh]	29.08			30.48			37.73			37.11		
Approach LOS	C			C			D			D		
d_I, Intersection Delay [s/veh]	33.45											
Intersection LOS	C											
Intersection V/C	0.704											

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 23: East Palm Canyon Drive / Frank Sinatra Drive

Control Type:	Signalized	Delay (sec / veh):	19.9
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.969

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	1	1	0	0	2	0	1
Pocket Length [ft]	160.00	100.00	45.00	325.00	100.00	250.00	100.00	100.00	100.00	120.00	100.00	1200.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			No			Yes		

Volumes

Name												
Base Volume Input [veh/h]	47	1301	147	214	1244	33	34	18	13	141	24	199
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.95	1.95	1.95	1.76	1.76	1.76	1.15	1.15	1.15	1.15	1.15	1.15
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	40	0	24	28	0	0	0	0	0	0	31
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	92	2577	287	401	2217	58	39	21	15	162	28	260
Peak Hour Factor	0.9210	0.9210	0.9210	0.9210	0.9210	0.9210	0.9210	0.9210	0.9210	0.9210	0.9210	0.9210
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	25	700	78	109	602	16	11	6	4	44	8	71
Total Analysis Volume [veh/h]	100	2798	312	435	2407	63	42	23	16	176	30	282
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	6 - N/S
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Overlap	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Overlap
Signal group	5	2	2	1	6	0	3	8	0	7	4	4
Auxiliary Signal Groups			1,2,3,4,									1,2,3,4,
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	7	7	7	0	7	7	0	7	7	7
Maximum Green [s]	30	30	30	30	30	0	30	30	0	30	30	30
Amber [s]	3.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0
All red [s]	1.0	1.0	1.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	1.0
Split [s]	12	68	68	22	78	0	11	19	0	11	19	19
Vehicle Extension [s]	3.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0
Walk [s]	0	5	5	0	5	0	0	5	0	0	5	5
Pedestrian Clearance [s]	0	10	10	0	10	0	0	10	0	0	10	10
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0
Minimum Recall	No	No	No	No	No		No	No		No	No	No
Maximum Recall	No	No	No	No	No		No	No		No	No	No
Pedestrian Recall	No	No	No	No	No		No	No		No	No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	L	C	R
C, Cycle Length [s]	94	94	94	94	94	94	94	94	94	94	94
L, Total Lost Time per Cycle [s]	4.00	4.00	0.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	0.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	0.00	2.00	0.00	0.00	2.00	0.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	8	53	162	18	63	63	6	90	11	2	162
g / C, Green / Cycle	0.08	0.56	1.72	0.19	0.67	0.67	0.06	0.96	0.12	0.02	1.72
(v / s)_i Volume / Saturation Flow Rate	0.07	0.55	0.20	0.16	0.47	0.04	0.03	0.02	0.07	0.02	0.18
s, saturation flow rate [veh/h]	1363	5074	1583	2647	5074	1583	1412	1737	2647	1863	1583
c, Capacity [veh/h]	162	2842	2695	524	3382	1055	129	1663	338	37	2695
d1, Uniform Delay [s]	44.50	20.28	0.00	38.85	9.95	5.45	44.94	0.09	40.93	45.93	0.00
k, delay calibration	0.11	0.11	0.17	0.11	0.11	0.11	0.11	0.50	0.11	0.50	0.13
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	3.77	5.03	0.03	3.46	0.28	0.02	1.45	0.03	1.25	98.50	0.02
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.62	0.98	0.12	0.83	0.71	0.06	0.33	0.02	0.52	0.81	0.10
d, Delay for Lane Group [s/veh]	48.27	25.32	0.03	42.32	10.24	5.47	46.40	0.11	42.17	144.43	0.02
Lane Group LOS	D	C	A	D	B	A	D	A	D	F	A
Critical Lane Group	No	Yes	No	Yes	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh]	2.46	18.31	0.02	5.04	8.32	0.36	1.00	0.01	1.97	1.69	0.01
50th-Percentile Queue Length [ft]	61.42	457.83	0.56	126.10	208.02	9.02	24.96	0.30	49.15	42.19	0.37
95th-Percentile Queue Length [veh]	4.42	25.33	0.04	8.73	13.05	0.65	1.80	0.02	3.54	3.04	0.03
95th-Percentile Queue Length [ft]	110.55	633.29	1.00	218.18	326.29	16.23	44.92	0.54	88.47	75.94	0.66

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	48.27	25.32	0.03	42.32	10.24	5.47	46.40	0.11	0.11	42.17	144.43	0.02
Movement LOS	D	C	A	D	B	A	D	A	A	D	F	A
d_A, Approach Delay [s/veh]	23.58			14.94			24.11			24.10		
Approach LOS	C			B			C			C		
d_I, Intersection Delay [s/veh]	19.87											
Intersection LOS	B											
Intersection V/C	0.969											

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 24: East Palm Canyon Drive / Mirage Cove Drive

Control Type:	Signalized	Delay (sec / veh):	4.4
Analysis Method:	HCM 2010	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	16.332

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	1	1	0	0
Pocket Length [ft]	150.00	100.00	100.00	110.00	100.00	100.00	75.00	100.00	75.00	75.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	40	1394	6	23	1334	43	39	0	21	4	0	23
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.95	1.95	1.95	1.95	1.95	1.95	1.33	1.33	1.33	1.95	1.95	1.95
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	31	0	7	21	0	0	0	0	0	0	9
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	78	2749	12	52	2622	84	52	0	28	8	0	54
Peak Hour Factor	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	20	720	3	14	687	22	14	0	7	2	0	14
Total Analysis Volume [veh/h]	82	2882	13	55	2748	88	55	0	29	8	0	57
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	6 - N/S
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	5	2	0	1	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	7	7	0	7	7	0	0	7	0	0	7	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	11	71	0	11	90	0	0	19	0	0	19	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No	No		No	No			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	L	C	R	L	C
C, Cycle Length [s]	77	77	77	77	77	77	77	77	77	77	77
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	0.00	2.00	0.00	0.00	2.00	0.00	0.00	2.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	7	64	64	5	62	62	73	73	73	73	73
g / C, Green / Cycle	0.09	0.83	0.83	0.06	0.81	0.81	0.95	0.95	0.95	0.95	0.95
(v / s)_i Volume / Saturation Flow Rate	0.06	0.54	0.54	0.04	0.52	0.53	13.20	0.00	0.02	1.80	0.04
s, saturation flow rate [veh/h]	1341	3547	1858	1341	3547	1834	4	1863	1583	4	1583
c, Capacity [veh/h]	177	2946	1544	147	2857	1477	96	1767	1502	96	1502
d1, Uniform Delay [s]	36.22	2.39	2.39	37.18	3.07	3.13	37.28	0.00	0.10	28.28	0.11
k, delay calibration	0.11	0.11	0.18	0.11	0.11	0.11	0.50	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.88	0.24	0.74	1.58	0.25	0.51	22.57	0.00	0.02	1.69	0.05
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.46	0.64	0.65	0.37	0.65	0.66	0.57	0.00	0.02	0.08	0.04
d, Delay for Lane Group [s/veh]	38.10	2.63	3.14	38.76	3.33	3.64	59.84	0.00	0.13	29.97	0.15
Lane Group LOS	D	A	A	D	A	A	E	A	A	C	A
Critical Lane Group	Yes	No	No	No	No	Yes	Yes	No	No	No	No
50th-Percentile Queue Length [veh]	1.56	0.66	0.91	1.06	1.73	1.95	1.72	0.00	0.01	0.21	0.02
50th-Percentile Queue Length [ft]	38.97	16.46	22.74	26.41	43.32	48.81	43.04	0.00	0.25	5.20	0.49
95th-Percentile Queue Length [veh]	2.81	1.18	1.64	1.90	3.12	3.51	3.10	0.00	0.02	0.37	0.04
95th-Percentile Queue Length [ft]	70.15	29.62	40.93	47.54	77.97	87.86	77.47	0.00	0.44	9.37	0.89

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	38.10	2.80	3.14	38.76	3.43	3.64	59.84	0.00	0.13	29.97	0.15	0.15
Movement LOS	D	A	A	D	A	A	E	A	A	C	A	A
d_A, Approach Delay [s/veh]	3.77			4.11			39.23			3.82		
Approach LOS	A			A			D			A		
d_I, Intersection Delay [s/veh]	4.43											
Intersection LOS	A											
Intersection V/C	16.332											

Sequence

Ring 1	1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 27: Van Fleet Street / B Street-West Project Driveway

Control Type:	Two-way stop	Delay (sec / veh):	13.4
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.020

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	1	41	0	0	50	15	5	0	3	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	24	0	76	0	0	0	19	0	0	14	59
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	1	79	0	76	67	20	7	19	4	0	14	59
Peak Hour Factor	0.7570	0.7570	0.7570	0.7570	0.7570	0.7570	0.7570	0.7570	0.7570	0.7570	0.7570	0.7570
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	26	0	25	22	7	2	6	1	0	5	19
Total Analysis Volume [veh/h]	1	104	0	100	89	26	9	25	5	0	18	78
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.07	0.00	0.00	0.02	0.05	0.01	0.00	0.04	0.08
d_M, Delay for Movement [s/veh]	7.44	0.00	0.00	7.59	0.00	0.00	13.39	12.85	9.34	12.96	13.01	9.39
Movement LOS	A	A	A	A	A	A	B	B	A	B	B	A
95th-Percentile Queue Length [veh]	0.23	0.23	0.23	0.51	0.51	0.51	0.24	0.24	0.24	0.40	0.40	0.40
95th-Percentile Queue Length [ft]	5.74	5.74	5.74	12.63	12.63	12.63	6.09	6.09	6.09	10.09	10.09	10.09
d_A, Approach Delay [s/veh]	0.07			3.53			12.53			10.07		
Approach LOS	A			A			B			B		
d_I, Intersection Delay [s/veh]	4.88											
Intersection LOS	B											

Intersection Level Of Service Report
Intersection 28: Van Fleet Street / D Street

Control Type:	Two-way stop	Delay (sec / veh):	10.1
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.012

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	1	32	2	4	42	5	3	5	2	2	1	2
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	9	0	0	0	0	9	0	7	7	24
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	1	43	12	5	56	7	4	16	3	10	8	27
Peak Hour Factor	0.8710	0.8710	0.8710	0.8710	0.8710	0.8710	0.8710	0.8710	0.8710	0.8710	0.8710	0.8710
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	12	3	1	16	2	1	5	1	3	2	8
Total Analysis Volume [veh/h]	1	49	14	6	64	8	5	18	3	11	9	31
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.02	0.00	0.01	0.01	0.03
d_M, Delay for Movement [s/veh]	7.36	0.00	0.00	7.35	0.00	0.00	9.82	10.01	8.78	9.74	10.07	8.80
Movement LOS	A	A	A	A	A	A	A	B	A	A	B	A
95th-Percentile Queue Length [veh]	0.13	0.13	0.13	0.16	0.16	0.16	0.10	0.10	0.10	0.18	0.18	0.18
95th-Percentile Queue Length [ft]	3.28	3.28	3.28	4.00	4.00	4.00	2.61	2.61	2.61	4.48	4.48	4.48
d_A, Approach Delay [s/veh]	0.11			0.57			9.83			9.23		
Approach LOS	A			A			A			A		
d_I, Intersection Delay [s/veh]	3.55											
Intersection LOS	B											

Intersection Level Of Service Report
Intersection 29: South Project Driveway / D Street

Control Type:	Two-way stop	Delay (sec / veh):	9.0
Analysis Method:	HCM 2010	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

Intersection Setup

Name						
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00		40.00		40.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name						
Base Volume Input [veh/h]	0	0	0	5	9	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.33	1.33	1.33	1.33	1.33	1.33
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	38	18	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	38	18	7	12	0
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	10	5	2	3	0
Total Analysis Volume [veh/h]	0	41	20	8	13	0
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.04	0.01	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	8.99	8.51	7.27	0.00	0.00	0.00
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh]	0.12	0.12	0.05	0.05	0.00	0.00
95th-Percentile Queue Length [ft]	2.99	2.99	1.33	1.33	0.00	0.00
d_A, Approach Delay [s/veh]	8.51		5.19		0.00	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	6.03					
Intersection LOS	A					

Traffic Impact Analysis

Vistro File: G:\...\2040 Alt D.vistro
Report File: G:\...\2040 SAT MD ALT D.pdf

Scenario 5 2040 SAT MD ALT D
7/30/2018

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
2	Date Palm Drive / Buddy Rogers Avenue	Two-way stop	HCM 2010	EB Left	0.823	205.3	F
3	Date Palm Drive / East Palm Canyon Drive	Signalized	HCM 2010	EB Left	0.810	20.7	C
4	South Project Driveway-Allen Avenue / East Palm Canyon Drive	Signalized	HCM 2010	SB Left	0.787	4.7	A
5	Monty Hall Drive-Van Fleet Avenue / East Palm Canyon Drive	Signalized	HCM 2010	EB Left	0.501	8.9	A
9	Buddy Rogers Avenue/ East Palm Canyon Drive	Signalized	HCM 2010	SB Right	0.429	3.5	A
10	Cathedral Canyon Drive / East Palm Canyon Drive	Signalized	HCM 2010	WB Left	0.619	23.2	C
11	Perez Road / East Palm Canyon Drive	Signalized	HCM 2010	WB Left	0.830	24.6	C
12	Canyon Plaza Drive / East Palm Canyon Drive	Signalized	HCM 2010	WB Left	0.669	11.4	B
14	Cathedral Canyon Drive / Officer David Vasquez Road	Signalized	HCM 2010	SB Left	0.261	4.3	A
15	Cathedral Canyon Drive / Perez Road	Signalized	HCM 2010	SB Left	0.588	23.4	C
16	Cathedral Canyon Drive / Paseo Real	Two-way stop	HCM 2010	WB Thru	0.076	46.5	E
17	Cathedral Canyon Drive / Dinah Shore Drive	Signalized	HCM 2010	SB Left	0.810	29.2	C
18	Date Palm Drive / Gerald Ford Drive	Signalized	HCM 2010	NB Right	1.039	39.8	D
19	Date Palm Drive / Dinah Shore Drive	Signalized	HCM 2010	WB Left	0.704	33.4	C
23	East Palm Canyon Drive / Frank Sinatra Drive	Signalized	HCM 2010	WB Thru	0.969	19.9	B
24	East Palm Canyon Drive / Mirage Cove Drive	Signalized	HCM 2010	EB Left	16.332	4.4	A

27	Van Fleet Street / B Street-West Project Driveway	Two-way stop	HCM 2010	EB Left	0.020	13.4	B
28	Van Fleet Street / D Street	Two-way stop	HCM 2010	WB Thru	0.012	10.1	B
29	South Project Driveway / D Street	Two-way stop	HCM 2010	SB Left	0.000	9.0	A

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. for all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report
Intersection 2: Date Palm Drive / Buddy Rogers Avenue

Control Type:	Two-way stop	Delay (sec / veh):	205.3
Analysis Method:	HCM 2010	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.823

Intersection Setup

Name						
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	0	0	0
Pocket Length [ft]	150.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00		40.00		40.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

Volumes

Name						
Base Volume Input [veh/h]	4	492	513	25	29	14
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	2.97	2.97	2.97	2.97	1.33	1.33
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	72	93	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	12	1533	1617	74	39	19
Peak Hour Factor	0.9410	0.9410	0.9410	0.9410	0.9410	0.9410
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	407	430	20	10	5
Total Analysis Volume [veh/h]	13	1629	1718	79	41	20
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.08	0.02	0.02	0.00	0.82	0.08
d_M, Delay for Movement [s/veh]	29.76	0.00	0.00	0.00	205.26	147.83
Movement LOS	D	A	A	A	F	F
95th-Percentile Queue Length [veh]	0.26	0.00	0.00	0.00	4.40	4.40
95th-Percentile Queue Length [ft]	6.61	0.00	0.00	0.00	110.08	110.08
d_A, Approach Delay [s/veh]	0.24		0.00		186.43	
Approach LOS	A		A		F	
d_I, Intersection Delay [s/veh]	3.36					
Intersection LOS	F					

Intersection Level Of Service Report
Intersection 3: Date Palm Drive / East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	20.7
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.810

Intersection Setup

Name						
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	1	2	0	0	0
Pocket Length [ft]	230.00	230.00	195.00	100.00	100.00	100.00
Speed [mph]	40.00		40.00		40.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		Yes		No	

Volumes

Name						
Base Volume Input [veh/h]	339	121	149	1198	1174	347
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.46	1.46	1.16	1.16	1.76	1.76
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	93	72	52	71	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	495	270	245	1442	2137	611
Peak Hour Factor	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	133	73	66	388	574	164
Total Analysis Volume [veh/h]	532	290	263	1551	2298	657
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	1 - E Palm Canyon Drive
Cycle Length [s]	100
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Split	Split	Protected	Permissive	Permissive	Overlap
Signal group	1	0	3	8	4	4
Auxiliary Signal Groups						4
Lead / Lag	Lead	-	Lead	-	-	-
Minimum Green [s]	7	0	7	7	7	7
Maximum Green [s]	30	0	30	30	30	30
Amber [s]	3.0	0.0	3.0	3.0	3.0	3.0
All red [s]	1.0	0.0	1.0	1.0	1.0	1.0
Split [s]	70	0	11	30	19	19
Vehicle Extension [s]	3.0	0.0	3.0	3.0	3.0	3.0
Walk [s]	5	0	0	5	5	5
Pedestrian Clearance [s]	10	0	0	10	10	10
Rest In Walk	No			No	No	
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0
Minimum Recall	No		No	No	No	No
Maximum Recall	No		No	No	No	No
Pedestrian Recall	No		No	No	No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	R	L	C	C	R
C, Cycle Length [s]	100	100	100	100	100	100
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	22	22	10	70	56	56
g / C, Green / Cycle	0.22	0.22	0.10	0.70	0.56	0.56
(v / s)_i Volume / Saturation Flow Rate	0.10	0.18	0.08	0.31	0.45	0.41
s, saturation flow rate [veh/h]	5168	1583	3445	5074	5074	1583
c, Capacity [veh/h]	1140	349	352	3549	2829	883
d1, Uniform Delay [s]	33.87	37.20	43.65	6.50	17.90	16.74
k, delay calibration	0.11	0.11	0.11	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.30	5.12	3.19	0.39	2.67	5.66
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.47	0.83	0.75	0.44	0.81	0.74
d, Delay for Lane Group [s/veh]	34.17	42.31	46.84	6.90	20.57	22.40
Lane Group LOS	C	D	D	A	C	C
Critical Lane Group	No	Yes	Yes	No	Yes	No
50th-Percentile Queue Length [veh]	3.65	7.00	3.23	3.86	13.23	11.44
50th-Percentile Queue Length [ft]	91.31	174.98	80.82	96.48	330.73	285.93
95th-Percentile Queue Length [veh]	6.57	11.34	5.82	6.95	19.19	16.98
95th-Percentile Queue Length [ft]	164.35	283.45	145.48	173.67	479.85	424.59

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	34.17	42.31	46.84	6.90	20.57	22.40
Movement LOS	C	D	D	A	C	C
d_A, Approach Delay [s/veh]	37.04		12.69		20.98	
Approach LOS	D		B		C	
d_I, Intersection Delay [s/veh]	20.65					
Intersection LOS	C					
Intersection V/C	0.810					

Sequence

Ring 1	1	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 4: South Project Driveway-Allen Avenue / East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	4.7
Analysis Method:	HCM 2010	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.787

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	1	0	1	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	95.00	100.00	185.00	135.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	0	0	0	2	0	3	8	1365	0	0	1343	20
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	24	0	100	0	0	0	0	24	31	164	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	24	0	100	2	0	3	9	1607	31	164	1558	23
Peak Hour Factor	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	6	0	26	1	0	1	2	423	8	43	410	6
Total Analysis Volume [veh/h]	25	0	105	2	0	3	9	1693	33	173	1642	24
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	1 - E Palm Canyon Drive
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	0	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	7	0	0	7	0	0	7	0	0	7	0
Maximum Green [s]	0	30	0	0	30	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	19	0	0	19	0	0	41	0	0	41	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No			No			No			No	
Maximum Recall		No			No			No			No	
Pedestrian Recall		No			No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	L	C	L	C	R	L	C	R
C, Cycle Length [s]	60	60	60	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	2.00	0.00	2.00	0.00	0.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	6	6	6	46	46	46	46	46	46
g / C, Green / Cycle	0.11	0.11	0.11	0.76	0.76	0.76	0.76	0.76	0.76
(v / s)_i Volume / Saturation Flow Rate	0.08	0.00	0.00	0.03	0.33	0.02	0.60	0.32	0.02
s, saturation flow rate [veh/h]	1547	1284	1583	304	5074	1583	289	5074	1583
c, Capacity [veh/h]	237	130	169	301	3857	1203	291	3857	1203
d1, Uniform Delay [s]	26.14	29.61	24.01	5.02	2.59	1.77	12.46	2.56	1.76
k, delay calibration	0.11	0.11	0.11	0.50	0.50	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.99	0.05	0.04	0.18	0.36	0.04	8.66	0.35	0.03
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

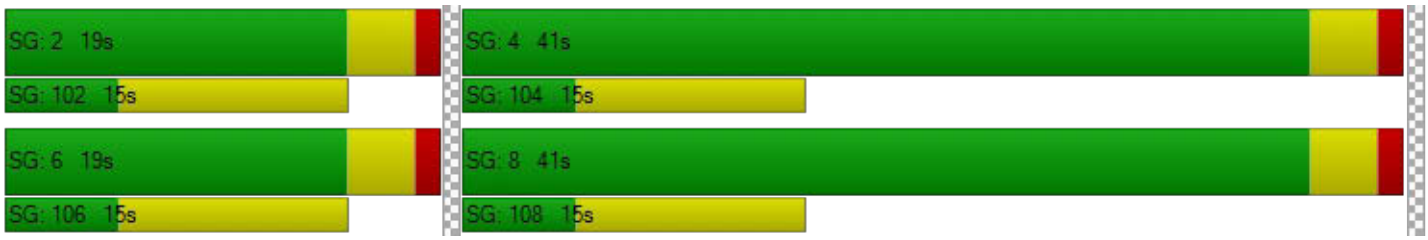
X, volume / capacity	0.55	0.02	0.02	0.03	0.44	0.03	0.59	0.43	0.02
d, Delay for Lane Group [s/veh]	28.13	29.66	24.05	5.20	2.96	1.81	21.12	2.90	1.79
Lane Group LOS	C	C	C	A	A	A	C	A	A
Critical Lane Group	Yes	No	No	No	No	No	Yes	No	No
50th-Percentile Queue Length [veh]	1.77	0.03	0.04	0.05	0.68	0.04	2.19	0.65	0.03
50th-Percentile Queue Length [ft]	44.34	0.70	0.92	1.16	16.93	0.90	54.71	16.15	0.65
95th-Percentile Queue Length [veh]	3.19	0.05	0.07	0.08	1.22	0.06	3.94	1.16	0.05
95th-Percentile Queue Length [ft]	79.81	1.27	1.65	2.10	30.47	1.61	98.47	29.06	1.17

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	28.13	28.13	28.13	29.66	24.05	24.05	5.20	2.96	1.81	21.12	2.90	1.79
Movement LOS	C	C	C	C	C	C	A	A	A	C	A	A
d_A, Approach Delay [s/veh]	28.13			26.29			2.95			4.60		
Approach LOS	C			C			A			A		
d_I, Intersection Delay [s/veh]	4.68											
Intersection LOS	A											
Intersection V/C	0.787											

Sequence

Ring 1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 5: Monty Hall Drive-Van Fleet Avenue / East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	8.9
Analysis Method:	HCM 2010	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.501

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	1	0	1	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	45.00	100.00	100.00	105.00	100.00	130.00	125.00	100.00	180.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	11	1	44	10	9	12	13	1322	16	55	1290	10
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	59	0	24	0	0	0	0	31	76	0	24	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	72	1	75	12	10	14	15	1565	95	64	1520	12
Peak Hour Factor	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	19	0	20	3	3	4	4	408	25	17	396	3
Total Analysis Volume [veh/h]	75	1	78	13	10	15	16	1632	99	67	1585	13
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	1 - E Palm Canyon Drive
Cycle Length [s]	100
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	0	7	7	0	7	7	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	19	0	0	19	0	11	70	0	11	70	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	R	L	C	L	C	R	L	C	R
C, Cycle Length [s]	100	100	100	100	100	100	100	100	100	100
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	11	11	11	11	3	71	71	6	75	75
g / C, Green / Cycle	0.11	0.11	0.11	0.11	0.03	0.71	0.71	0.06	0.75	0.75
(v / s)_i Volume / Saturation Flow Rate	0.08	0.05	0.01	0.01	0.01	0.32	0.06	0.04	0.31	0.01
s, saturation flow rate [veh/h]	935	1583	1410	1684	1774	5074	1583	1774	5074	1583
c, Capacity [veh/h]	173	171	73	182	45	3616	1128	105	3788	1182
d1, Uniform Delay [s]	45.43	41.82	50.00	40.36	47.94	6.09	4.41	46.00	4.67	3.24
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.76	1.88	1.16	0.34	4.75	0.41	0.15	6.30	0.34	0.02
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

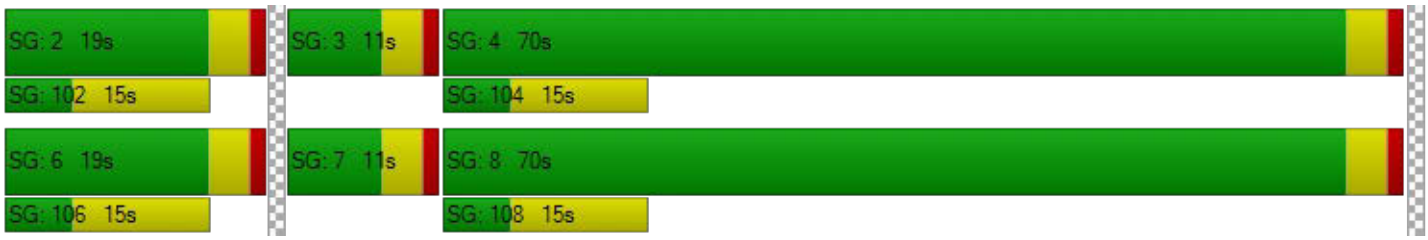
X, volume / capacity	0.44	0.46	0.18	0.14	0.36	0.45	0.09	0.64	0.42	0.01
d, Delay for Lane Group [s/veh]	47.19	43.70	51.16	40.70	52.69	6.50	4.56	52.29	5.01	3.26
Lane Group LOS	D	D	D	D	D	A	A	D	A	A
Critical Lane Group	Yes	No	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh]	1.89	1.85	0.34	0.56	0.44	3.87	0.54	1.77	2.97	0.05
50th-Percentile Queue Length [ft]	47.14	46.18	8.60	14.02	11.06	96.76	13.49	44.27	74.30	1.36
95th-Percentile Queue Length [veh]	3.39	3.32	0.62	1.01	0.80	6.97	0.97	3.19	5.35	0.10
95th-Percentile Queue Length [ft]	84.84	83.12	15.47	25.24	19.91	174.16	24.29	79.69	133.74	2.44

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	47.19	47.19	43.70	51.16	40.70	40.70	52.69	6.50	4.56	52.29	5.01	3.26
Movement LOS	D	D	D	D	D	D	D	A	A	D	A	A
d_A, Approach Delay [s/veh]	45.42			44.28			6.81			6.90		
Approach LOS	D			D			A			A		
d_I, Intersection Delay [s/veh]	8.90											
Intersection LOS	A											
Intersection V/C	0.501											

Sequence

Ring 1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 9: Buddy Rogers Avenue/ East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	3.5
Analysis Method:	HCM 2010	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.429

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	10	1	39	19	2	28	16	1309	2	16	1255	17
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	107	0	0	83	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	12	1	45	22	2	32	19	1625	2	19	1539	20
Peak Hour Factor	0.9360	0.9360	0.9360	0.9360	0.9360	0.9360	0.9360	0.9360	0.9360	0.9360	0.9360	0.9360
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	0	12	6	1	9	5	434	1	5	411	5
Total Analysis Volume [veh/h]	13	1	48	24	2	34	20	1736	2	20	1644	21
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	1 - E Palm Canyon Drive
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	7	0	0	7	0	0	7	0	0	7	0
Maximum Green [s]	0	30	0	0	30	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	19	0	0	19	0	0	101	0	0	101	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No			No			No			No	
Maximum Recall		No			No			No			No	
Pedestrian Recall		No			No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	C	L	C	R	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	2.00	2.00	0.00	0.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	6	6	106	106	106	106	106	106
g / C, Green / Cycle	0.05	0.05	0.88	0.88	0.88	0.88	0.88	0.88
(v / s)_i Volume / Saturation Flow Rate	0.04	0.04	0.07	0.34	0.00	0.07	0.32	0.01
s, saturation flow rate [veh/h]	1636	1360	303	5074	1583	277	5074	1583
c, Capacity [veh/h]	121	113	302	4472	1395	280	4472	1395
d1, Uniform Delay [s]	55.96	56.21	2.61	1.28	0.85	2.76	1.25	0.86
k, delay calibration	0.11	0.11	0.50	0.50	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	3.30	3.86	0.42	0.26	0.00	0.49	0.23	0.02
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.51	0.53	0.07	0.39	0.00	0.07	0.37	0.02
d, Delay for Lane Group [s/veh]	59.26	60.07	3.04	1.54	0.85	3.26	1.48	0.88
Lane Group LOS	E	E	A	A	A	A	A	A
Critical Lane Group	No	Yes	No	Yes	No	No	No	No
50th-Percentile Queue Length [veh]	1.93	1.89	0.11	0.65	0.00	0.12	0.60	0.02
50th-Percentile Queue Length [ft]	48.26	47.30	2.70	16.33	0.05	2.88	15.03	0.52
95th-Percentile Queue Length [veh]	3.47	3.41	0.19	1.18	0.00	0.21	1.08	0.04
95th-Percentile Queue Length [ft]	86.86	85.15	4.86	29.39	0.09	5.18	27.06	0.94

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	59.26	59.26	59.26	60.07	60.07	60.07	3.04	1.54	0.85	3.26	1.48	0.88
Movement LOS	E	E	E	E	E	E	A	A	A	A	A	A
d_A, Approach Delay [s/veh]	59.26			60.07			1.55			1.50		
Approach LOS	E			E			A			A		
d_I, Intersection Delay [s/veh]	3.52											
Intersection LOS	A											
Intersection V/C	0.429											

Sequence

Ring 1	2	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 10: Cathedral Canyon Drive / East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	23.2
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.619

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	0	1	0	0	1	0	1
Pocket Length [ft]	100.00	100.00	70.00	90.00	100.00	100.00	238.00	100.00	100.00	190.00	100.00	270.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	71	113	50	127	131	92	110	1151	77	61	1111	120
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.33	1.33	1.33	1.33	1.33	1.33	1.31	1.31	1.31	1.16	1.16	1.16
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	61	0	0	0	46	0	0	36	47
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	94	150	67	230	174	122	144	1554	101	71	1325	186
Peak Hour Factor	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	24	39	17	59	45	32	37	402	26	18	343	48
Total Analysis Volume [veh/h]	97	155	69	238	180	126	149	1607	104	73	1370	192
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	1 - E Palm Canyon Drive
Cycle Length [s]	110
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Overlap	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	6	3	8	0	7	4	0
Auxiliary Signal Groups						3,6						
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	7	7	7	0	7	7	0
Maximum Green [s]	0	30	0	0	30	30	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	1.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	34	0	0	34	34	26	65	0	11	50	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	5	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	10	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No	No	No	No		No	No	
Maximum Recall		No			No	No	No	No		No	No	
Pedestrian Recall		No			No	No	No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	110	110	110	110	110	110	110	110	110	110	110	110
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	0.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	30	30	30	30	30	45	11	62	62	6	57	57
g / C, Green / Cycle	0.27	0.27	0.27	0.27	0.27	0.41	0.10	0.56	0.56	0.06	0.51	0.51
(v / s)_i Volume / Saturation Flow Rate	0.08	0.08	0.04	0.19	0.10	0.08	0.08	0.32	0.07	0.04	0.27	0.12
s, saturation flow rate [veh/h]	1199	1863	1583	1227	1863	1583	1774	5074	1583	1774	5074	1583
c, Capacity [veh/h]	278	508	432	297	508	654	184	2844	887	102	2609	814
d1, Uniform Delay [s]	40.52	31.72	30.40	44.88	32.19	20.57	48.19	15.55	11.37	50.93	17.78	14.77
k, delay calibration	0.11	0.11	0.11	0.24	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.75	0.34	0.17	10.44	0.42	0.14	8.11	0.82	0.27	8.89	0.76	0.68
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

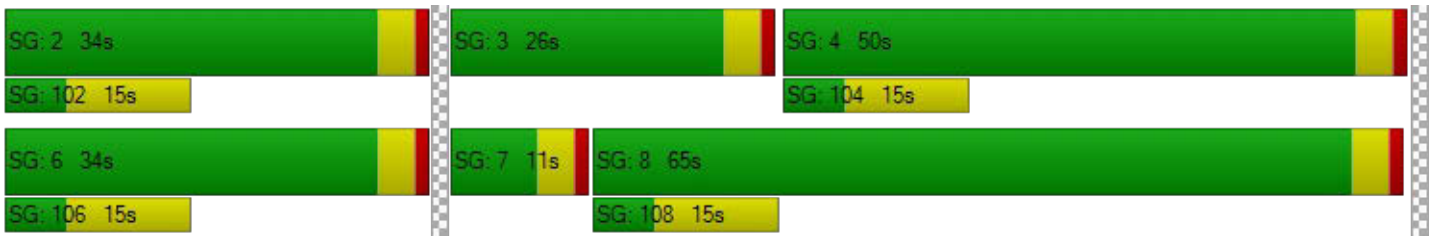
X, volume / capacity	0.35	0.31	0.16	0.80	0.35	0.19	0.81	0.57	0.12	0.71	0.53	0.24
d, Delay for Lane Group [s/veh]	41.27	32.05	30.57	55.32	32.61	20.72	56.30	16.37	11.64	59.81	18.54	15.45
Lane Group LOS	D	C	C	E	C	C	E	B	B	E	B	B
Critical Lane Group	No	No	No	Yes	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh]	2.36	3.24	1.38	7.19	3.82	2.02	4.33	8.12	1.19	2.19	7.38	2.67
50th-Percentile Queue Length [ft]	58.98	80.98	34.57	179.86	95.53	50.60	108.15	202.88	29.70	54.78	184.46	66.67
95th-Percentile Queue Length [veh]	4.25	5.83	2.49	11.59	6.88	3.64	7.74	12.79	2.14	3.94	11.83	4.80
95th-Percentile Queue Length [ft]	106.16	145.77	62.22	289.83	171.95	91.08	193.43	319.68	53.46	98.60	295.83	120.01

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	41.27	32.05	30.57	55.32	32.61	20.72	56.30	16.37	11.64	59.81	18.54	15.45
Movement LOS	D	C	C	E	C	C	E	B	B	E	B	B
d_A, Approach Delay [s/veh]	34.52			39.79			19.30			20.02		
Approach LOS	C			D			B			C		
d_I, Intersection Delay [s/veh]	23.25											
Intersection LOS	C											
Intersection V/C	0.619											

Sequence

Ring 1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 11: Perez Road / East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	24.6
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.830

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	150.00	100.00	100.00	170.00	100.00	45.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	9	9	4	17	10	257	212	1274	4	4	1270	21
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.33	1.33	1.33	1.33	1.33	1.33	1.64	1.64	1.64	1.31	1.31	1.31
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	46	0	0	36	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	12	12	5	23	13	342	348	2135	7	5	1700	28
Peak Hour Factor	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	3	1	6	3	88	89	548	2	1	436	7
Total Analysis Volume [veh/h]	12	12	5	24	13	351	357	2192	7	5	1745	29
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	0	7	7	0	7	7	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	19	0	0	19	0	13	40	0	42	69	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	R	L	C	C	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	4	4	16	16	16	15	82	82	1	69	69
g / C, Green / Cycle	0.04	0.04	0.13	0.13	0.13	0.12	0.69	0.69	0.01	0.57	0.57
(v / s)_i Volume / Saturation Flow Rate	0.01	0.01	0.01	0.11	0.11	0.10	0.41	0.41	0.00	0.49	0.02
s, saturation flow rate [veh/h]	1774	1771	1774	1600	1583	3445	3547	1860	1774	3547	1583
c, Capacity [veh/h]	66	66	239	216	213	418	2430	1274	18	2035	908
d1, Uniform Delay [s]	56.05	56.21	45.56	50.74	50.75	51.71	10.04	10.04	59.01	21.48	11.11
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.32	2.06	0.18	8.92	9.02	5.07	1.08	2.05	8.54	4.95	0.07
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

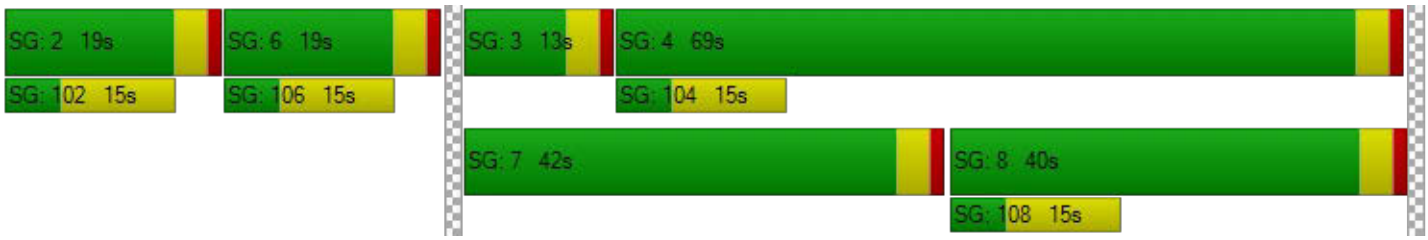
X, volume / capacity	0.18	0.26	0.10	0.85	0.85	0.85	0.59	0.59	0.28	0.86	0.03
d, Delay for Lane Group [s/veh]	57.36	58.27	45.74	59.66	59.77	56.78	11.11	12.09	67.55	26.43	11.18
Lane Group LOS	E	E	D	E	E	E	B	B	E	C	B
Critical Lane Group	No	Yes	No	No	Yes	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh]	0.37	0.53	0.63	5.80	5.75	5.46	9.04	9.83	0.19	20.08	0.34
50th-Percentile Queue Length [ft]	9.30	13.29	15.82	145.08	143.75	136.55	225.88	245.82	4.77	501.95	8.44
95th-Percentile Queue Length [veh]	0.67	0.96	1.14	9.75	9.68	9.29	13.96	14.98	0.34	27.43	0.61
95th-Percentile Queue Length [ft]	16.73	23.92	28.47	243.85	242.06	232.37	349.12	374.38	8.58	685.66	15.20

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	57.36	58.27	58.27	45.74	59.66	59.72	56.78	11.45	12.09	67.55	26.43	11.18
Movement LOS	E	E	E	D	E	E	E	B	B	E	C	B
d_A, Approach Delay [s/veh]	57.89			58.85			17.78			26.29		
Approach LOS	E			E			B			C		
d_I, Intersection Delay [s/veh]	24.57											
Intersection LOS	C											
Intersection V/C	0.830											

Sequence

Ring 1	2	6	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 12: Canyon Plaza Drive / East Palm Canyon Drive

Control Type:	Signalized	Delay (sec / veh):	11.4
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.669

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	1	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	95.00	90.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	55	2	83	6	3	14	10	1457	39	56	1457	11
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.33	1.33	1.33	1.33	1.33	1.33	1.55	1.55	1.55	1.64	1.64	1.64
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	46	0	0	36	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	73	3	110	8	4	19	16	2304	60	92	2425	18
Peak Hour Factor	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	19	1	29	2	1	5	4	601	16	24	632	5
Total Analysis Volume [veh/h]	76	3	115	8	4	20	17	2403	63	96	2529	19
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	0	7	7	0	7	7	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	19	0	0	19	0	11	90	0	11	90	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	L	C	R	L	C	C
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	12	12	12	12	3	88	88	8	93	93
g / C, Green / Cycle	0.10	0.10	0.10	0.10	0.03	0.73	0.73	0.07	0.77	0.77
(v / s)_i Volume / Saturation Flow Rate	0.06	0.07	0.01	0.01	0.01	0.47	0.04	0.05	0.47	0.47
s, saturation flow rate [veh/h]	1381	1589	1269	1624	1774	5074	1583	1774	3547	1856
c, Capacity [veh/h]	158	162	75	166	45	3707	1157	119	2740	1433
d1, Uniform Delay [s]	54.83	52.23	58.94	49.08	57.55	8.28	4.54	55.18	5.87	5.89
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.28	6.05	0.61	0.40	5.18	0.89	0.09	11.80	1.02	1.96
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.48	0.73	0.11	0.14	0.38	0.65	0.05	0.80	0.61	0.61
d, Delay for Lane Group [s/veh]	57.11	58.29	59.55	49.48	62.73	9.17	4.63	66.98	6.90	7.84
Lane Group LOS	E	E	E	D	E	A	A	E	A	A
Critical Lane Group	No	Yes	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh]	2.32	3.66	0.25	0.67	0.57	8.92	0.40	3.21	7.12	7.86
50th-Percentile Queue Length [ft]	58.03	91.50	6.27	16.64	14.13	223.01	10.01	80.20	178.06	196.46
95th-Percentile Queue Length [veh]	4.18	6.59	0.45	1.20	1.02	13.82	0.72	5.77	11.50	12.46
95th-Percentile Queue Length [ft]	104.46	164.70	11.29	29.95	25.43	345.46	18.01	144.35	287.48	311.40

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	57.11	58.29	58.29	59.55	49.48	49.48	62.73	9.17	4.63	66.98	7.22	7.84
Movement LOS	E	E	E	E	D	D	E	A	A	E	A	A
d_A, Approach Delay [s/veh]	57.82			52.00			9.42			9.39		
Approach LOS	E			D			A			A		
d_I, Intersection Delay [s/veh]	11.42											
Intersection LOS	B											
Intersection V/C	0.669											

Sequence

Ring 1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 14: Cathedral Canyon Drive / Officer David Vasquez Road

Control Type:	Signalized	Delay (sec / veh):	4.3
Analysis Method:	HCM 2010	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.261

Intersection Setup

Name						
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	1	0	1	1
Pocket Length [ft]	100.00	100.00	205.00	100.00	120.00	120.00
Speed [mph]	40.00		40.00		40.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		Yes		Yes	

Volumes

Name						
Base Volume Input [veh/h]	344	7	17	370	7	32
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.33	1.33	1.33	1.33	1.33	1.33
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	47	0	0	61	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	505	9	23	553	9	43
Peak Hour Factor	0.8670	0.8670	0.8670	0.8670	0.8670	0.8670
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	146	3	7	159	3	12
Total Analysis Volume [veh/h]	582	10	27	638	10	50
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	2 - N. Cathedral Canyon Drive
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permissive	Permissive	Protected	Permissive	Split	Overlap
Signal group	2	0	1	6	7	7
Auxiliary Signal Groups						1,7
Lead / Lag	-	-	Lead	-	Lead	-
Minimum Green [s]	7	0	7	7	7	7
Maximum Green [s]	30	0	30	30	30	30
Amber [s]	3.0	0.0	3.0	3.0	3.0	3.0
All red [s]	1.0	0.0	1.0	1.0	1.0	1.0
Split [s]	30	0	11	41	19	19
Vehicle Extension [s]	3.0	0.0	3.0	3.0	3.0	3.0
Walk [s]	5	0	0	5	5	5
Pedestrian Clearance [s]	10	0	0	10	10	10
Rest In Walk	No			No	No	
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0
Minimum Recall	No		No	No	No	No
Maximum Recall	No		No	No	No	No
Pedestrian Recall	No		No	No	No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	C	L	C	L	R
C, Cycle Length [s]	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	0.00
g_i, Effective Green Time [s]	41	41	3	48	5	11
g / C, Green / Cycle	0.68	0.68	0.04	0.79	0.07	0.18
(v / s)_i Volume / Saturation Flow Rate	0.16	0.16	0.02	0.18	0.00	0.03
s, saturation flow rate [veh/h]	1863	1852	1774	3547	3445	1583
c, Capacity [veh/h]	1267	1259	79	2806	262	296
d1, Uniform Delay [s]	3.66	3.67	27.88	1.60	25.76	20.53
k, delay calibration	0.50	0.50	0.11	0.50	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.43	0.44	2.53	0.19	0.06	0.27
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

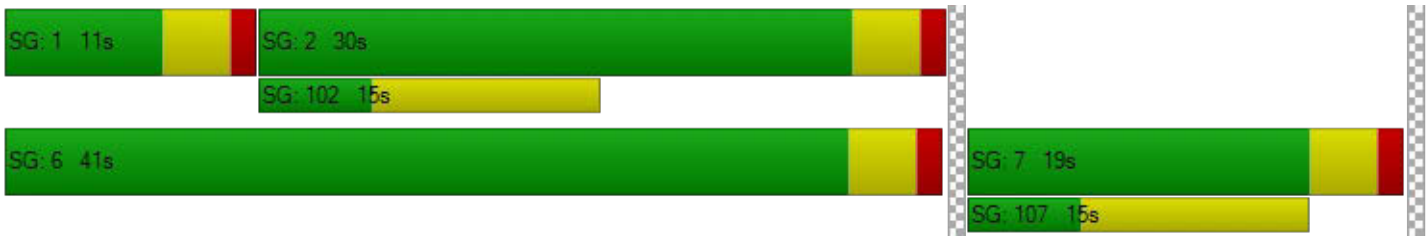
X, volume / capacity	0.23	0.24	0.34	0.23	0.04	0.17
d, Delay for Lane Group [s/veh]	4.10	4.11	30.41	1.79	25.82	20.80
Lane Group LOS	A	A	C	A	C	C
Critical Lane Group	No	No	No	Yes	No	Yes
50th-Percentile Queue Length [veh]	0.85	0.85	0.40	0.13	0.06	0.55
50th-Percentile Queue Length [ft]	21.15	21.20	10.04	3.15	1.57	13.80
95th-Percentile Queue Length [veh]	1.52	1.53	0.72	0.23	0.11	0.99
95th-Percentile Queue Length [ft]	38.08	38.16	18.08	5.67	2.83	24.84

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	4.10	4.11	30.41	1.79	25.82	20.80
Movement LOS	A	A	C	A	C	C
d_A, Approach Delay [s/veh]	4.10		2.95		21.63	
Approach LOS	A		A		C	
d_I, Intersection Delay [s/veh]	4.32					
Intersection LOS	A					
Intersection V/C	0.261					

Sequence

Ring 1	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	7	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 15: Cathedral Canyon Drive / Perez Road

Control Type:	Signalized	Delay (sec / veh):	23.4
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.588

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	1	1	0	0
Pocket Length [ft]	95.00	100.00	100.00	205.00	100.00	100.00	100.00	100.00	100.00	150.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	26	297	52	109	282	127	114	192	51	48	207	88
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	47	0	0	61	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	35	442	69	145	436	169	152	255	68	64	275	117
Peak Hour Factor	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	9	113	18	37	112	43	39	65	17	16	71	30
Total Analysis Volume [veh/h]	36	454	71	149	448	174	156	262	70	66	282	120
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	2 - N. Cathedral Canyon Drive
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	19	0	11	19	0	11	19	0	11	19	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	L	C	R	L	C	C
C, Cycle Length [s]	60	60	60	60	60	60	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	3	11	11	7	14	14	7	22	22	5	20	20
g / C, Green / Cycle	0.05	0.18	0.18	0.11	0.24	0.24	0.11	0.36	0.36	0.08	0.33	0.33
(v / s)_i Volume / Saturation Flow Rate	0.02	0.14	0.14	0.08	0.17	0.18	0.09	0.07	0.04	0.04	0.11	0.12
s, saturation flow rate [veh/h]	1774	1863	1776	1774	1863	1688	1774	3547	1583	1774	1863	1679
c, Capacity [veh/h]	98	342	326	194	442	400	202	1286	574	141	612	551
d1, Uniform Delay [s]	27.46	23.47	23.50	26.12	21.26	21.27	25.97	13.22	12.81	26.54	15.32	15.37
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.27	3.95	4.28	6.32	2.42	2.70	6.22	0.36	0.43	2.41	1.52	1.75
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.37	0.78	0.79	0.77	0.74	0.74	0.77	0.20	0.12	0.47	0.34	0.35
d, Delay for Lane Group [s/veh]	29.73	27.42	27.79	32.45	23.67	23.98	32.19	13.58	13.25	28.95	16.83	17.12
Lane Group LOS	C	C	C	C	C	C	C	B	B	C	B	B
Critical Lane Group	No	No	Yes	Yes	No	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh]	0.52	3.60	3.49	2.22	4.01	3.68	2.31	1.10	0.60	0.92	2.11	1.99
50th-Percentile Queue Length [ft]	13.00	89.89	87.24	55.53	100.21	92.01	57.81	27.38	15.08	23.02	52.66	49.65
95th-Percentile Queue Length [veh]	0.94	6.47	6.28	4.00	7.22	6.62	4.16	1.97	1.09	1.66	3.79	3.57
95th-Percentile Queue Length [ft]	23.40	161.81	157.03	99.95	180.38	165.61	104.06	49.29	27.15	41.43	94.78	89.36

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	29.73	27.57	27.79	32.45	23.75	23.98	32.19	13.58	13.25	28.95	16.91	17.12
Movement LOS	C	C	C	C	C	C	C	B	B	C	B	B
d_A, Approach Delay [s/veh]	27.74			25.48			19.48			18.66		
Approach LOS	C			C			B			B		
d_I, Intersection Delay [s/veh]	23.36											
Intersection LOS	C											
Intersection V/C	0.588											

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 16: Cathedral Canyon Drive / Paseo Real

Control Type:	Two-way stop	Delay (sec / veh):	46.5
Analysis Method:	HCM 2010	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.076

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	0	0	0	0	0	0
Pocket Length [ft]	55.00	100.00	100.00	55.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name												
Base Volume Input [veh/h]	11	482	9	16	509	19	11	5	16	9	6	14
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	40	7	0	52	0	0	0	0	9	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	15	681	19	21	729	25	15	7	21	21	8	19
Peak Hour Factor	0.9680	0.9680	0.9680	0.9680	0.9680	0.9680	0.9680	0.9680	0.9680	0.9680	0.9680	0.9680
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	176	5	5	188	6	4	2	5	5	2	5
Total Analysis Volume [veh/h]	15	704	20	22	753	26	15	7	22	22	8	20
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.02	0.01	0.00	0.03	0.01	0.00	0.12	0.07	0.04	0.17	0.08	0.03
d_M, Delay for Movement [s/veh]	9.40	0.00	0.00	9.22	0.00	0.00	38.90	44.14	16.03	39.68	46.49	17.99
Movement LOS	A	A	A	A	A	A	E	E	C	E	E	C
95th-Percentile Queue Length [veh]	0.05	0.00	0.00	0.08	0.00	0.00	0.82	0.82	0.82	1.07	1.07	1.07
95th-Percentile Queue Length [ft]	1.37	0.00	0.00	1.93	0.00	0.00	20.55	20.55	20.55	26.67	26.67	26.67
d_A, Approach Delay [s/veh]	0.19			0.25			28.30			32.10		
Approach LOS	A			A			D			D		
d_I, Intersection Delay [s/veh]	1.95											
Intersection LOS	E											

Intersection Level Of Service Report
Intersection 17: Cathedral Canyon Drive / Dinah Shore Drive

Control Type:	Signalized	Delay (sec / veh):	29.2
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.810

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	130.00	100.00	100.00	75.00	100.00	100.00	100.00	100.00	100.00	150.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	156	237	102	119	230	28	31	587	198	102	575	71
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	12	19	9	0	25	0	0	0	15	12	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	219	334	145	158	331	37	41	781	278	148	765	94
Peak Hour Factor	0.9700	0.9700	0.9700	0.9700	0.9700	0.9700	0.9700	0.9700	0.9700	0.9700	0.9700	0.9700
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	56	86	37	41	85	10	11	201	72	38	197	24
Total Analysis Volume [veh/h]	226	344	149	163	341	38	42	805	287	153	789	97
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	2 - N. Cathedral Canyon Drive
Cycle Length [s]	70
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	16	23	0	12	19	0	12	24	0	11	23	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	L	C	C	L	C	C
C, Cycle Length [s]	70	70	70	70	70	70	70	70	70	70	70	70
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	11	12	12	8	10	10	4	26	26	8	30	30
g / C, Green / Cycle	0.15	0.18	0.18	0.11	0.14	0.14	0.06	0.37	0.37	0.11	0.43	0.43
(v / s)_i Volume / Saturation Flow Rate	0.13	0.14	0.14	0.09	0.10	0.10	0.02	0.31	0.31	0.09	0.24	0.24
s, saturation flow rate [veh/h]	1774	1863	1675	1774	1863	1798	1774	1863	1698	1774	1863	1792
c, Capacity [veh/h]	273	328	295	204	256	247	101	692	630	195	790	760
d1, Uniform Delay [s]	28.83	27.68	27.71	30.31	29.15	29.17	31.98	20.01	20.04	30.47	15.39	15.39
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	6.36	4.21	4.80	7.08	4.41	4.68	2.68	10.79	11.84	6.84	3.00	3.11
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.83	0.79	0.79	0.80	0.75	0.76	0.41	0.82	0.83	0.79	0.57	0.57
d, Delay for Lane Group [s/veh]	35.19	31.89	32.51	37.39	33.55	33.85	34.67	30.80	31.88	37.31	18.39	18.50
Lane Group LOS	D	C	C	D	C	C	C	C	C	D	B	B
Critical Lane Group	No	No	Yes	Yes	No	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh]	3.89	4.21	3.86	2.90	3.20	3.13	0.72	9.38	8.76	2.72	5.34	5.16
50th-Percentile Queue Length [ft]	97.30	105.19	96.48	72.47	80.03	78.25	18.07	234.47	218.92	67.90	133.43	129.01
95th-Percentile Queue Length [veh]	7.01	7.57	6.95	5.22	5.76	5.63	1.30	14.40	13.61	4.89	9.13	8.89
95th-Percentile Queue Length [ft]	175.14	189.29	173.67	130.45	144.05	140.85	32.52	360.04	340.25	122.22	228.14	222.15

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	35.19	32.04	32.51	37.39	33.68	33.85	34.67	31.12	31.88	37.31	18.44	18.50
Movement LOS	D	C	C	D	C	C	C	C	C	D	B	B
d_A, Approach Delay [s/veh]	33.13			34.81			31.44			21.22		
Approach LOS	C			C			C			C		
d_I, Intersection Delay [s/veh]	29.23											
Intersection LOS	C											
Intersection V/C	0.810											

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	



Intersection Level Of Service Report
Intersection 18: Date Palm Drive / Gerald Ford Drive

Control Type:	Signalized	Delay (sec / veh):	39.8
Analysis Method:	HCM 2010	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.039

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	85.00	100.00	85.00	160.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			Yes			Yes			No		

Volumes

Name												
Base Volume Input [veh/h]	22	418	198	120	415	61	36	46	46	196	44	127
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	2.97	2.97	2.97	1.83	1.83	1.83	1.83	1.83	1.83	1.97	1.97	1.97
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	48	24	0	62	0	0	0	0	31	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	65	1289	612	220	821	112	66	84	84	417	87	250
Peak Hour Factor	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	17	336	160	57	214	29	17	22	22	109	23	65
Total Analysis Volume [veh/h]	68	1346	639	230	857	117	69	88	88	435	91	261
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	6 - N/S
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Split	Split	Split	Split	Split	Split
Signal group	5	2	0	1	6	0	3	8	0	7	4	4
Auxiliary Signal Groups												1,4
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	7	7	0	7	7	0	0	7	0	0	7	7
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	30
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	3.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	1.0
Split [s]	11	45	0	18	52	0	0	27	0	0	27	27
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	3.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	5
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	10
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	2.0
Minimum Recall	No	No		No	No			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	C	L	C	C	L	C	R
C, Cycle Length [s]	60	60	60	60	60	60	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.00	0.00	2.00	2.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	5	19	19	10	24	24	19	19	19	19	19	19
g / C, Green / Cycle	0.08	0.32	0.32	0.16	0.40	0.40	0.32	0.32	0.32	0.32	0.32	0.32
(v / s)_i Volume / Saturation Flow Rate	0.04	0.27	0.40	0.13	0.18	0.18	0.05	0.05	0.06	0.21	0.23	0.16
s, saturation flow rate [veh/h]	1774	5074	1583	1774	3547	1751	1300	1863	1583	1204	1194	1583
c, Capacity [veh/h]	141	1634	510	282	1424	703	229	594	505	428	481	505
d1, Uniform Delay [s]	26.44	18.78	20.35	24.38	13.17	13.18	26.61	14.62	14.75	21.02	19.21	16.68
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.52	4.85	129.26	5.65	1.06	2.15	0.73	0.11	0.16	1.30	1.06	0.82
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.48	0.82	1.25	0.81	0.46	0.46	0.30	0.15	0.17	0.59	0.57	0.52
d, Delay for Lane Group [s/veh]	28.96	23.62	149.61	30.04	14.23	15.32	27.34	14.73	14.91	22.32	20.27	17.50
Lane Group LOS	C	C	F	C	B	B	C	B	B	C	C	B
Critical Lane Group	No	No	Yes	Yes	No	No	No	No	No	No	Yes	No
50th-Percentile Queue Length [veh]	0.95	5.59	24.29	3.27	2.86	3.04	0.92	0.76	0.77	3.06	3.11	2.62
50th-Percentile Queue Length [ft]	23.71	139.77	607.35	81.68	71.40	75.94	22.92	19.00	19.27	76.46	77.70	65.59
95th-Percentile Queue Length [veh]	1.71	9.47	36.87	5.88	5.14	5.47	1.65	1.37	1.39	5.51	5.59	4.72
95th-Percentile Queue Length [ft]	42.67	236.71	921.64	147.02	128.53	136.70	41.26	34.21	34.68	137.63	139.86	118.06

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	28.96	23.62	149.61	30.04	14.49	15.32	27.34	14.73	14.91	21.47	20.27	17.50
Movement LOS	C	C	F	C	B	B	C	B	B	C	C	B
d_A, Approach Delay [s/veh]	63.01			17.54			18.35			20.01		
Approach LOS	E			B			B			C		
d_I, Intersection Delay [s/veh]	39.81											
Intersection LOS	D											
Intersection V/C	1.039											

Sequence

Ring 1	1	2	-	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 19: Date Palm Drive / Dinah Shore Drive

Control Type:	Signalized	Delay (sec / veh):	33.4
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.704

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	2	0	1	2	0	1	1	0	0	1	0	1
Pocket Length [ft]	225.00	100.00	125.00	170.00	100.00	50.00	150.00	100.00	100.00	130.00	100.00	180.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			No		

Volumes

Name												
Base Volume Input [veh/h]	185	483	58	114	538	75	103	483	173	59	427	115
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.83	1.83	1.83	1.44	1.44	1.44	1.67	1.67	1.67	1.67	1.67	1.67
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	24	24	0	31	0	0	0	0	31	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	339	908	130	164	806	108	172	807	289	130	713	192
Peak Hour Factor	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	90	240	34	43	213	29	46	214	77	34	189	51
Total Analysis Volume [veh/h]	359	962	138	174	854	114	182	855	306	138	755	203
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	1 - E Palm Canyon Drive
Cycle Length [s]	100
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Overlap
Signal group	5	2	0	1	6	0	3	8	0	7	4	4
Auxiliary Signal Groups												1,4
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	7
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	30
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	1.0
Split [s]	19	27	0	11	55	0	30	44	0	18	32	32
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	5
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	10
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0
Minimum Recall	No	No		No	No		No	No		No	No	No
Maximum Recall	No	No		No	No		No	No		No	No	No
Pedestrian Recall	No	No		No	No		No	No		No	No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	100	100	100	100	100	100	100	100	100	100	100	100
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	0.00
g_i, Effective Green Time [s]	13	39	39	7	34	34	12	28	28	10	25	36
g / C, Green / Cycle	0.13	0.39	0.39	0.07	0.34	0.34	0.12	0.28	0.28	0.10	0.25	0.36
(v / s)_i Volume / Saturation Flow Rate	0.10	0.19	0.09	0.05	0.17	0.07	0.10	0.24	0.19	0.08	0.21	0.13
s, saturation flow rate [veh/h]	3445	5074	1583	3445	5074	1583	1774	3547	1583	1774	3547	1583
c, Capacity [veh/h]	432	1994	622	243	1715	535	220	996	445	170	896	575
d1, Uniform Delay [s]	42.72	22.74	20.19	45.54	26.36	23.63	42.78	34.09	32.07	44.36	35.50	23.29
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	4.18	0.84	0.82	3.95	1.04	0.91	7.70	2.28	1.90	8.97	2.25	0.37
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

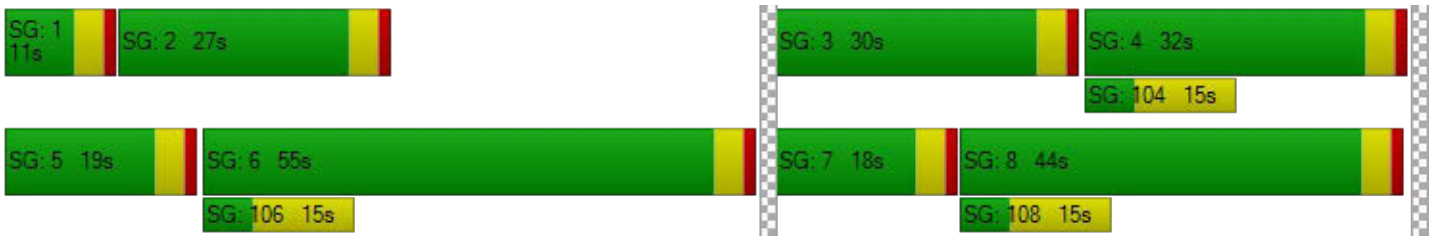
X, volume / capacity	0.83	0.48	0.22	0.72	0.50	0.21	0.83	0.86	0.69	0.81	0.84	0.35
d, Delay for Lane Group [s/veh]	46.91	23.58	21.01	49.49	27.40	24.54	50.48	36.37	33.97	53.34	37.76	23.66
Lane Group LOS	D	C	C	D	C	C	D	D	C	D	D	C
Critical Lane Group	Yes	No	No	No	Yes	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh]	4.45	5.50	2.18	2.19	5.31	1.98	4.73	9.69	6.55	3.68	8.64	3.41
50th-Percentile Queue Length [ft]	111.33	137.52	54.62	54.86	132.80	49.56	118.29	242.35	163.75	92.12	216.06	85.15
95th-Percentile Queue Length [veh]	7.91	9.35	3.93	3.95	9.09	3.57	8.30	14.80	10.75	6.63	13.46	6.13
95th-Percentile Queue Length [ft]	197.85	233.68	98.31	98.75	227.30	89.21	207.47	370.00	268.69	165.82	336.59	153.27

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	46.91	23.58	21.01	49.49	27.40	24.54	50.48	36.37	33.97	53.34	37.76	23.66
Movement LOS	D	C	C	D	C	C	D	D	C	D	D	C
d_A, Approach Delay [s/veh]	29.08			30.48			37.73			37.11		
Approach LOS	C			C			D			D		
d_I, Intersection Delay [s/veh]	33.45											
Intersection LOS	C											
Intersection V/C	0.704											

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 23: East Palm Canyon Drive / Frank Sinatra Drive

Control Type:	Signalized	Delay (sec / veh):	19.9
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.969

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	1	1	0	0	2	0	1
Pocket Length [ft]	160.00	100.00	45.00	325.00	100.00	250.00	100.00	100.00	100.00	120.00	100.00	1200.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			No			Yes		

Volumes

Name												
Base Volume Input [veh/h]	47	1301	147	214	1244	33	34	18	13	141	24	199
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.95	1.95	1.95	1.76	1.76	1.76	1.15	1.15	1.15	1.15	1.15	1.15
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	40	0	24	28	0	0	0	0	0	0	31
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	92	2577	287	401	2217	58	39	21	15	162	28	260
Peak Hour Factor	0.9210	0.9210	0.9210	0.9210	0.9210	0.9210	0.9210	0.9210	0.9210	0.9210	0.9210	0.9210
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	25	700	78	109	602	16	11	6	4	44	8	71
Total Analysis Volume [veh/h]	100	2798	312	435	2407	63	42	23	16	176	30	282
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	6 - N/S
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Overlap	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Overlap
Signal group	5	2	2	1	6	0	3	8	0	7	4	4
Auxiliary Signal Groups			1,2,3,4,									1,2,3,4,
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	7	7	7	0	7	7	0	7	7	7
Maximum Green [s]	30	30	30	30	30	0	30	30	0	30	30	30
Amber [s]	3.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0
All red [s]	1.0	1.0	1.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	1.0
Split [s]	12	68	68	22	78	0	11	19	0	11	19	19
Vehicle Extension [s]	3.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0
Walk [s]	0	5	5	0	5	0	0	5	0	0	5	5
Pedestrian Clearance [s]	0	10	10	0	10	0	0	10	0	0	10	10
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0
Minimum Recall	No	No	No	No	No		No	No		No	No	No
Maximum Recall	No	No	No	No	No		No	No		No	No	No
Pedestrian Recall	No	No	No	No	No		No	No		No	No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	L	C	R
C, Cycle Length [s]	94	94	94	94	94	94	94	94	94	94	94
L, Total Lost Time per Cycle [s]	4.00	4.00	0.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	0.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	0.00	2.00	0.00	0.00	2.00	0.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	8	53	162	18	63	63	6	90	11	2	162
g / C, Green / Cycle	0.08	0.56	1.72	0.19	0.67	0.67	0.06	0.96	0.12	0.02	1.72
(v / s)_i Volume / Saturation Flow Rate	0.07	0.55	0.20	0.16	0.47	0.04	0.03	0.02	0.07	0.02	0.18
s, saturation flow rate [veh/h]	1363	5074	1583	2647	5074	1583	1412	1737	2647	1863	1583
c, Capacity [veh/h]	162	2842	2695	524	3382	1055	129	1663	338	37	2695
d1, Uniform Delay [s]	44.50	20.28	0.00	38.85	9.95	5.45	44.94	0.09	40.93	45.93	0.00
k, delay calibration	0.11	0.11	0.17	0.11	0.11	0.11	0.11	0.50	0.11	0.50	0.13
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	3.77	5.03	0.03	3.46	0.28	0.02	1.45	0.03	1.25	98.50	0.02
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.62	0.98	0.12	0.83	0.71	0.06	0.33	0.02	0.52	0.81	0.10
d, Delay for Lane Group [s/veh]	48.27	25.32	0.03	42.32	10.24	5.47	46.40	0.11	42.17	144.43	0.02
Lane Group LOS	D	C	A	D	B	A	D	A	D	F	A
Critical Lane Group	No	Yes	No	Yes	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh]	2.46	18.31	0.02	5.04	8.32	0.36	1.00	0.01	1.97	1.69	0.01
50th-Percentile Queue Length [ft]	61.42	457.83	0.56	126.10	208.02	9.02	24.96	0.30	49.15	42.19	0.37
95th-Percentile Queue Length [veh]	4.42	25.33	0.04	8.73	13.05	0.65	1.80	0.02	3.54	3.04	0.03
95th-Percentile Queue Length [ft]	110.55	633.29	1.00	218.18	326.29	16.23	44.92	0.54	88.47	75.94	0.66

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	48.27	25.32	0.03	42.32	10.24	5.47	46.40	0.11	0.11	42.17	144.43	0.02
Movement LOS	D	C	A	D	B	A	D	A	A	D	F	A
d_A, Approach Delay [s/veh]	23.58			14.94			24.11			24.10		
Approach LOS	C			B			C			C		
d_I, Intersection Delay [s/veh]	19.87											
Intersection LOS	B											
Intersection V/C	0.969											

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 24: East Palm Canyon Drive / Mirage Cove Drive

Control Type:	Signalized	Delay (sec / veh):	4.4
Analysis Method:	HCM 2010	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	16.332

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	1	1	0	0
Pocket Length [ft]	150.00	100.00	100.00	110.00	100.00	100.00	75.00	100.00	75.00	75.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	40	1394	6	23	1334	43	39	0	21	4	0	23
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.95	1.95	1.95	1.95	1.95	1.95	1.33	1.33	1.33	1.95	1.95	1.95
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	31	0	7	21	0	0	0	0	0	0	9
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	78	2749	12	52	2622	84	52	0	28	8	0	54
Peak Hour Factor	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	20	720	3	14	687	22	14	0	7	2	0	14
Total Analysis Volume [veh/h]	82	2882	13	55	2748	88	55	0	29	8	0	57
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	6 - N/S
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	5	2	0	1	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	7	7	0	7	7	0	0	7	0	0	7	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	11	71	0	11	90	0	0	19	0	0	19	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No	No		No	No			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	L	C	R	L	C
C, Cycle Length [s]	77	77	77	77	77	77	77	77	77	77	77
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	0.00	2.00	0.00	0.00	2.00	0.00	0.00	2.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	7	64	64	5	62	62	73	73	73	73	73
g / C, Green / Cycle	0.09	0.83	0.83	0.06	0.81	0.81	0.95	0.95	0.95	0.95	0.95
(v / s)_i Volume / Saturation Flow Rate	0.06	0.54	0.54	0.04	0.52	0.53	13.20	0.00	0.02	1.80	0.04
s, saturation flow rate [veh/h]	1341	3547	1858	1341	3547	1834	4	1863	1583	4	1583
c, Capacity [veh/h]	177	2946	1544	147	2857	1477	96	1767	1502	96	1502
d1, Uniform Delay [s]	36.22	2.39	2.39	37.18	3.07	3.13	37.28	0.00	0.10	28.28	0.11
k, delay calibration	0.11	0.11	0.18	0.11	0.11	0.11	0.50	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.88	0.24	0.74	1.58	0.25	0.51	22.57	0.00	0.02	1.69	0.05
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.46	0.64	0.65	0.37	0.65	0.66	0.57	0.00	0.02	0.08	0.04
d, Delay for Lane Group [s/veh]	38.10	2.63	3.14	38.76	3.33	3.64	59.84	0.00	0.13	29.97	0.15
Lane Group LOS	D	A	A	D	A	A	E	A	A	C	A
Critical Lane Group	Yes	No	No	No	No	Yes	Yes	No	No	No	No
50th-Percentile Queue Length [veh]	1.56	0.66	0.91	1.06	1.73	1.95	1.72	0.00	0.01	0.21	0.02
50th-Percentile Queue Length [ft]	38.97	16.46	22.74	26.41	43.32	48.81	43.04	0.00	0.25	5.20	0.49
95th-Percentile Queue Length [veh]	2.81	1.18	1.64	1.90	3.12	3.51	3.10	0.00	0.02	0.37	0.04
95th-Percentile Queue Length [ft]	70.15	29.62	40.93	47.54	77.97	87.86	77.47	0.00	0.44	9.37	0.89

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	38.10	2.80	3.14	38.76	3.43	3.64	59.84	0.00	0.13	29.97	0.15	0.15
Movement LOS	D	A	A	D	A	A	E	A	A	C	A	A
d_A, Approach Delay [s/veh]	3.77			4.11			39.23			3.82		
Approach LOS	A			A			D			A		
d_I, Intersection Delay [s/veh]	4.43											
Intersection LOS	A											
Intersection V/C	16.332											

Sequence

Ring 1	1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 27: Van Fleet Street / B Street-West Project Driveway

Control Type:	Two-way stop	Delay (sec / veh):	13.4
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.020

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	1	41	0	0	50	15	5	0	3	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	24	0	76	0	0	0	19	0	0	14	59
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	1	79	0	76	67	20	7	19	4	0	14	59
Peak Hour Factor	0.7570	0.7570	0.7570	0.7570	0.7570	0.7570	0.7570	0.7570	0.7570	0.7570	0.7570	0.7570
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	26	0	25	22	7	2	6	1	0	5	19
Total Analysis Volume [veh/h]	1	104	0	100	89	26	9	25	5	0	18	78
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.07	0.00	0.00	0.02	0.05	0.01	0.00	0.04	0.08
d_M, Delay for Movement [s/veh]	7.44	0.00	0.00	7.59	0.00	0.00	13.39	12.85	9.34	12.96	13.01	9.39
Movement LOS	A	A	A	A	A	A	B	B	A	B	B	A
95th-Percentile Queue Length [veh]	0.23	0.23	0.23	0.51	0.51	0.51	0.24	0.24	0.24	0.40	0.40	0.40
95th-Percentile Queue Length [ft]	5.74	5.74	5.74	12.63	12.63	12.63	6.09	6.09	6.09	10.09	10.09	10.09
d_A, Approach Delay [s/veh]	0.07			3.53			12.53			10.07		
Approach LOS	A			A			B			B		
d_I, Intersection Delay [s/veh]	4.88											
Intersection LOS	B											

Intersection Level Of Service Report
Intersection 28: Van Fleet Street / D Street

Control Type:	Two-way stop	Delay (sec / veh):	10.1
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.012

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	1	32	2	4	42	5	3	5	2	2	1	2
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	9	0	0	0	0	9	0	7	7	24
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	1	43	12	5	56	7	4	16	3	10	8	27
Peak Hour Factor	0.8710	0.8710	0.8710	0.8710	0.8710	0.8710	0.8710	0.8710	0.8710	0.8710	0.8710	0.8710
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	12	3	1	16	2	1	5	1	3	2	8
Total Analysis Volume [veh/h]	1	49	14	6	64	8	5	18	3	11	9	31
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.02	0.00	0.01	0.01	0.03
d_M, Delay for Movement [s/veh]	7.36	0.00	0.00	7.35	0.00	0.00	9.82	10.01	8.78	9.74	10.07	8.80
Movement LOS	A	A	A	A	A	A	A	B	A	A	B	A
95th-Percentile Queue Length [veh]	0.13	0.13	0.13	0.16	0.16	0.16	0.10	0.10	0.10	0.18	0.18	0.18
95th-Percentile Queue Length [ft]	3.28	3.28	3.28	4.00	4.00	4.00	2.61	2.61	2.61	4.48	4.48	4.48
d_A, Approach Delay [s/veh]	0.11			0.57			9.83			9.23		
Approach LOS	A			A			A			A		
d_I, Intersection Delay [s/veh]	3.55											
Intersection LOS	B											

Intersection Level Of Service Report
Intersection 29: South Project Driveway / D Street

Control Type:	Two-way stop	Delay (sec / veh):	9.0
Analysis Method:	HCM 2010	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

Intersection Setup

Name						
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	40.00		40.00		40.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name						
Base Volume Input [veh/h]	0	0	0	5	9	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.33	1.33	1.33	1.33	1.33	1.33
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	38	18	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	38	18	7	12	0
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	10	5	2	3	0
Total Analysis Volume [veh/h]	0	41	20	8	13	0
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.04	0.01	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	8.99	8.51	7.27	0.00	0.00	0.00
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh]	0.12	0.12	0.05	0.05	0.00	0.00
95th-Percentile Queue Length [ft]	2.99	2.99	1.33	1.33	0.00	0.00
d_A, Approach Delay [s/veh]	8.51		5.19		0.00	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	6.03					
Intersection LOS	A					

APPENDIX L

NOISE MEASUREMENT FILES

Agua Caliente Noise Monitoring Site 1 - 24 Hour

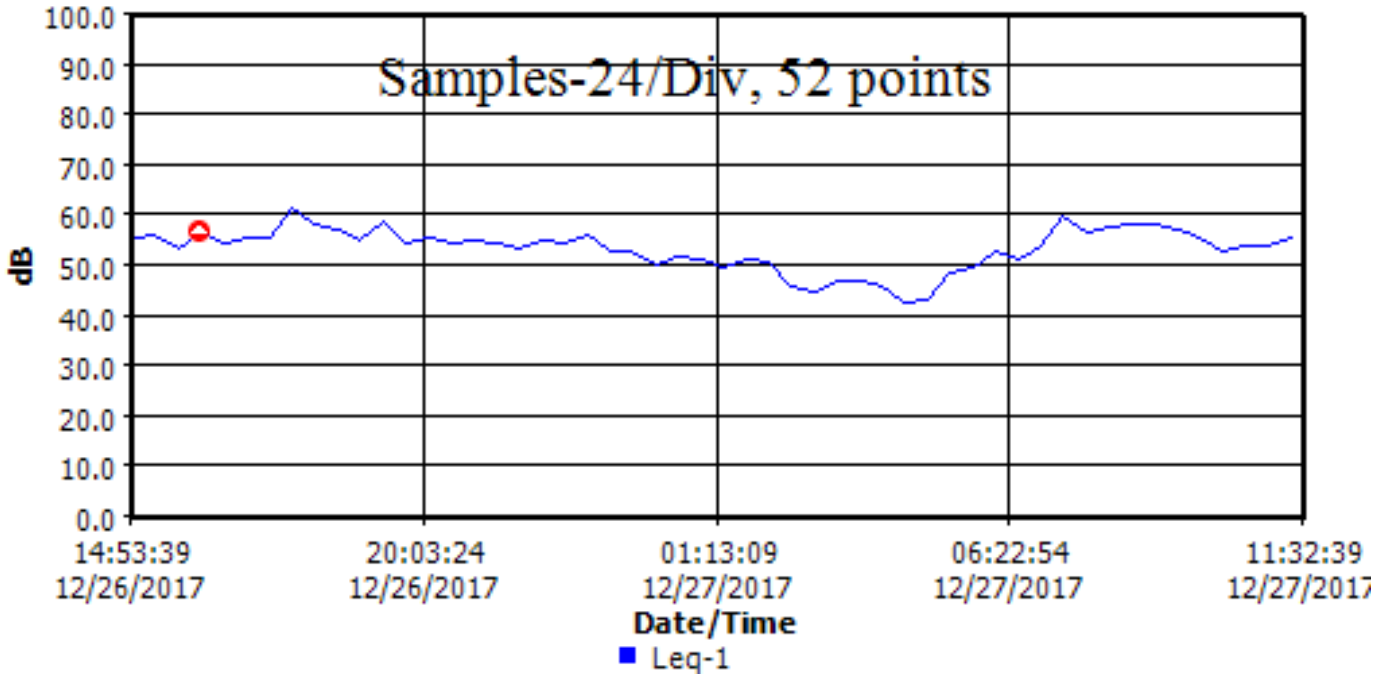
Information Panel

Name	Study 1
Parent Session	AC Site 1 - 24Hour
Location	
Comments	
Start Time	Tuesday, December 26, 2017 14:29:39
Stop Time	Wednesday, December 27, 2017 11:33:37
User Name	

General Data Panel

Description	Meter/Sensor	Value	Description	Meter/Sensor	Value
Weighting	1	A	Response	1	SLOW
Bandwidth	1	OFF	Log Rate	1	60 s
Lmin	1	35.9 dB	Lmax	1	87.6 dB
Leq	1	55 dB	LDN	1	59.7 dB
CNEL	1	60.1 dB			

Logged Data Chart



Agua Caliente Noise Monitoring Site 2 - 24 Hour

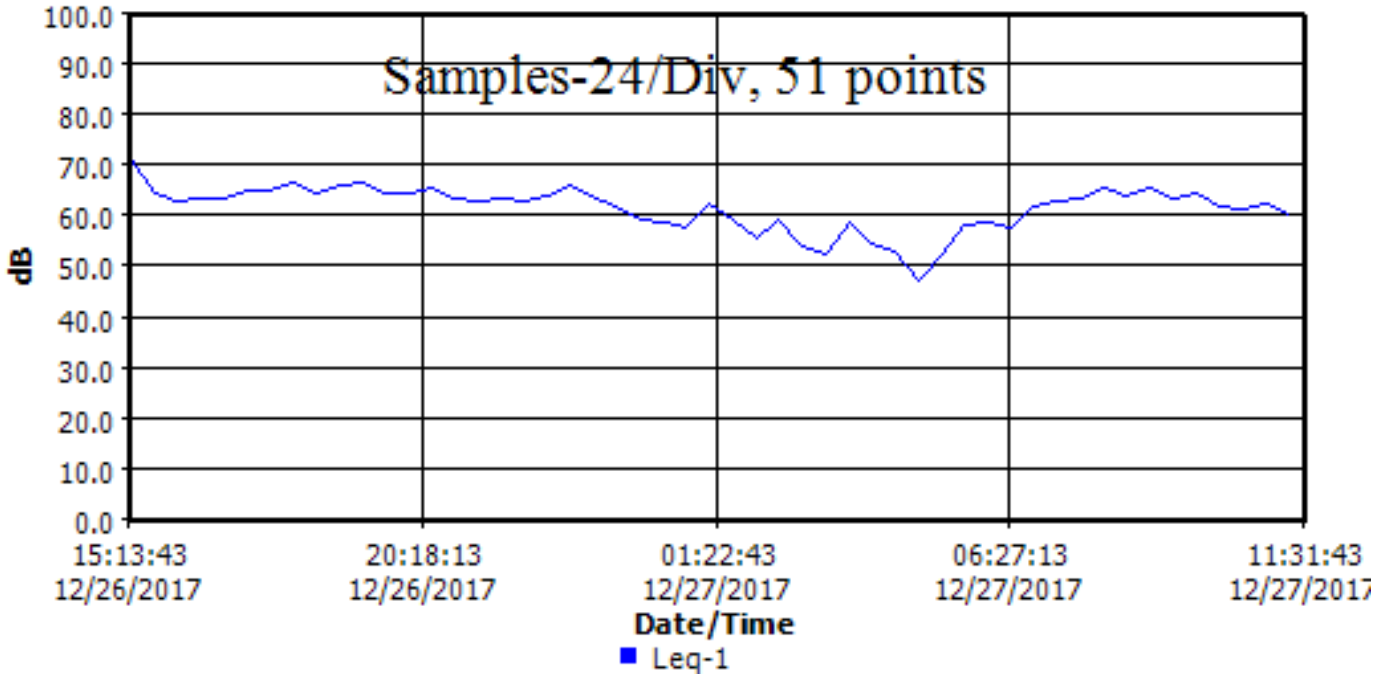
Information Panel

Comments	
Location	
Name	Study 1
Parent Session	AC Site 2 - 24Hour
Start Time	Tuesday, December 26, 2017 14:49:43
Stop Time	Wednesday, December 27, 2017 11:48:58
User Name	

General Data Panel

Description	Meter/Sensor	Value	Description	Meter/Sensor	Value
Weighting	1	A	Response	1	SLOW
Bandwidth	1	OFF	Log Rate	1	60 s
Lmax	1	95.3 dB	Lmin	1	39.7 dB
Leq	1	63.4 dB	CNEL	1	68.5 dB
LDN	1	67.9 dB			

Logged Data Chart



Agua Caliente Noise Monitoring Site 3 - 24 Hour

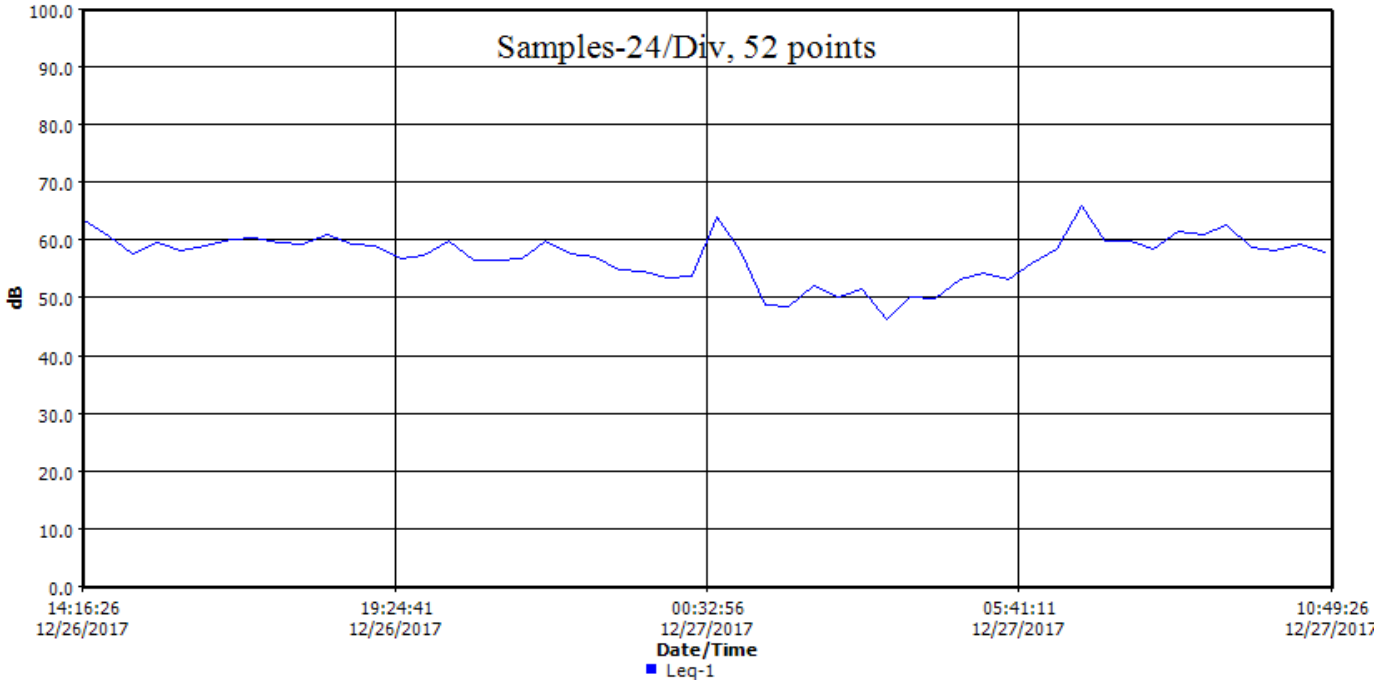
Information Panel

Comments	
Location	
Name	Study 1
Parent Session	AC Site 3 - 24Hour
Start Time	Tuesday, December 26, 2017 13:52:26
Stop Time	Wednesday, December 27, 2017 10:50:19
User Name	

General Data Panel

Description	Meter/Sensor	Value	Description	Meter/Sensor	Value
Weighting	1	A	Response	1	SLOW
Bandwidth	1	OFF	Log Rate	1	60 s
Lmax	1	91.4 dB	Lmin	1	40.2 dB
Leq	1	58.9 dB	CNEL	1	65 dB
LDN	1	64.7 dB			

Logged Data Chart



Agua Caliente Noise Monitoring Site A - 15 Minute

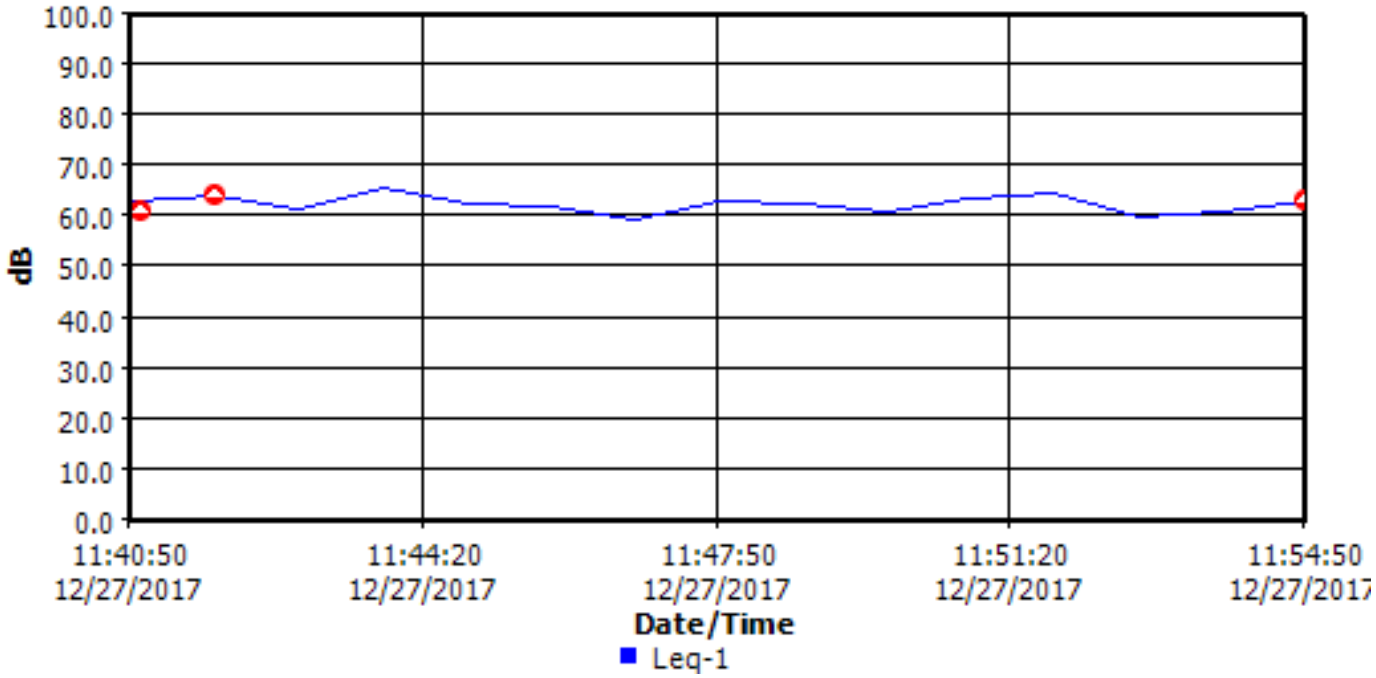
Information Panel

Comments	
Location	
Name	Study 1
Parent Session	AC Site A - 15Min
Start Time	Wednesday, December 27, 2017 11:39:50
Stop Time	Wednesday, December 27, 2017 11:54:52
User Name	

General Data Panel

Description	Meter/Sensor	Value	Description	Meter/Sensor	Value
Weighting	1	A	Response	1	SLOW
Bandwidth	1	OFF	Log Rate	1	60 s
Lmax	1	73.2 dB	Lmin	1	43.9 dB
Leq	1	62.8 dB	CNEL	1	62.8 dB
LDN	1	62.8 dB			

Logged Data Chart



Agua Caliente Noise Monitoring Site B - 15 Minute

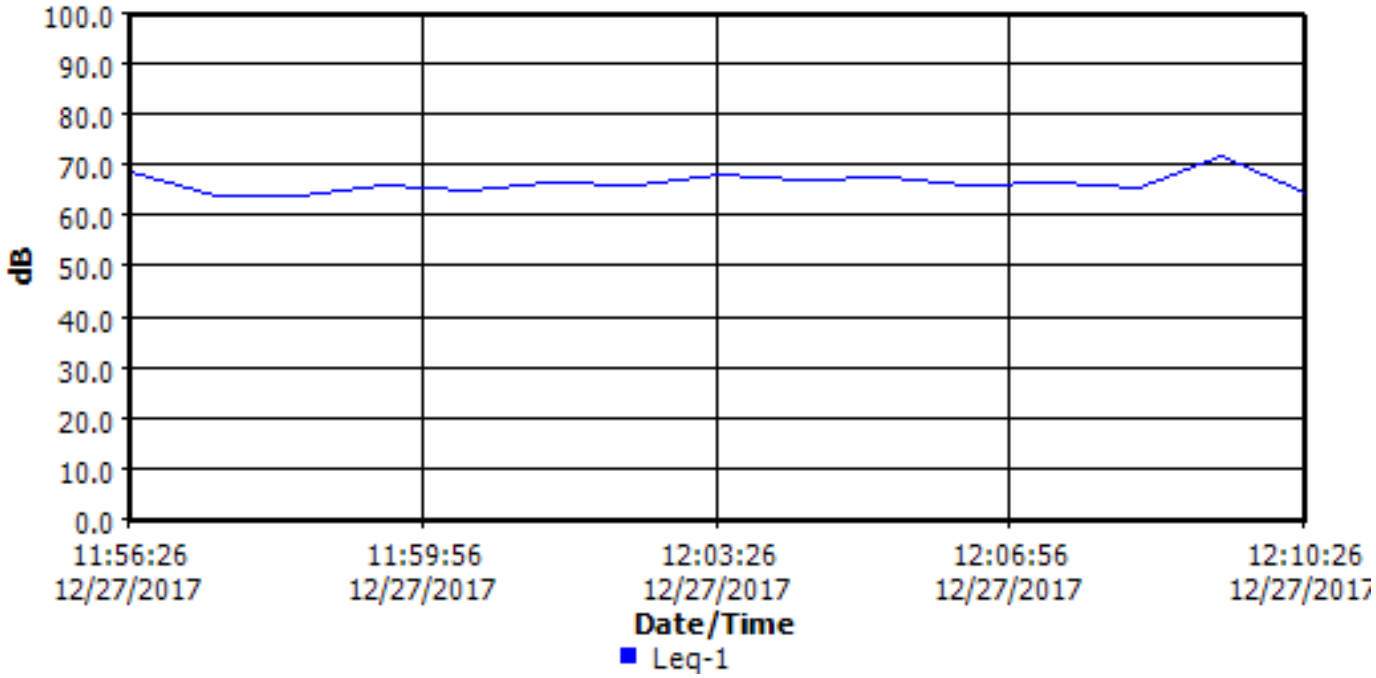
Information Panel

Comments	
Location	
Name	Study 1
Parent Session	AC SiteB - 15Min
Start Time	Wednesday, December 27, 2017 11:55:26
Stop Time	Wednesday, December 27, 2017 12:10:27
User Name	

General Data Panel

Description	Meter/Sensor	Value	Description	Meter/Sensor	Value
Weighting	1	A	Response	1	SLOW
Bandwidth	1	OFF	Log Rate	1	60 s
Lmax	1	79.1 dB	Lmin	1	52.7 dB
Leq	1	67.2 dB	CNEL	1	67.2 dB
LDN	1	67.2 dB			

Logged Data Chart



Agua Caliente Noise Monitoring Site C - 15 Minute

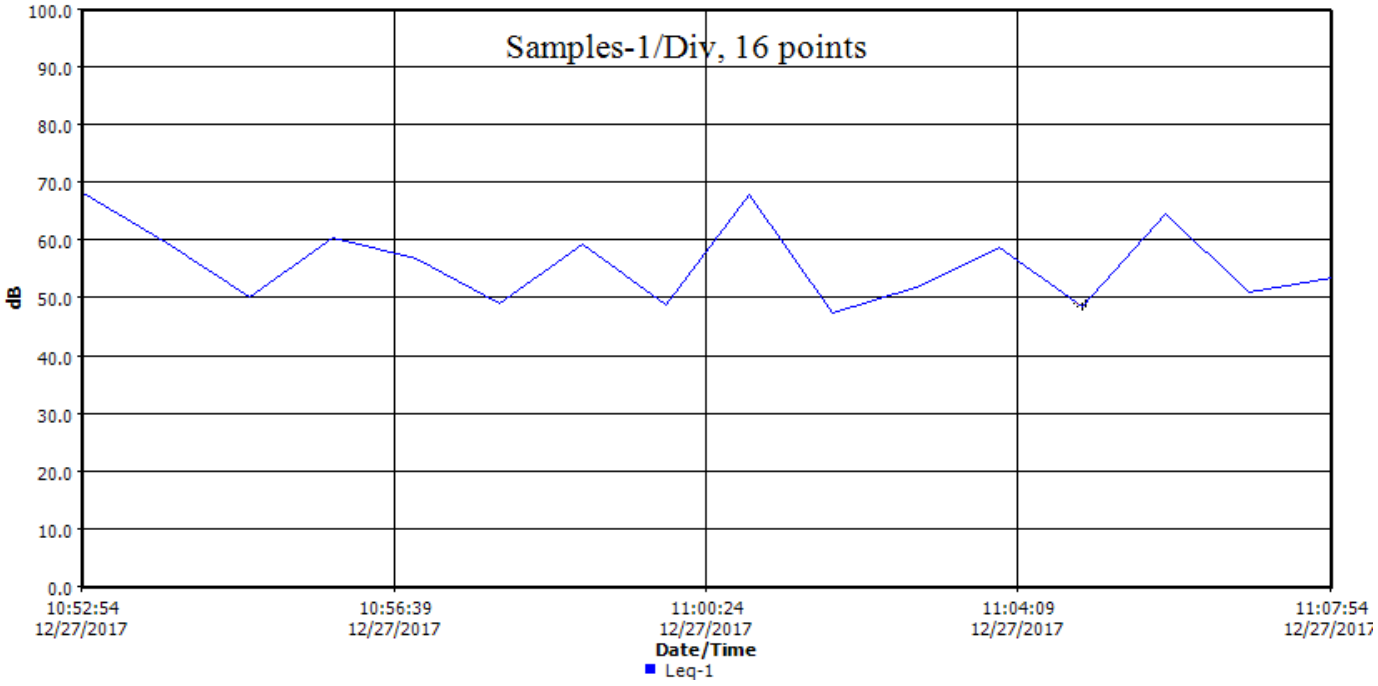
Information Panel

Comments	
Location	
Name	Study 1
Parent Session	AC Site C - 15Min
Start Time	Wednesday, December 27, 2017 10:51:54
Stop Time	Wednesday, December 27, 2017 11:08:46
User Name	

General Data Panel

Description	Meter/Sensor	Value	Description	Meter/Sensor	Value
Weighting	1	A	Response	1	SLOW
Bandwidth	1	OFF	Log Rate	1	60 s
Lmax	1	94.3 dB	Lmin	1	43.6 dB
Leq	1	66 dB	CNEL	1	66 dB
LDN	1	66 dB			

Logged Data Chart



APPENDIX M

HAZARDOUS MATERIALS DOCUMENTATION

PHASE I ENVIRONMENTAL SITE ASSESSMENT
FEE TO TRUST APPLICATION, 13.6 ACRES OF LAND
LOCATED AT THE NORTHWEST CORNER OF
DATE PALM DRIVE AND PALM CANYON DRIVE
CATHEDRAL CITY, RIVERSIDE COUNTY, CALIFORNIA 92234

AGUA CALIENTE BAND OF CAHUILLA INDIANS

JULY 31, 2017
J.N. 17-246

July 31, 2017
J.N. 17-246

AGUA CALIENTE BAND OF CAHUILLA INDIANS
5401 Dinah Shore Drive
Palm Springs, California 92264

Attention: Ms. Margaret Park

Subject: **Phase I Environmental Site Assessment; *Fee to Trust Application*, 13.6 Acres of Land Located at the Northwest Corner of Date Palm Drive and Palm Canyon Drive, Cathedral City, Riverside County, California 92234**

Dear Ms. Park:

Petra Geosciences, Inc. (Petra) presents this Phase I Environmental Site Assessment for the above-referenced site. This assessment has been conducted in general accordance with our Proposal No. 17-246P, dated May 15, 2017, and in general conformance with the scope and limitations of the standards set forth in the American Society for Testing and Materials (ASTM) Practice E 1527-13, and the EPA's All Appropriate Inquiry (AAI) regulations 40 CFR Part 312. This assessment has revealed one recognized environmental conditions and five possible recognized environmental conditions on the subject site associated with former gasoline stations and/or auto repair facilities historically located along Highway 111.

This opportunity to be of service to you is sincerely appreciated. Please do not hesitate to call this office if you have questions pertaining to this report.

Respectfully submitted,

PETRA GEOSCIENCES, INC.



Edward Lump, PG
Associate Geologist



Siamak Jafroudi, PhD
President

EXECUTIVE SUMMARY

PHASE I ENVIRONMENTAL SITE ASSESSMENT

Fee to Trust Application, 13.6 Acres of Land
Located at the Northwest Corner of Date Palm Drive and Palm Canyon Drive
Cathedral City, Riverside County, California 92234

INTRODUCTION

The information presented in this report includes the results of our recent site reconnaissance, as well as a review of pertinent literature and recent federal, state, and local government agency records search. Our recent field reconnaissance was performed by Mr. Levon Holmes, Environmental Assistant, and data gathering and compilation were performed by Mr. Edward Lump, Associate Geologist, with oversight by Dr. Siamak Jafroudi, President and Principal Engineer.

SITE DESCRIPTION AND GENERAL INFORMATION

- The approximately 13.6 acre subject property is situated along the north side of Highway 111, south of Interstate 10 (I-10), west of Date Palm Drive and east of Van Fleet Drive in the city of Cathedral City, Riverside County, California. The subject property consists of 65 contiguous parcels identified as Riverside County Assessor Parcel Numbers (APN's) 687-201-005 to -011; 687-202-001 to -012 and -015; 687-203-008 to 015; 687-204-001 to 009, -013, -014 and -016; 687-205-005 to-008; 687-206-001 to -016 and, 687-208-015 and -022 to -026. It is our understanding that the property will include any public streets and right-of-way that the city of Cathedral City has vacated.

- The subject property is bounded by Date Palm Drive on the east, Highway 111 (Palm Canyon Drive) on the south, Buddy Rogers Avenue on the north. A mix of commercial properties and vacant land bounds the subject property on the west. The subject property is mostly vacant land with two structures located on the northeast corner (fire station) and one building (Carl's Jr.) on the southeast corner of the property. These two sites are occupied and operational as of the date of our site reconnaissance. Soil covers a large majority of the vacant property with minor amounts of finely crusted asphalt and gravel. This material appears to be from demolition performed on the subject property. Interior streets consist of weathered asphalt. Multiple fire hydrants, water valve cans and sewer manholes were observed within the vacant lots. Recent surface disturbance of soils on the triangular-shaped lot near the southeast corner of Allen Drive and Dawes Road suggested recent demolition of the former Goody's Restaurant. Erosion retardant appeared to have been recently sprayed on this lot. No signs of surface staining, noxious odors, stressed vegetation, and/or dumped trash or debris, were noted during our site reconnaissance. The only readily detectable remnants of demolition observed were a buried steel pipe and large electrical wires on the parcel west of Carl's Jr. Some irrigation piping, and minor amounts of windblown trash and debris were observed during our site reconnaissance.

- Based on aerial photograph and topographic map information obtained during this assessment, the site appears to have been predominantly developed for residential purposes from at least 1941 to sometime after 2005 and before 2009. By 2009, it appeared that all residential buildings had been removed from the subject property. What appeared to be commercial buildings noted on the site, were typically situated along Palm Canyon Drive (Highway 111), from at least 1953 to 2016. What appeared to be a gasoline service station was depicted onsite (APN 687-208-015), at the northwest corner of Date Palm Drive and Palm Canyon Drive from at least 1966 to sometime after 1972 and before 1984 (existing Carl's Jr. site). A second gasoline station was noted at the southwest corner of the property (APN 687-205-005) from at least 1966 to sometime after 2002 and before 2005 (currently vacant). A third

gasoline service station was noted east of the intersection of Highway 111, Allen Avenue and Dawes Street from at least 1966 to sometime after 1996 and before 2002 (formerly Goody's Diner). The gasoline station formerly occupying APN 687-205-005 (68830 Palm Canyon Drive) is considered a Historical Recognized Environmental Conditions (HREC). The gasoline station formerly occupying APN 687-208-015 (68950 Palm Canyon Drive) is considered a possible Recognized Environmental Conditions (REC). The former gasoline station occupying APN 687-208-24, -025 and -026 is considered a possible Recognized Environmental Conditions (pREC). As such, further assessment is recommended.

- The City Directory Search by EDR listed Auto Truck Repair at 68930 E. Palm Canyon Drive and Bob's Choice Cars at 68920 E. Palm Canyon Drive within the subject property in 1975. The Radius Search report by EDR listed Pyles Robert (service station) at 68904-96 Palm Canyon Drive in 1974. Based upon current street address locations on Bing Maps, these former sites, within the subject property, appear to be have been located on APN's 687-208-022 and -023. Readily available records of these 3 sites were not found indicating regulatory agency oversight of UST removal or cleanup. In addition, the EDR Radius Search report also listed a 1,000 gallon underground diesel storage tank (UST) within the Cathedral Fire Department parcel (APN 687-202-015) in 1975 and a 100 gallon UST of unknown use in 1990.

  The Regional Water Quality Control Board (RWQCB) was recently contacted regarding the 1,000 gallon diesel UST on the fire station site. The RWQCB responded that they have no files pertaining to the address. Based upon readily available information pertaining to these five sites, which is limited in nature, the sites are considered possible Recognized Environmental Conditions (pRECs). As such, further assessment is recommended. Documentation of this information is provided in Appendix D.

- No aboveground or underground storage tanks were observed onsite during our site reconnaissance. An attached diesel fuel tank under the emergency generator at the rear of the fire station was observed. It is our understanding that due to the attached configuration, the generator fuel tank is not required to be permitted as an aboveground storage tank.

- Multiple containers of household chemicals and small volume hydrocarbon-based fluid containers were observed in the fire department's storage and laundry room. The containers included multiple paint cans, bleach, two 5 gallon bottles of diesel and gasoline, two 1 gallon containers of gasoline, and one 2.5 gallon bottle of diesel exhaust fluid. In addition there was an air compressor, quart-sized oil containers, an oily rag canister, and six Scott air pack oxygen tanks. Four 55-gallon plastic barrels of drinking water were observed within the truck bay.

- Ten pole-mounted transformers and two transformer pads were observed onsite during our site reconnaissance. No readily obvious signs of corrosion, leaking, or staining was observed below or around the transformers.

- Petra contacted The Desert Water Authority regarding two wells on the fire station parcel. Ms. Heather Marcks (Senior Engineering Technician) responded that the monitoring wells were used several years back to track the affects septic systems were having on the water quality in the area. She indicated that The Desert Water Authority stopped using them for monitoring a while ago and they went dry. Ms. Marcks indicated that they have no relevant chemical test data on these wells. Documentation of this information is provided in Appendix D.

- At the time of our reconnaissance, no vegetation was observed onsite. There were, however, small bushes and palm tree observed around the two occupied parcels at the northeast and southeast corners of the property.

- There was no evidence of sumps, pits, pools, or lagoons identified during our site walk. Building Department and City records indicate that a majority of the former residential lots and commercial/retail buildings contained onsite septic systems. Records indicate that a number of the septic systems were removed during demolition. Documentation of this information is provided in Appendix D.

- No offsite properties within the vicinity were identified in our search of various government agency database records, which appear to have impacted the soils or groundwater beneath the subject site.

RECOGNIZED ENVIRONMENTAL CONDITIONS

Recognized environmental conditions (REC's) are defined by the American Society of Testing and Materials (ASTM) as any hazardous substance or petroleum product under conditions that indicate an existing, past, or material threat of release into the structures, ground, groundwater, soil vapor or surface water at the subject site. If the presences of recognized environmental conditions are identified on a subject site, it may warrant additional research, site assessment, and/or action.

Controlled recognized environmental conditions (CREC'S) are defined by the American Society of Testing and Materials (ASTM) Practice E 1527-13 as a recognized environmental condition resulting from the past *release* of *hazardous substances* or *petroleum products* that has been addressed to the satisfaction of the applicable regulatory authority (i.e., as evidenced by the issuance of a no further action letter or equivalent, or meeting risk-based criteria established by regulatory authority), with *hazardous substances* or *petroleum products* allowed to remain in place subject to the implementation of required controls. For example, if a leaking underground storage tank has been cleaned up to a commercial use standard but does not meet unrestricted residential cleanup criteria; this would be considered a controlled recognized environmental condition. The "control" is represented by the (inferred) restriction that the property remains commercial.

Historical recognized environmental conditions (HREC'S) are defined by the American Society of Testing and Materials (ASTM) Practice E 1527-13 as a past release of any *hazardous substances or petroleum products* that has occurred in connection with the *property* and has been addressed to the satisfaction of the applicable regulatory authority or meeting unrestricted use criteria established by a regulatory agency, without subjecting the *property* to any required controls (i.e., *property* use restrictions, *activity and use limitations*, *institutional controls* or *engineering controls*).

We have performed this Phase I Environmental Site Assessment in general conformance with the scope and limitations of ASTM Practice E 1527 for APN's 687-201-005 to -011; 687-202-001 to -012 and -015;

687-203-008 to 015; 687-204-001 to 009, -013, -014 and -016; 687-205-005 to-008; 687-206-001 to -016 and, 687-208-015 and -022 to -026, in the city of Cathedral City, Riverside County, California. Any exceptions to, or deletions from, this practice are described in section titled data gaps of this report. This assessment has revealed no evidence of recognized environmental conditions in connection with the property, except the following:

- Five former and one current occupant of the subject property were identified during this Phase I ESA as either historic gasoline stations and/or vehicle repair shops, and an existing fire station, where records indicate or suggest USTs were present, and where the potential existence for petroleum hydrocarbon-based soil and/or soil vapor residues to be detected cannot be entirely precluded.

  One of the sites, Palm Springs Oil #9, 68830 Palm Canyon Drive (APN 687-205-005), was identified as a former LUST case where soil vapor extraction remediation reportedly removed most of the subsurface contamination. The case was closed in 2006 by the County of Riverside with hydrocarbon soil vapors left in-place at a depth of approximately 48 feet. The site was closed with no restrictions to redevelopment. This site is considered a HREC. At this time, however, no further assessment is recommended.

  Three of the sites within the property were identified as EDR Historic Auto Stations: Pyles Robert (service station), 68904 Palm Canyon Drive (APN 687-205-024, -025 and -026); Bob's Choice Cars, 68920 E. Palm Canyon Drive (APN 687-205-023); and Auto Truck Repair, 68930 E. Palm Canyon Drive (APN 687-208-022). One of the sites, Bob's Choice Cars and Auto Truck Repair were also listed in the EDR City Directory Search. The Existing Cathedral City Fire Station (36913 Date Palm Drive [APN 687-202-015]) was reported to contain a 1,000 gallon diesel UST from 1975 to at least 1988 (possibly removed in 1998). Based solely upon interpretation of aerial photographs, the sixth site is considered likely a gasoline service station which existed at 68980 E. Palm Canyon Drive (APN 687-208-015) from at least 1966 to sometime after 1972 and before 1978. No regulatory oversight agency database records were found for these four former and one active onsite facilities indicating removal of USTs or cleanup of soil residues. As a result, these sites are considered potential REC's.

  To evaluate the potential for detectable concentrations of petroleum hydrocarbon-base soil and soil vapor residues on these 5 former sites, with very limited information and/or no apparent regulatory oversight involvement, Petra recommends further assessment. A limited proposed scope of work is provided herein.

SITE CONSIDERATIONS

The following items are not considered recognized environmental conditions in accordance with ASTM 1527-13. However, these items may warrant considerations in conjunction with any planned development activities. The information regarding possible actions relative to these items has been provided as guidance.

- With redevelopment of any historically developed property, a certain amount of unknown near-surface and subsurface conditions should be anticipated such as buried utility conduits and foundations. If encountered, concrete piping should be evaluated by an asbestos consultant prior

to removal. Any discolored soils, noxious odors, and/or buried objects/debris encountered during clearing and grubbing or future grading and development should be left in place until an experienced environmental professional (such as Petra) has had the opportunity to evaluate the conditions, and provide recommendations if needed.

- Information provided by the city of Cathedral City indicates that septic systems were abandoned, including crushing in-place, on 57 of the 65 parcels within the subject property. Although not considered a recognized environmental condition, septic systems (including tanks) and potentially vertical seepage pits may remain within the subject property. If encountered during site development, these systems should be properly abandoned in accordance with Cathedral City and/or Riverside County guidelines.

- Ten pole-mounted electrical transformers and two ground transformer were observed onsite during our site walk. Our visual observations noted no staining or leakage from the transformers. Based upon the age of the former residential development (early 1940's), there is a potential for some or all of the pole-mounted transformers to contain PCB's. As a result, removal of transformers should be completed by SCE or an experienced contractor. Power poles and associated equipment should be removed from the site and disposed of following proper regulatory specifications.

- It is recommended that all demolition debris and trash generated on the site be removed and disposed in accordance with current local regulations. Waste concrete may be incorporated into fill materials within the subject property, provided it is approved by the geotechnical engineer of record. Solely from an environmental point of view, however, asphalt fragments should be removed from future building pads within the subject property.

TABLE OF CONTENTS

Page

INTRODUCTION 1
Purpose 1
Involved Parties 1
SCOPE OF ASSESSMENT 1
SITE OVERVIEW 2
PREVIOUS LAND USE 3
PREVIOUS REPORTS 4
ENVIRONMENTAL SETTING 5
Geology 6
Surface Water 6
Groundwater 7
RESULTS OF ASSESSMENT 7
Site Reconnaissance 8
Adjacent Site and Vicinity Observations 8
Government Agency Database Research 9
Results of Agency Records Search 9
Orphan Sites 16
Local Agencies 16
Vapor Migration 19
Evaluation of Records Search Results 20
Results of Aerial Photo Analysis 21
Historical USGS Topographic Maps 23
Environmental Liens & Activity and Use Limitations 23
Fire Insurance Maps 24
City Directories 24
Building Permits 24
Interviews 25
Client Knowledge 26
National Environmental Policy Act 27
Data Failures and Data Gaps 29
DISCUSSION OF POTENTIAL ENVIRONMENTAL CONCERNS 29
Regulatory Actions 29
Adjacent and Nearby Properties 29
Polychlorinated Biphenyls (PCB's) 30
Underground Storage Tanks (UST) 30
Above Ground Storage Tanks (AST) 30
Storm Water/Waste Water Discharge 31
Pesticide and Herbicide Residues 31
Asbestos-Containing Materials 31
Lead-Based Paints 32
Landfills 32
Water Supplies 32
Waste Generation and Storage 32
CONCLUSIONS 32
General Site Information 31
RECOGNIZED ENVIRONMENTAL CONDITIONS 34
SITE CONSIDERATIONS 36

TABLE OF CONTENTS

Page

PROPOSED LIMITED ENVIRONMENTAL ASSESSMENT....36
Scope of Work....37
Preliminary Estimate of Fees....37
LIMITATIONS....36
QUALIFICATIONS....38
REFERENCES....38

ATTACHMENTS

FIGURES – SITE LOCATION MAPS

APPENDIX A – SITE PHOTOGRAPHS

APPENDIX B – AGENCY SEARCH RESULTS

APPENDIX C – EDR® HISTORICAL REPORTS

APPENDIX D – INTERVIEWS

APPENDIX E – RESUMES

PHASE I ENVIRONMENTAL SITE ASSESSMENT

Fee to Trust Application, 13.6 Acres of Land
Located at the Northwest Corner of Date Palm Drive and Palm Canyon Drive
Cathedral City, Riverside County, California 92234

INTRODUCTION

The information presented in this report includes the results of our recent field reconnaissance, a review of various federal, state, and local government agency records, and a review of historic aerial photographs and topographic maps for the site vicinity. This report includes a summary of our findings, our opinion as to the current environmental condition of the site, and recommendations for additional work, if needed.

Purpose

This Phase I Environmental Site Assessment (ESA) was conducted to determine if any recognized environmental conditions exist on the subject site. Recognized environmental conditions are defined by the American Society for Testing and Materials (ASTM) as any hazardous substance or petroleum product under conditions that indicate an existing, past, or material threat of release into the structures, ground, groundwater, or surface water at the subject site.

This assessment is also intended to satisfy the requirement for conducting all appropriate inquiries into the previous ownership and uses of a property for the purposes of meeting the all appropriate inquiries provisions necessary to qualify for certain landowner liability protections under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA).

We have performed this assessment in general conformance with the scope and limitations of the standards set forth in the ASTM Practice E 1527-13 and the EPA's All Appropriate Inquiry (AAI) regulations 40 CFR Part 312.

Involved Parties

This report was prepared by Petra Geosciences, Inc. (Petra), at the request of Agua Caliente Band of Cahuilla Indians, for their exclusive use. Use of this report or reliance thereon by other parties or projects is not authorized. The report may not be suitable for other parties or other purposes.

SCOPE OF ASSESSMENT

The scope of this Phase I Environmental Site Assessment (ESA) included the following:

1. Performing a recent site reconnaissance to identify the current conditions and land use of the subject site and adjoining properties, during which visual evidence of prior uses of the subject site and adjoining properties (if possible) were noted. The site reconnaissance included an observation of the site surface and the site perimeter.

2. Researching historical land use of the subject site and vicinity by reviewing readily available historical aerial photographs, United States Geologic Survey (USGS) topographic maps, fire insurance maps, city directories, and other reasonably ascertainable maps and data.

3. Conducting a search for environmental liens and Activities and Use Limitations (AULs) for the property.

4. Performing a cursory review of literature to identify local and regional geologic conditions as they apply solely to potential environmental aspects of the site.

5. Obtaining and reviewing a search of pertinent federal, state, and local regulatory agency databases concerning environmental conditions on and in the vicinity of the site. As specified in the ASTM and AAI standards, the following databases were searched using, at a minimum, the recommended search radius:

   - Federal National Priority List (NPL) site list,
   - Federal Delisted NPL site list,
   - Federal Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) site list,
   - Federal CERCLIS- No Further Remedial Action Planned (CERC-NFRAP) site list, Federal Resource Conservation and Recovery Act Information (RCRA) Corrective Action Report (CORRACTS) facilities list,
   - Federal RCRA non-CORRACTS Treat, Store and Dispose (RCRA-TSD) facilities list,
   - Federal RCRA generators list,
   - Federal institutional control/engineering control registries,
   - Federal Emergency Response Notification System (ERNS) list,
   - State and tribal lists of hazardous waste sites identified for investigation or remediation including: State- and tribal-equivalent NPL, State, and tribal-equivalent CERCLIS lists,
   - State and tribal landfill and/or solid waste disposal site lists,
   - State and tribal leaking storage tank lists,
   - State and tribal registered storage tank lists,
   - State and tribal institutional control/engineering control registries,
   - State and tribal voluntary cleanup sites, and
   - State and tribal Brownfield sites.

   In the interest of thoroughness, multiple non-ASTM and non-AAI required databases were also searched. These databases are listed and discussed in the database search included within this report.

6. Contacting and interviewing knowledgeable persons, such as property owners, managers, and representatives of local government agencies regarding historical site use and current site conditions, if possible.

7. Evaluating the presence of recognized environmental conditions at the subject site through visual observation and research of reasonably ascertainable records. Recognized environmental conditions may include the presence of hazardous materials, petroleum products, underground storage tanks, above ground storage tanks, drums, chemical containers, polychlorinated biphenyls, liquid or solid wastes, oil wells, and areas indicative of potential contamination including stained soils and/or pavement, stressed vegetation, drains, sumps, pits, ponds, lagoons, and noxious odors.

8. Preparing a report presenting the results of our Phase I ESA.

Unless listed above, this assessment does not include any testing or sampling of materials (such as an assessment for the potential presence of methane or radon, asbestos or lead-based paints, or the sampling and testing of soil, air, soil vapor, surface water, or groundwater). This assessment does not include evaluating the site for the presence of wetlands, regulatory compliance, or other items beyond the scope of ASTM E 1527-13 or 40 CFR Part 312, nor is it an assessment for vapor intrusion as defined by ASTM E 2600-15.

SITE OVERVIEW

According to the Division of Oil, Gas, and Geothermal Resources (DOGGR) Online Mapping System (2017), the site is located within Section 33, of Township 05 South, Range 05 East, within the San Bernardino Base and Meridian. A United States Geological Survey (USGS) topographic map of the Cathedral City 7.5-Minute Quadrangle (2012) indicates that the site slopes in a northerly direction, toward the Whitewater River Channel. Information provided on the topographic map indicate elevations onsite range from 300± feet to 320± feet above mean sea level (msl). A site location map is included as Figure 1.

The subject site consists of 65 contiguous parcels in the City of Cathedral, Riverside County, California. The subject property is identified as Riverside County Assessor's Parcel Numbers (APN's) 687-201-005 to -011; 687-202-001 to -012 and -015; 687-203-008 to 015; 687-204-001 to 009, -013, -014 and -016; 687-205-005 to-008; 687-206-001 to -016 and, 687-208-015 and -022 to -25. It is our understanding that the property will also include any public streets and right-of-way that the city of Cathedral City has vacated (i.e., 1st Street, Grove Street, Dawes Street and Allen Road). A photographic map showing the overall property conditions in January 2017 is included as Figure 2.

PREVIOUS LAND USE

Based on aerial photograph and topographic map information obtained during this assessment, the site appears to have been predominantly developed for residential purposes from at least 1941 to sometime after 2005 and before 2009. By 2009 it appeared that all residential buildings had been removed from the subject property. What appeared to be larger commercial buildings noted on the site, were typically situated along Palm Canyon Drive (Highway 111) from at least 1953 to 2016. A gasoline service station was depicted onsite (APN 687-208-015), at the northwest corner of Date Palm Drive and Palm Canyon Drive from at least 1966 to sometime after 1972 and before 1984. A second gasoline station was noted at the southwest corner of the property (APN 687-205-005) from at least 1966 to sometime after 2002 and before 2005. By 2012, development onsite consisted of commercial buildings depicted along Palm Canyon Drive east of

Allen Drive and the fire station at the southwest corner of Date Palm Drive and Buddy Rogers Drive. Minimal changes to the property were noted on Google Earth aerial photograph from 2012 to 2017, except all of the residential buildings appeared to have been removed by December 2012. The last photograph reviewed, April 2017, indicated site conditions are similar to that visible today, except Goody's Diner was still visible onsite.

PREVIOUS REPORTS

Pertinent reports regarding the subject property were not provided to Petra to review. Petra reviewed readily available files on the State's Regional Water Quality Control Board's (RWQCB) GeoTracker website pertaining to a leaking underground fuel storage tank (LUST) case on a parcel within the subject property (APN 687-205-005), at 68830 Highway 111, Cathedral City, California. Readily available records indicate the LUST case was closed by the County of Riverside Hazardous Materials Management Division in 2005. A brief summary of environmental-related conditions are provided below. Please note that the 2005 status report summarized below pertains to hydrocarbon concentrations from soil vapor extraction, and the case summary report pertains to hydrocarbon concentrations from soil samples.

> *"Quarter 2, 2005 Status Report, Palm Springs Oil Company, Former Station No. 9, 68830 Highway 111, Cathedral City, California, Site 99-15711" by The Source Group, Inc., dated October 13, 2005.*

Due to low influent hydrocarbon concentrations into the oxidizer, the vapor extraction system (VES) was again cycled throughout the reporting period to test for concentration rebound. Influent vapor concentrations, however, have not increased to levels which warrant continued operations at the site (i.e., no longer effective/feasible). As a result, the VES unit was deployed to another Palm Springs Oil station on October 6, 2005. The Source Group, Inc. (SGI) will prepare a case closure request package to be submitted to the County of Riverside Hazardous Materials Management Division (HMMD) during Quarter 4, 2005.

A site map of the property depicted the 5 former underground fuel storage tanks (USTs) along the northerly portion of the parcel. Twelve soil vapor extraction wells are mapped within the property. For this reporting period, two vapor extraction wells were the source, located near the northeasterly portion of the site. The VES operations summary for the reporting period, Quarter 3, 2005 listed the laboratory results for Total Petroleum Hydrocarbon-gas (TPHg) concentration from January 16, 2002 as 6,930 parts per million by volume (ppmv); benzene at 98 ppmv; and methyl-tert butyl ether (MTBE) at 29 ppmv (*Petra: these concentrations appear to be the highest reported soil vapor concentrations onsite).* Results from the aforementioned 2 wells from September 7, 2005, reported levels of TPHg at <5 ppmv; Benzene at <0.1 ppmv; and MTBE at <0.5 ppmv.

The report also provided a summary of TPHg concentrations from the 12 soil vapor extraction (SVE) wells between 2003 and 2005. Maximum concentrations reportedly ranged from 240 ppmv to 5,000 ppmv (November 11, 2003). Minimum concentrations reportedly ranged from 20 ppmv to 340 ppmv, with 11 of the 12 wells listed with either 20 or 40 ppmv TPHg (*Petra-concentrations reported a relatively steady decline over the 16 reported dates).*

> *"Case Closure Summary, Leaking Underground Fuel Storage Tank Program, Palm Springs Oil Company, Former Station No. 9, 68830 Highway 111, Cathedral City, LOP/Local Case No. 9915711," by County of Riverside, Department of Environmental Health, Hazardous Materials Management Division, dated November 14, 2005.*

The case summary reported that 5, 12,000 gallon USTs were removed from the site on July 2, 1999. No groundwater monitoring wells were installed (*Petra-groundwater was reported between 220-260 feet in depth).* Drink water wells were reported as not affected. Additional comments noted that two initial borings were drilled at the site after TPHg was detected under the USTs upon removal. Boring 1 in the former tank pit was drilled to a depth of 115 feet and detected up to 4,600 ppm TPHg, 18 ppm benzene and 5.7 ppm MTBE at 50 feet. Both borings were converted to SVE wells. A SVE system was started in January 2002 and performed until December 2002. Up to 13,329 pounds of hydrocarbons were removed. A confirmation boring was drilled to a depth of 75 feet in the former tank pit, and detected TPHg at 15,500 ppm; 0.019 ppm MTBE; and 1.8 ppm benzene at a depth of 50 feet where a sandy silt layer was encountered. In September 2003, an additional 3 borings were drilled in the former tank pit and nested SVE wells were installed. Two of the boring reported ND for TPHg, benzene and MTBE. The third reported 1,800 to 2,300 ppm TPHg between 40 and 60 feet in depth. The SVE unit was re-started in November 2003 and ran through February 2004. In February 2005, 3 confirmation borings were drilled. Two of the borings reportedly detected no concentrations of TPHg, benzene and MTBE. The third detected 1,900 ppm TPHg at a depth of 45 feet; 15,000 ppm TPHg at a depth of 48 feet; and 2,000 ppm TPHg at a depth of 50 feet. No MTBE or benzene was detected. It was estimated that approximately 502 pounds of hydrocarbons remained in the soils. The SVE system was re-started in February 2005. A rebound test was conducted in August 2005, and the influent was reported to range from 130 ppmv to 180 ppmv to ND. The SVE system was removed from the site on September 15, 2005. A total of 22,984 pounds of hydrocarbons were removed from the site.

Maximum documented soil contaminant concentrations (before and after cleanup) were reported for depths of 45 and 50 feet before cleanup and 45 to 48 feet after cleanup. In summary, TPHg ranged from 19,000 parts per million (ppm) before cleanup to 15,000 ppm after cleanup; Benzene ranged from 5.25 ppm to non-detect (ND); Toluene ranged from 1,300 ppm to 4 ppm; Xylene ranged from 3,440 ppm to 1,380 ppm; ethylbenzene ranged from 520 to ND; and, MTBE ranged from 5.7 ppm to ND.

The consultant requested closure as the station no longer exists, the hydrocarbon impacts were delineated at the site, SVE reached ND levels, no public wells are located within 0.5 mile of the site, and the minimal hydrocarbon mass (approximately 502 pounds) in the soil in the sandy silt layer located between 42.5 and 52.5 feet below the ground surface was remediated to the extent feasible. Closure was approved once the SVE wells were removed in March 2006.

The case summary report indicated that the corrective action plan protected existing and potential beneficial uses (of groundwater) as per the Regional Board Basin Plan. It also indicated that the corrective action plan protected public health for the current land use, and noted that the corrective action should not be reviewed if land-use changes.

A copy of the case summary report in provided in Appendix B.

ENVIRONMENTAL SETTING

The following section provides a limited overview of the regional and local geologic setting and includes information pertaining to groundwater conditions in the vicinity of the subject site. Geotechnical hazard

information (faults, landslides, etc.) is not part of this assessment. This section does not constitute a geotechnical evaluation of the subject site and should not be taken as such.

Geology

Geologically, the site lies within the Coachella Valley in the western portion of the Colorado Desert Geomorphic Province (Norris and Webb, 1990). The Coachella Valley lies within the northern portion of the Salton Trough, a large northwest-trending structural depression that extends approximately 180 miles from San Gorgonio Pass to the Gulf of California. Part of this basin, including the Salton Sea, lies below sea level and has progressively been filling with sediments eroded from local bounding mountain ranges, sediments from the Colorado River, and by incursions by the Gulf of California since at least the late-Miocene Epoch. Sediments within the Salton Trough are estimated to be on the order of two to five miles thick (Kohler and Fuis, 1986; Fuis and Kohler, 1984; Biehler, et. al., 1964). The San Andreas Fault zone is considered the dominant feature of the geomorphic province, and is well known for its exposures and related fault systems that form the margin between the Pacific and North American Plates.

A regional geologic map of the subject property and vicinity maps the majority of the site as being underlain predominantly by Late Holocene Alluvial Wash Deposits and Holocene to late Pleistocene Young Alluvial Fan Deposits (Lancaster, Hayhurst & Bedrossian, 2012). Alluvial Wash deposits, mapped over half of the site, are described as unconsolidated sandy and gravelly sediment deposited in recently active channels of streams and rivers. Alluvial Fan deposits are described as unconsolidated to slightly consolidated, undissected to slightly dissected boulder, cobble, gravel, sand, and silt deposits issued from a confined valley or canyon.

Surface Water

No surface water was observed on the property at the time of the site visit. The Whitewater River Channel is located approximately 580 feet northeast of the property. North Cathedral Channel is situated approximately 130 feet to the north of Buddy Rogers Avenue, and East Cathedral Channel approximately 190 feet south of Highway 111.

The subject property, situated within Flood Insurance Rate Maps (FIRMS) 06065C1589G, Panel 1589 of 3805, is mapped within Zone X, defined as an area defined as areas of 0.2 percent annual chance flood; areas of 1 percent annual chance flood with average depths of less than 1 foot or within drainage areas less than 1 square mile; and areas protected by levees from 1 percent annual chance flood. The FIRM map (dated August 28, 2008) is provided in Appendix B.

Groundwater

The site is located within the Coachella-Indio Groundwater Sub-Basin (California Department of Water Resources [CDWR], Water Data Library, 2017), and the Whitewater-Coachella-Indio CALWATER Watershed (GeoTracker, 2017). Groundwater depth varies within the area, and though recent flow direction beneath the subject site is unknown, it is regionally estimated to parallel the Whitewater River in a southeasterly direction.

A 2006 Case Closure Summary report from a leaking underground fuel storage tank (LUST) facility on the subject property (APN 687-205-005, at 68830 Highway 111, Cathedral City, California) estimated groundwater at depths on the order of 220-260 feet below the ground surface (bgs). The flow direction was not reported.

One observation well is mapped approximately 1,500 feet north-northwest of the subject site (CDWR Water Data Library, 2017). Between April 2011 and April 2017, groundwater was reported at depths of approximately 170 to 200 feet bgs. Printouts from this review are included in Appendix B.

A March 1, 2017 letter from the City of Cathedral City to the Desert Water Agency indicates that monitoring wells are situated on the fire station parcel. According to this letter, the City has requested Desert Water Authority to abandon the wells. Discussions with Ms. Tami Scott (City Urban Revitalization Corporation) indicated that there are two wells on the vacant land directly behind the main fire station building (personnel communication July 10, 2017). These wells are to be abandoned in July 2017.

On July 10, 2017, Petra contacted The Desert Water Authority regarding the wells on the fire station parcel. On July 11, 2017, Ms. Heather Marcks (Senior Engineering Technician) responded via e-mail that the monitoring wells were used several years back to track the affects septic system were having on the water quality in the area. She indicated that The Desert Water Authority stopped using them for monitoring a while ago and they went dry. Ms. Marcks indicated that they have no relevant chemical test data on these wells. Documentation of this information is provided in Appendix D.

RESULTS OF ASSESSMENT

The results of our site reconnaissance and observation of adjacent sites, agency database review, and historical land use study are presented in the following sections.

Site Reconnaissance

Petra conducted a reconnaissance of the subject site on June 29, 2017. Site photographs are included in Appendix A. Our site observations are summarized below.

- The approximately 13.6 acre subject property is situated along the north side of Highway 111, south of Interstate 10 (I-10), west of Date Palm Drive and east of Van Fleet Drive in the city of Cathedral City, Riverside County, California. The subject property consists of 65 contiguous parcels identified as Riverside County Assessor Parcel Numbers (APN's) 687-201-005 to -011; 687-202-001 to -012 and -015; 687-203-008 to 015; 687-204-001 to 009, -013, -014 and -016; 687-205-005 to-008; 687-206-001 to -016 and, 687-208-015 and -022 to -026. It is our understanding that the property will include any public streets and right-of-way that the city of Cathedral City has vacated.

- The subject property is bounded by Date Palm Drive on the east, Highway 111 (Palm Canyon Drive) on the south, Buddy Rogers Avenue on the north. A mix of commercial properties and vacant land bounds the subject property on the west. The subject property is mostly vacant land with two structures located on the northeast corner (fire station) and one building (Carl's Jr.) on the southeast corner of the property. These two sites are occupied and operational as of the date of our site reconnaissance. Soil covers a large majority of the vacant property with minor amounts of finely crusted asphalt and gravel. This material appears to be from demolition performed on the subject property. Interior streets consist of weathered asphalt. Multiple fire hydrants, water valve cans and sewer manholes were observed within the vacant lots. Recent surface disturbance of soils on the triangular-shaped lot near the southeast corner of Allen Drive and Dawes Road suggested recent demolition of the former Goody's Restaurant. Erosion retardant appeared to have been recently sprayed on this lot. No signs of surface staining, noxious odors, stressed vegetation, and/or dumped trash or debris, were noted during our site reconnaissance. The only readily detectable remnants of demolition observed were a buried steel pipe and large electrical wires on the parcel west of Carl's Jr. Some irrigation piping, and minor amounts of windblown trash and debris were observed during our site reconnaissance.

- No aboveground or underground storage tanks were observed onsite during our site reconnaissance. An attached diesel fuel tank under the emergency generator at the rear of the fire station was observed. It is our understanding that due to the attached configuration, the generator fuel tank is not required to be permitted as an aboveground storage tank.

- Multiple containers of household chemicals and small volume hydrocarbon-based fluid containers were observed in the fire department's storage and laundry room. The containers included multiple paint cans, bleach, two 5 gallon bottles of diesel and gasoline, two 1 gallon containers of gasoline, and one 2.5 gallon bottle of diesel exhaust fluid. In addition there was an air compressor, quart-sized oil containers, an oily rag canister, and six Scott air pack oxygen tanks. Four 55-gallon plastic barrels of drinking water were observed within the truck bay.

- Ten pole-mounted transformers and two transformer pads were observed onsite during our site reconnaissance. No readily obvious signs of corrosion, leaking, or staining was observed below or around the transformers.

- At the time of our reconnaissance, no vegetation was observed onsite. There were however, small bushes and palm tree observed around the two occupied parcels at the northeast and southeast corners of the property.

- There was no evidence of sumps, pits, pools, or lagoons identified during our site walk. Building Department and City records indicate that a majority of the former residential lots and commercial/retail buildings contained onsite septic systems. Records indicate that a number of the septic systems were removed during demolition.

- No offsite properties within the vicinity were identified in our search of various government agency database records, which appear to have impacted the soils or groundwater beneath the subject site.

Adjacent Site and Vicinity Observations

The site is situated in a mix land use area north of Highway 111 (S. Palm Canyon Drive), with vacant land, residential properties and commercial property development.

North To the north of the subject property is Buddy Rogers Avenue, with Second Street Park, North Cathedral Channel, and a mix of commercial and residential properties beyond.

East To the east of the subject site is Date Palm Drive, with Cathedral Gateway Plaza (Salsas Restaurant, Big Lots, Colin's Beauty Salon, Flooring to Ceiling, Roger Dunn Golf Shop and Denny's) and South Cathedral Channel and residential development beyond.

South To the south of the subject site is E. Palm Canyon Drive (Highway 111) with vacant property, Small Mountain, and residential development beyond.

West To the west of the subject site are El Gallito Restaurant and Cozy Massage, with Monty Hall Drive and a mix of commercial property beyond.

Government Agency Database Research

An updated search of federal, state, and local government listings was performed by Environmental Data Resources, Inc. (EDR) for the purposes of this report. The search radius used for all government databases meets or exceeds the standard search distance adopted by ASTM and AAI.

Results of Agency Records Search

A data search of the various government agency records listed in Appendix C revealed 16 listings at 6 addresses mapped within the subject property boundary. Five of the database listings are associated with a leaking underground storage tank (LUST) case identified as Palm Springs Oil #9, mapped at 68830 Highway 111, Cathedral City, California. Seven database listings are related to hazardous waste disposal permits and a historic underground storage tank (UST) on the Cathedral City Fire Department facility at 36914 Date Palm Drive, Cathedral City, California. One of the other database listing is associated with a historical automobile service station (Pyles Robert) at 68904-96 Highway 111, Cathedral City, California. Outside the subject property boundary, there are 13 LUST case listings reported at 6 addresses. All of the

LUST cases are listed as "Case Closed" associated with soil contamination only. Two orphan sites (sites with inadequate data and/or address information to be mapped by EDR) were identified during the agency database search. Refer to the EDR Radius Map™ Report in Appendix C for the search radii completed for this assessment. A brief description for the listings in the EDR report, situated up groundwater gradient and within a third of a mile of the subject property, is provided below:

Sites A1, A3-A5, & A7-A9: Cathedral City Fire Department, 36913 Date Palm Dr., Cathedral City, CA 92234: These listings are mapped in the northeasterly portion of the subject site, and at a lower elevation than the central portion of the property (i.e., point of radius search). The actual location is at the northeast corner of the subject property. This facility is listed on the State Facility and Manifest (HAZNET), the Statewide Environmental Evaluation and Planning System (SWEEPS UST), the Facility Index System/Facility Registry System (FINDS), the EDR Historical Underground Storage Tank (HIST UST), and the California EPA's Facility Inventory (CA FID UST) databases. Under HAZNET, the waste category is reported as approximately 0.01 to 1.05 tons of "other organic solids." The disposal method is reported as "Transfer Station" and "Landfill" for 2000 and 2002 to 2005. The HIST UST listing is associated with a 1,000 gallon diesel tank installed in 1975 at the fire station site. No other information was provided. The SWEEPS UST listing is reportedly related to a 100 gallon tank of unknown use with an origin date of July 7, 1990. Two 1998 HAZNET permits were listed for disposal of "tank bottom waste" and "other empty containers 30 gallons or more." (*Petra: the permit for "tank bottom waste" disposal suggests that a "tank" was removed in 1998*). No pertinent information was provided under CA FID UST and FINDS. Further assessment is recommended for this site. A scope of work is provided below.

Site B2: Carl's Jr. #724, 68980 E. Palm Canyon Dr., Cathedral City, CA 92234:
This site is located at the southeast corner of the subject property (APN 687-208-015). The facility is listed under the U.S. Environmental Protection Agency's Facility Index System/Facility Registry System (FINDS) database. This database may contain references to out of date records formerly associated with the site. The date the database listing was created in October 14, 2015, based upon "environmental interest." No additional information is provided. Based upon the absence of a violation-based dual database listing for the site, this listing does not appear to represent a recognized environmental condition with regards to the subject site at this time. (*Petra: review of a historical aerial photograph from 1975 indicates that a gasoline station was situated at the northwest corner of Palm Canyon Drive and Date Palm Drive. The FINDS listing may be related to this former gasoline station*). Further assessment is recommended for this site. A scope of work is provided below.

Site C6: Tri Millenium, 68901 Grove St., Cathedral City, CA 92234:
This site is located in the central portion of the subject property (APN 687-204-001). This facility is listed under California Environmental Protection Agency's (CAL EPA) Facility and Manifest Data (HAZNET) database. The waste category is listed as "asbestos containing waste" and the volume is reported as 0.84 tons. The disposal method is listed as "Landfill." The date of the listing is reported as 2005. No additional information is provided. Based upon the absence of a violation-based dual database listing for the site, this listing does not appear to represent a recognized environmental condition with regards to the subject site at this time.

Site A10: Multi-Commercial Units, 37111 Date Palm Dr., Cathedral City, CA 92234:
This site is located in the central portion of the eastern edge of the subject property (APN 687-206-018). This facility is listed under California Environmental Protection Agency's (CAL EPA) Facility and Manifest Data (HAZNET) database. The waste category is not listed but the volume is reported as 0.4 tons. The disposal method is listed as "Landfill or surface impoundment that will be closed as landfill (to include

on-site treatment and/or stabilization)." The date of the listing is reported as 2012. No additional information is provided. Based upon the absence of a violation-based dual database listing for the site, this listing does not appear to represent a recognized environmental condition with regards to the subject site at this time.

Sites C11, C12, C13, C14 & C15: Palm Springs Oil #9, 68830 Highway 111, Cathedral City, CA 92234:
This address is a triangular-shaped lot located in the southwest corner of the subject property (APN 687-205-005). This facility is listed under the State Water Quality Control Board's Hazardous Substance Storage Container (HIST UST), EDR's Historical Gas Station (EDR Hist Auto), the State Water Resources Control Board's Leaking Underground Storage Tank (LUST), the Statewide Environmental Evaluation and Planning System (SWEEPS UST), the Historic Cortese Hazardous Waste and Substances Sites (HIST CORTESE), the U.S. Environmental Protection Agency's Facility Index System/Facility Registry System (FINDS), the CAL EPA's Facility Inventory Database (CA FID UST), the Resource Conservation and Recovery Act Small Quantity Generator (RCRA-SQG), and Enforcement and Compliance History Information (ECHO) databases.

The RCRA-SQG listing is describes as a Handler that generates more than 100 and less than 1000 kilograms (kgs) of hazardous waste during any calendar month and accumulates less than 6000 kgs at any one time. The owner/operator is reported as Stagg Oil Company, Inc. No violations were reported as found. The HIST UST listing is associated with a station with four, 12,000 gallon UST's containing regular, unleaded and premium gasoline. The leak detection method is listed as "stock inventory." Information sheets from the State Water Quality Control Board report a date of June 1, 1988. The EDR Hist Auto listing refers to a gasoline station on the site in 1986 and 1987. The LUST case type is reported as LUST Cleanup Site. The potential media affected is reported as soil. The potential contaminants of concern are reported as gasoline. The case status is listed as "Completed-Case Closed" on May 5, 2006. Two SWEEPS UST listings were created February 29, 1988 and September 17, 1992 and the status of both are reported as "active." The referral action for the first listing is November 17, 1992. The referral action for the second listing is September 17, 1992. Five, 12,000 gallon gasoline USTs are reported on the site in the first listing and four, 12,000 gallon USTs on the second. The ECHO listing Compliance Status reported no violations. Additional information regarding this former gasoline station is provided below under the *GeoTracker* section.

Site D16: Pyles Robert, 68904-96 Highway 111, Cathedral City, CA 92234:
This address is located in the central portion of the subject parcels adjacent to Highway 111 (APN 687-208-024, -025 and -026). This facility is listed under EDR's Historical Gas Station (EDR Hist Auto) database. The date of this listing is 1974. No additional information is provided. Based upon the location of the address situated within the subject property and the absence of regulatory agency oversight and/or additional knowledge of the former gasoline station, this site may represent a recognized environmental condition with regards to the subject site at this time. Further assessment is recommended for this site. A scope of work is provided below.

Sites B17, B18, B19, B20, B21, B22, B23, B24 & B25: Shell Station, Saylor Harry C., Cathedral City Oil, 69010 Highway 111, Cathedral City, CA 92234:
This address is mapped less than 1/8 of a mile to the southeast and at a lower elevation than the subject property. This site was situated near the northeast corner of Highway 111 and Date Palm Drive; however, the facility has been removed. This site is listed on the LUST, HIST CORTESE, EDR Hist Auto, RCRA-SQG, FINDS, HAZNET, ECHO, Notify 65, SWEEPS UST, CA FID UST, Indian LUST, Indian UST and the State Water Quality Control Board's Active Underground Storage Tank (UST) databases.

The LUST listing is reported as a LUST Cleanup Site. The potential contaminant of concern is listed as gasoline. The potential media affected is reported as "Aquifer used for drinking water supply. The site history indicated that 5 borings drilled to a depth of 100 to 140 feet reported detectable concentrations of Total Petroleum Hydrocarbons-diesel (TPH-d) at depths of 10 to 140 feet. Soil vapor sells reported elevated levels of MTBE and TBA at screened depths of 15-30 feet and 35-45 feet below the ground surface, with maximum concentrations of TPHg at 35 feet, MTBE at 30 feet, and TBA at 30 feet. Low levels of other VOCs were reported. After soil vapor extraction cleanup operations, TPHg went from 74 parts per million by volume (ppmv) to less than 3 ppmv; MTBE decreased from 56 ppmv to 0.07 ppmv; TBA dropped from 15 ppmv to less than 0.0023 ppmv, and ethanol went from -.014 to 0.0084 ppmv (June 2007). One groundwater monitoring well, drilled to a depth of 193 feet, reported levels of methyl-tert butyl ether (MTBE) at 11 parts per billion (ppb). The case status is listed as "Completed-Case Closed" on August 26, 2010. A second LUST cleanup case was reported in 1989. The potential contaminant of concern is listed as gasoline. The potential media affected is reported as soil. The cases status is listed as "Completed-Case Closed" on September 13, 1996.

The Indian LUST case status is reported as "Closed" on February 25, 2002. The last status is listed as, "Cleanup Completed (NFA-Confirmed Release)." The Indian UST database listing refers to four underground storage tanks containing gasoline and used oil. The Tanks status is noted as, "permanently out of service" on February 23, 2004.

The EDR Hist Auto database listing refers to a gasoline service station (Saylor Harry C) at the address from 1977 to 1988 and Cathedral Shell at the site from 1989 to 2001. No other information is provided. A second EDR Hist Auto listing refers to Cathedral City Shell in operation at the address from 1994 to 2006. The RCRA-SQG listing is related to benzene waste and ignitable waste disposal. No violation were reportedly found. The waste category under HAZNET is reported in 2004 as "Aqueous solution with total organic residues less than 10 percent." Volume is reported as 1.25 tons. The disposal method is described as, "Treatment, Tank." The disposal method for a second listing for the same waste category is reported as "Recycler" for 4.17 tons. Two additional listings under HAZNET consisted of the permitted disposal of "Other empty containers 30 gallons or more" and a disposal method of "Recycler." The SWEEPS UST listing reports three, 12,000 gallon leaded and unleaded gasoline tanks and one, 550 gallon waste oil tank on the site. The status of the tanks are listed as active in 1992.

The location of this site is considered to be at a down groundwater gradient from the subject property. This site is situated at approximately 115 feet from the southeast corner of the subject property, beyond the 100 foot vapor encroachment screening distance suggested for down-gradient petroleum-contaminated sites where a light non-aqueous phase liquid (LNAPL) floating on the water table is reported. Based upon this information, this listing does not appear to represent a recognized environmental condition with regards to the subject site at this time.

<u>Sites C26, C27 & C28: Shell Swift Stop & World Oil Station #7, 68869 E. Palm Canyon Dr., Cathedral City, 92234:</u>
This address is mapped less than 1/8 of a mile to the south and at a higher elevation than the subject property. This site is listed on the EDR Hist Auto database for 1991 to 1995, and World Oil Marketing Company/WORAD Oil Company from 1996 to 1997. No additional information is provided. This site is also listed on the LUST, RCRA-SQG, SWEEPS, HIST UST, CA FID UST, FINDS, HIST CORTESE and ECHO databases.

The LUST listing case type is reported as LUST Cleanup Site. The potential media affected is listed as soils. The potential contaminant of concern is listed as gasoline. The case status is reported as "Completed-Case Closed" as of June 3, 1996. The SWEEPS UST listing refers to seven active USTs containing diesel,

regular unleaded and leaded gasoline ranging from 10,000 to 12,000 gallons in volume. The active date is June 19, 1989. The HIST UST database listing referenced 6 USTs onsite of similar volume. The ECHO Compliance Status reported no violations.

The location of this site, south of Highway 111, is considered to be at a cross groundwater gradient from the subject property. This site is situated at approximately 110 feet from the south edge of the subject property, beyond the 95 foot vapor encroachment screening distance suggested for cross-gradient petroleum-contaminated sites where only petroleum is dissolved in the groundwater (*Petra: groundwater contamination is not reported at this offsite property; however, this screening distance is used as a conservative basis for assessment*). Based upon this information, this listing does not appear to represent a recognized environmental condition with regards to the subject site at this time.

Site C29: Route 66 Riders, Inc., 68885 E. Palm Canyon Dr, Cathedral City, CA 92234:
This address is located south of the central portion of the subject site, across E. Palm Canyon Drive. This facility is mapped by EDR less that a 1/8 mile to the south-southeast and at a higher elevation that the subject property. This offsite property is listed under EDR's Historical Gas Station (EDR Hist Auto) database. Cathedral City Firestone (general auto repair shop) reportedly occupied the address from 1989 to 1997, and then occupied by Route 66 Riders (gasoline service station) from 1998 to 2008. No additional information is provided.

The location of this site, south of Highway 111, is considered to be at a cross groundwater gradient from the subject property; however, groundwater is reported to exceed a depth of 150 feet below the ground surface. If groundwater was impacted by this site, it is considered at a depth where the health risk to future onsite residents is considered a de minimis condition.

This site is situated at approximately 110 feet from the south edge of the subject property, beyond the 95 foot vapor encroachment screening distance suggested for cross-gradient petroleum-contaminated sites where only petroleum is dissolved in the groundwater (*Petra: groundwater contamination is not reported at this offsite property; however, this screening distance is used as a conservative basis for assessment*). Based upon this information, this listing does not appear to represent a recognized environmental condition with regards to the subject site at this time.

Site E30: Desert Jewelry Mart, 68783 E. Palm Canyon Dr, Cathedral City, CA 92234:
This address is located southwest of the subject property, across E. Palm Canyon Drive. This facility is mapped by EDR less that a 1/8 mile to the west-southwest and at a higher elevation that the subject property. This offsite property is listed under EDR's Historical Gas Station (EDR Hist Auto) database. Desert Jewelry Mart reportedly occupied the address from 1995 to 1996, and then occupied by Penuries, Inc. from 1997 to 2008. No additional information is provided. (*Petra: it is anticipated that this listing is likely due to a gasoline station occupying the address prior to 1995*).

The location of this site, south of Highway 111, is considered to be at an up groundwater gradient from the subject property; however, groundwater is reported to exceed a depth of 150 feet below the ground surface. If groundwater was affected by a pre-1995 gas station, the likelihood is high that contaminants have degraded over 22 years to concentrations sufficiently low as to not present a health risk to future residents. Strict definition of the potential warrants it to be labeled as a Historic Recognized Environmental Condition; however, depth to groundwater and the anticipated decreasing contamination levels, if a plume exists, it is considered as a de minimis condition.

This site is situated at approximately 460 feet from the south edge of the subject property, less than the 528 foot vapor encroachment screening distance suggested for up-gradient petroleum-contaminated sites

(*Petra: groundwater contamination is not reported at this offsite property; however, this screening distance is used as a conservative basis for assessment*). The closest parcel to this offsite property (*Palm Springs Oil Company, APN 687-205-005)* conducted soil vapor extraction remediation, achieving "Case Closed" cleanup status in 2005 (County of Riverside, 2005). Based upon the removal of soil vapors under regulatory guidance, the likelihood of additional vapor migration onto the site is considered very low. As a result, this listing does not appear to represent a recognized environmental condition with regards to the subject site at this time.

Site E31: Oliver & Winston, Inc., 68759 E. Palm Canyon Dr, Cathedral City, CA 92234:
This address is located west of the subject property, across E. Palm Canyon Drive. This facility is mapped by EDR less that a 1/8 mile to the west-southwest and at a higher elevation that the subject property. This offsite property is listed under EDR's Historical Gas Station (EDR Hist Auto) database. Oliver & Winston, Inc. (auto & home supply store) reportedly occupied the address from 1989 to 1994. No additional information is provided. It is our opinion that an auto and home supply store would represent a very low potential for underground or aboveground fuel storage tanks or used hazardous materials in a way that would potentially impact the environment. Based upon this assumption, this listing does not appear to represent a recognized environmental condition with regards to the subject site at this time.

Site D32: Immediate Auto Care, 68900 B St,, Cathedral City, CA 92234:
This address is located south of the subject property, across E. Palm Canyon Drive. This facility is mapped by EDR less that a 1/8 mile to the south and at a higher elevation that the subject property. This offsite property is listed under EDR's Historical Gas Station (EDR Hist Auto) database. Immediate Auto Care reportedly occupied the address in 1988 and from 1989 to 1994. This site was reportedly occupied by Phil's immediate Auto Care in 1989. No additional information is provided.

The location of this site is considered to be at a cross groundwater gradient from the subject property; however, groundwater is reported to exceed a depth of 150 feet below the ground surface. If groundwater was affected, the likelihood is high that contaminants have degraded over 13 years to concentrations sufficiently low as to not present a health risk to future residents. Strict definition of the potential warrants it to be labeled as a Historic Recognized Environmental Condition (HREC); however, depth to groundwater and the anticipated decreasing contamination levels, if a plume exists, it is considered as a de minimis condition.

This site is situated over 110 feet from the south edge of the subject property, greater than the 95 foot vapor encroachment screening distance suggested for cross-gradient petroleum-contaminated sites (*Petra: groundwater contamination is not reported at this offsite property; however, this screening distance is used as a conservative basis for assessment*). Based upon the information provided above this listing does not appear to represent a recognized environmental condition with regards to the subject site at this time.

Site E30: Palm Springs Tire & Auto, 68759 E. Palm Canyon Dr, Cathedral City, CA 92234:
This address is located west-southwest of the subject property, across E. Palm Canyon Drive. This facility is mapped by EDR less that an 1/8 mile to the west-southwest and at a higher elevation that the subject property. This offsite property is listed under EDR's Historical Gas Station (EDR Hist Auto) database. Palm Springs Tire & Auto reportedly occupied the address from 1995 to 1996, and then occupied by Penoriss, Inc. from 1998 to 2004. No additional information is provided.

The location of this site, south of Highway 111 (E. Palm Canyon Drive), is considered to be at an up groundwater gradient from the subject property; however, groundwater is reported to exceed a depth of 150 feet below the ground surface. If groundwater was affected, the likelihood is considered high that contaminants have degraded over the past 13 years, to concentrations sufficiently low as to not present a

health risk to future residents. Strict definition of the potential warrants this listing to be labeled as a Historic Recognized Environmental Condition; however, depth to groundwater and the anticipated decreasing contamination levels, if a plume exists, it is considered as a de minimis condition.

This site is situated at approximately 560 feet from the southwest edge of the subject property, exceeding the 528 foot vapor encroachment screening distance suggested for up-gradient petroleum-contaminated sites (*Petra: groundwater contamination is not reported at this offsite property; however, this screening distance is used as a conservative basis for assessment*). As a result, this listing does not appear to represent a recognized environmental condition with regards to the subject site at this time.

Sites F34 & F35: Super Clean, 69040 E. Palm Canyon Dr., Suite A, Cathedral City, CA 92234:
This address is located southeast of the subject property, across E. Palm Canyon Drive. This facility is mapped by EDR less that an 1/8 mile to the west-southwest and at a lower elevation that the subject property. This offsite property is listed under the DTSC's Cleaner Facilities (DRYCLEANERS) and the EDR Historic Dry Cleaners (EDR HIST CLEANER) databases. The created date for the DRYCLEANERS listing is December 5, 2007 and the inactive date is June 30, 2008. No violations were listed for this facility. The EDR HIST CLEANER listing reported occupancy by Best Cleaners of the Desert, Super Cleaners, and Dakota 150 Cleaners from 1999 to 2009. No additional information was provided. Based upon this site being located at least 450 feet from the subject property and at a down groundwater gradient, this listing does not appear to represent a recognized environmental condition with regards to the subject site at this time.

Site 36: Cathedral City Auto Supply, 68733 Hwy 111, Cathedral City, CA 92234:
This address is located west of the subject property, across E. Palm Canyon Drive. This facility is mapped by EDR less that an 1/8 mile to the west and at a higher elevation that the subject property. This offsite property is listed under EDR's Historical Gas Station (EDR Hist Auto) database from 1987. No additional information is provided. It is our opinion that an auto parts supply store would represent a very low potential for underground or aboveground fuel storage tanks or used hazardous materials in a way that would potentially impact the environment. Based upon this assumption, this listing does not appear to represent a recognized environmental condition with regards to the subject site at this time.

Sites G37, G39, G39 & G40: Chevron Station #9-3045, 68630 E. Palm Canyon Dr., Cathedral City, CA 92234:
The site is mapped between 1/8 and 1/4 of a mile to the west and at a higher elevation than the subject property. The facility is listed under the LUST, HIST CORTESE, HIST UST, SWEEPS UST and CA FID UST databases. The LUST case type is reported as LUST Cleanup Site. The potential media affected is reported as soil. The potential contaminants of concern are reported as gasoline. The case status is listed as "Completed-Case Closed" on October 5, 2006. The HIST UST listing refers to 3 product USTs and a waste (oil?) tank on the site in 1971. The SWEEPS UST listing was created February 29, 1988 for three, 12,000 gallon fuel USTs and one, 1,000 gallon waste oil UST. The status is reported as "active." This address is mapped west and at an up groundwater gradient from the subject property; however, groundwater contamination was not reported. As a result, this listing does not appear to represent a recognized environmental condition with regards to the subject site at this time.

This site is mapped by GeoTracker at approximately 830 feet from the west edge of the subject property, exceeding the 528 foot vapor encroachment screening distance suggested for up-gradient petroleum-contaminated sites (*Petra: groundwater contamination is not reported at this offsite property; however, this screening distance is used as a conservative basis for assessment*). As a result, this listing does not appear to represent a potential for soil vapor migration (i.e., recognized environmental condition) with regards to the subject site at this time.

G41: Beep-Beep Lube & Tune, 68635 Hwy 111, Cathedral City, CA 92234:
The site is mapped between 1/8 and 1/4 of a mile to the west and at a higher elevation than the subject property. The facility is listed under the SWEEPS UST and CA FID UST databases. The SWEEPS UST listing was created August 21, 1991 for fuel USTs and one waste oil UST. The status is reported as "active." No violations were reported. Permits for USTs do not necessarily indicate contamination has occurred unless the site has a dual listing associated with a spill, leak and/or unauthorized release of hazardous materials. This facility and address are no listing on any other database reviewed herein; therefore, this listing does not appear to represent a recognized environmental condition with regards to the subject site at this time.

The remaining identified sites report no violations and/or dual listings, or report soil contamination only, or are located at a down groundwater gradient from the subject property, or exceed a distance of 1/3 of a mile from the subject site. As a result, these listings do not appear to represent a recognized environmental condition with regards to the subject site at this time.

Orphan Sites

Orphan sites are unable to be located due to lack of complete data and/or address information. Two orphan sites were listed in the EDR Radius Map™ report. One site is listed as LUST case at a CVWD Lift Station (80-06) located at Country Club Drive and the Whitewater River, in Rancho Mirage, California. It appears that this facility is situated at least 1 mile southeast of the subject property. Limited information provided on the EDR website indicated that groundwater was affected. The status of the case is reported as "Closed/Action Completed." No additional data was provided. The second listing, also a LUST case, was reported as Tramway Shell located on North Palm Canyon Drive in Palm Springs, California. It appears that this facility is situated at least 1 mile northwest of the subject property. Limited information provided on the EDR website indicated that groundwater was affected. The status of the case is reported as "Closed/Action Completed." No additional data was provided. Based upon limited location information, these sites do not appear to represent a recognized environmental condition with regards to the subject site at this time.

Local Agencies

Petra reviewed information held by the agencies listed below during the course of this assessment.

A. Riverside County Department of Environmental Health

The Riverside County Department of Environmental Health - Hazardous Materials Management Division maintains records related to underground storage tanks and tank cleanup sites in the County of Riverside. Records held by this agency were accessed by EDR during the government database search (Appendix C). One listing for the subject site was reported by EDR (Palm Springs Oil #9, 68830 Highway 111, Cathedral City, California). Additional information pertaining to this facility is provided below under *GeoTracker*.

Petra also reviewed the most recent Environmental Resources Management Division Local Oversight Program (LOP) listing (dated July 11, 2017); the Hazardous Materials Management Division Disclosure Facility Listing (dated July 11, 2017); the Hazardous Materials Management Branch Generator Facility Listing (dated July 11, 2017); and, the Hazardous Materials Management Branch Tank Facility Listing (dated July 11, 2017). No addresses for the subject site were found in any of the listings.

B. California Regional Water Quality Control Board

The California Regional Water Quality Control Board-Colorado River Basin (RWQCB) maintains records of leaking underground storage tank sites and groundwater cleanups for sites in the Colorado River Region. Records held by the RWQCB were accessed by EDR during the government database search. One listing for the subject site was reported by EDR (Palm Springs Oil #9, 68830 Highway 111, Cathedral City, California). Additional information pertaining to this facility is provided below under *GeoTracker*.

During our research, a State Water Resources Control Board Hazardous Substance Container Information sheet, dated June 1, 1988, was found for the fire station site. The owner of the tank was reported as Riverside County Fire Department. This sheet indicated that a 1,000 gallon diesel tank was installed at the Cathedral City Fire Station #34 (36-913 Date Palm Drive) in 1975. Underground piping was listed as unknown. Leak detection was reported as, "stock inventory." No additional pertinent information was provided. Petra contacted the RWQCB on July 5, 2017 to request a file search for this site. The RWQCB responded on July 7, 2017 indicating that no files exist for the address. A copy of the information sheet is provided in Appendix B.

C. GeoTracker

The GeoTracker website maintains a record of environmental data for regulated facilities in California. One database listing for the subject site was reported on GeoTracker (Palm Springs Oil #9, 68830 Highway 111, Cathedral City, California). A summary of this former LUST case is provided below. In addition, a summary of soil vapor extraction remediation results and a summary of the closure report for the site (County of Riverside, 2005) are provide above under the *Previous Reports* section. Summaries of other LUST cases mapped up-gradient and in close proximity to the subject property are provided below. The memorandum documenting this inquiry is included in Appendix B.

Palm Springs Oil #9, 68830 Highway 111, Cathedral City, CA 92234 (EDR Mapped Sites C11 – C15)
Five, 12,000 gallon USTs were removed from the site on July 2, 1999. No groundwater monitoring wells were installed due to groundwater estimated between 220-260 feet in depth. Two initial borings were drilled at the site after TPHg was detected under the USTs upon removal. One boring in the former tank pit was drilled to a depth of 115 feet and detected up to 4,600 ppm TPHg, 18 ppm benzene and 5.7 ppm MTBE at 50 feet. Both borings were converted to soil vapor extraction (SVE) wells. A SVE system remediated soil vapors from January 2002 to December 2002. A confirmation boring was drilled to a depth of 75 feet in the former tank pit, and detected TPHg at 15,500 ppm; 0.019 ppm MTBE; and 1.8 ppm benzene in a sandy silt layer at a depth of 50 feet. In September 2003, an additional 3 borings were drilled in the former tank pit and nested SVE wells were installed. Two of the boring reported ND for TPHg, benzene and MTBE. The third reported 1,800 to 2,300 ppm TPHg between 40 and 60 feet in depth. The SVE unit was re-started in November 2003 and ran through February 2004. In February 2005, 3 confirmation borings were drilled. Two of the borings reportedly detected no concentrations of TPHg, benzene and MTBE. The third detected 1,900 ppm TPHg at a depth of 45 feet; 15,000 ppm TPHg at a depth of 48 feet; and 2,000 ppm TPHg at a depth of 50 feet. No MTBE or benzene was detected. The SVE system was re-started in February 2005. A rebound test was conducted in August 2005, and the influent was reported to drop from 130 ppmv to non-detect (ND). The SVE system was removed from the site on September 15, 2005. A total of 22,984 pounds of hydrocarbons were removed from the site.

The consultant requested closure as the station no longer exists and the hydrocarbon impacts were delineated at the site, SVE reached ND levels, no public wells are located within 0.5 mile of the site, and the minimal hydrocarbon mass (approximately 502 pounds) in the soil in the sandy silt layer located between 42.5 and 52.5 feet below the ground surface was remediated to the extent feasible. Closure was approved once the SVE wells were removed in March 2006.

The case summary report indicated that the corrective action plan protected existing and potential beneficial uses (of groundwater) as per the Regional Board Basin Plan. It also indicated that the corrective action plan protected public health for the current land use, and noted that the corrective action should not be reviewed if land-use changes. As a result, this site is considered a Historical Recognized Environmental Condition (HREC). No further assessment is recommended for this site at this time.

World Oil Station #7, 68869 E. Palm Canyon Dr., Cathedral City, 92234 (EDR Mapped Sites C26-C28)
Review of a Case Closure Summary report (County of Riverside, 1996) indicated that three, 10,000 gallon and three, 12,000 gallon gasoline USTs were active on the site. Original soil sample was taken from the turbine box when hand borings hit refusal due to cobbles at a depth of 3 feet. An assessment boring drilled near the tanks reported a maximum TPHg at 40 feet in soil of 5.4 ppm and ND at 60 and 65 feet below the ground surface, respectively. Benzene was ND throughout the boring. Groundwater was estimated at a depth of 160-165 feet. Closure was approved in June 1996. Based upon this information, this listing does not appear to represent a recognized environmental condition with regards to the subject site at this time.

Chevron Station #9-3045, 68630 E. Palm Canyon Dr., Cathedral City, CA 92234 (EDR Mapped Sites G37-G40)
Review of a Case Closure Summary report (County of Riverside, 1995) indicated that one, 5,000 gallon gasoline UST and two, 10,000 gallon gasoline USTs were removed from this site in October 1990. The case type and release was reported as soil contamination under the pump island. Groundwater was listed at a depth of 200 feet. No monitoring wells were installed. Concentrations of TPHg were listed at 6,000 ppm. Treatment and disposal of the affected (surficial soils) materials consisted of the removal of 480 cubic yards of soil taken to the BKK and Laidlaw landfills. Original contamination was reported at depths between 10 and 35 feet. These soils were remediated through vapor extraction. Soil levels reported after remediation were reported as 0.54 ppm TPHg and benzene at non-detect (ND). Closure was approved in October 2005.

As a result, this site may be considered a Historical Recognized Environmental Condition (HREC); however, readily available information indicates this site represents a de minimis condition with regards to the subject site at this time.

D. Department of Toxic Substances Control

The online database EnviroStor (DTSC, 2017), which provides records on LUSTs, SLICs, Priority cleanup sites and state sites, is maintained by the Department of Toxic Substances Control (DTSC). No database listings for the subject site or the immediate site vicinity were reported on EnviroStor.

E. California Division of Oil, Gas, and Geothermal Resources

According to the California Division of Oil, Gas, and Geothermal Resources (DOGGR), there are no active or abandoned oil, or gas wells located on the subject site. Further, there were no indications of any such wells found during our reconnaissance of the subject site. A copy of this map is included in Appendix B.

F. National Pipeline Mapping System

Petra reviewed the National Pipeline Mapping System (NPMS, 2017) public viewer website for gas transmission pipelines and hazardous liquid trunk lines on or close to the subject property. For security purposes, detailed map views are not available. According to the information reviewed, no pipelines appear to be located on the subject property. A copy of these maps is included in Appendix B.

Vapor Migration

Recent standard revisions presented in ASTM E1527-13, considers the assessment of vapor migration similar to that of groundwater contamination. As a result, Petra reviewed documentation regarding surrounding sites near the subject property with known soil, soil vapor and/or groundwater contamination to preliminarily evaluate potential areas of concern for vapor migration/encroachment onto the subject property. An area of concern typically includes active or abandoned gas stations and dry cleaners, industrial facilities, and hazardous waste disposal and landfill facilities with known or suspected soil and/or groundwater contamination.

Petra also assessed onsite parcels with known and/or possible soil, soil vapor and/or groundwater contamination to preliminarily evaluate potential areas of concern for vapor migration. For vapor encroachment to represent a potential for vapor intrusion to structures within the subject property, vapors must have a pathway to create an indoor air quality condition (i.e., Recognized Environmental Condition). Vapor encroachment from an onsite or offsite release onto the subject property does not immediately equate to vapor intrusion into existing or proposed structures within the subject property, and cannot be ascertained without additional field work.

In the absence of specific criteria within ASTM Standard E1527-13, Petra considered the linear distance and groundwater gradient guidelines provided in ASTM E2600-15 (Tier 1 Areas of Concern) as a reasonable screening tool for vapor migration to identify a recognized environmental condition (REC) associated with the subject site (ASTM, 2015; Buonicore, 2014). No "open case" leaking underground storage tank (LUST) sites were identified in our search of various government agency database records, which have been reported to impact soils or groundwater onsite or in the immediate vicinity of the subject property, and that may have also impacted soils or groundwater beneath the subject site, except one onsite parcel, APN 687-205-005 (Palm Springs Oil #9, 68830 Highway 111, Cathedral City, CA 92234). This parcel is a former LUST case where gasoline reportedly affected soil only. Vapor extraction was utilized for remediation of the site. Closure was approved once the SVE wells were removed in March 2006. No known development restrictions were placed on this site. This site is considered a Historical Recognized Environmental Condition (HREC).

The City Directory Search by EDR listed Auto Truck Repair at 68930 E. Palm Canyon Drive and Bob's Choice Cars at 68920 E. Palm Canyon Drive in 1975. The Radius Search report by EDR listed Pyles Robert (service station) at 68904-96 Palm Canyon Drive in 1974. Based upon current street address locations on Bing Maps, these former sites appear to be within the subject property, within APN's 687-208-023, -024, -025 and -026. Readily available records were not found indicating regulatory oversight of UST removal or cleanup of these former sites. The EDR Radius Search report also listed a 1,000 gallon underground diesel storage tank (UST) within the Cathedral Fire Department parcel (APN 687-202-015) in 1975 and 1988 and a 100 gallon UST of unknown use in 1990. Readily available records were not found indicating regulatory oversight of UST removal or cleanup of the fire station parcel. Additionally, historic aerial photographs reviewed herein suggest a gasoline station was located at the northwest corner of Date Palm Drive and Palm Canyon Drive from at least 1966 to sometime after 1972 and before 1984. Based upon the absence of readily available information pertaining to these five sites, these sites may represent potential Recognized Environmental Conditions (pRECs) due to the potential for petroleum hydrocarbon soil vapor (and soil) residues to be detected onsite. Based upon the age of these former gas stations, USTs and/or vehicle repair facilities as well as natural decomposition of hydrocarbons, the potential may be considered low to moderate; however, the potential cannot be entirely precluded. Further assessment is recommended for this site. A scope of work is provided below.

No surrounding offsite facilities have been identified during this assessment, situated in close proximity to the property and at an up or cross groundwater gradient, which would represent a concern in regards to vapor encroachment on to the subject site at this time.

Evaluation of Records Search Results

In summary, no former onsite businesses were identified in our search of various government agency database records, which are reported to have impacted or have the potential to have affected soils, soil vapor or groundwater beneath the subject site at this time, except the following:

- Palm Springs Oil #9, 68830 Palm Canyon Drive (APN 687-205-005)
- Pyles Robert (service station), 68904 Palm Canyon Drive (APN 687-208-025, -026)
- Bob's Choice Cars, 68920 E. Palm Canyon Drive (APN 687-208-023)
- Auto Truck Repair, 68930 E. Palm Canyon Drive (APN 687-208-022)
- Unknown gasoline station, 68980 E. Palm Canyon Drive (APN 687-208-015)
- Cathedral Fire Department, 36913 Date Palm Drive (APN 687-202-015)

It should be noted that the APN's related to the onsite addresses above are in some cases estimated, based solely upon the historic addresses provided versus the current addresses searched on Bing Maps.

Results of Aerial Photo Analysis

Although aerial photographs can often be a valuable source of information in the assessment of historical land usage, it should be understood that information extrapolated from photographic images is strictly interpretation and not necessarily fact. For this reason, it may not be appropriate to draw conclusions regarding previous site activities based solely upon aerial photograph analysis.

In order to provide an assessment of historical land usage on and in the vicinity of the subject site, aerial photographs with coverage of the subject site and vicinity were obtained from EDR and viewed by a representative of this firm. Photographs from the years 1953, 1966, 1972, 1984, 1996, 2002, 2005, 2009, 2010, and 2012 were provided by EDR. A summary of the information obtained during the aerial photograph review follows. Copies of the aerial photographs obtained from EDR are included in Appendix C.

1953 Photograph

In this black and white photograph, the subject property appears to be developed predominantly single-family residential development. There were, however, larger structures scattered onsite that may have been multi-family dwellings, motels and/or commercial development. Palm Canyon Drive, Date Palm Drive, Buddy Rogers Avenue, 1st Street, Grove Street, Dawes Street and Allen Avenue are visible but only Palm Canyon Drive appeared to be improved. Minimal vegetation was readily detectable.

1966 Photograph

In this black and white photograph, the subject property appears to remain predominantly single-family residential development, with decreased larger structures. What appeared to be a gasoline station was depicted in the southeast corner of the subject property, and a second station may be present in the southwest corner of the subject site. Gasoline stations appeared to be present to the south (across Highway 111) and to the southeast (across Date Palm Drive).

1972 Photograph

In this black and white photograph, the subject property appears to remain predominantly residential development. Highway 111, Date Palm Drive, Buddy Rogers Avenue, 1st Street, Grove Street, Dawes Street and Allen Avenue appeared to be improved. The northeast and southeast corners of the property appeared to be undeveloped, except for what appeared to be a gasoline station at the southeast corner.

Vacant parcels are also scattered throughout. Locally dense trees are visible within some of the developed lots. Gasoline stations appeared to remain to the south (across Highway 111) and to the southeast (across Date Palm Drive).

1984 and 1996 Photographs

In the 1984 infrared photograph, the subject property remained predominantly developed and similar to previous photographs; however, a relatively large building (fire station?) was depicted in the northeast corner of the property. A large area of land (APN 687-204-016), bounded by 1st Street, Grove Drive and Date Palm Drive was vacant in 1984 but developed for commercial purposes by 1996. The service station in the southwest corner of the property (APN 687-208-015) appeared to be re-developed for commercial purposes (Carl's Jr.?) in 1984. The gasoline station at the southwest corner of the subject property remained visible. Development of the shopping center east of the site was depicted in 1984, as was the service station at the northeast corner of Highway 111 and Date Palm Drive.

2002 Photograph

In this infrared photograph, minimal changes were noted within the site, except for building removals/vacant parcels north of 1st Street, between the fire station and Allen Drive. Additionally, the pump islands and awning associated with service station at the southwest corner of the property appeared to be removed.

2005, 2009, 2010 and 2012 Photographs

In these color photographs, minimal changes were noted on the site, except for the removal of buildings within the property limits. By 2009 a majority of structures had been removed, except for the fire station, Carl's Jr., Goody's Diner, a commercial building at the northwest corner of Grove Drive and Date Palm Drive, a commercial building between Carl's Jr. and Goody's Diner, 5 residences at the corner of Date Palm Drive and Dawes Road, and 3 scattered buildings within the western portion of the site. Very minimal changes were depicted to the property in 2010. By 2012, development was only observed along Date Palm Drive and Highway 111 east of Allen Drive.

2012 to 2017 Google Earth Photographs

Petra also reviewed historical aerial photographs on Google Earth from 2012 to 2017. All of the residential buildings appeared to have been removed by December 2012. By July 2016, the commercial building west of Carl's Jr. had been removed. The last photograph reviewed, April 2017, indicated site conditions similar to that visible today, except Goody's Diner was still present onsite.

Historical USGS Topographic Maps

Petra reviewed the historical USGS topographic maps of the site and vicinity provided by EDR® (1904, 1941, 1944, 1947, 1958, 1972, 1981 and 2012). The 1904 map depicts no development of the subject property or vicinity, except for a road near the southern portion of the site (Palm Canyon Drive?). Improvements to the subject site and vicinity were depicted in the map from 1941, where the entire subject property appeared developed along with land to the west and south. Date orchards were depicted across the Whitewater River to the north and east. Indian Reservation (IR) Lands were shown on the 1941, 1944 and 1947 maps directly east of the property and to the north. Minimal changes to the subject property were noted until the 1958 map where the northwesterly portion of the property appeared as undeveloped. This map also depicted Agua Caliente Indian Reservation Land to the north and east. The 1972 map exhibited small structures within the northeasterly portion of the property while the remainder of the site was infilled with urban development. The 2012 map depicted a fire station in the northeast corner of the site. Overall, land improvements in the vicinity of the subject property were similar to that described in the aerial photographs. Copies of the maps reviewed are provided in Appendix C.

Environmental Liens & Activity and Use Limitations

Environmental Liens and Activity and Use Limitations (AUL) indicate restrictions on a property, which may represent a recognized environmental condition for the subject site. A search for Environmental Liens and AULs was initially conducted by EDR as part of this assessment for APN 687-205-005 (formerly 68830 Highway 111, Cathedral City, California). The results from this search indicated that there were no recorded Environmental Liens or AULs listed for the parcel. One Grant Deed provided with this lien search shows the title is vested in City Urban Revitalization Corporation. The Deed was recorded on May 1, 2005. A Legal Description of the real property (Exhibit "A" dated May 1, 2015) list 61 parcels, some of which refer to other parcels within the subject property. A copy of the lien and AUL search report is provided in Appendix C.

Subsequently, it was determined to conduct an Environmental Liens and AUL search on 5 additional parcels along Palm Canyon Drive (Highway 111). Deed information for APNs 687-208-015 and 687-208-022 indicate that the Title is vested in City Urban Revitalization Corporation. The Title was received from Wessman Holdings, LLC. The Deed was recorded April 8, 2016. No environmental liens or AUL were found. A Legal Description of the real property (Deed 1) list 23 parcels which refer to other parcels within the subject property. Quitclaim Deed information for APNs 687-208-023, 687-208-024 and 687-208-026 indicate the Title is vested in the Agua Caliente Band of Cahuilla Indians. The Title was received from Meridian Reality Investors, LLC. The deed was recorded on January 2, 2017. A Legal Description of the

real property (Exhibit 'A' Deed 2) list 4 parcels which refer to other parcels within the subject property. A copy of the lien and AUL search report is provided in Appendix C.

Fire Insurance Maps

Fire Insurance Maps provide information on structure locations and operations, which were present at the time of the survey. These maps were completed for most major cities and metropolitan areas, dating from 1867, and provide information into past usage of buildings and how commercial and industrial zoning has changed over time. Sanborn™ Fire Insurance maps were requested for this study. EDR reports that no Sanborn™ Fire Insurance map coverage is available for the site. The memorandum documenting this inquiry is included in Appendix C.

City Directories

City Directories provide information for a specific address at a specific time. A search of city directories, on a five year interval dating from 1975 to 2013, was conducted by EDR for this assessment. The search was conducted for the target streets E. Palm Canyon Drive (Highway 111) and Date Palm Drive. Listings on E. Palm Canyon Drive and Date Palm Drive were recorded for all years covered. Multiple listings were included in the EDR city directory abstract for the subject property. In 1975, MAG Gasoline was listed at 68830 E. Palm Canyon Drive; Bobs Choice Cars at 68920 E. Palm Canyon Drive; and Auto Truck Repair was listed at 68930 E. Palm Canyon Drive. No listings were provided for these addresses from 1980 – 1990. Goody's Diner was listed at 68930 E. Palm Canyon Drive in 2003 and 2013. From 1992 to 1999, Palm Spring Oil was listed at 68830 E. Palm Canyon Drive; however, this address was listed as "unknown" in 2003 and not list in 2008. Carl's Jr. Restaurant was listed at 68980 E. Palm Canyon Drive in 2003 and 2013. County of Riverside Fire Department-Cathedral City was listed at 36913 Date Palm Drive in 1980 and 1985. A copy of this search is presented in Appendix C.

Building Permits

Building Permit data provides information to identify current and/or former operations and structures/features which may represent a recognized environmental condition for the subject site. EDR reported no building permits for the target property at the northwest corner of Highway 111 and Date Palm Drive; however, multiple building permits for addresses within the subject property from the Cathedral City Building and Safety Department from 1997 to 2016 were listed. Permits at Riverside County Building and Safety Department from 1973 to 2017 were also searched. Building permits pertaining to demolition at 16 addresses estimated to have been within the subject property are summarized below.

- 68780 1st St. – (3-21-2011) demo 2,850 square foot commercial building including removal of septic system and CMU wall. Asbestos report on file.
- 68904 1st St. – (3-13-208) demo existing single family dwelling and carport, including septic system. Filed with AQMD, asbestos survey attached.
- 68935 1st St. – (3-13-2008) demo existing single family dwelling structure, carport and patio cover, including septic system. Filed with AQMD, asbestos survey attached.
- 36968 Allen Ave. – (1-30-2007) demo single family dwelling 1,000 SQ.FT. excluding slab, foundation, CMU walls and septic system.
- 68821 Buddy Rogers Ave. – (11-4-2008) demo single family dwelling (two), bedroom (1). Bathroom including removal of septic system after local fire departments complete their fire & rescue exercises (exempt fee per redevelopment).
- 68835 Buddy Rogers Ave. – (11-4-2008) demo single family dwelling (two), bedroom (1). Bathroom including removal of septic system after local fire departments complete their fire & rescue exercises (exempt fee per redevelopment).
- 37055 Date Palm Dr. – (11-9-2010) demo 12,000 SQ. FT. commercial building including removal of septic system. Asbestos report on file.
- 37111 Date Palm Dr. – (10-29-2012) common demo of one 2-story commercial building and two 1-story buildings, including slabs, footings and concrete flatwork.
- 68830 E. Palm Canyon Dr. – (10-18-2001) temporary pole for vapor extraction system.
- 68830 E. Palm Canyon Dr. – (5-12-1999) demo gas station – single story 450 SQ. FT. building.
- 68950 E. Palm Canyon Dr. – (5-4-2015) demo of existing 10,800 Sq. Ft. commercial building including concrete & footings per City standards. AQMD & asbestos reports in file.
- 68792 Grove St. – (6-1-2009) replace seepage pit.
- 68917 Grove St. – (10-21-2008) demo of single family dwelling including removal of septic system. Asbestos survey on file.
- 68926 Grove St. – (3-13-2008) demo existing of two apartment units including septic system. Filed with AQMD, asbestos survey attached.
- 68937 Grove St., - (6-23-2008) demo of single family dwelling including removal of septic system. Filed with AQMD, asbestos survey attached.
- 68947 Grove St., - (3-13-2008) demo existing of seven apartment units including septic system. Filed with AQMD, asbestos survey attached.
- 68963 Grove St., - (6-12-2012) demo 2-unit two-story apartment complex (Units 4 & 5) including removal of septic system. Asbestos report on file.

A copy of this summary list provided by the City of Cathedral City is presented in Appendix D.

Interviews

Owner Knowledge

An e-mail was sent to the client, Mr. Jeff Vatter (Senior Project Manager, Economic Development) containing Owner and Client/User Questionnaires (i.e., interview document) regarding the subject site. The Owner questionnaire was forwarded to Ms. Tami Scott (CFO, City Urban Revitalization Corporation). A summary of the response to questions by Ms. Scott is provided below.

1. According to Ms. Scott, she does not have a good knowledge regarding the uses and physical characteristics of the property; however, she does have a good knowledge regarding the activities/processes conducted at the property.

2. Ms. Scott stated that, to the best of her knowledge, the past uses of the property consisted of a combination of commercial, retail and residential uses. The current uses include a Cathedral City Fire Station and a Carl's Jr. operating onsite.

3. Ms. Scott indicated that, to the best of her knowledge, there are no hazardous substances or petroleum products present on the site. She did note that a diesel fuel tank was on the fire station site.

4. According to Ms. Scott, she does not have good knowledge regarding the identity of any existing documents relating to the property; however, she noted no existing Phase I ESA's and environmental permits related with the subject property.

5. Ms. Scott noted that asbestos, asbestos-containing materials and lead-based paint were removed from the structures prior to demolition. She also indicated that there is a diesel tank at the fire station site.

6. Ms. Scott indicated that to the best of her knowledge, there are no utility corridors within the parcel and there are no clarifiers or disposal wells onsite. She did indicate that there is a Southern California Edison utility corridor and she suggested reviewing the ALTA Survey provided to the client. Ms. Scott noted that the (fire station) property has two monitoring wells that are in the process of being abandoned (July 2017).

7. According to Ms. Scott, based on her knowledge and experience related to the property, there are no notices or other correspondence from any government agency relating to past of current violations of environmental laws; are no notices or other correspondence from any governmental agency relating to environmental liens encumbering the property; are no pending, threatened, or past litigation or administrative proceedings relevant to hazardous substances or petroleum products in, on, or from the property; and, there are no notices from any governmental entity regarding any possible violations of environmental laws, or possible liability relating to hazardous substances or petroleum products.

8. Ms. Scott provided a summary list of subject property addresses identifying septic systems removal status with APN's. The list is provided in Appendix D.

A copy of the complete Owner Questionnaire is provided in Appendix D.

Client Knowledge

An e-mail was sent to Mr. Jeff Vatter (Senior Project Manager, Economic Development, Agua Caliente Band of Cahuilla Indians) containing interview questionnaire documents regarding the subject site. A summary of the response to questions is provided below.

1. According to Mr. Vatter, the only environmental related reports he has on the subject property is a seller-provided monitoring well abandonment letter and underlying license agreement.

2. To the best of his knowledge, Mr. Vatter noted that he is aware of commonly known or reasonably ascertainable information about the property. Mr. Vatter noted that a portion of the property was previously a residential subdivision, and Goody's Café was located onsite prior to being demolished in May 2017.

3. Mr. Vatter indicated that he is not aware of hazardous substances or petroleum products on the site. Additionally, he is not aware of an existing release, past release of threat of release of hazardous substances or petroleum products on the site.

4. According to Mr. Vatter, based on his knowledge of the property, there are no obvious indicators that point to the presence of likely presence of contamination at the property.

5. Mr. Vatter indicated he is not aware of any chemicals present, or once present, on the property; known spills or other chemical releases on the site; or any environmental cleanups taken place at the site or adjacent properties.

A copy of the owner questionnaire completed by Mr. Vatter is provided in Appendix D.

Mr. Vatter also presented questions to Mr. Carl Karcher (President of CLK, Inc.) from Petra pertaining to the Carl's Jr. parcel. Mr. Karcher indicated that the restaurant has been in business at the location since 1978, and that he has been involved with the restaurant since 1985. Mr. Karcher indicated that he is not aware of what the historic use of the parcel was. Mr. Karcher noted that he was not involved with construction, and the landlord (Mr. Wessman) may have information. To the best of his knowledge, no walls have been moved and no construction has occurred since the restaurant opening in 1978. Mr. Karcher stated, that to the best of his knowledge, no illegal dumping has occurred on the parcel or on adjacent sites. Mr. Karcher stated that the grease trap is located in the parking lot of the east side, and it has been serviced routinely by a qualified vendor, and no issues were noted.

National Environmental Policy Act

The National Environmental Policy Act (NEPA) requires that Federal agencies include in their decision-making processes appropriate and careful consideration of all environmental effects and actions, analyze potential environmental effects of proposed actions and their alternatives for public understanding and scrutiny, and restore and enhance environmental quality as much as possible. It should not be concluded that coverage information in this report regarding the subject property or surrounding areas does not exist from other sources.

A NEPA review was conducted by EDR® for the subject property. The NEPACheck report provides maps and data from the following items, and is provided in Appendix C:

- National Areas Map - officially designated Wilderness Areas/Preserves; threatened or endangered species or critical habitat
- Historic Sites Map – listed or eligible for National Register
- Flood Plain Maps
- Wetlands Map – change is surface features (wetland fill)
- FCC & FAA Map – antenna, power lines and airports

National Areas Map

This map depicted 3 California Endangered Species, 2 California Protected Area and 2 California Land Ownership Area within a 1/8-mile radius from the central of the subject property; however, only State Areas were mapped within the site property.

- Second Street Park, mapped near the northeastern edge of the subject site, is designated as owned by Cathedral City (California Land Ownership) and is a California Protected Area.
- Slender Cottonheads, Chaparral Sand Verbena and Prairie Falcons, mapped between 0 and 1/8 mile north of the site, area California Endangered Species.
- Town Square Park, mapped between 1/8 and ¼-mile west of the subject property, is designated as owned by Cathedral City (California Land Ownership) and is a California Protected Area.

Historic Sites Map

No sites were found in the search of available government records within a 1/4 mile radius of the subject site on the Historic Sites Map. Three sites, identified as Indian Reservation land (Agua Caliente Indian Reservation) were mapped within a 1 mile radius. Three sites are listed that are unmappable due to an incomplete address. They area Andreas Canyon; El Mirador Hotel and Tower; and Tahquitz Canyon. These sites are listed on the National Register of Historic Places. Based upon our review, it appears that none of these sites appear to be within a 1/4 mile radius of the site.

Flood Plain Maps

FEMA FIRM Flood Plain Panel for the subject site (06065C1589G) and three adjacent panels for the area were searched. The subject property was not mapped within a designated flood plain.

National Wetlands Inventory Map

No State Wetlands were mapped within the subject property. One State Wetlands site was identified in close proximity to the subject site. The improved drainage located less than 1/8 mile northeast of the site and east of Date Palm Drive, identified as a Palustrine, Emergent and Temporarily Flooded, is mapped as a State Wetlands.

FCC and FAA Sites Map

Four sites within a 1-mile radius of the subject site were identified. A wireless antenna tower (SBA Monarch II, LLC) and a FFA Tower are located between ¼ and ½ mile to the north. SCE Palm Springs Heliport is mapped over approximately ¼ mile northeast of the subject site. Southern California Edison active powerlines are mapped less than 1 mile north of the site.

Data Failures and Data Gaps

In the event that data gaps are identified, the Environmental Professional (EP) will endeavor to comment on the significance of those data gaps. However, the EP cannot, and does not warrant or guarantee that no significant events, releases, or conditions arose, during periods such as data gaps.

Petra reviewed several sources for historical information regarding the subject site. These sources included a government agency database search, a city directory search, a review of historical aerial photographs and historical USGS topographic maps, and interviews with people knowledgeable about the site. No fire insurance maps are reported to be available for the site. Gaps in aerial photograph and map coverage exceeded 10 years. Files on identified HRECs and/or potential RECs were not readily available or found.

Data gaps exist in the historic information reviewed. These gaps are due to the limited resources available, which are reasonably ascertainable and practically reviewable in the local area. However, it is our opinion that if additional historic information were to become available, it is not likely to change the conclusions or recommendations of this assessment.

DISCUSSION OF POTENTIAL ENVIRONMENTAL CONCERNS

The following discussions of potential environmental concerns are presented to inform the client as to the existence, or lack thereof, of recognized environmental conditions present on the subject site.

Regulatory Actions

Based upon a thorough search of readily available federal, state, and local records, no known current regulatory action is pending with respect to the subject property.

Adjacent and Nearby Properties

No information has been obtained during this Phase I Environmental Site Assessment which would indicate the presence of recognized environmental conditions adjacent to the subject site that are considered likely to pose a significant impact to soils, soil vapors, surface water or groundwater beneath the subject site. A

limited reconnaissance of offsite adjacent and nearby properties, however, was completed as part of this assessment.

Polychlorinated Biphenyls (PCB's)

Polychlorinated biphenyls (PCB's) are historically linked to electrical equipment, such as capacitors and transformers, due to their physical and chemical characteristics. PCB's, persistent in the environment, are known to accumulate in organisms and the food chain.

Any electrical equipment (i.e., transformers, capacitors, and fluorescent light fittings) containing dielectric insulating fluids or coolants, manufactured prior to 1976, should be considered to potentially contain PCB's. PCB's may also be found in older lubricating oils, cutting oils, hydraulic fluids, paints, sealants, and flame retardants (UNEP, 2002).

Ten pole-mounted electrical transformers and two ground transformers were observed onsite during our site walk. Our visual observations noted no staining or leakage from the transformers. Based upon the age of the former residential development (early 1940's), there is a potential for some or all of the pole-mounted transformers to contain PCB's. As a result, removal of transformers should be completed by SCE or an experienced contractor. Power poles and associated equipment should be removed from the site and disposed of following proper regulatory specifications.

Underground Storage Tanks (UST)

No information has been obtained during this assessment which would indicate fuel underground storage tanks (USTs) currently located on the subject site; however, information has been obtained that USTs were documented on one site (*Palm Springs Oil*, 68830 Palm Canyon Drive), or may have been located on five historic sites fronting Palm Canyon Drive within the subject property (*Pyles Robert* [service station], 68904 Palm Canyon Drive; *Bob's Choice Cars*, 68920 E. Palm Canyon Drive; *Auto Truck Repair*, 68930 E. Palm Canyon Drive; *unknown gasoline station*, 68980 E. Palm Canyon Drive; and *Cathedral Fire Department,* 36913 Date Palm Drive). A discussion of these sites are provided in the above text. No surface indications of USTs were observed on the subject site during the site reconnaissance.

Above Ground Storage Tanks (AST)

No information from readily available agency database reviews or provided by EDR® has been obtained during this assessment which would indicate above ground fuel storage tanks (ASTs) to be located on the subject site currently, except for a diesel AST attached to a generator near the out building at the fire station

site. ASTs were not reported within agency reviews or provided by EDR® to have been located on the site in the past.

Storm Water/Waste Water Discharge

At this time, storm water discharge from the site appears to be limited to surface water runoff. No wastewater discharge was observed.

Pesticide and Herbicide Residues

Based on information obtained during this assessment, the site was not developed for agricultural purposes prior to at least 1941 until the present day. It is likely that typical small volume residential use of pesticides and herbicides occurred onsite; however, it is reasonable to believe that these restricted agricultural chemicals were applied to the subject property in such a volume that the potential for elevated pesticide and herbicide soil residues to exist onsite is very low to nil.

Asbestos-Containing Materials

An asbestos survey was not completed as a part of this assessment. No potential asbestos-containing materials were observed on the site; however, information was found which indicated that the former residential and commercial buildings onsite contained asbestos-containing materials (ACMs). Discussions with Ms. Tami Scott (CFO, City Urban Revitalization Corporation) indicated that demolition permits would not have been issued without ACM clearance.

Petra's field reconnaissance of the property noted multiple water valve cans located on the vacant parcels and interior streets. Based solely upon the age of the former residential development, there is a potential for concrete water lines to contain asbestos. Consideration should be given to exposing water lines onsite to assess the existence of ACM's.

A summary table of septic system abandonment for parcels within the subject property (provided by Ms. Scott) indicated a majority of the septic tanks were pumped, crushed and filled per City code. Since asbestos was used to strengthen concrete, and considering the potential age of the septic systems, there is a potential (albeit small) for the crushed in-place concrete tanks to contain ACM. It is considered unlikely that asbestos-containing materials represent a recognized environmental condition with regards to the subject site at this time; however, crushed concrete encountered during grading and/or development of the property should be evaluated by an experienced asbestos consultant prior to removal from the excavation and offsite disposal.

Lead-Based Paints

No potential lead-based materials were observed on the site, and no indication of the use, storage, or disposal of lead-based materials on the site; however, a lead-based paint survey was not completed as a part of this assessment. Although records were not found, discussions with Ms. Tami Scott (CFO, City Urban Revitalization Corporation) indicated that demolition permits would not have been issued without lead-based paint clearance. It is considered very unlikely that lead-based paint represent a recognized environmental condition with regards to the subject site.

Landfills

The EDR report does not list any known landfills within the search radius conducted for this assessment. Therefore, landfills do not appear to represent a recognized environmental condition with regards to the subject site.

Water Supplies

It appears that the site is serviced by municipal water. The Desert Water Authority operates two water wells behind the main fire station building at the southwest corner of Date Palm Drive and Buddy Rogers Avenue. These wells were used to monitor the effects of septic systems on groundwater quality. It is our understanding that these wells will be abandoned in July 2017. Documentation of this information is provided in Appendix D.

Waste Generation and Storage

Waste generation and storage was not observed onsite during of site reconnaissance.

CONCLUSIONS

General Site Information

1. The approximately 13.6 acre subject property is situated along the north side of Highway 111, south of Interstate 10 (I-10), west of Date Palm Drive and east of Van Fleet Drive in the city of Cathedral City, Riverside County, California. The subject property consists of 65 contiguous parcels identified as Riverside County Assessor Parcel Numbers (APN's) 687-201-005 to -011; 687-202-001 to -012 and -015; 687-203-008 to 015; 687-204-001 to 009, -013, -014 and -016; 687-205-005 to-008; 687-206-001 to -016 and, 687-208-015 and -022 to -026. It is our understanding that the property will include any public streets and right-of-way that the city of Cathedral City has vacated.

2. The subject property is bounded by Date Palm Drive on the east, Highway 111 (Palm Canyon Drive) on the south, Buddy Rogers Avenue on the north. A mix of commercial properties and vacant land bounds the subject property on the west. The subject property is mostly vacant land with two structures located on the northeast corner (fire station) and one building (Carl's Jr.) on the southeast corner of the

property. These two sites are occupied and operational as of the date of our site reconnaissance. Soil covers a large majority of the vacant property with minor amounts of finely crusted asphalt and gravel. This material appears to be from demolition performed on the subject property. Interior streets consist of weathered asphalt. Multiple fire hydrants, water valve cans and sewer manholes were observed within the vacant lots. Recent surface disturbance of soils on the triangular-shaped lot near the southeast corner of Allen Drive and Dawes Road suggested recent demolition of the former Goody's Restaurant. Erosion retardant appeared to have been recently sprayed on this lot. No signs of surface staining, noxious odors, stressed vegetation, and/or dumped trash or debris, were noted during our site reconnaissance. The only readily detectable remnants of demolition observed were a buried steel pipe and large electrical wires on the parcel west of Carl's Jr. Some irrigation piping, and minor amounts of windblown trash and debris were observed during our site reconnaissance.

3. Based on aerial photograph and topographic map information obtained during this assessment, the site appears to have been predominantly developed for residential purposes from at least 1941 to sometime after 2005 and before 2009. By 2009 it appeared that all residential buildings had been removed from the subject property. What appeared to be commercial buildings noted on the site, were typically situated along Palm Canyon Drive (Highway 111), from at least 1953 to 2016. What appeared to be a gasoline service station was depicted onsite (APN 687-208-015), at the northwest corner of Date Palm Drive and Palm Canyon Drive from at least 1966 to sometime after 1972 and before 1984 (existing Carl's Jr. site). A second gasoline station was noted at the southwest corner of the property (APN 687-205-005) from at least 1966 to sometime after 2002 and before 2005 (currently vacant). A third gasoline service station was noted east of the intersection of Highway 111, Allen Avenue and Dawes Street from at least 1966 to sometime after 1996 and before 2002 (formerly Goody's Diner). The gasoline station formerly occupying APN 687-205-005 (68830 Palm Canyon Drive) is considered a Historical Recognized Environmental Conditions (HREC). The gasoline station formerly occupying APN 687-208-015 (68950 Palm Canyon Drive) is considered a possible Recognized Environmental Conditions (REC). The former gasoline station occupying APN 687-208-24, -025 and -026 is considered a possible Recognized Environmental Conditions (pREC). As such, further assessment is recommended.

4. The City Directory Search by EDR listed Auto Truck Repair at 68930 E. Palm Canyon Drive and Bob's Choice Cars at 68920 E. Palm Canyon Drive within the subject property in 1975. The Radius Search report by EDR listed Pyles Robert (service station) at 68904-96 Palm Canyon Drive in 1974. Based upon current street address locations on Bing Maps, these former sites, within the subject property, appear to be have been located on APN's 687-208-022 and -023. Readily available records of these 3 sites were not found indicating regulatory agency oversight of UST removal or cleanup. In addition, the EDR Radius Search report also listed a 1,000 gallon underground diesel storage tank (UST) within the Cathedral Fire Department parcel (APN 687-202-015) in 1975 and a 100 gallon UST of unknown use in 1990.

5. The Regional Water Quality Control Board (RWQCB) was recently contacted regarding the 1,000 gallon diesel UST on the fire station site. The RWQCB responded that they have no files pertaining to the address. Based upon readily available information pertaining to these five sites, which is limited in nature, the sites are considered possible Recognized Environmental Conditions (pRECs). As such, further assessment is recommended. Documentation of this information is provided in Appendix D.

6. No aboveground or underground storage tanks were observed onsite during our site reconnaissance. An attached diesel fuel tank under the emergency generator at the rear of the fire station was observed. It is our understanding that due to the attached configuration, the generator fuel tank is not required to be permitted as an aboveground storage tank.

7. Multiple containers of household chemicals and small volume hydrocarbon-based fluid containers were observed in the fire department's storage and laundry room. The containers included multiple paint cans, bleach, two 5 gallon bottles of diesel and gasoline, two 1 gallon containers of gasoline, and one 2.5 gallon bottle of diesel exhaust fluid. In addition there was an air compressor, quart-sized oil containers, an oily rag canister, and six Scott air pack oxygen tanks. Four 55-gallon plastic barrels of drinking water were observed within the truck bay.

8. Ten pole-mounted transformers and two transformer pads were observed onsite during our site reconnaissance. No readily obvious signs of corrosion, leaking, or staining was observed below or around the transformers.

9. Petra contacted The Desert Water Authority regarding two wells on the fire station parcel. Ms. Heather Marcks (Senior Engineering Technician) responded that the monitoring wells were used several years back to track the affects septic systems were having on the water quality in the area. She indicated that The Desert Water Authority stopped using them for monitoring a while ago and they went dry. Ms. Marcks indicated that they have no relevant chemical test data on these wells. Documentation of this information is provided in Appendix D.

10. At the time of our reconnaissance, no vegetation was observed onsite. There were, however, small bushes and palm tree observed around the two occupied parcels at the northeast and southeast corners of the property.

11. There was no evidence of sumps, pits, pools, or lagoons identified during our site walk. Building Department and City records indicate that a majority of the former residential lots and commercial/retail buildings contained onsite septic systems. Records indicate that a number of the septic systems were removed during demolition. Documentation of this information is provided in Appendix D.

12. No offsite properties within the vicinity were identified in our search of various government agency database records, which appear to have impacted the soils or groundwater beneath the subject site.

RECOGNIZED ENVIRONMENTAL CONDITIONS

Recognized environmental conditions (REC's) are defined by the American Society of Testing and Materials (ASTM) as any hazardous substance or petroleum product under conditions that indicate an existing, past, or material threat of release into the structures, ground, groundwater, soil vapor or surface water at the subject site. If the presences of recognized environmental conditions are identified on a subject site, it may warrant additional research, site assessment, and/or action.

Controlled recognized environmental conditions (CREC'S) are defined by the American Society of Testing and Materials (ASTM) Practice E 1527-13 as a recognized environmental condition resulting from the past *release* of *hazardous substances* or *petroleum products* that has been addressed to the satisfaction of the applicable regulatory authority (i.e., as evidenced by the issuance of a no further action letter or equivalent, or meeting risk-based criteria established by regulatory authority), with *hazardous substances* or *petroleum products* allowed to remain in place subject to the implementation of required controls. For example, if a

leaking underground storage tank has been cleaned up to a commercial use standard but does not meet unrestricted residential cleanup criteria; this would be considered a controlled recognized environmental condition. The "control" is represented by the (inferred) restriction that the property remains commercial.

Historical recognized environmental conditions (HREC'S) are defined by the American Society of Testing and Materials (ASTM) Practice E 1527-13 as a past release of any *hazardous substances or petroleum products* that has occurred in connection with the *property* and has been addressed to the satisfaction of the applicable regulatory authority or meeting unrestricted use criteria established by a regulatory agency, without subjecting the *property* to any required controls (i.e., *property* use restrictions, *activity and use limitations*, *institutional controls* or *engineering controls*).

We have performed this Phase I Environmental Site Assessment in general conformance with the scope and limitations of ASTM Practice E 1527 for APN's 687-201-005 to -011; 687-202-001 to -012 and -015; 687-203-008 to 015; 687-204-001 to 009, -013, -014 and -016; 687-205-005 to-008; 687-206-001 to -016 and, 687-208-015 and -022 to -026, in the city of Cathedral City, Riverside County, California. Any exceptions to, or deletions from, this practice are described in section titled data gaps of this report. This assessment has revealed no evidence of recognized environmental conditions in connection with the property, except the following:

- Five former and one current occupant of the subject property were identified during this Phase I ESA as either historic gasoline stations and/or vehicle repair shops, and an existing fire station, where records indicate or suggest USTs were present, and where the potential existence for petroleum hydrocarbon-based soil and/or soil vapor residues to be detected cannot be entirely precluded.

  One of the sites, Palm Springs Oil #9, 68830 Palm Canyon Drive (APN 687-205-005), was identified as a former LUST case where soil vapor extraction remediation reportedly removed most of the subsurface contamination. The case was closed in 2006 by the County of Riverside with hydrocarbon soil vapors left in-place at a depth of approximately 48 feet. The site was closed with no restrictions to redevelopment. This site is considered a HREC. At this time, however, no further assessment is recommended.

  Three of the sites within the property were identified as EDR Historic Auto Stations: Pyles Robert (service station), 68904 Palm Canyon Drive (APN 687-205-024, -025 and -026); Bob's Choice Cars, 68920 E. Palm Canyon Drive (APN 687-205-023); and Auto Truck Repair, 68930 E. Palm Canyon Drive (APN 687-208-022). Two of the sites, Bob's Choice Cars and Auto Truck Repair were also listed in the EDR City Directory Search. The Existing Cathedral City Fire Station (36913 Date Palm Drive [APN 687-202-015]) was reported to contain a 1,000 gallon diesel UST from 1975 to at least 1988 (possibly removed in 1998). Based solely upon interpretation of aerial photographs, the sixth site is considered likely a gasoline service station which existed at 68980 E. Palm Canyon Drive (APN 687-208-015) from at least 1966 to sometime after 1972 and before 1978. No regulatory oversight agency database records were found for these four former and one active onsite facilities indicating removal of USTs or cleanup of soil residues. As a result, these sites are considered potential REC's.

To evaluate the potential for detectable concentrations of petroleum hydrocarbon-base soil and soil vapor residues on these 5 former sites, with very limited information and/or no apparent regulatory oversight involvement, Petra recommends further assessment. A limited proposed scope of work is provided herein.

SITE CONSIDERATIONS

The following items are not considered recognized environmental conditions in accordance with ASTM 1527-13. However, these items may warrant considerations in conjunction with any planned development activities. The information regarding possible actions relative to these items has been provided as guidance.

- With redevelopment of any historically developed property, a certain amount of unknown near-surface and subsurface conditions should be anticipated such as buried utility conduits and foundations. If encountered, concrete piping should be evaluated by an asbestos consultant prior to removal. Any discolored soils, noxious odors, and/or buried objects/debris encountered during clearing and grubbing or future grading and development should be left in place until an experienced environmental professional (such as Petra) has had the opportunity to evaluate the conditions, and provide recommendations if needed.

- Information provided by the city of Cathedral City indicates that septic systems were abandoned, including crushing in-place, on 57 of the 65 parcels within the subject property. Although not considered a recognized environmental condition, septic systems (including tanks) and potentially vertical seepage pits may remain within the subject property. If encountered during site development, these systems should be properly abandoned in accordance with Cathedral City and/or Riverside County guidelines.

- Ten pole-mounted electrical transformers and two ground transformer were observed onsite during our site walk. Our visual observations noted no staining or leakage from the transformers. Based upon the age of the former residential development (early 1940's), there is a potential for some or all of the pole-mounted transformers to contain PCB's. As a result, removal of transformers should be completed by SCE or an experienced contractor. Power poles and associated equipment should be removed from the site and disposed of following proper regulatory specifications.

- It is recommended that all demolition debris and trash generated on the site be removed and disposed in accordance with current local regulations. Waste concrete may be incorporated into fill materials within the subject property, provided it is approved by the geotechnical engineer of record. Solely from an environmental point of view, however, asphalt fragments should be removed from future building pads within the subject property.

PROPOSED LIMITED ENVIRONMENTAL ASSESSMENT

Based upon the identification of five potential REC's described herein, Petra is providing the following limited proposed scope of work to aid in the assessment of potential detectable petroleum hydrocarbon-base soil and soil vapor residues within the subject property which may impact site development. Based upon the depth of groundwater exceeding 150 feet beneath the property, assessment of groundwater at this time does not appear to be warranted. Records of regulatory agency oversight are so far absent from the

database files, and in some cases, the age of the former facilities may pre-date the regulatory framework of local, state and federal underground storage tank regulations (circa 1984). More detailed review of regulatory agencies files and assessment of existing subsurface conditions is also recommended.

Scope of Work

To evaluate whether USTs and piping remain buried within the property, and to help evaluate potential locations for exploratory borings, Petra recommends that non-destructive geophysical surveys be completed within the five potential REC sites within the subject property by a State Registered Geophysicist. The surveys would identify buried metallic objects and outline of the former UST excavation(s) may be discernable.

We propose to utilize a combination of Ground Penetrating Radar (GPR) and magnetic gradiometer to traverse the parcels systematically in multiple, organized directions. Additional traverses would be taken for detailing and confirmation of anomalous conditions found. We anticipate field work to be completed in 1 day.

The geophysical report would provide results of the surveys on each site, including discernable former UST excavations. Coupled with further file reviews at the Regional Water Quality Control Board, Riverside County Hazardous Materials Management Division, Riverside County Department of Building and Safety, and the City of Cathedral City, recommendations would be made for the number, location and depth of borings associated with a Limited Phase II Environmental Assessment of subsurface soils and soil vapors underlying the sites of potential concern.

Preliminary Estimate of Fees

Petra proposes to charge for our services on a time and cost basis in accordance with our standard fee schedule prevalent at the time the services are provided. However, based upon the scope of services outlined above, our charges for our environmental services are estimated to be **$7,400.00**. Petra will provide a more detailed scope of work and generalized breakdown of costs in a separate supplemental proposal.

LIMITATIONS

This Phase I ESA is based upon the project as described and the environmental data obtained from the field reconnaissance and research performed as outlined in this report. This report has been prepared for Agua Caliente Band of Cahuilla Indians, and not for use by parties or projects other than those named or described in this report.

Since our assessment is based upon a review of available data and visual inspection of the site, without any invasive evaluation, the conclusions presented herein are professional opinions. These opinions have been derived in accordance with current standards of practice, and no warranty is expressed or implied.

This firm's evaluation of previous reports and/or subconsultant reports, if provided, focuses on the completeness of the information presented in the document, in accordance with applicable rules and regulations, and does not include the establishment of data sufficiency or accuracy.

QUALIFICATIONS

Resumes for the staff who contributed to this report are presented in Appendix E.

"We the undersigned declare that, to the best of our professional knowledge and belief, we meet the definition of Environmental Professional as defined in § 312.10 of 40 CFR 312. We have the specific qualification based on education, training, and experience to assess a property of the nature, history, and setting of the subject site. We have developed and performed the all appropriate inquiries in general conformance with the standards and practices set forth in 40 CFR Part 312."

Respectfully submitted,

PETRA GEOSCIENCES, INC.

Edward Lump
Associate Geologist
PG 5975

Siamak Jafroudi, PhD
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GE 2024

7/31/17

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EPL/SJ/lv

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REFERENCES

American Society of Testing and Materials (ASTM), 2013, Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process, ASTM International, West Conshohocken, PA, www.astm.org.

_____, Standard E2600-15, 2015, Standard Guide for Vapor Encroachment Screening on Property Involved in Real Estate Transactions, ASTM International, West Conshohocken, PA, www.astm.org.

Biehler, S., Kovach, R.L., and Allen, C.R., 1964, Geophysical framework of the northern gulf province; in Van Andel, T.H., and Shor, G.G. Jr., eds., Marine geology of the Gulf of California: American Association of Petroleum Geologists, Memoir 3, p. 126-143.

Buonicore, Anthony J., 2014, Vapor Migration Screening for Property Transactions Using Tier 1 in ASTM E2600-10, presented in Vapor Intrusion Conference, Cary, North Carolina, January 23 and 24.

California Department of Conservation, Division of Oil, Gas, and Geothermal Resources, 2017, DOGGR Online Mapping System (DOMS), http://maps.conservation.ca.gov/doms/index.html.

California Department of Water Resources, 2004, California Groundwater - Bulletin 118.

_____, 2017, Water Data Library, http://www.water.ca.gov/waterdatalibrary/.

County of Riverside, 2005, Department of Environmental Health, Hazardous Materials Management Division Case Closure Summary, Leaking Underground Fuel Storage Tank Program, Palm Springs Oil Company, Former Station No. 9, 68830 Highway 111, Cathedral City, LOP/Local Case No. 9915711, dated November 14.

Department of Toxic Substances Control (DTSC), Website (http://www.envirostor.dtsc.ca.gov/public/), EnviroStor database, accessed June 2017.

Environmental Data Resources, Inc., 2017a, The EDR Radius Map Report with GeoCheck, Agua Caliente Band of Cahuilla Indians, NWC Highway 111 and Date Palm Drive, Cathedral City, CA 92234 (Inquiry No. 04977808.2r), dated June 26.

_____, 2017b, Certified Sanborn Map Report, Agua Caliente Band of Cahuilla Indians, NWC Highway 111 and Date Palm Drive, Cathedral City, CA 92234 (Inquiry No. 4977808.3), dated June 26.

_____, 2017c, EDR Historical Topographic Map Report, Agua Caliente Band of Cahuilla Indians, NWC Highway 111 and Date Palm Drive, Cathedral City, CA 92234 (Inquiry No. 4977808.4), dated June 26.

_____, 2017d, The EDR-City Directory Image Report, Agua Caliente Band of Cahuilla Indians, NWC Highway 111 and Date Palm Drive, Cathedral City, CA 92234 (Inquiry No. 4977808.5), dated June 30.

_____, 2017e, The EDR Property Tax Map Report, Agua Caliente Band of Cahuilla Indians, NWC Highway 111 and Date Palm Drive, Cathedral City, CA 92234 (Inquiry No. 4977808.6), dated June 26.

_____, 2017f, The EDR Environmental Lien and AUL Search Report, Agua Caliente Band of Cahuilla Indians, NWC Highway 111 and Date Palm Drive, Cathedral City, CA 92234 (Inquiry No. 4977808.7), dated June 27.

_____, 2017g, EDR Building Permit Report, Agua Caliente Band of Cahuilla Indians, NWC Highway 111 and Date Palm Drive, Cathedral City, CA 92234 (Inquiry No. 4977808.8), dated June 26.

_____, 2017h, EDR Aerial Photo Decade Package, Agua Caliente Band of Cahuilla Indians, NWC Highway 111 and Date Palm Drive, Cathedral City, CA 92234 (Inquiry No. 4977808.12), dated June 29.

REFERENCES

_____, 2017i, EDR NEPASearch™ Map Report, Agua Caliente Band of Cahuilla Indians, NWC Highway 111 and Date Palm Drive, Cathedral City, CA 92234 (Inquiry No. 4977808.12), dated June 26.

_____, 2017j, The EDR Environmental Lien and AUL Search Report, Agua Caliente Band of Cahuilla Indians, NWC Highway 111 and Date Palm Drive, Cathedral City, CA 92234 (Inquiry No. 4981575.1), dated July 3.

Fuis, G.S., Kohler, W.M., 1984; Crustal structure and tectonics of the Imperial Valley Region, California; in Rigsby, Catherine, A., ed., The Imperial Basin, Tectonics Sedimentation and Thermal Aspects: Pacific Section S.E.P.M., p. 1-13.

GeoTracker, 2017, http://geotracker.waterboards.ca.gov/.

Google Earth™ 2017, by Google Earth, Inc., http://www.google.com/earth/index.html, accessed June.

Kohler, W.M., Fuis, G.S., 1986, "Travel-time, time-term and basement depth maps for the Imperial Valley region, California, from explosions"; Bulletin of the Seismological Society of America (BSSA), Vol. 76, No. 5, pp. 1289-1303.

National Flood Insurance Program (NFIP), 2008, Flood Insurance Rate Map (FIRM) 06065C1589G, Panel 1589 of 3805, effective August 28.

National Pipeline Mapping System (NPMS), Public Map Viewer, Website (http://www.npms.phmsa.dot.gov/PublicViewer/), accessed June 2017.

Norris, R.M., and Webb, R.W., 1990, Geology of California.

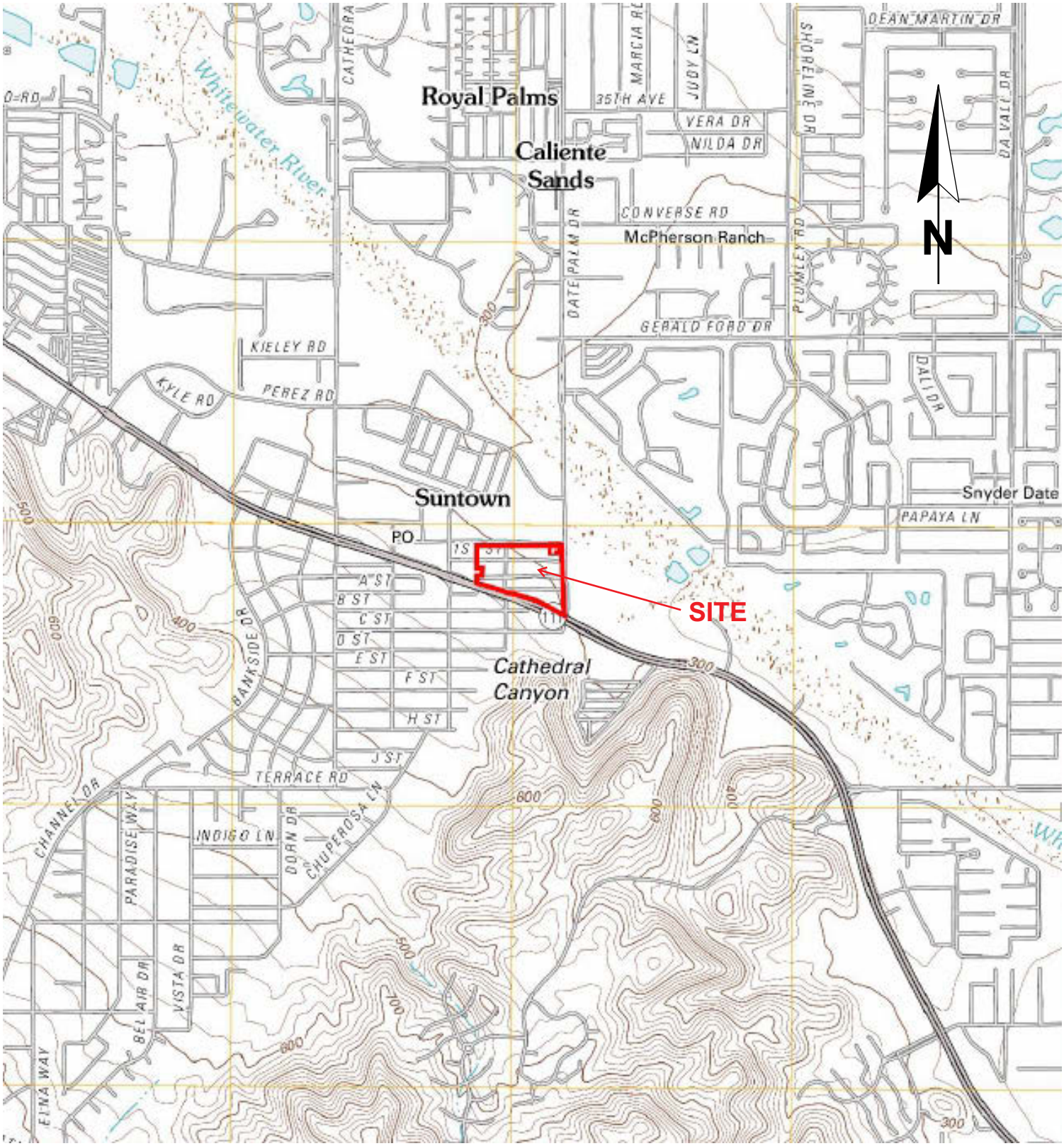
The Source Group, Inc., 2005, Quarter 2, 2005 Status Report, Palm Springs Oil Company, Former Station No. 9, 68830 Highway 111, Cathedral City, California, Site 99-15711" by The Source Group, Inc., dated October 13.

United Nations Environmental Programme (UNEP), 2002, PCB Transformers and Capacitors from Management and Reclassification to Disposal.

United States Geological Survey (USGS), 2012, Topographic Map of the Cathedral City 7.5-Minute Series Quadrangle, Riverside County, California.

FIGURES

PETRA



LEGEND

- Approximate Site Location

- Reproduced from USGS 2012, 7.5' Minute Quadrangle, Cathedral City, CA

PETRA GEOSCIENCES, INC.
40880 COUNTY CENTER DRIVE, SUITE R
TEMECULA, CALIFORNIA 92591
PHONE: (951) 600-9271
COSTA MESA MURRIETA PALM DESERT SANTA CLARITA

Site Location Map

Agua Caliente Band of Cahuilla Indians
Cathedral City, Riverside County, California

DATE: July 2017	J.N.: 17-246	**Figure 1**
DWG BY: epl	SCALE: NTS	



LEGEND

- Approximate Site Location

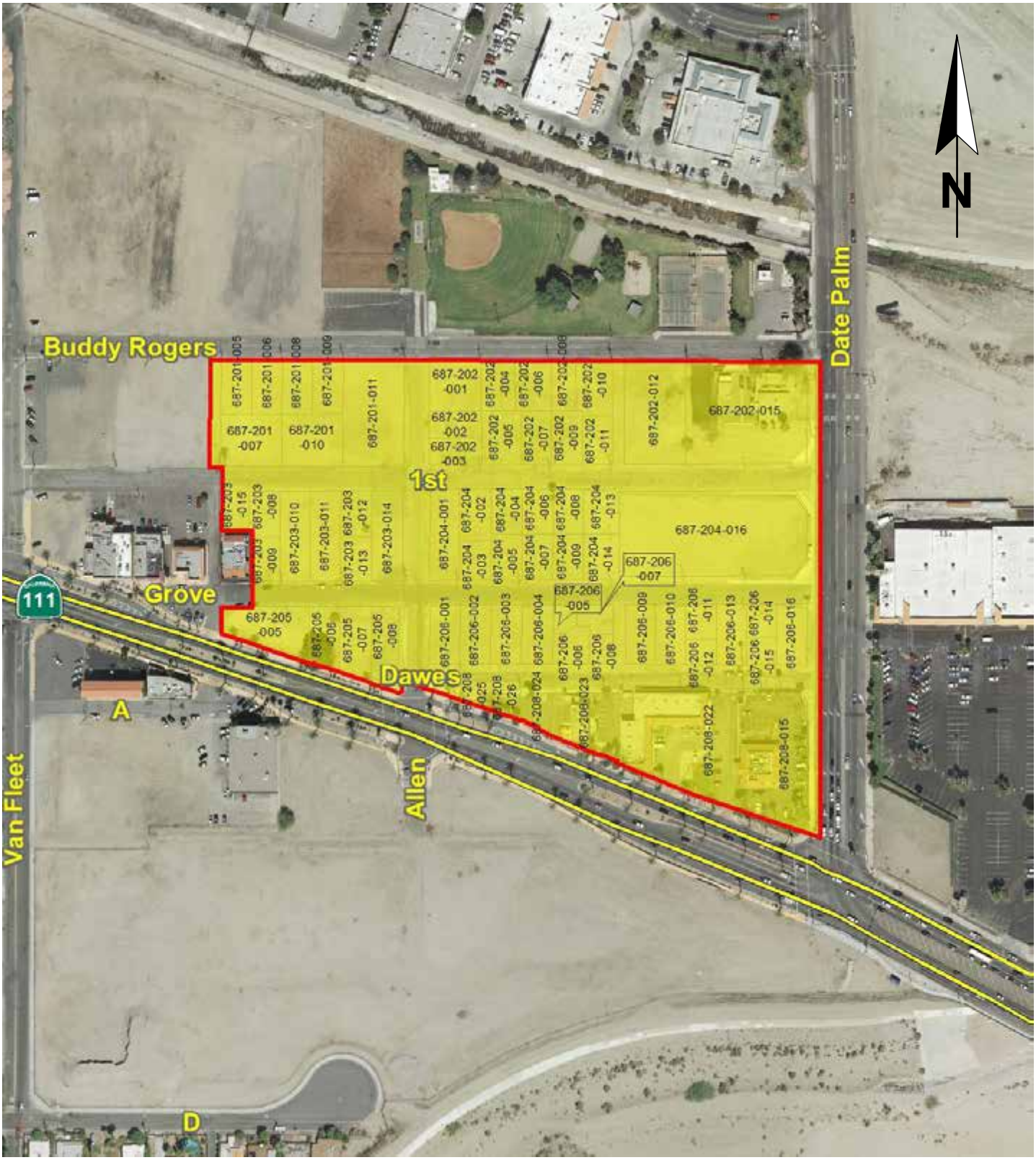
- Base Map provided by Agua Caliente Band of Cahuilla Indians

PETRA GEOSCIENCES, INC.
40880 COUNTY CENTER DRIVE, SUITE R
TEMECULA, CALIFORNIA 92591
PHONE: (951) 600-9271
COSTA MESA MURRIETA PALM DESERT SANTA CLARITA

Site Location Map

Agua Caliente Band of Cahuilla Indians
Cathedral City, Riverside County, California

DATE: July 2017	J.N.: 17-246	**Figure 2**
DWG BY: epl	SCALE: NTS	



LEGEND

- Approximate Site Location

- Base Map provided by Agua Caliente Band of Cahuilla Indians

PETRA GEOSCIENCES, INC.
40880 COUNTY CENTER DRIVE, SUITE R
TEMECULA, CALIFORNIA 92591
PHONE: (951) 600-9271
COSTA MESA MURRIETA PALM DESERT SANTA CLARITA

Site APN Map

Agua Caliente Band of Cahuilla Indians
Cathedral City, Riverside County, California

DATE: July 2017	J.N.: 17-246	**Figure 3**
DWG BY: epl	SCALE: NTS	

APPENDIX A

SITE PHOTOGRAPHS

PETRA



PHOTOGRAPH 1 – Emergency power diesel generator located on the Fire Department site.



PHOTOGRAPH 2 – Miscellaneous cleaning material observed in storage/ laundry room at Fire Department.



PHOTOGRAPH 3 – One of two pad mounted transformers located near Carl's Jr.



PHOTOGRAPH 4 – One of ten pole-mounted transformers observed onsite.



PHOTOGRAPH 5 – Scott air pack oxygen tanks located in Fire Department along west side wall in truck bay.



PHOTOGRAPH 6 – Miscellaneous supplies, containers of gasoline, diesel, oil and old batteries located in the west side storage /laundry room of Fire Station.



PHOTOGRAPH 7 – Oil stained rags disposal located in the storage/ laundry room of Fire Station.



PHOTOGRAPH 8 – Automatic Transmission fluid observed in storage/ laundry room on the west side of fire department building.



PHOTOGRAPH 9 – View of Cathedral Fire Department from Date Palm Drive looking northwest.



PHOTOGRAPH 10 – Nitrogen gas bottle observed chained to a light pole located west of fire department.



PHOTOGRAPH 11 – East view of former Goody's Café site. Dawes Road in left photo. Carl's Jr. visible in background.



PHOTOGRAPH 12 – South view of southwesterly portion of subject property. Buildings are offsite.



PHOTOGRAPH 13 – West view along the northern portion of the subject property.

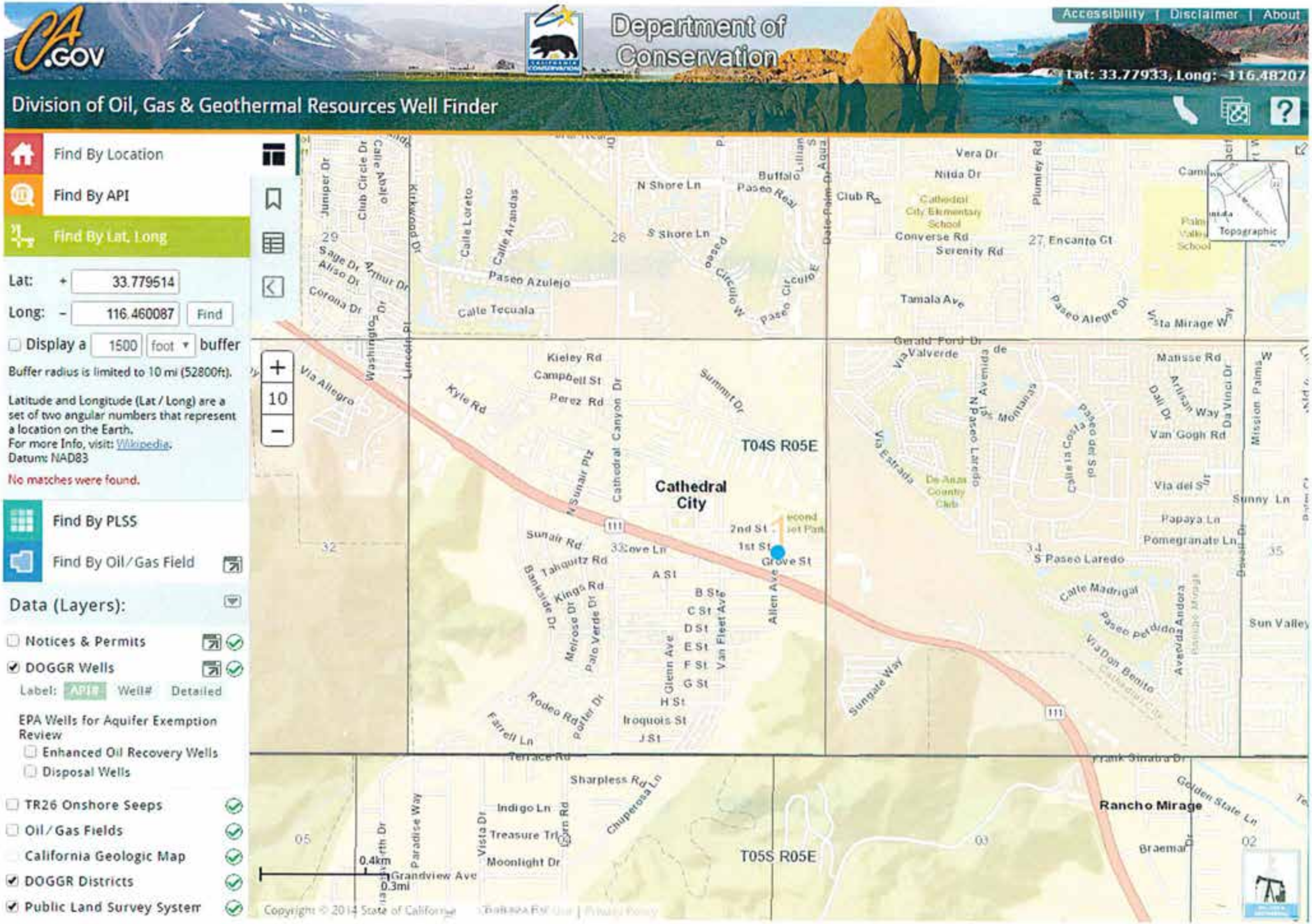


PHOTOGRAPH 14 – Northwest view from south central portion of site showing typical interior property conditions.

APPENDIX B

AGENCY SEARCH RESULTS

PETRA


CA.GOV
Department of Conservation
Accessibility | Disclaimer | About
Lat: 33.77933, Long: -116.48207
Division of Oil, Gas & Geothermal Resources Well Finder
Find By Location
Find By API
Find By Lat, Long
Lat: + 33.779514
Long: - 116.460087
Find
Display a 1500 foot buffer
Buffer radius is limited to 10 mi (52800ft).
Latitude and Longitude (Lat / Long) are a set of two angular numbers that represent a location on the Earth.
For more Info, visit: Wikipedia.
Datum: NAD83
No matches were found.
Find By PLSS
Find By Oil/Gas Field
Data (Layers):
Notices & Permits
DOGGR Wells
Label: API# Well# Detailed
EPA Wells for Aquifer Exemption Review
Enhanced Oil Recovery Wells
Disposal Wells
TR26 Onshore Seeps
Oil/Gas Fields
California Geologic Map
DOGGR Districts
Public Land Survey System
Topographic
T04S R05E
T05S R05E
Cathedral City
Rancho Mirage
Via Allegro
Kyle Rd
Washington Dr
Lincoln Pl
Juniper Dr
Club Circle Dr
Calle Vuelo
Kirkwood Ct
Calle Loreto
Calle Arandas
Paseo Azulejo
Calle Tecuala
Sage Dr
Azhur Dr
Alisa Dr
Corona Dr
N Shore Ln
S Shore Ln
Buffalo
Paseo Real
Lillian S
Date Palm Dr
Club Rd
Vera Dr
Nilda Dr
Cathedral City Elementary School
Converse Rd
Serenity Rd
Encanto Ct
Plumley Rd
Tamala Ave
Paseo Alegre Dr
Vista Mirage W
Gerald Ford Dr
Via Valverde
Avenida de Montana
Manasse Rd
Artisan Way
Dali Dr
Da Vinci Dr
Van Gogh Rd
Mission Palms W
Via Estrada
N Paseo Laredo
Calle La Costa
Paseo del Sol
De Anza Country Club
Via del Sur
Sunny Ln
Papaya Ln
Pomegranate Ln
S Paseo Laredo
Calle Madrigal
Paseo Perdido
Via Don Benito
Avenida Andorra
Sun Valley
Kieley Rd
Campbell St
Perez Rd
Cathedral Canyon Dr
Summit Dr
N Sunair Plz
Sunair Rd
Tahquitz Rd
Bankside Dr
Kings Rd
Melrose Dr
Palo Verde Dr
Grove Ln
Grove St
1st St
2nd St
A St
B St
C St
D St
E St
F St
G St
H St
Iroquois St
J St
Glenn Ave
Van Fleet Ave
Allen Ave
Sungate Way
Rodeo Rd
Carter Dr
Farrell Ln
Terrace Rd
Sharpless Rd
Chuperosa Ln
Indigo Ln
Treasure Trl
Moonlight Dr
Vista Dr
Paradise Way
Grandview Ave
Frank Sinatra Dr
Golden State Ln
Braemar Dr
111
0.4km
0.3mi
Copyright © 2014 State of California

- Water Data Library Home
- Groundwater Level Data
- Water Quality Data
- Continuous Data
  Surface water, groundwater and water quality
- Historical Publications
- NHD Stewardship
- Contact Information

DWR CLIENTS ONLY

- Admin Login
- Climate Data (Beta 1.1)
- Climate Data (Access Prototype)

Water Data Library

Use the map below to locate monitoring stations. You can find an area of interest if you zoom and pan the map. Quickly find an area searching for named features on a map such as the name of a city, park, landmark, lake, water feature, or zip code within California. Once at the area of interest, select the desired Site Type and click the "Refresh Map" button to show monitoring stations in the area. Additional searches by data type are possible by clicking the links on the left. For help on these and other ways to find your data click here.

WDL STATION MAP

Location Search

To find monitoring stations for a specific area, enter the placename or zip code into the text box below

92234, Cathedral City, C

Site Type

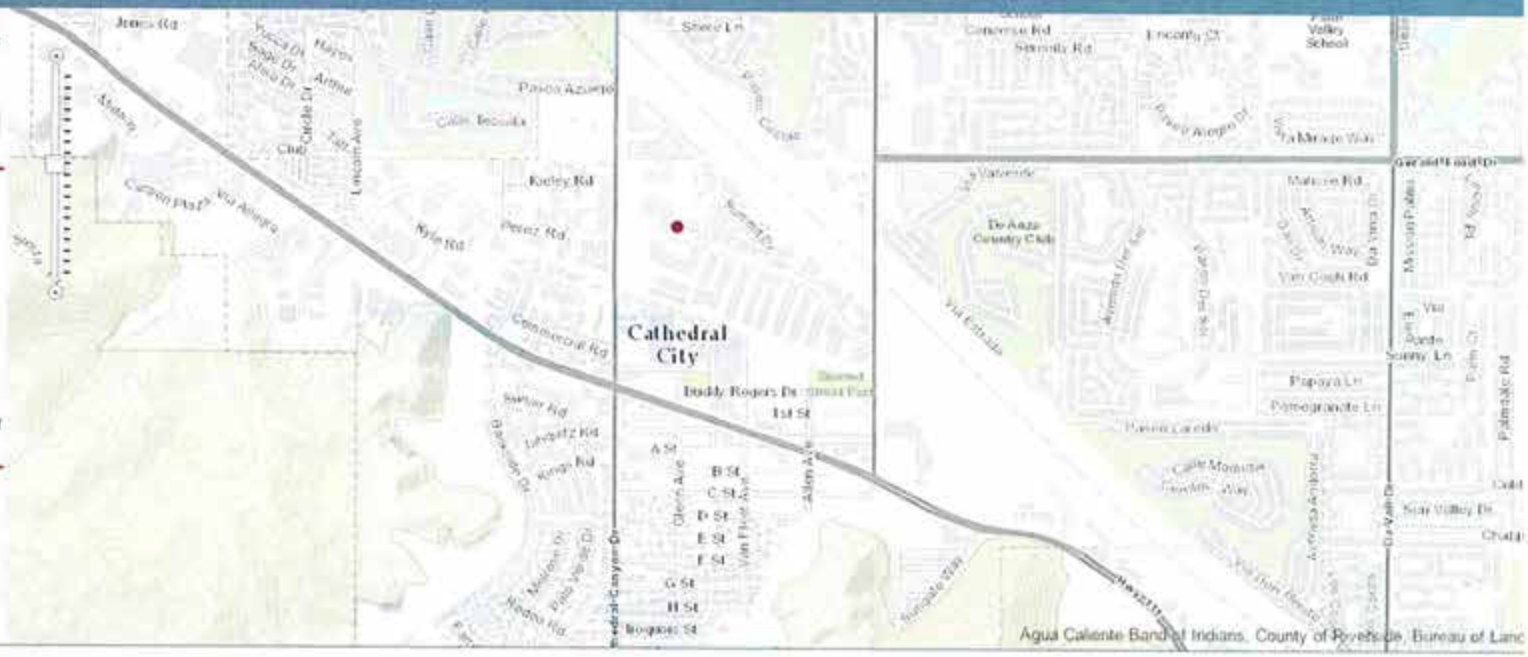
Select the desired site type using the check boxes

- Groundwater Level
- Water Quality
  - Include Historic Data
- Continuous Data
- Multiple Stations at one Location
- Cluster, showing number of stations

Cursor Coordinates (WGS84)

Lat: 33.7788, Long: -116.4672

0 0.15 0.3mi



- Water Data Library Home
- Groundwater Level Data
- Water Quality Data
- Continuous Data
  Surface water, groundwater and water quality
- Historical Publications
- NHD Stewardship
- Contact Information

DWR CLIENTS ONLY

- Admin Login
- Climate Data (Beta 1.1)
- Climate Data (Access Prototype)

Water Data Library

Use the map below to locate monitoring stations. You can find an area of interest if you zoom and pan the map. Quickly find an area searching for named features on a map such as the name of a city, park, landmark, lake, water feature, or zip code within California. Once at the area of interest, select the desired Site Type and click the "Refresh Map" button to show monitoring stations in the area. Additional searches by data type are possible by clicking the links on the left. For help on these and other ways to find your data click here.

WDL STATION MAP

Location Search

To find monitoring stations for a specific area, enter the placename or zip code into the text box below

92234, Cathedral City, C

Site Type

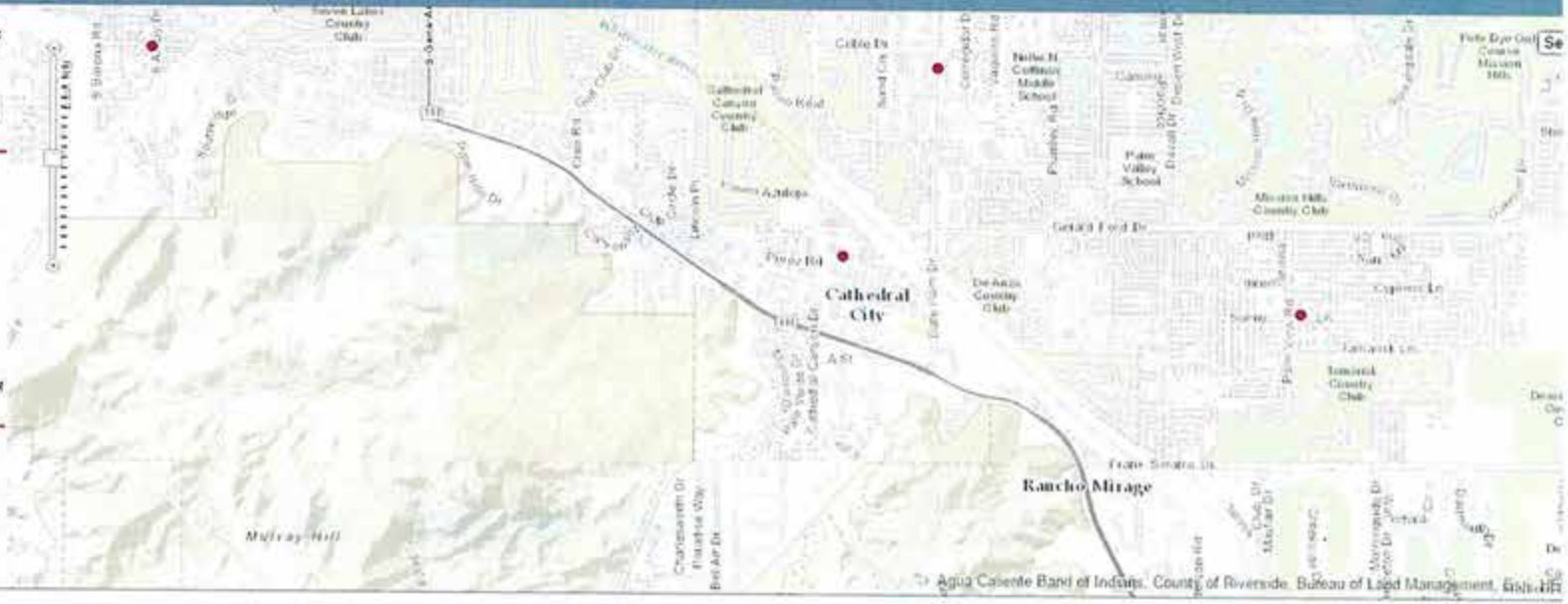
Select the desired site type using the checkboxes

- Groundwater Level
- Water Quality
- Include Historic Data
- Continuous Data
- Multiple Stations at one Location
- Cluster, showing number of stations

Cursor Coordinates (WGS84)

Lat: 33.7840, Long: -116.5240

0 0.3 0.6mi



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CDEC | CIMIS | WDL | IEP | IWRIS | All Data Topics...

- Water Data Library Home
- Groundwater Level Data
- Water Quality Data
- Continuous Data
  Surface water, groundwater and water quality
- Historical Publications
- NHD Stewardship
- Contact Information

DWR CLIENTS ONLY

- Admin Login
- Climate Data (Beta 1.1)
- Climate Data (Access Prototype)

Water Data Library

Use the map below to locate monitoring stations. You can find an area of interest if you zoom and pan the map. Quickly find an area searching for named features on a map such as the name of a city, park, landmark, lake, water feature, or zip code within California. Once at the area of interest, select the desired Site Type and click the "Refresh Map" button to show monitoring stations in the area. Additional searches by data type are possible by clicking the links on the left. For help on these and other ways to find your data click here.

WDL STATION MAP

Location Search

To find monitoring stations for a specific area, enter the placename or zip code into the text box below

92234, Cathedral City, C

Site Type

Select the desired site type using the checkboxes

- [x] Groundwater Level
- [ ] Water Quality
  - [ ] Include Historic Data
- [ ] Continuous Data

= Multiple Stations at one Location

= Cluster, showing number of stations

Cursor Coordinates (WGS84)

Lat: 33.7744, Long: -116.4689

0 0.15 0.3mi



- Water Data Library Home
- Groundwater Level Data
- Water Quality Data
- Continuous Data
  Surface water, groundwater and water quality
- Historical Publications
- NHD Stewardship
- Contact Information

DWR CLIENTS ONLY

- Admin Login
- Climate Data (Beta 1.1)
- Climate Data (Access Prototype)

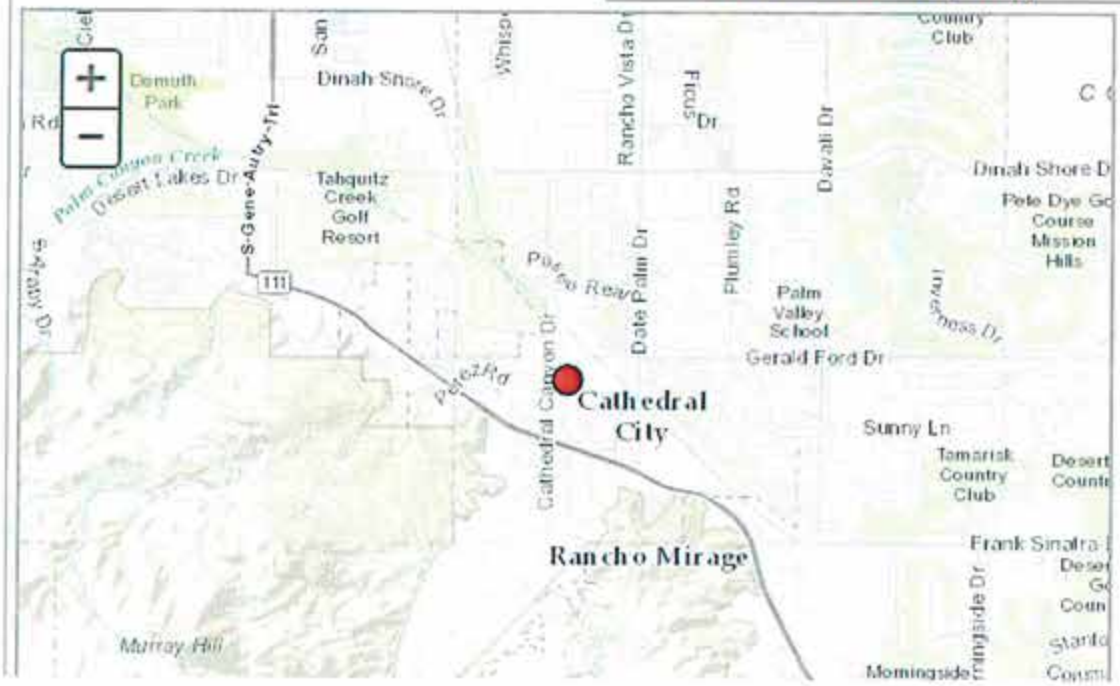
Groundwater Levels for Station 337850N1164647W001

Data for your selected well is shown in the tabbed interface below. To view data managed in the updated WDL tables, including data collected under the CASGEM program, click the "Recent Groundwater Level Data" tab. To view data stored in the former WDL tables, click the "Historical Groundwater Level Data" tab. To download the data in CSV format, click the "Download CSV File" button on the respective tab. Please note that the vertical datum for "recent" measurements is NAVD88, while the vertical datum for "historical" measurements is NGVD29. To change your well selection criteria, click the "Perform a New Well Search" button.

Station Data | Recent Groundwater Level Data | Historical Groundwater Level Data

State Well Number: 04S05E33B004S
Local Well ID: Well 19
Site Code: 337850N1164647W001
Latitude (NAD83): 33.785000
Longitude (NAD83): -116.464722
Groundwater Basin (code): Indio (7-021.01)

Well Use: Residential
Well Status: Inactive
Well Completion Report Number:
Reference Point Elevation (NAVD88 ft): 293.020
Ground Surface Elevation (NAVD88 ft): 301.620
Total Depth (ft): 843
Perforated Interval Depths (ft):



- Water Data Library Home
- Groundwater Level Data
- Water Quality Data
- Continuous Data
  Surface water, groundwater and water quality
- Historical Publications
- NHD Stewardship
- Contact Information

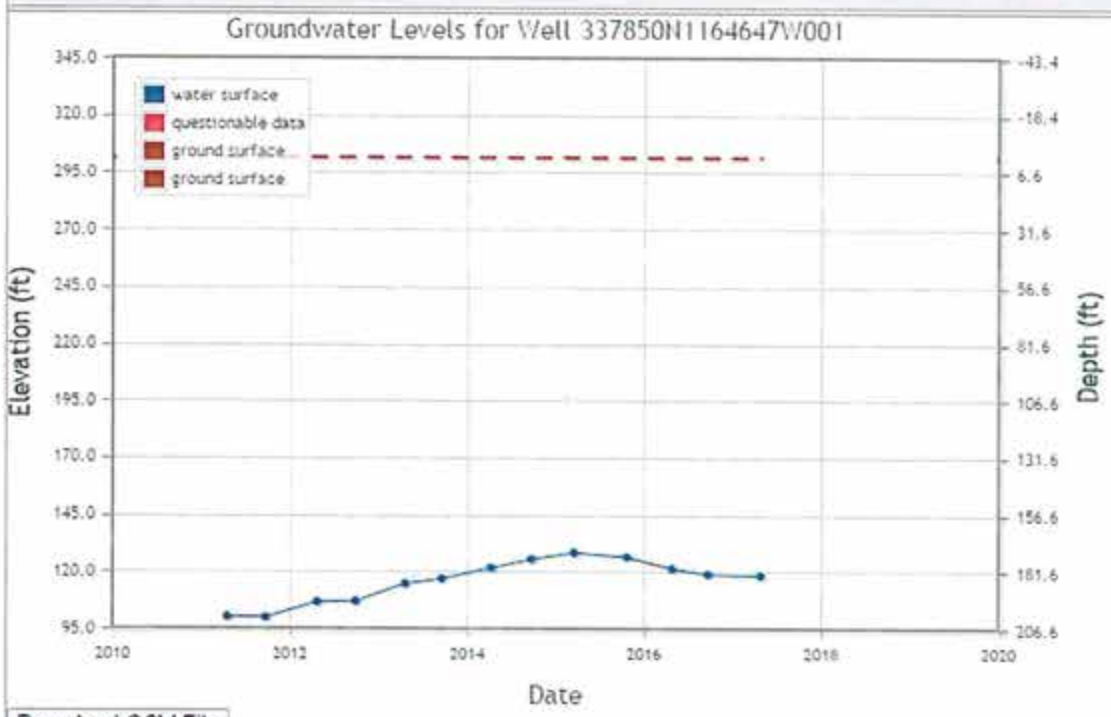
DWR CLIENTS ONLY

- Admin Login
- Climate Data (Beta 1.1)
- Climate Data (Access Prototype)

Groundwater Levels for Station 337850N1164647W001

Data for your selected well is shown in the tabbed interface below. To view data managed in the updated WDL tables, including data collected under the CASGEM program, click the "Recent Groundwater Level Data" tab. To view data stored in the former WDL tables, click the "Historical Groundwater Level Data" tab. To download the data in CSV format, click the "Download CSV File" button on the respective tab. Please note that the vertical datum for "recent" measurements is NAVD88, while the vertical datum for "historical" measurements is NGVD29. To change your well selection criteria, click the "Perform a New Well Search" button.

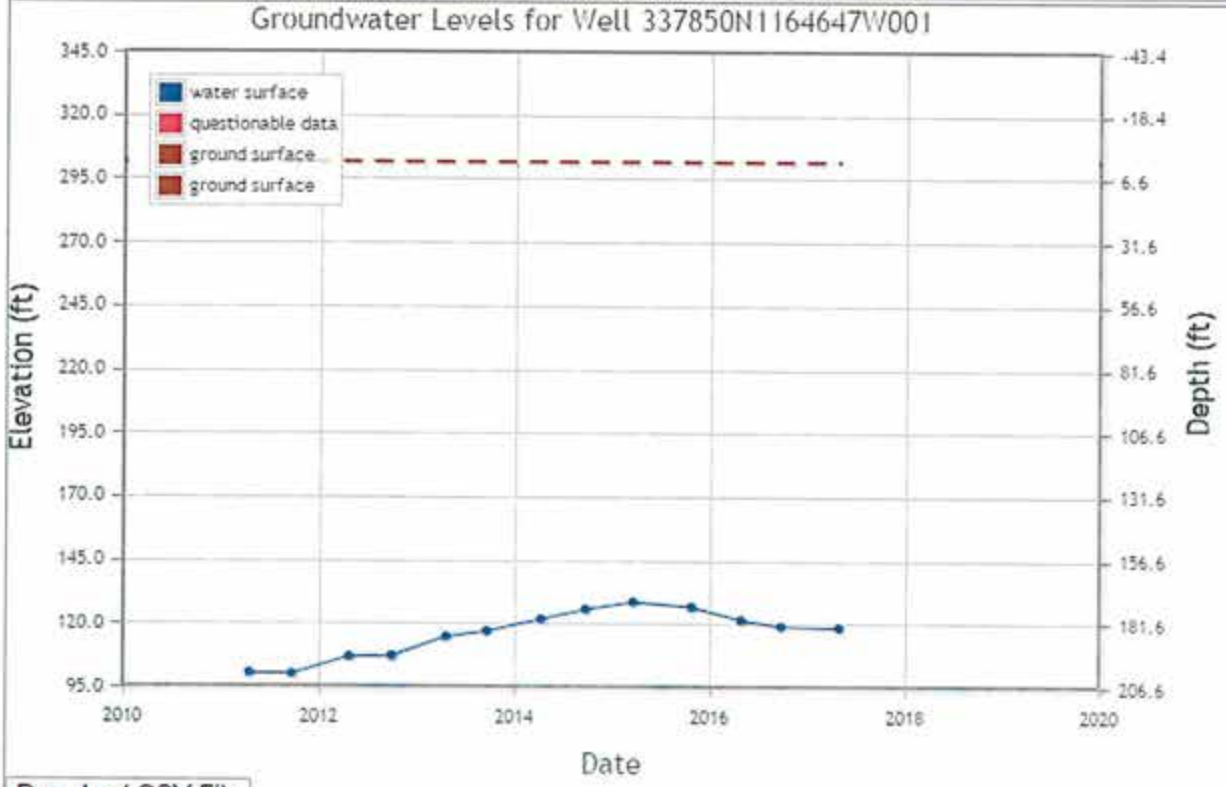
Station Data | **Recent Groundwater Level Data** | Historical Groundwater Level Data



Download CSV File

Date	RPE	GSE	RPWS	WSE	GS to WS	Msmt Code	CASGEM Msmt	Agency	Comments
04/15/2011 00:00	293.020	301.620	192.91	100.11	201.51		Y	5040	
09/21/2011 00:00	293.020	301.620	193.16	99.86	201.76		Y	5040	

Station Data | **Recent Groundwater Level Data** | Historical Groundwater Level Data

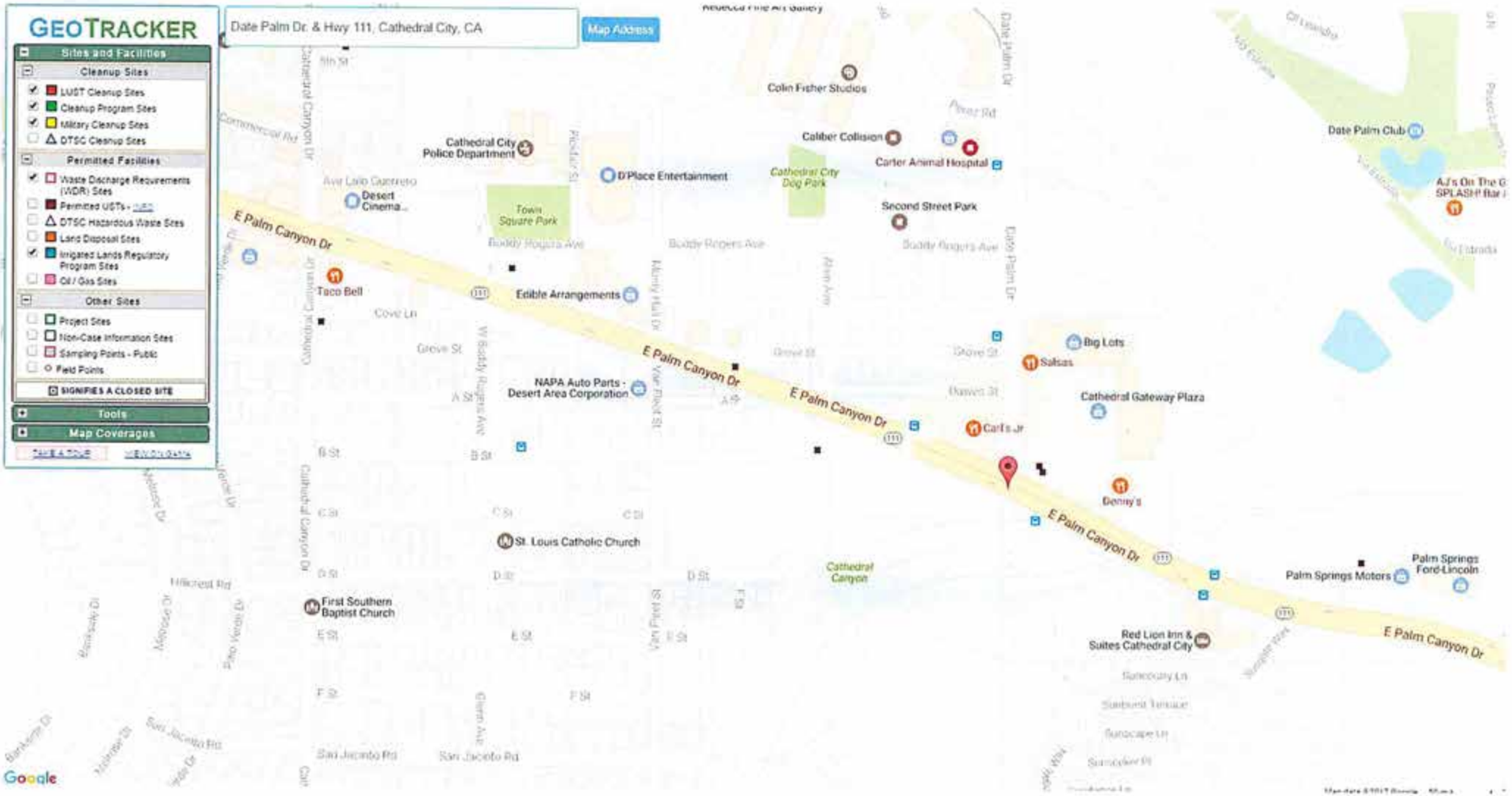


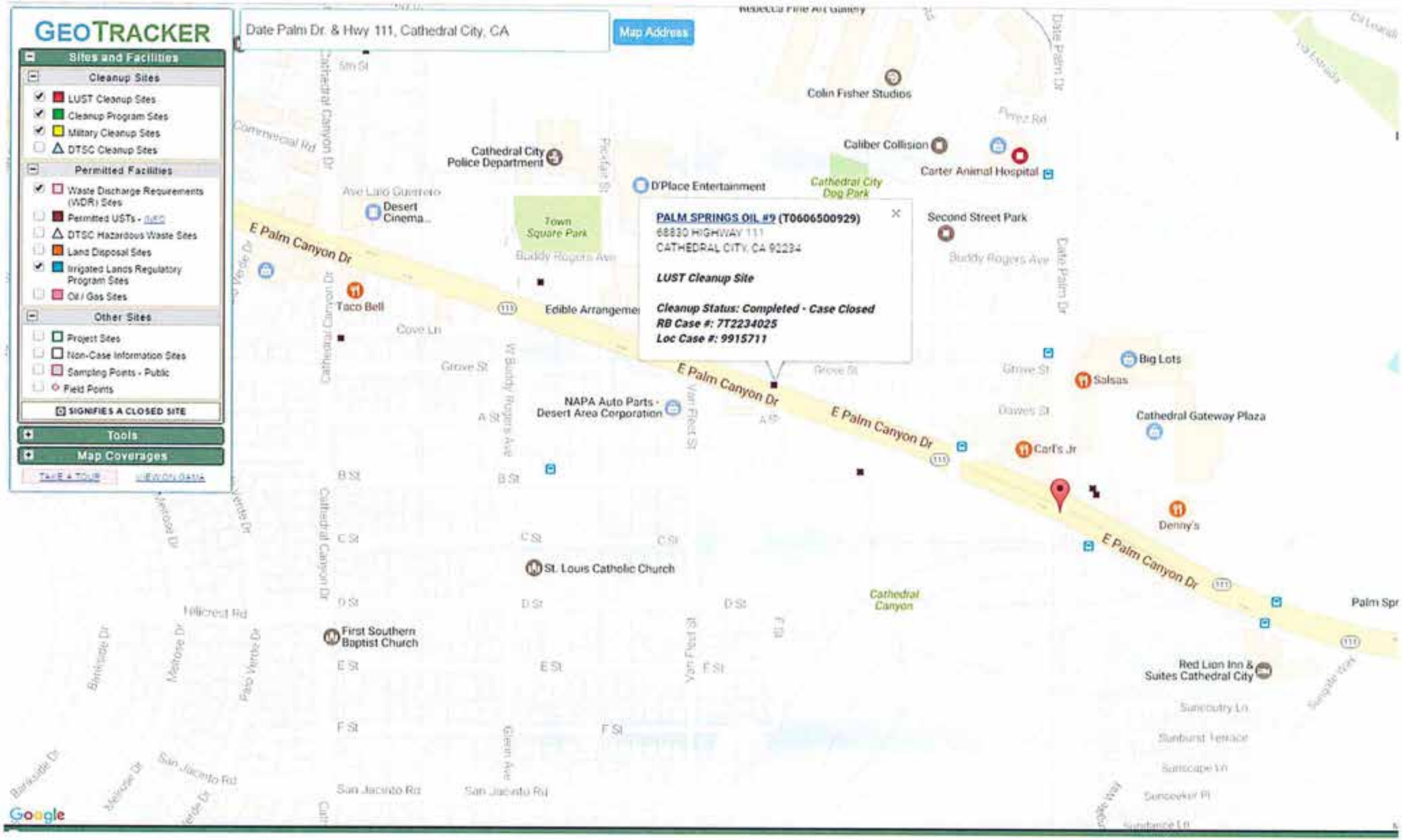
Download CSV File

Date	RPE	GSE	RPWS	WSE	GS to WS	Msmt Code	CASGEM Msmt	Agency	Comments
04/15/2011 00:00	293.020	301.620	192.91	100.11	201.51		Y	5040	
09/21/2011 00:00	293.020	301.620	193.16	99.86	201.76		Y	5040	
04/20/2012 00:00	293.020	301.620	186.33	106.69	194.93		Y	5040	
09/27/2012 00:00	293.020	301.620	186	107.02	194.6		Y	5040	
04/18/2013 00:00	293.020	301.620	178.41	114.61	187.01		Y	5040	
09/17/2013 00:00	293.020	301.620	176.25	116.77	184.85		Y	5040	
04/07/2014 00:00	293.020	301.620	171.33	121.69	179.93		Y	5040	
09/22/2014 00:00	293.020	301.620	167.54	125.48	176.14		Y	5040	
03/16/2015 00:00	293.020	301.620	164.63	128.39	173.23		Y	5040	
10/22/2015 00:00	293.020	301.620	166.55	126.47	175.15		Y	5040	
04/26/2016 00:00	293.020	301.620	171.66	121.36	180.26		Y	5040	
09/21/2016 00:00	293.020	301.620	174.16	118.86	182.76		Y	5040	
04/26/2017 00:00	293.020	301.620	174.75	118.27	183.35		Y	5040	

All elevation and depth measurements are in feet. The vertical datum for recent measurements is NAVD88.

Perform a New Well Search


GEOTRACKER
Date Palm Dr. & Hwy 111, Cathedral City, CA
Map Address
Sites and Facilities
Cleanup Sites
LUST Cleanup Sites
Cleanup Program Sites
Military Cleanup Sites
DTSC Cleanup Sites
Permitted Facilities
Waste Discharge Requirements (WDR) Sites
Permitted USTs - LIST
DTSC Hazardous Waste Sites
Land Disposal Sites
Irrigated Lands Regulatory Program Sites
Oil / Gas Sites
Other Sites
Project Sites
Non-Case Information Sites
Sampling Points - Public
Field Points
SIGNIFIES A CLOSED SITE
Tools
Map Coverages
SAVE A TOUR
VIEW TOURS
Colin Fisher Studios
Caliber Collision
Cathedral City Police Department
Carter Animal Hospital
D'Place Entertainment
Cathedral City Dog Park
Second Street Park
Town Square Park
Desert Cinema...
Taco Bell
Edible Arrangements
NAPA Auto Parts - Desert Area Corporation
Big Lots
Salsas
Cathedral Gateway Plaza
Carl's Jr
Denny's
St. Louis Catholic Church
First Southern Baptist Church
Cathedral Canyon
Palm Springs Motors
Palm Springs Ford-Lincoln
Red Lion Inn & Suites Cathedral City
Date Palm Club
E Palm Canyon Dr
Buddy Rogers Ave
Cathedral Canyon Dr
Date Palm Dr
Ramon Rd
Hillcrest Rd
San Jacinto Rd
Grove St
Dawes St
Cove Ln
Google


GEOTRACKER
Date Palm Dr. & Hwy 111, Cathedral City, CA
Map Address
Sites and Facilities
Cleanup Sites
LUST Cleanup Sites
Cleanup Program Sites
Military Cleanup Sites
DTSC Cleanup Sites
Permitted Facilities
Waste Discharge Requirements (WDR) Sites
Permitted USTs - (UST)
DTSC Hazardous Waste Sites
Land Disposal Sites
Irrigated Lands Regulatory Program Sites
Oil / Gas Sites
Other Sites
Project Sites
Non-Case Information Sites
Sampling Points - Public
Field Points
SIGNIFIES A CLOSED SITE
Tools
Map Coverages
PALM SPRINGS OIL #9 (T0606500929)
68830 HIGHWAY 111
CATHEDRAL CITY, CA 92234
LUST Cleanup Site
Cleanup Status: Completed - Case Closed
RB Case #: 7T2234025
Loc Case #: 9915711
E Palm Canyon Dr
Cathedral City Police Department
Colin Fisher Studios
Caliber Collision
Carter Animal Hospital
Cathedral City Dog Park
D'Place Entertainment
Second Street Park
Town Square Park
Desert Cinema
Taco Bell
Edible Arrangeme
NAPA Auto Parts - Desert Area Corporation
Big Lots
Salsas
Cathedral Gateway Plaza
Carl's Jr
Denny's
St. Louis Catholic Church
First Southern Baptist Church
Cathedral Canyon
Red Lion Inn & Suites Cathedral City
Palm Spr
Commercial Rd
Ave Lalo Guerrero
Buddy Rogers Ave
Cove Ln
Grove St
Dawes St
A St
B St
C St
D St
E St
F St
Hillcrest Rd
San Jacinto Rd
Date Palm Dr
Cathedral Canyon Dr
Van Fleet St
Monterey Ave
Sunscape Ln
Sunburst Terrace
Google

PALM SPRINGS OIL #9 (T0606500929) - (MAP)

SIGN UP FOR EMAIL ALERTS

68830 HIGHWAY 111
CATHEDRAL CITY, CA 92234
RIVERSIDE COUNTY
LUST CLEANUP SITE
PRINTABLE CASE SUMMARY / CSM REPORT

CLEANUP OVERSIGHT AGENCIES
RIVERSIDE COUNTY LOP (LEAD) - CASE #: 9915711
COLORADO RIVER BASIN RWQCB (REGION 7) - CASE #: 7T2234025
CASEWORKER: Phan Le
CUF Claim #: 15224
CUF Priority Assigned: C
CUF Amount Paid: $348,313

Summary | Cleanup Action Report | Regulatory Activities | Environmental Data (ESI) | Site Maps / Documents | Community Involvement | Related Cases | LUST CUF Data

Regulatory Profile

PRINTABLE CASE SUMMARY

CLEANUP STATUS - DEFINITIONS
COMPLETED - CASE CLOSED AS OF 5/5/2006 - CLEANUP STATUS HISTORY

POTENTIAL CONTAMINANTS OF CONCERN
GASOLINE

POTENTIAL MEDIA OF CONCERN
SOIL

FILE LOCATION

USER DEFINED BENEFICIAL USE
NONE SPECIFIED

DESIGNATED BENEFICIAL USE(S) - DEFINITIONS
MUN, AGR, IND

DWR GROUNDWATER SUB-BASIN NAME
Coachella Valley - Indio (7-21.01)

CALWATER WATERSHED NAME
Whitewater - Coachella - Indio (719.47)

Site History

No site history available

CASE CLOSURE SUMMARY
LEAKING UNDERGROUND FUEL STORAGE TANK PROGRAM

SITE NAME: Palm Springs Oil #9

SITE NO: 9915711

Agency Information

Date: November 14, 2005

AGENCY NAME:	County of Riverside, Department of Environmental Health Hazardous Materials Management Division
ADDRESS:	47923 Oasis Street, Indio CA 92201 (760) 863-8976
STAFF PERSON:	Linda D. Shurlow, REHS-- Hazardous Materials Management Specialist

II. Case Information

SITE NAME: Palm Springs Oil #9
SITE ADDRESS: 68830 Hwy. 111 Cathedral City
RB LUSTIS CASE NO: 7T2234025 **LOP/LOCAL CASE NO:** 9915711
URR FILING DATE: 10/12/99 **SWEEPS NO:**

RESPONSIBLE PARTIES	ADDRESS	PHONE NUMBER
Mr. Steven Anenberg	3410 Foothill Blvd. Pasadena CA 91107	

TANK #	SIZE	CONTENTS	REMOVED/CLOSED IN-PLACE?	DATE
1-5	12 K gal	gasoline	removed	7/2/99

III. Release and Site Characterization Information

CAUSE & TYPE OF RELEASE: gasoline release from tanks
SITE CHARACTERIZATION COMPLETE? Yes [X] No [ ]
DATE APPROVED BY OVERSIGHT AGENCY: 8/18/00

MONITORING WELLS INSTALLED? Yes [ ] No [X] NUMBER:
PROPER SCREEN INTERVAL? Yes [ ] No [ ] N/A [X]
HIGHEST GW DEPTH BELOW GROUND SURFACE: 220-260
FLOW DIRECTION:

MOST SENSITIVE CURRENT GW USE: domestic
ARE DRINKING WATER WELLS AFFECTED? Yes[ ] No [X]
AQUIFER NAME:

SURFACE WATER AFFECTED? Yes [ ] No [X]
NEAREST/AFFECTED SW NAME:
OFF-SITE BENEFICIAL USE IMPACTS (ADDRESS/LOCATIONS):

REPORTS ON FILE? Yes [X] No [ ]
LOCATION OF REPORTS: County of Riverside, Department of Environmental Health
Hazardous Materials Management Division
4065 County Circle Drive P.O. Box 7600 Riverside CA 92513-7600
(909) 358-5055

CASE CLOSURE SUMMARY
LEAKING UNDERGROUND FUEL STORAGE TANK PROGRAM

SITE NAME: Palm Springs Oil #9 **SITE NO:** 9915711

V. Local Agency Representative Data

NAME: Paul Tavares TITLE: Deputy Director for Hazardous Material
SIGNATURE: [signature] DATE: 5/2/06

VI. RWQCB Notification

DATE SUBMITTED TO RWQCB: 2/28/06 RWQCB RESPONSE: Concurrence
RWQCB STAFF NAME: Rosalyn Larsen TITLE: WRCE
SIGNATURE: Rosalyn Larsen DATE: 3/1/06

VII. Additional Comments, Data, Etc.

5 gasoline tanks were removed July 2, 1999. Up to 10,900 ppm TPHg was detected under the tanks. No MTBE or benzene was detected.

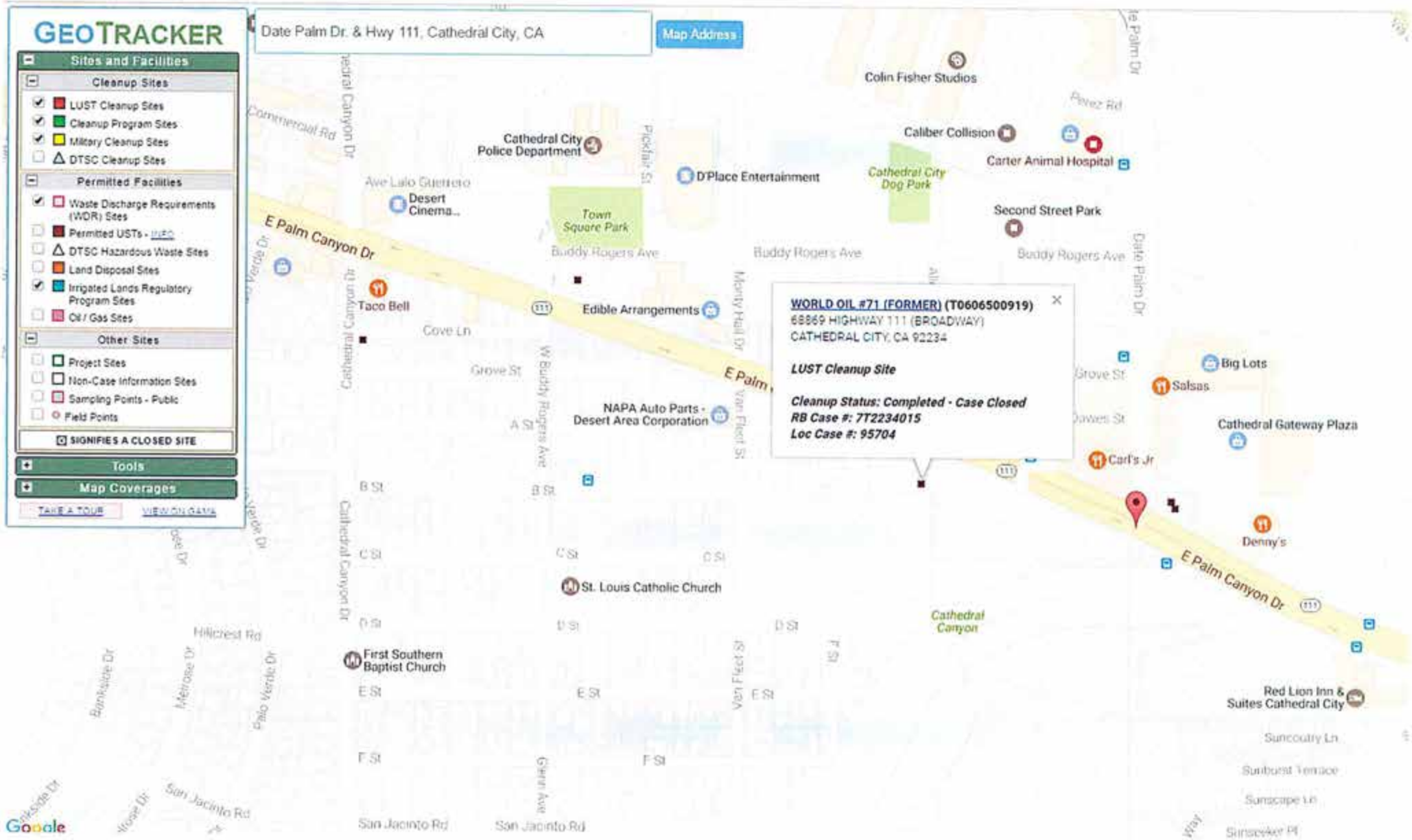
On February 15, 2000, two borings were drilled; one in the tank pit and one near the former dispenser. The boring near the former dispenser was drilled to 75' and was ND for TPHg, BTEX and MTBE. Boring 1 through the tank pit was drilled to 115'. Up to 4600 ppm TPHg, 18 ppm benzene and 5.7 ppm MTBE were detected at 50'. Both borings were converted to SVE wells.

The SVE system was started January 16, 2002 and run until Dec. 19, 2002 when it was shut down. The system was restarted January 23, 2003 for a rebound test. Up to 13329 lbs of hydrocarbons were removed. On March 11, 2003, a confirmation boring was drilled to 75' in the former tank pit. Up to 15,500 ppm TPHg, 0.019 ppm MTBE and 1.8 ppm benzene detected at 50' where a sandy silt layer exists at the 40-50' depth.

On Sept. 8-10 2003, three additional borings were drilled in the former tank pit and nested SVE wells were installed. Two of the borings were ND for TPHg, benzene, and MTBE. The third had from 1,800 ppm to 2300 ppm TPHg between 40-60'. The SVE system was restarted 11/25/03 and run to Feb. 20, 2004 when it was shut down due to obtaining new permits from AQMD. It was restarted March 20, 2004 and this was used as a rebound test. On Feb. 14-16, 2005 three confirmation borings were drilled. 2 of the borings were ND for TPHg, benzene and MTBE. The third had 1900 ppm, 15000 ppm and 2000 ppm TPHg at 45', 48', and 50' in the sandy silt layer. No benzene or MTBE was detected. The boring was converted to an SVE well and screened from 41-51'. It was estimated that ~502 lbs of hydrocarbons remained in the soils. The SVE system was restarted on Feb. 22, 2005.

The SVE system was cycled starting in May 2005 due to low influent. A rebound test was conducted August 31, 2005 and the influent went from 130 ppmv to 180 ppmv to ND. The system was shut down and removed on Sept. 15, 2005. A total of 22984 lbs (~3482 gal.) of hydrocarbons were removed from the site. TPHg began at 6930 ppmv and ended at ND, benzene began at 98.4 ppmv and ended at ND and MTBE began at 29.3 ppmv and ended at ND.

The consultant is requesting closure as the station no longer exists, the hydrocarbon impacts were delineated at the site, SVE reached ND levels, no public wells are located within ½ mile of the site, and the minimal hydrocarbon mass (~502 lbs) estimated in the soil in the sandy silt layer located between 42.5-52.5' was remediated to the extent feasible. Closure was approved once the SVE wells are destroyed. The wells were destroyed ~~March 14 and 15, 2006~~.


GEOTRACKER
Sites and Facilities
Cleanup Sites
LUST Cleanup Sites
Cleanup Program Sites
Military Cleanup Sites
DTSC Cleanup Sites
Permitted Facilities
Waste Discharge Requirements (WDR) Sites
Permitted USTs - INFO
DTSC Hazardous Waste Sites
Land Disposal Sites
Irrigated Lands Regulatory Program Sites
Oil / Gas Sites
Other Sites
Project Sites
Non-Case Information Sites
Sampling Points - Public
Field Points
SIGNIFIES A CLOSED SITE
Tools
Map Coverages
TAKE A TOUR
VIEW ON GAMA
Date Palm Dr. & Hwy 111, Cathedral City, CA
Map Address
WORLD OIL #71 (FORMER) (T0606500919)
68869 HIGHWAY 111 (BROADWAY)
CATHEDRAL CITY, CA 92234
LUST Cleanup Site
Cleanup Status: Completed - Case Closed
RB Case #: 7T2234015
Loc Case #: 95704
E Palm Canyon Dr
Buddy Rogers Ave
Grove St
Cove Ln
B St
C St
D St
E St
F St
Hillcrest Rd
San Jacinto Rd
Commercial Rd
Ave Lalo Guerrero
Cathedral Canyon Dr
Date Palm Dr
Van Fleet St
Pickair St
Monty Hall Dr
Perez Rd
Colin Fisher Studios
Caliber Collision
Carter Animal Hospital
Cathedral City Police Department
D'Place Entertainment
Cathedral City Dog Park
Second Street Park
Town Square Park
Desert Cinema...
Taco Bell
Edible Arrangements
NAPA Auto Parts - Desert Area Corporation
Big Lots
Salsas
Cathedral Gateway Plaza
Carl's Jr
Denny's
St. Louis Catholic Church
First Southern Baptist Church
Cathedral Canyon
Red Lion Inn & Suites Cathedral City
Suncountry Ln
Sunburst Terrace
Sunscape Ln
Sunset Ave Pl
Google

WORLD OIL #71 (FORMER) (T0606500919) - (MAP)

SIGN UP FOR EMAIL ALERTS

68869 HIGHWAY 111 (BROADWAY)
CATHEDRAL CITY, CA 92234
RIVERSIDE COUNTY
LUST CLEANUP SITE
PRINTABLE CASE SUMMARY / CSM REPORT

CLEANUP OVERSIGHT AGENCIES
RIVERSIDE COUNTY LOP (LEAD) - CASE #: 95704
CASEWORKER: Riverside County LOP
COLORADO RIVER BASIN RWQCB (REGION 7) - CASE #: 7T2234015
CASEWORKER: Phan Le
CUF Claim #: 11507
CUF Priority Assigned: C
CUF Amount Paid: $10,073

Summary | Cleanup Action Report | Regulatory Activities | Environmental Data (ESI) | Site Maps / Documents | Community Involvement | Related Cases | LUST CUF Data

Regulatory Profile

PRINTABLE CASE SUMMARY

CLEANUP STATUS - DEFINITIONS
COMPLETED - CASE CLOSED AS OF 6/3/1996 - CLEANUP STATUS HISTORY

POTENTIAL CONTAMINANTS OF CONCERN
GASOLINE

POTENTIAL MEDIA OF CONCERN
SOIL

FILE LOCATION
LOCAL AGENCY WAREHOUSE

USER DEFINED BENEFICIAL USE
NONE SPECIFIED

DESIGNATED BENEFICIAL USE(S) - DEFINITIONS
MUN, AGR, IND

DWR GROUNDWATER SUB-BASIN NAME
Coachella Valley - Indio (7-21.01)

CALWATER WATERSHED NAME
Whitewater - Coachella - Indio (719.47)

Post Closure Site Management Requirements

NOTIFY PRIOR TO CHANGE IN LAND USE

Future Land Use Reported at Closure

UNKNOWN

Site History

No site history available

CASE CLOSURE SUMMARY
LEAKING UNDERGROUND FUEL STORAGE TANK PROGRAM

SITE NAME: World Oil Station #71 SITE NO: 95-704

Date: 4/17/96

I. Agency Information

AGENCY NAME: County of Riverside, Department of Environmental Health
Hazardous Materials Management Division

ADDRESS: 47923 Oasis Street, Indio CA 92201 (619) 863-8976

STAFF PERSON: Linda D. Shurlow, REHS
Hazardous Materials Management Specialist

II. Case Information

SITE NAME: World Oil Station #71
SITE ADDRESS: 68869 Hwy 111, Cathedral City
RB LUSTIS CASE NO: LOP/LOCAL CASE NO: 95-704
URR FILING DATE: SWEEPS NO:

RESPONSIBLE PARTIES	ADDRESS	PHONE NUMBER
World Oil Marketing Co. John Hundley	9302 South Garfield South Gate CA 90280	(310) 928-0100

TANK #	SIZE	CONTENTS	REMOVED/CLOSED IN-PLACE?	DATE
1-3	10,000 g	gasoline	active tanks	
4-6	12,000 g	gasoline	active tanks	

III. Release and Site Characterization Information

CAUSE & TYPE OF RELEASE: unknown gasoline
SITE CHARACTERIZATION COMPLETE? Yes [X] No [ ]
DATE APPROVED BY OVERSIGHT AGENCY: 4/17/96

MONITORING WELLS INSTALLED? Yes [ ] No [X] NUMBER:
PROPER SCREEN INTERVAL? Yes [ ] No [ ] N/A [X]
HIGHEST GW DEPTH BELOW GROUND SURFACE: 160-165' LOWEST DEPTH:
FLOW DIRECTION:east to north-east

MOST SENSITIVE CURRENT GW USE: domestic
ARE DRINKING WATER WELLS AFFECTED? Yes[ ] No [X]
AQUIFER NAME:

SURFACE WATER AFFECTED? Yes [ ] No [X]
NEAREST/AFFECTED SW NAME:
OFF-SITE BENEFICIAL USE IMPACTS (ADDRESS/LOCATIONS):

REPORTS ON FILE? Yes [X] No [ ]
LOCATION OF REPORTS: County of Riverside, Department of Environmental Health
Hazardous Materials Management Division
47923 Oasis Street, Indio CA 92201
(619) 863-8976

CASE CLOSURE SUMMARY
LEAKING UNDERGROUND FUEL STORAGE TANK PROGRAM

SITE NAME: World Oil Station #71 SITE NO: 95-704

III. Release and Site Characterization Information (cont.)

TREATMENT & DISPOSAL OF AFFECTED MATERIAL

MATERIAL	AMOUNT	ACTION (Treatment or disposal & destination)	DATE
TANK			
PIPING			
RINSATE			
SOIL			
GROUNDWATER			
OTHER			

MAXIMUM DOCUMENTED CONTAMINANT CONCENTRATIONS -- Before & After Cleanup

CONTAMINANT	SOIL				GROUNDWATER	
	BEFORE	DEPTH	AFTER	DEPTH	BEFORE	AFTER
TPH (GAS)	180000		180000			
TPH (DIESEL)						
TRPH (418.1)						
BENZENE	120 ppm		120 ppm			
TOLUENE	1500 ppm		1500 ppm			
XYLENE	9600 ppm		9600 ppm			
ETHYLBENZENE	1400 ppm		1400 ppm			
OTHER						
OTHER						

COMMENTS (soil types, depth of remediation, etc.): original samples taken from turbine box when hand augers hit rejection due to cobbles at 3' bgs.

IV. Closure

DOES COMPLETED CORRECTIVE ACTION PROTECT EXISTING BENEFICIAL USES AS PER THE REGIONAL BOARD BASIN PLAN? Yes [X] No [ ]

DOES COMPLETED CORRECTIVE ACTION PROTECT POTENTIAL BENEFICIAL USES PER THE REGIONAL BOARD BASIN PLAN? Yes [X] No [ ]

DOES THE CORRECTIVE ACTION PROTECT PUBLIC HEALTH FOR CURRENT LAND USE? Yes[X] No [ ]

SITE MANAGEMENT REQUIREMENTS:

SHOULD CORRECTIVE ACTION BE REVIEWED IF LAND USE CHANGES? Yes [X] No [ ]

MONITORING WELLS DECOMMISSIONED? Yes [ ] No [ ] None Installed [X]
NUMBER DECOMMISSIONED: **NUMBER RETAINED:**

LIST ENFORCEMENT ACTIONS TAKEN:
LIST ENFORCEMENT ACTIONS RESCINDED:

CASE CLOSURE SUMMARY
LEAKING UNDERGROUND FUEL STORAGE TANK PROGRAM

SITE NAME: World Oil Station #71 SITE NO: 95-704

V. Local Agency Representative Data

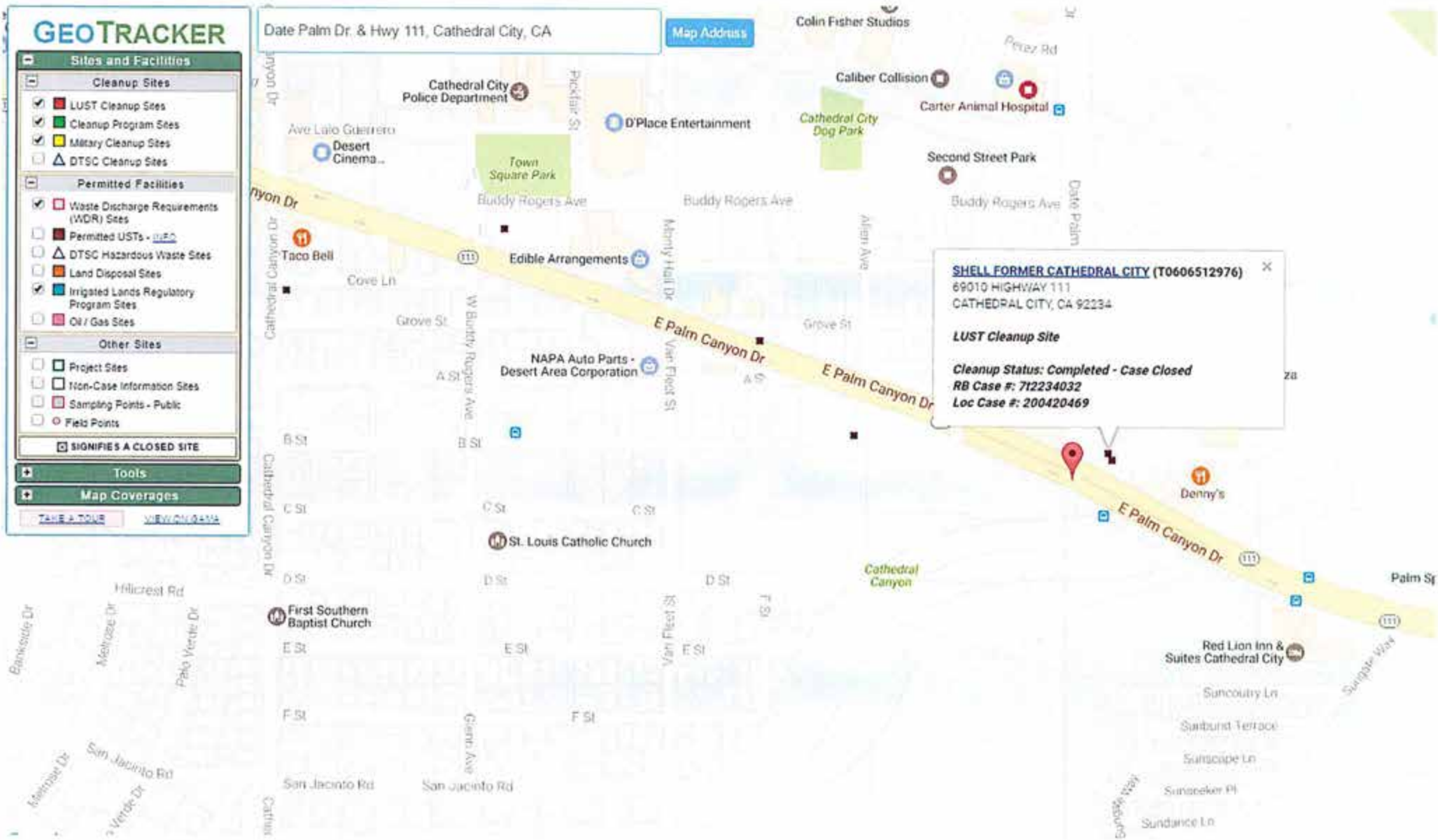
NAME: Earl Tuntland TITLE: Hazardous Materials Program Manager
SIGNATURE: [signature] DATE: 5/14/96

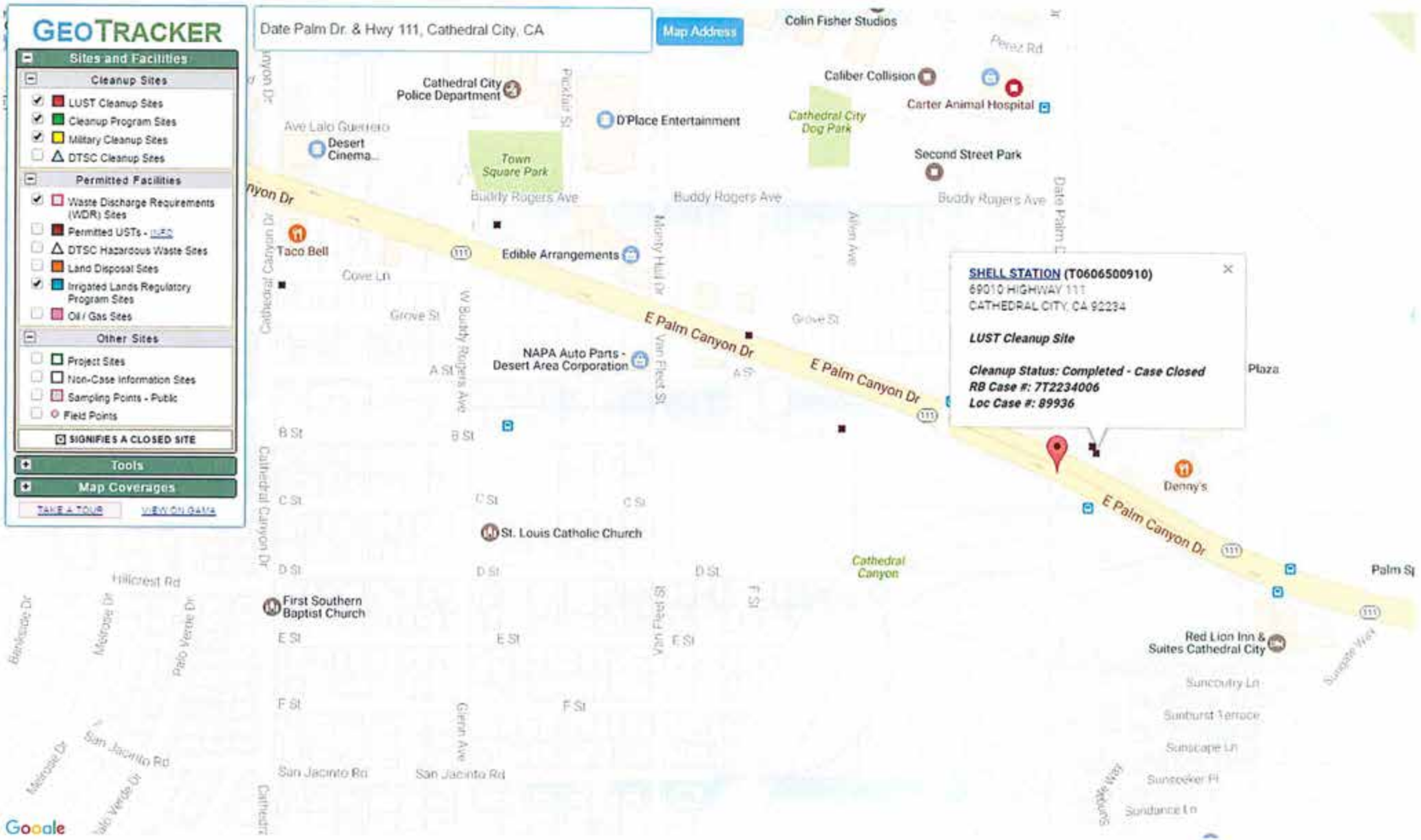
VI. RWQCB Notification

DATE SUBMITTED TO RWQCB: 5/2/96 RWQCB RESPONSE: No Further Action
RWQCB STAFF NAME: Robert Tucker TITLE: Water Resource Control Engr
SIGNATURE: [signature] DATE: 5/2/96

VII. Additional Comments, Data, Etc.

Original soil sample taken from turbine box when hand borings hit refusal due to cobbles at 3'. Assessment boring taken near tank to 65' showed a maximum of 5.4 ppm TPHg at 40' with ND at 60 and 65'. Benzene was ND all the way down.


GEOTRACKER
Sites and Facilities
Cleanup Sites
LUST Cleanup Sites
Cleanup Program Sites
Military Cleanup Sites
DTSC Cleanup Sites
Permitted Facilities
Waste Discharge Requirements (WDR) Sites
Permitted USTs - (UFO)
DTSC Hazardous Waste Sites
Land Disposal Sites
Irrigated Lands Regulatory Program Sites
Oil / Gas Sites
Other Sites
Project Sites
Non-Case Information Sites
Sampling Points - Public
Field Points
SIGNIFIES A CLOSED SITE
Tools
Map Coverages
TAKE A TOUR
VIEW ON GAMA
Date Palm Dr. & Hwy 111, Cathedral City, CA
Map Address
SHELL FORMER CATHEDRAL CITY (T0606512976)
69010 HIGHWAY 111
CATHEDRAL CITY, CA 92234
LUST Cleanup Site
Cleanup Status: Completed - Case Closed
RB Case #: 712234032
Loc Case #: 200420469
E Palm Canyon Dr
Buddy Rogers Ave
Cathedral Canyon Dr
Cove Ln
Grove St
A St
B St
C St
D St
E St
F St
San Jacinto Rd
Hillcrest Rd
Colin Fisher Studios
Caliber Collision
Carter Animal Hospital
Cathedral City Police Department
D'Place Entertainment
Cathedral City Dog Park
Second Street Park
Town Square Park
Desert Cinema...
Taco Bell
Edible Arrangements
NAPA Auto Parts - Desert Area Corporation
Denny's
St. Louis Catholic Church
First Southern Baptist Church
Cathedral Canyon
Red Lion Inn & Suites Cathedral City
Palm St
Date Palm
Van Fleet St
Monty Hall Dr
Allen Ave
W Buddy Rogers Ave
Picklair St
Perez Rd
Suncountry Ln
Sunburst Terrace
Sunscape Ln
Sunseeker Pl
Sundance Ln


GEOTRACKER
Sites and Facilities
Cleanup Sites
LUST Cleanup Sites
Cleanup Program Sites
Military Cleanup Sites
DTSC Cleanup Sites
Permitted Facilities
Waste Discharge Requirements (WDR) Sites
Permitted USTs - (UST)
DTSC Hazardous Waste Sites
Land Disposal Sites
Irrigated Lands Regulatory Program Sites
Oil / Gas Sites
Other Sites
Project Sites
Non-Case Information Sites
Sampling Points - Public
Field Points
SIGNIFIES A CLOSED SITE
Tools
Map Coverages
TAKE A TOUR
VIEW ON GAMA
Date Palm Dr. & Hwy 111, Cathedral City, CA
Map Address
SHELL STATION (T0606500910)
69010 HIGHWAY 111
CATHEDRAL CITY, CA 92234
LUST Cleanup Site
Cleanup Status: Completed - Case Closed
RB Case #: 7T2234006
Loc Case #: 89936
E Palm Canyon Dr
Buddy Rogers Ave
Grove St
A St
B St
C St
D St
E St
F St
Cove Ln
Hillcrest Rd
San Jacinto Rd
Cathedral City Police Department
D'Place Entertainment
Caliber Collision
Carter Animal Hospital
Cathedral City Dog Park
Second Street Park
Town Square Park
Desert Cinema...
Taco Bell
Edible Arrangements
NAPA Auto Parts - Desert Area Corporation
Denny's
St. Louis Catholic Church
First Southern Baptist Church
Cathedral Canyon
Red Lion Inn & Suites Cathedral City
Colin Fisher Studios
Perez Rd
Cathedral Canyon Dr
Date Palm Dr
Palm St
Plaza
Suncoutry Ln
Sunburst Terrace
Sunscape Ln
Sunseeker Pl
Sundance Ln
Google

PAGE 2767

STATE WATER RESOURCES CONTROL BOARD
HAZARDOUS SUBSTANCE STORAGE CONTAINER INFORMATION FOR RIVERSIDE COUNTY
CONTAINER TYPES: 1,2,3,4,5
(1=FARM MOTOR VEHICLE FUEL TANKS, 2=ALL OTHER PRODUCT TANKS, 3=WASTE TANKS, 4=SUMPS, 5=PITS, PONDS, LAGOONS & OTHERS)

06/01/88

I OWNER
RIVERSIDE COUNTY FIRE DEPARTME
210 W. SAN JACINTO PERRIS CA 92370

II FACILITY

	MAILING ADDRESS TOWNSHIP/RANGE/SECTION	DEALER/FOREMAN/SUPERVISOR TELEPHONE	TYPE OF BUSINESS NO. OF CONTAINERS
CATHEDRAL CITY #34 36-913 DATE PALM CATHEDRAL CITY CA 92234	21C WEST SAN JACINTO PERRIS CA 92370	SAMUEL ORTIZ (619) 328-3884	FIRE STATION 1

CROSS STREET :
2ND ST.

III 24-HR. CONTACT PERSON / TELEPHONE
DAY: (619) 328-3884 NIGHT: SAME ( ) -

********** OWNER ASSIGNED CONTAINER NUMBER: 1 ********** STATE BOARD ASSIGNED CONTAINER ID NUMBER: 00000057339001 **********

IV DESCRIPTION
A. CONTAINER TYPE : TANK
B. MANUFACTURER/YR OF MFG: /
C. YEAR INSTALLED : 1975
D. CAPACITY (GALLONS) : 1,000
E. REPAIRS : NONE IF YES WHEN :
F. CURRENTLY USED : YES IF NO, YEAR OF LAST USE:
G. STORES : PRODUCT
H. MOTOR VEHICLE FUEL/WASTE OIL : YES CONTAINS: DIESEL

IS CONTAINER LOCATED ON A FARM : NO

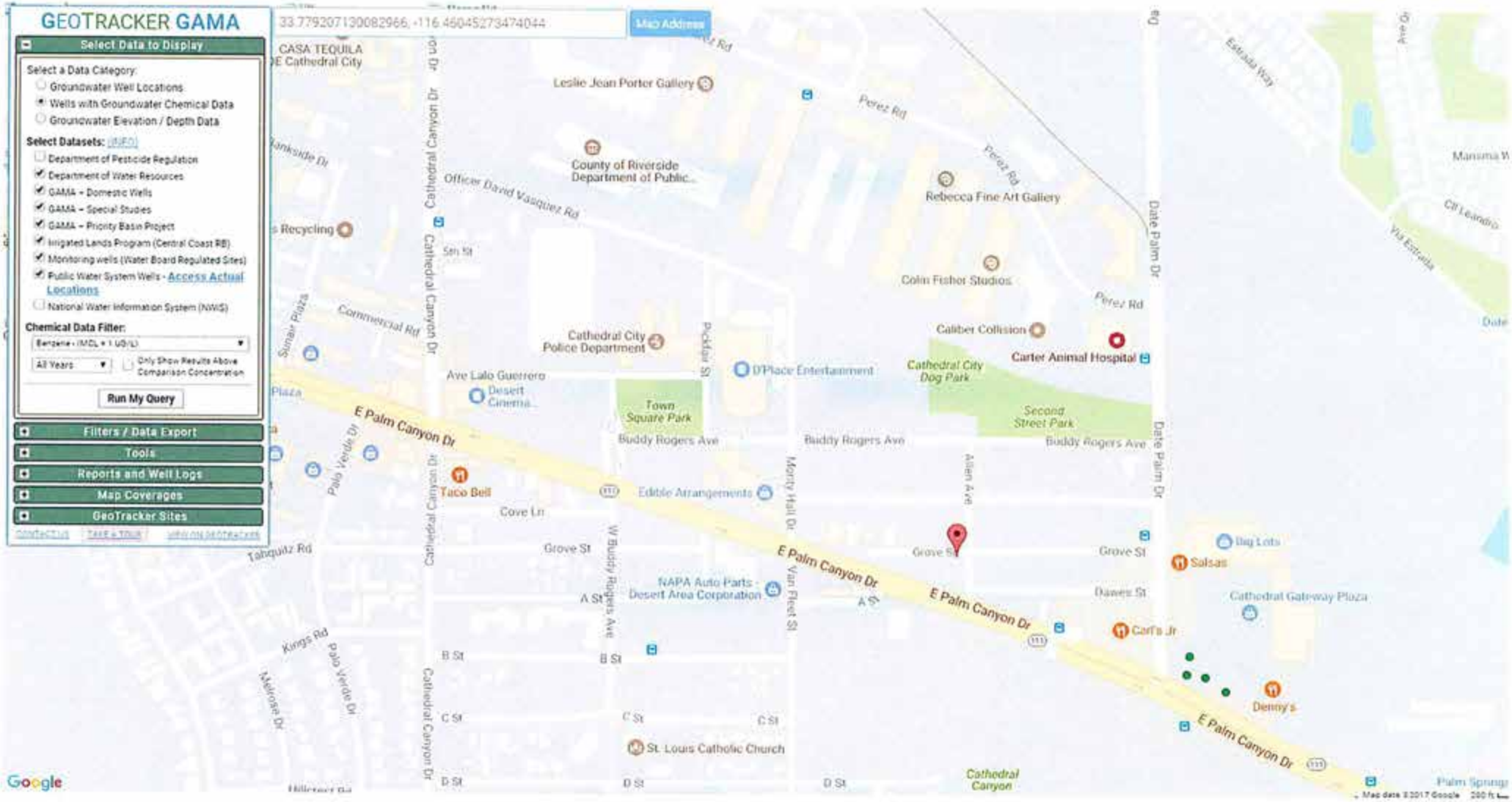
V CONTAINER CONSTRUCTION
A. THICKNESS:
B. VAULTING: NON-VAULTED C. WALLING: LINED
D. MATERIAL : UNKNOWN
E. LINING : UNKNOWN
F. WRAPPING : UNKNOWN

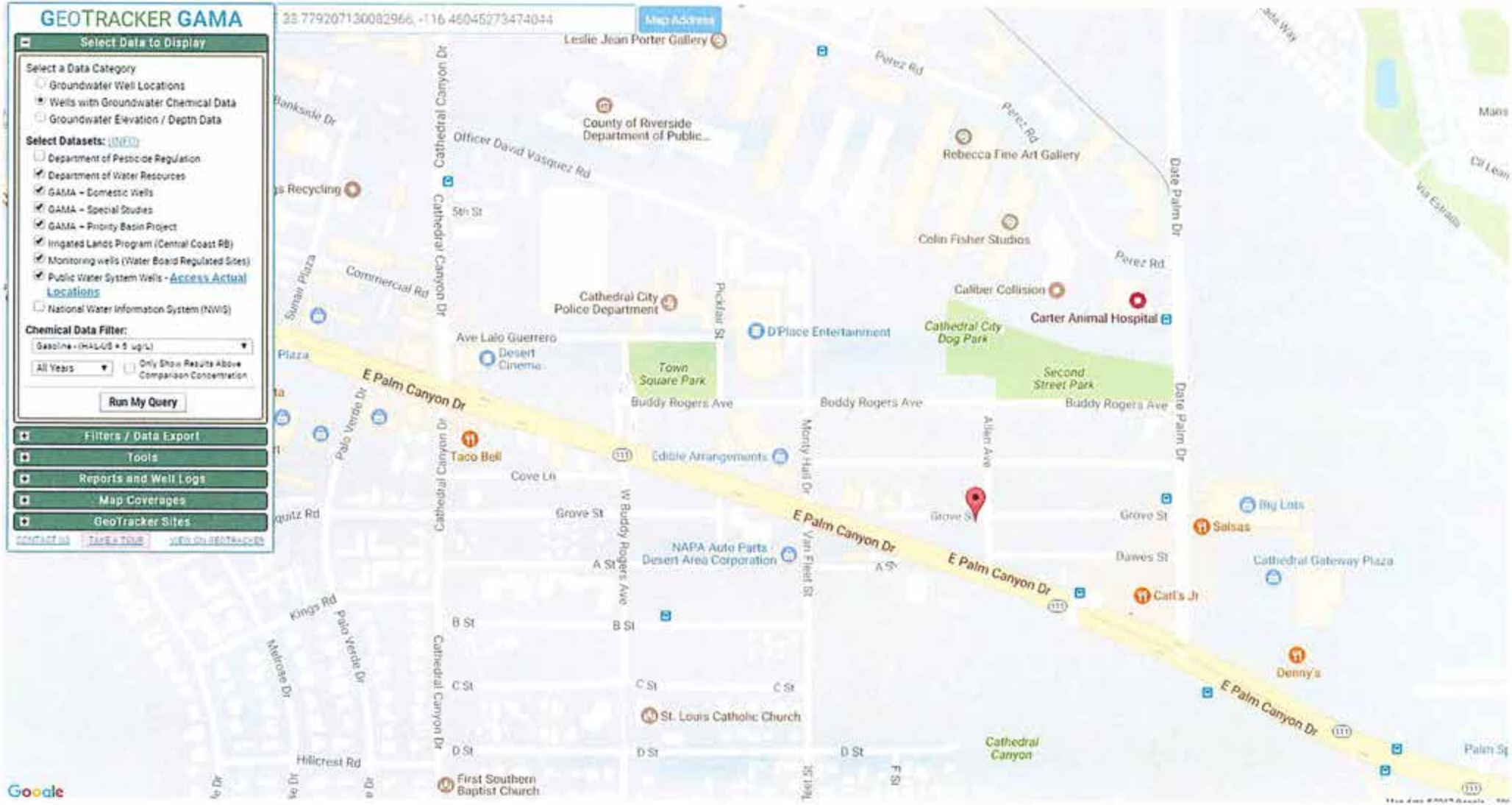
VI PIPING
A. ABOVEGROUND PIPING :
B. UNDERGROUND PIPING : UNKNOWN
C. REPAIRS : NONE IF YES, YEAR OF MOST RECENT REPAIR:

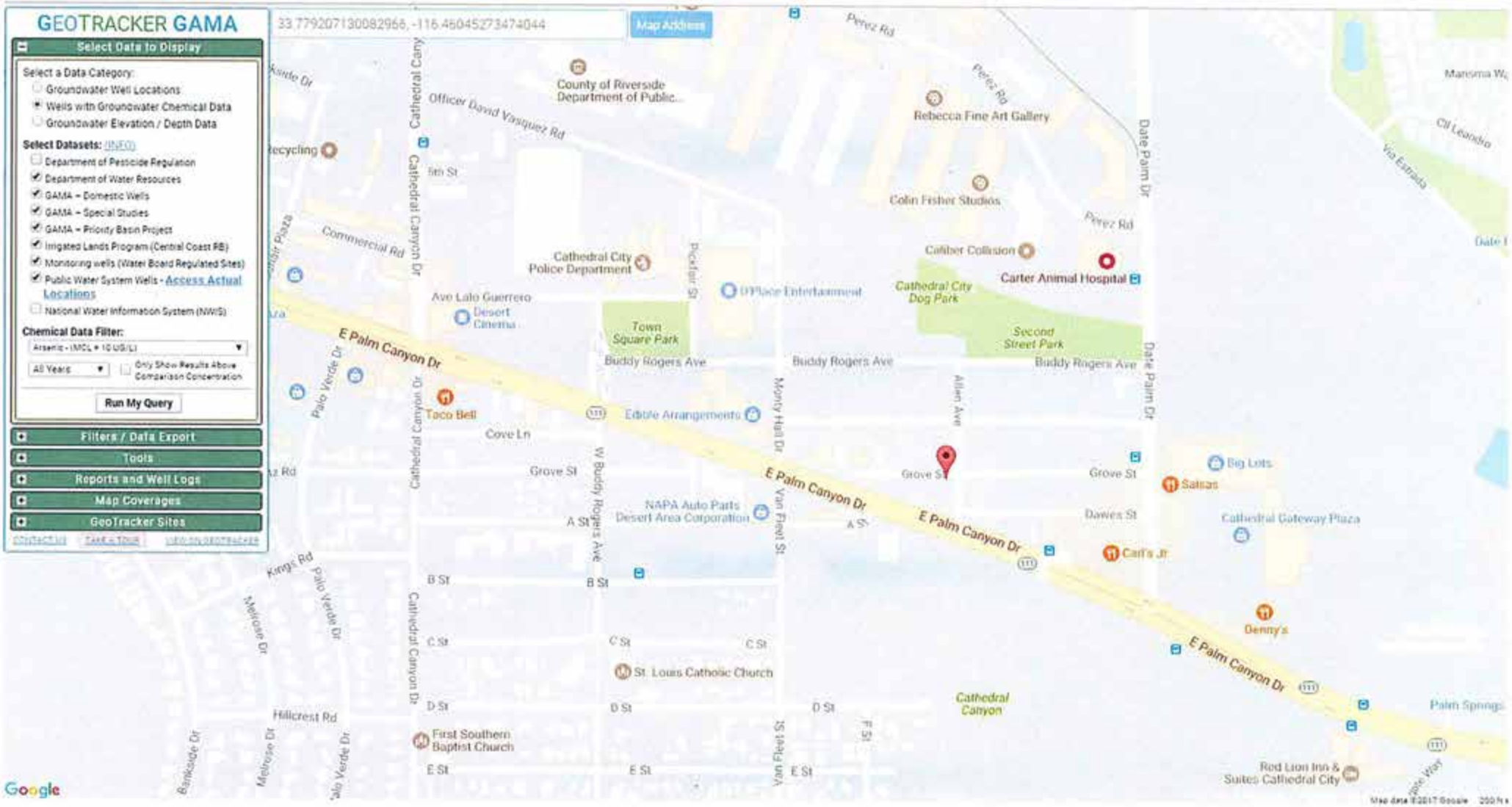
VII LEAK DETECTION
VISUAL STOCK INVENTORY

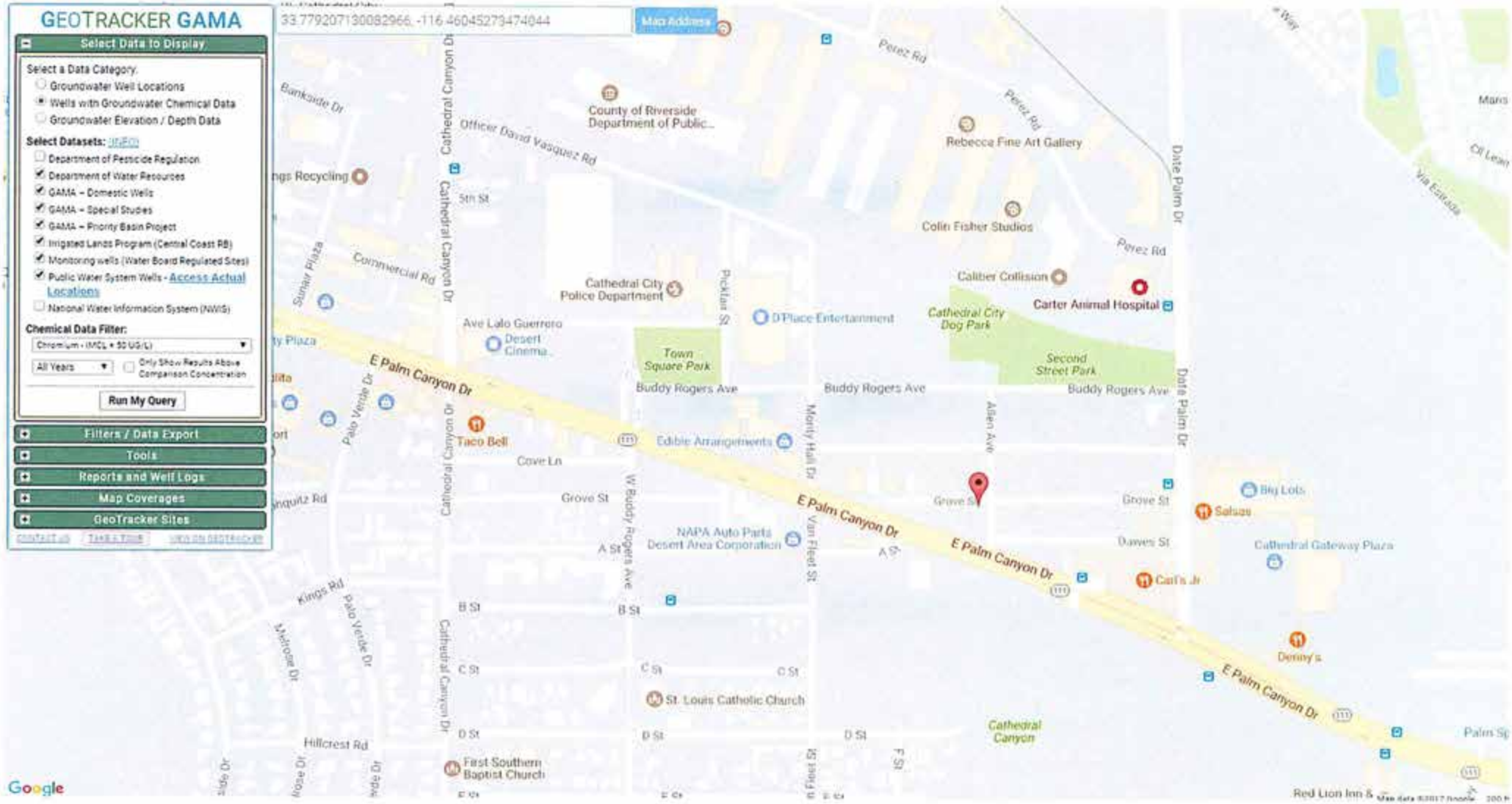
COMPOSITION OF SUBSTANCES CURRENTLY STORED IN CONTAINER
12034 DIESEL MOTOR VEHICLE FUEL

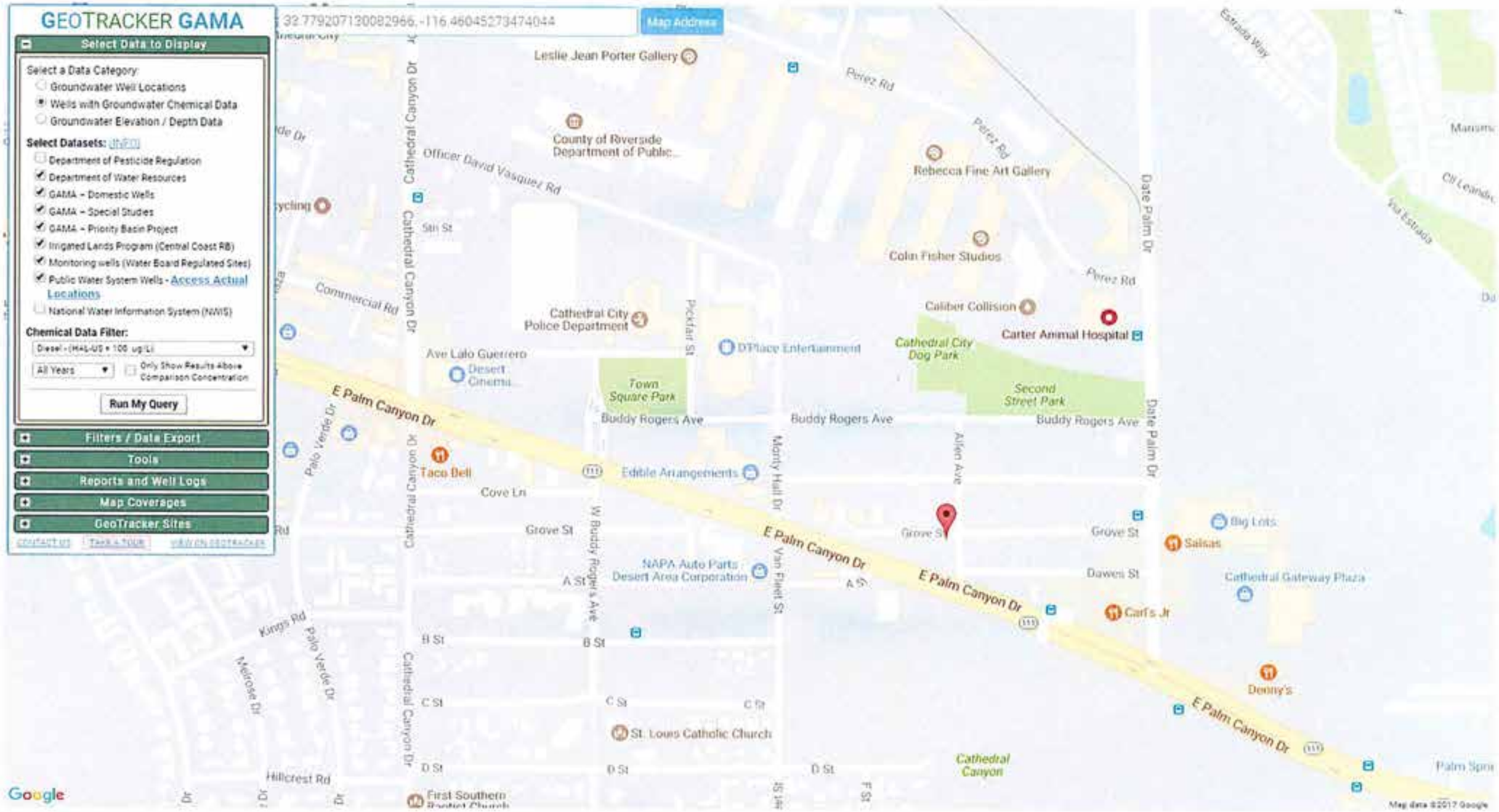
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GEOTRACKER GAMA
Select Data to Display
Select a Data Category:
Groundwater Well Locations
Wells with Groundwater Chemical Data
Groundwater Elevation / Depth Data
Select Datasets: (INFO)
Department of Pesticide Regulation
Department of Water Resources
GAMA – Domestic Wells
GAMA – Special Studies
GAMA – Priority Basin Project
Irrigated Lands Program (Central Coast RB)
Monitoring wells (Water Board Regulated Sites)
Public Water System Wells - Access Actual Locations
National Water Information System (NWIS)
Chemical Data Filter:
Benzene - (MCL = 1 UG/L)
All Years
Only Show Results Above Comparison Concentration
Run My Query
Filters / Data Export
Tools
Reports and Well Logs
Map Coverages
GeoTracker Sites
33.779207130082966, -116.46045273474044
Map Address
CASA TEQUILA
E Cathedral City
Leslie Jean Porter Gallery
Perez Rd
County of Riverside Department of Public...
Officer David Vasquez Rd
Rebecca Fine Art Gallery
Cathedral Canyon Dr
Date Palm Dr
Estrada Way
Via Estrella
Colin Fisher Studios
Caliber Collision
Carter Animal Hospital
Cathedral City Police Department
Cathedral City Dog Park
Second Street Park
Town Square Park
D'Place Entertainment
Ave Lalo Guerrero
Desert Cinema...
Buddy Rogers Ave
Commercial Rd
Sunair Plaza
Palo Verde Dr
E Palm Canyon Dr
Taco Bell
Edible Arrangements
Cove Ln
Grove St
Tahquitz Rd
W Buddy Rogers Ave
Morty Hall Dr
Van Fleet St
Allen Ave
NAPA Auto Parts - Desert Area Corporation
A St
B St
C St
D St
Kings Rd
Melrose Dr
St. Louis Catholic Church
Big Lots
Salsas
Dawes St
Cathedral Gateway Plaza
Carl's Jr
Denny's
Cathedral Canyon
Palm Springs
Google

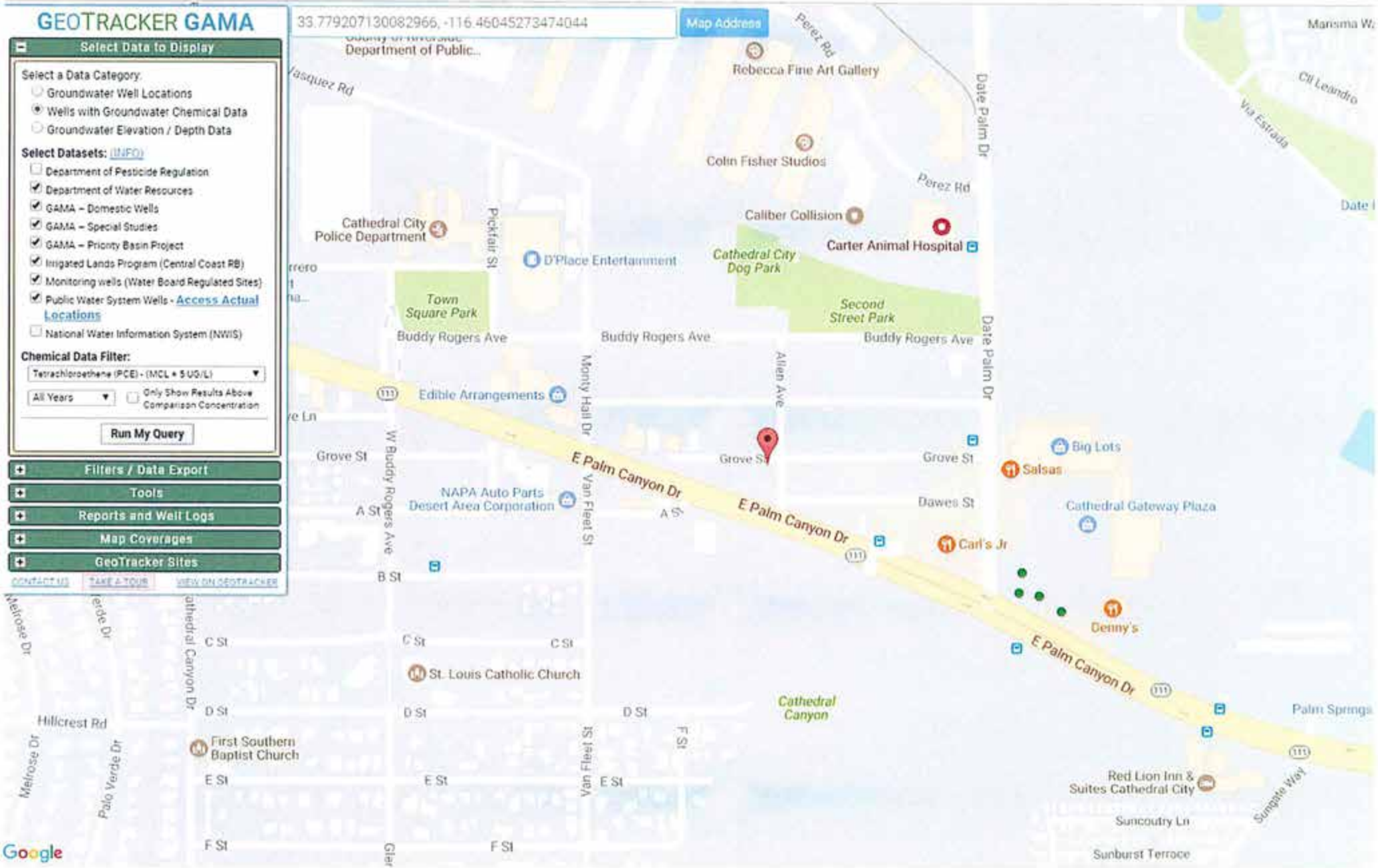

GEOTRACKER GAMA
33.779207130082966, -116.46045273474044
Map Address
Select Data to Display
Select a Data Category
Groundwater Well Locations
Wells with Groundwater Chemical Data
Groundwater Elevation / Depth Data
Select Datasets: (INFO)
Department of Pesticide Regulation
Department of Water Resources
GAMA – Domestic Wells
GAMA – Special Studies
GAMA – Priority Basin Project
Irrigated Lands Program (Central Coast RB)
Monitoring wells (Water Board Regulated Sites)
Public Water System Wells - Access Actual Locations
National Water Information System (NWIS)
Chemical Data Filter:
Gasoline - (MTBE = 5 ug/L)
All Years
Only Show Results Above Comparison Concentration
Run My Query
Filters / Data Export
Tools
Reports and Well Logs
Map Coverages
GeoTracker Sites
CONTACT US
TAKE A TOUR
VIEW ON GEOTRACKER
Leslie Jean Porter Gallery
Perez Rd
Cathedral Canyon Dr
Officer David Vasquez Rd
County of Riverside Department of Public...
Rebecca Fine Art Gallery
Date Palm Dr
Colin Fisher Studios
Caliber Collision
Carter Animal Hospital
Cathedral City Police Department
Pickfair St
D'Place Entertainment
Cathedral City Dog Park
Ave Lalo Guerrero
Desert Cinema...
Town Square Park
Second Street Park
Buddy Rogers Ave
E Palm Canyon Dr
Taco Bell
Edible Arrangements
Cove Ln
Grove St
W Buddy Rogers Ave
Monty Hall Dr
Allen Ave
Van Fleet St
NAPA Auto Parts - Desert Area Corporation
A St
Dawes St
Big Lots
Salsas
Cathedral Gateway Plaza
Carl's Jr
Denny's
Kings Rd
Palo Verde Dr
Melrose Dr
B St
C St
D St
St. Louis Catholic Church
Cathedral Canyon
Hillcrest Rd
First Southern Baptist Church
Google


GEOTRACKER GAMA
33.779207130082966, -116.46045273474044
Map Address
Select Data to Display
Select a Data Category:
Groundwater Well Locations
Wells with Groundwater Chemical Data
Groundwater Elevation / Depth Data
Select Datasets: (INFO)
Department of Pesticide Regulation
Department of Water Resources
GAMA – Domestic Wells
GAMA – Special Studies
GAMA – Priority Basin Project
Irrigated Lands Program (Central Coast RB)
Monitoring wells (Water Board Regulated Sites)
Public Water System Wells - Access Actual Locations
National Water Information System (NWIS)
Chemical Data Filter:
Arsenic - (MCL = 10 UG/L)
All Years
Only Show Results Above Comparison Concentration
Run My Query
Filters / Data Export
Tools
Reports and Well Logs
Map Coverages
GeoTracker Sites
CONTACT US
TAKE A TOUR
LOG IN TO GEOTRACKER
Perez Rd
County of Riverside Department of Public...
Officer David Vasquez Rd
Cathedral Canyon
Rebecca Fine Art Gallery
Date Palm Dr
Colin Fisher Studios
Commercial Rd
Caliber Collision
Carter Animal Hospital
Cathedral City Police Department
Pickfair St
Ave Lalo Guerrero
Desert Cinema
O'Place Entertainment
Cathedral City Dog Park
Town Square Park
Second Street Park
E Palm Canyon Dr
Buddy Rogers Ave
Palo Verde Dr
Taco Bell
Edible Arrangements
Monty Hall Dr
Allen Ave
Cove Ln
Grove St
W Buddy Rogers Ave
NAPA Auto Parts Desert Area Corporation
Van Fleet St
Big Lots
Saksas
Dawes St
Cathedral Gateway Plaza
Carl's Jr
Kings Rd
Melrose Dr
A St
B St
C St
Denny's
St. Louis Catholic Church
D St
Hillcrest Rd
First Southern Baptist Church
Cathedral Canyon
Palm Springs
E St
Red Lion Inn & Suites Cathedral City
Bankside Dr
Melrose Dr
Google
Map data ©2017 Google

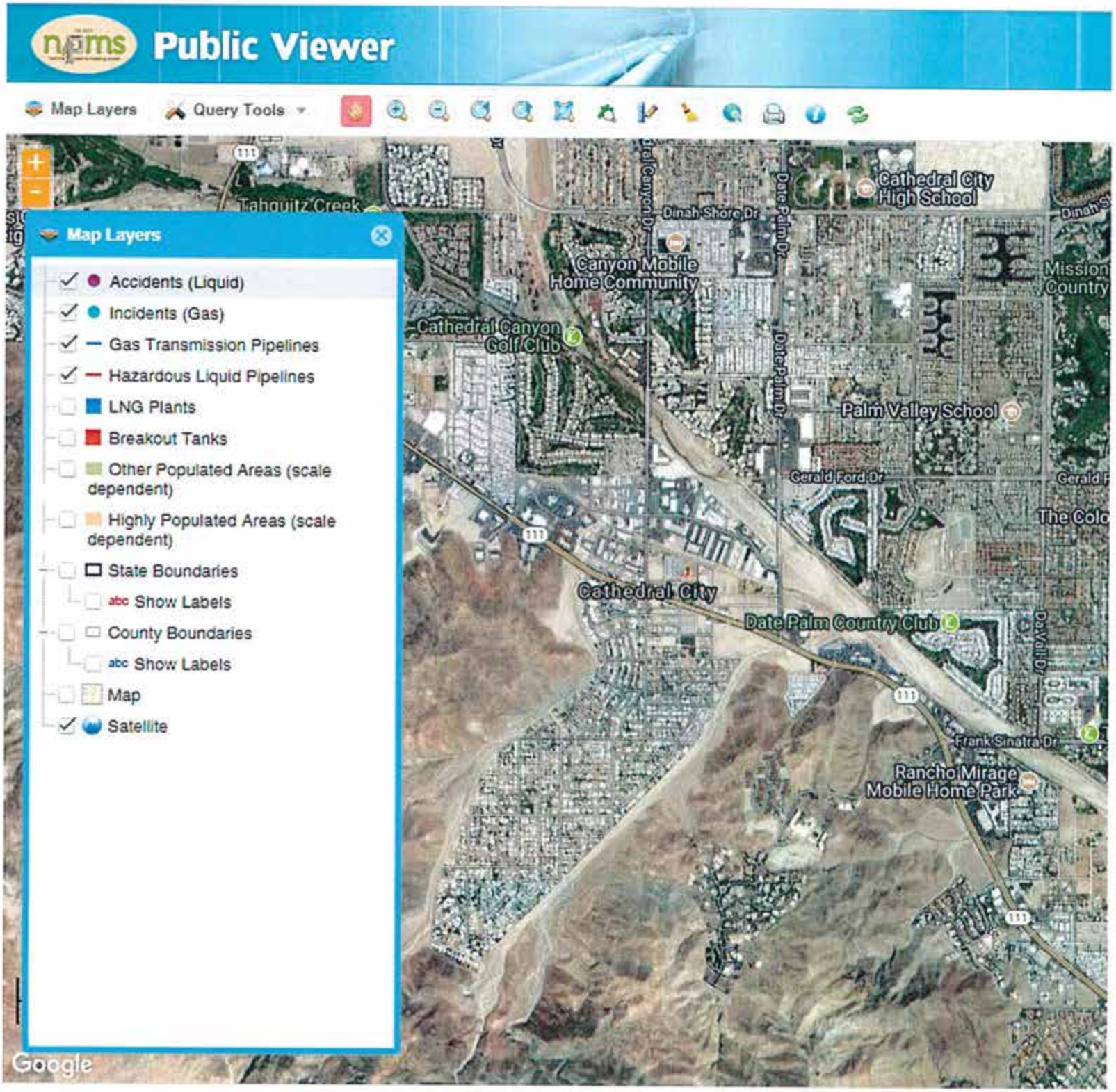

GEOTRACKER GAMA
Select Data to Display
Select a Data Category:
Groundwater Well Locations
Wells with Groundwater Chemical Data
Groundwater Elevation / Depth Data
Select Datasets:
Department of Pesticide Regulation
Department of Water Resources
GAMA – Domestic Wells
GAMA – Special Studies
GAMA – Priority Basin Project
Irrigated Lands Program (Central Coast RB)
Monitoring wells (Water Board Regulated Sites)
Public Water System Wells - Access Actual Locations
National Water Information System (NWIS)
Chemical Data Filter:
Chromium - (MCL + 50 UG/L)
All Years
Only Show Results Above Comparison Concentration
Run My Query
Filters / Data Export
Tools
Reports and Well Logs
Map Coverages
GeoTracker Sites
33.779207130082966, -116.46045279474044
Map Address
E Palm Canyon Dr
Cathedral Canyon Dr
Date Palm Dr
Perez Rd
Buddy Rogers Ave
Grove St
A St
B St
C St
D St
Officer David Vasquez Rd
Commercial Rd
Cove Ln
Hillcrest Rd
Kings Rd
Bankside Dr
Sunair Plaza
Palo Verde Dr
Monroe Dr
Ave Lalo Guerrero
Picklass St
Monty Hall Dr
Van Fleet St
Allen Ave
Dawes St
County of Riverside Department of Public...
Rebecca Fine Art Gallery
Colin Fisher Studios
Caliber Collision
Carter Animal Hospital
Cathedral City Police Department
D'Place Entertainment
Cathedral City Dog Park
Second Street Park
Town Square Park
Desert Cinema
Taco Bell
Edible Arrangements
NAPA Auto Parts Desert Area Corporation
St. Louis Catholic Church
First Southern Baptist Church
Cathedral Canyon
Big Lots
Salsas
Cathedral Gateway Plaza
Carl's Jr
Denny's
Red Lion Inn &
Google

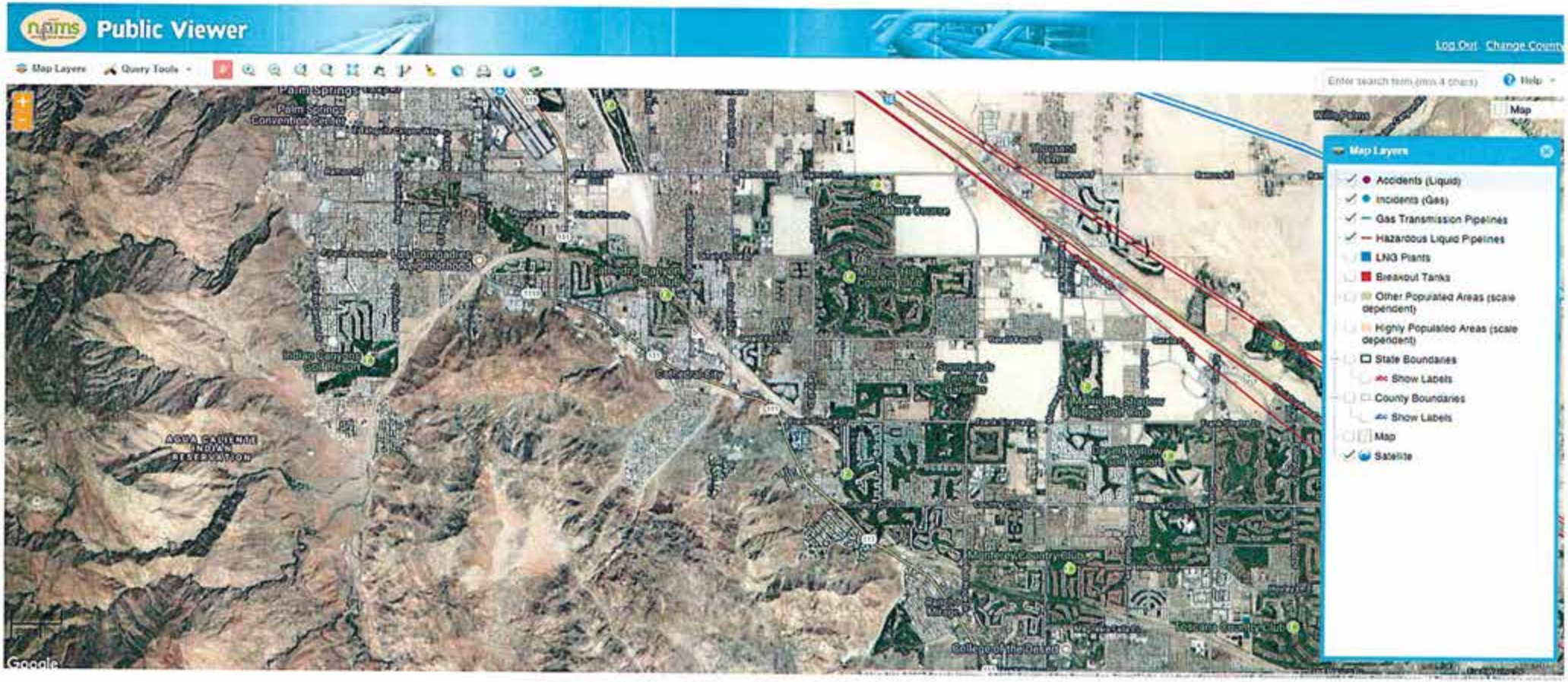

GEOTRACKER GAMA
Select Data to Display
Select a Data Category:
Groundwater Well Locations
Wells with Groundwater Chemical Data
Groundwater Elevation / Depth Data
Select Datasets: (hide)
Department of Pesticide Regulation
Department of Water Resources
GAMA – Domestic Wells
GAMA – Special Studies
GAMA – Priority Basin Project
Irrigated Lands Program (Central Coast RB)
Monitoring wells (Water Board Regulated Sites)
Public Water System Wells - Access Actual Locations
National Water Information System (NWIS)
Chemical Data Filter:
Diesel - (HAL-US = 100 ug/L)
All Years
Only Show Results Above Comparison Concentration
Run My Query
Filters / Data Export
Tools
Reports and Well Logs
Map Coverages
GeoTracker Sites
CONTACT US
TAKE A TOUR
VIEW IN GEOTRACKER
32.779207120082966,-116.46045273474044
Map Address
Leslie Jean Porter Gallery
Perez Rd
County of Riverside Department of Public...
Officer David Vasquez Rd
Rebecca Fine Art Gallery
Date Palm Dr
Colin Fisher Studios
Cathedral Canyon Dr
Commercial Rd
Cathedral City Police Department
Caliber Collision
Carter Animal Hospital
Pickfair St
DPlace Entertainment
Cathedral City Dog Park
Ave Lalo Guerrero
Desert Cinema...
Town Square Park
Second Street Park
E Palm Canyon Dr
Buddy Rogers Ave
Palo Verde Dr
Taco Bell
Edible Arrangements
Monty Hall Dr
Allen Ave
Cove Ln
Grove St
W Buddy Rogers Ave
Van Fleet St
Big Lots
Salsas
NAPA Auto Parts
Desert Area Corporation
Dawes St
Cathedral Gateway Plaza
Carl's Jr
A St
B St
C St
D St
Kings Rd
Melrose Dr
Denny's
St. Louis Catholic Church
Cathedral Canyon
Hillcrest Rd
First Southern
Google


GEOTRACKER GAMA
Select Data to Display
Select a Data Category:
Groundwater Well Locations
Wells with Groundwater Chemical Data
Groundwater Elevation / Depth Data
Select Datasets: (INFO)
Department of Pesticide Regulation
Department of Water Resources
GAMA – Domestic Wells
GAMA – Special Studies
GAMA – Priority Basin Project
Irrigated Lands Program (Central Coast RB)
Monitoring wells (Water Board Regulated Sites)
Public Water System Wells - Access Actual Locations
National Water Information System (NWIS)
Chemical Data Filter:
Trichloroethene (TCE) - (MCL = 5 UG/L)
All Years
Only Show Results Above Comparison Concentration
Run My Query
Filters / Data Export
Tools
Reports and Well Logs
Map Coverages
GeoTracker Sites
CONTACT US
TAKE A TOUR
33.779207130082966, -116.46045273474044
Map Address
County of Riverside Department of Public...
Officer David Vasquez Rd
Perez Rd
Rebecca Fine Art Gallery
Date Palm Dr
Mansma Wa
Cll Leandro
Via Estrada
Date Palm
Via Es
5th St
Colin Fisher Studios
Perez Rd
Cathedral City Police Department
Picklair St
Caliber Collision
Carter Animal Hospital
Ave Lalo Guerrero
Desert Cinema
D'Place Entertainment
Cathedral City Dog Park
Town Square Park
Second Street Park
Buddy Rogers Ave
Buddy Rogers Ave
Buddy Rogers Ave
Taco Bell
Edible Arrangements
Monty Hall Dr
Allen Ave
Cove Ln
Grove St
W Buddy Rogers Ave
Grove St
Grove St
Big Lots
Salsas
E Palm Canyon Dr
E Palm Canyon Dr
NAPA Auto Parts
Desert Area Corporation
A St
A St
Dawes St
Cathedral Gateway Plaza
Carl's Jr
Van Fleet St
B St
B St
Melrose Dr
Palo Verde Dr
Cathedral Canyon Dr
C St
C St
C St
St. Louis Catholic Church
Denny's
E Palm Canyon Dr
Cathedral Canyon
D St
D St
D St
Hillcrest Rd
Bankside Dr
Melrose Dr
Palo Verde Dr
First Southern Baptist Church
F St
Van Fleet St
E St
E St
E St
Palm Springs Mote
Red Lion Inn & Suites Cathedral City
Suncountry Ln
Sunrise Way
Google


GEOTRACKER GAMA
33.779207130082966, -116.46045273474044
Map Address
Select Data to Display
Select a Data Category:
Groundwater Well Locations
Wells with Groundwater Chemical Data
Groundwater Elevation / Depth Data
Select Datasets: (INFO)
Department of Pesticide Regulation
Department of Water Resources
GAMA – Domestic Wells
GAMA – Special Studies
GAMA – Priority Basin Project
Irrigated Lands Program (Central Coast RB)
Monitoring wells (Water Board Regulated Sites)
Public Water System Wells - Access Actual Locations
National Water Information System (NWIS)
Chemical Data Filter:
Tetrachloroethene (PCE) - (MCL = 5 UG/L)
All Years
Only Show Results Above Comparison Concentration
Run My Query
Filters / Data Export
Tools
Reports and Well Logs
Map Coverages
GeoTracker Sites
CONTACT US
TAKE A TOUR
VIEW ON GEOTRACKER
Department of Public...
Rebecca Fine Art Gallery
Perez Rd
Date Palm Dr
Vasquez Rd
Colin Fisher Studios
Caliber Collision
Carter Animal Hospital
Cathedral City Police Department
Picktair St
D'Place Entertainment
Cathedral City Dog Park
Town Square Park
Second Street Park
Buddy Rogers Ave
Monty Hall Dr
Allen Ave
Edible Arrangements
Grove St
W Buddy Rogers Ave
Van Fleet St
E Palm Canyon Dr
NAPA Auto Parts
Desert Area Corporation
A St
B St
C St
D St
F St
Dawes St
Big Lots
Salsas
Cathedral Gateway Plaza
Carl's Jr
Denny's
St. Louis Catholic Church
Cathedral Canyon
Hillcrest Rd
First Southern Baptist Church
Melrose Dr
Palo Verde Dr
Cathedral Canyon Dr
Palm Springs
Red Lion Inn & Suites Cathedral City
Suncoudry Ln
Sunburst Terrace
Sunrise Way
Via Estrada
Cll Leandro
Google


ENVIROSTOR
CLEANUP SITES
Federal Superfund
State Response
Voluntary Cleanup
School Cleanup
Evaluation
School Investigation
Military Evaluation
Tiered Permit
Corrective Action
PERMITTED SITES
Operating
Post-Closure
Non-Operating
OTHER SITES
GeoTracker LUST
GeoTracker SLIC
Vons
E Palm Canyon Dr
Target
Trader Joe's
Canyon Plaza Shopping Center
Tramview Mobile Home Park
Welk Resorts Palm Springs, Desert Oasis
Canyon Shores Condominium
Cathedral Palms RV Resort
Burlington Coat Factory
Palm Valley School
The Colony
SUNTOWN
Cathedral City
Date Palm Country Club
Cathedral Canyon
Emperor Buffet
Tamarisk Country Club
Villas of Mirada
Rancho Mirage Mobile Home Park
Desert Braemar
Murray Hill


Public Viewer
Map Layers
Query Tools
Map Layers
Accidents (Liquid)
Incidents (Gas)
Gas Transmission Pipelines
Hazardous Liquid Pipelines
LNG Plants
Breakout Tanks
Other Populated Areas (scale dependent)
Highly Populated Areas (scale dependent)
State Boundaries
Show Labels
County Boundaries
Show Labels
Map
Satellite
Tahquitz Creek
Dinah Shore Dr
Canyon Mobile Home Community
Cathedral Canyon Golf Club
Cathedral City High School
Palm Valley School
Gerald Ford Dr
Cathedral City
Date Palm Country Club
Frank Sinatra Dr
Rancho Mirage Mobile Home Park
Google


Public Viewer
Log Out
Change County
Map Layers
Query Tools
Help
Map
Map Layers
Accidents (Liquid)
Incidents (Gas)
Gas Transmission Pipelines
Hazardous Liquid Pipelines
LNG Plants
Breakout Tanks
Other Populated Areas (scale dependent)
Highly Populated Areas (scale dependent)
State Boundaries
Show Labels
County Boundaries
Show Labels
Map
Satellite
Palm Springs
Palm Springs Convention Center
Los Compadres Neighborhood
Indian Canyon Golf Resort
AGUA CALIENTE INDIAN RESERVATION
Google

APPENDIX C

EDR HISTORICAL REPORTS

PETRA

Agua Caliente Band of Cahuilla Indian
NWC Highway 111 and Date Palm Drive
Cathedral City, CA 92234

Inquiry Number: 04977808.2r
June 26, 2017

The EDR Radius Map™ Report with GeoCheck®

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

TABLE OF CONTENTS

SECTION	PAGE
Executive Summary	ES1
Overview Map	2
Detail Map	3
Map Findings Summary	4
Map Findings	8
Orphan Summary	89
Government Records Searched/Data Currency Tracking	GR-1

GEOCHECK ADDENDUM

Physical Setting Source Addendum	A-1
Physical Setting Source Summary	A-2
Physical Setting SSURGO Soil Map	A-5
Physical Setting Source Map	A-11
Physical Setting Source Map Findings	A-13
Physical Setting Source Records Searched	PSGR-1

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-13) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

TARGET PROPERTY INFORMATION

ADDRESS

NWC HIGHWAY 111 AND DATE PALM DRIVE
CATHEDRAL CITY, CA 92234

COORDINATES

Latitude (North):	33.7795140 - 33° 46' 46.25''
Longitude (West):	116.4600870 - 116° 27' 36.31''
Universal Tranverse Mercator:	Zone 11
UTM X (Meters):	549989.6
UTM Y (Meters):	3737646.5
Elevation:	304 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map:	5639316 CATHEDRAL CITY, CA
Version Date:	2012

AERIAL PHOTOGRAPHY IN THIS REPORT

Portions of Photo from:	20140521
Source:	USDA

MAPPED SITES SUMMARY

Target Property Address:
NWC HIGHWAY 111 AND DATE PALM DRIVE
CATHEDRAL CITY, CA 92234

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
Reg	AGUA CALIENTE INDIAN		INDIAN RESERV	Same	1 ft.
A1	CATHEDRAL CITY FIRE	36913 DATE PALM DR	HAZNET	Lower	1 ft.
B2	CARL'S JR #724	68980 E PALM CANYON	FINDS	Lower	1 ft.
A3	CATHEDRAL CITY/CITY	36913 DATE PALM DR	FINDS	Lower	1 ft.
A4	CATHEDRAL CITY FIRE	36913 DATE PALM	HAZNET	Lower	1 ft.
A5	CATHEDRAL CITY FIRE	36913 DATE PALM DR	SWEEPS UST, CA FID UST	Lower	1 ft.
C6	TRI MILLENIUM	68901 GROVE ST	HAZNET	Higher	1 ft.
A7	CATHEDRAL CITY FIRE	36913 DATE PALM DR	HAZNET	Lower	1 ft.
A8	CATHEDRAL CITY 34	36-913 DATE PALM	HIST UST	Lower	1 ft.
A9	CITY CATHEDRAL CITY/	36913 DATE PALM	HAZNET	Lower	1 ft.
A10	MULTI-COMMERCIAL UNI	37111 DATE PALM DR	HAZNET	Lower	1 ft.
C11	PS 9	68830 HWY 111	HIST UST	Higher	12, 0.002, WSW
C12	PALM SPRINGS OIL	68830 HWY 111	EDR Hist Auto	Higher	12, 0.002, WSW
C13	PALM SPRINGS OIL #9	68830 111	LUST, SWEEPS UST, HIST CORTESE	Higher	12, 0.002, WSW
C14	PALM SPRINGS OIL #9	68830 HWY 111	RCRA-SQG, LUST, FINDS, ECHO	Higher	12, 0.002, WSW
C15	PALM SPRINGS OIL #9	68830 HIGHWAY 111	SWEEPS UST, CA FID UST	Higher	12, 0.002, WSW
D16	PYLES ROBERT	68904-96 HWY 111	EDR Hist Auto	Higher	76, 0.014, SSE
B17	SHELL STATION	69010 111	LUST, HIST CORTESE	Lower	113, 0.021, SE
B18	SHELL STATION	69010 HIGHWAY 111	LUST	Lower	113, 0.021, SE
B19	SAYLOR HARRY C	69010 HWY 111	EDR Hist Auto	Lower	113, 0.021, SE
B20	SHELL SERVICE STATIO	69010 HWY 111	RCRA-SQG, FINDS, ECHO, HAZNET	Lower	113, 0.021, SE
B21	CATHEDRAL CITY SHELL	69010 E PALM CANYON	EDR Hist Auto	Lower	113, 0.021, SE
B22	SHELL OIL SERVICE ST	69010 HWY 111 @ DATE	Notify 65	Lower	113, 0.021, SE
B23	CATHEDRAL CITY OIL (	69010 HWY 111	INDIAN LUST, INDIAN UST	Lower	113, 0.021, SE
B24	SHELL STATION	69010 E PALM CANYON	SWEEPS UST, CA FID UST	Lower	113, 0.021, SE
B25	CATHEDRAL CITY SHELL	69010 HWY 111	UST	Lower	113, 0.021, SE
C26	SHELL SWIFT STOP	68869 E PALM CANYON	EDR Hist Auto	Higher	167, 0.032, South
C27	WORLD OIL STATION #7	68869 HWY 111	LUST	Higher	167, 0.032, South
C28	WORLD OIL CO	68869 BROADWAY	RCRA-SQG, LUST, SWEEPS UST, HIST UST, CA FID UST,...	Higher	167, 0.032, South
C29	ROUTE 66 RIDERS INC	68885 E PALM CANYON	EDR Hist Auto	Higher	192, 0.036, SSE
E30	DESERT JEWELRY MART	68783 E PALM CANYON	EDR Hist Auto	Higher	198, 0.038, WSW
E31	OLIVER & WINSTON INC	68759 E US HWY 111	EDR Hist Auto	Higher	225, 0.043, WSW
D32	IMMEDIATE CARE AUTO	68900 B ST	EDR Hist Auto	Higher	225, 0.043, South
E33	PALM SPRINGS TIRE &	68759 E PALM CANYON	EDR Hist Auto	Higher	278, 0.053, WSW
F34	SUPER CLEAN	69040 E PALM CANYON	DRYCLEANERS	Lower	324, 0.061, SE
F35	SUPER CLEANERS	69040 E PALM CANYON	EDR Hist Cleaner	Lower	324, 0.061, SE
36	CATHEDRAL CITY AUTO	68733 HWY 111	EDR Hist Auto	Higher	503, 0.095, West
G37	CHEVRON #9-3045	68630 E PALM CANYON	LUST	Higher	883, 0.167, West
G38	CHEVRON STATION #9-3	68630 EAST PALM CANY	LUST, HIST CORTESE	Higher	883, 0.167, West

MAPPED SITES SUMMARY

Target Property Address:
NWC HIGHWAY 111 AND DATE PALM DRIVE
CATHEDRAL CITY, CA 92234

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
G39	93045	68-630 E PALM CANYON	HIST UST	Higher	883, 0.167, West
G40	CHEVRON #93045	68630 E PALM CANYON	SWEEPS UST, CA FID UST	Higher	883, 0.167, West
G41	BEEP-BEEP LUBE & TUN	68635 HIGHWAY 111	SWEEPS UST, CA FID UST	Higher	938, 0.178, West
42	SUNGATE MOBILE HOME	69333 EAST PALM CANY	SEMS	Higher	1102, 0.209, SE
H43	PALM SPRINGS MOTORS	69-200 HY 111	RCRA-SQG, HIST UST	Lower	1210, 0.229, ESE
H44	PALM SPRINGS MOTORS	69 200 HWY 111	HIST UST, RCRA NonGen / NLR	Lower	1210, 0.229, ESE
45	DUNN-EDWARDS CORPORA	68-713 PEREZ ROAD SU	RCRA-SQG, FINDS, ECHO, HAZNET	Higher	1231, 0.233, North
46	PALM SPINGS MITSUBIS	68703 PEREZ RD	RCRA-SQG	Lower	1316, 0.249, NW
47	BEST CLEANERS	68600 HIGHWAY 111	RCRA-SQG, FINDS, ECHO, HAZNET	Higher	1318, 0.250, West
I48	PALM SPRINGS FORD	69200 111	LUST, HIST CORTESE	Lower	1578, 0.299, ESE
I49	PALM SPRINGS FORD MO	69200 HIGHWAY 111	LUST	Lower	1578, 0.299, ESE
J50	CIRCLE K #333	37040 CATHEDRAL CANY	LUST	Higher	1604, 0.304, West
J51	CIRCLE K # 333	37040 CATHEDRAL CNYN	LUST, HIST CORTESE	Higher	1604, 0.304, West
J52	R D PARKER SERVICES	36650 A CATHEDRAL CA	LUST	Higher	1663, 0.315, West
K53	R D PARKER SERVICE C	36650 CATHEDRAL CANY	LUST	Lower	1759, 0.333, WNW
K54	R D PARKER SERVICES	36650 CATHEDRAL CANY	LUST	Lower	1759, 0.333, WNW
K55	R. D. PARKER SERVICE	36650 A CATHEDRAL CN	HIST CORTESE	Lower	1845, 0.349, WNW
L56	FAMILIAN PIPE & SUPP	36283 PLAZA	HIST UST, HIST CORTESE	Higher	1972, 0.373, NNW
L57	FAMILIAN PIPE & SUPP	36283 PLAZA DRIVE	LUST	Higher	1972, 0.373, NNW
58	COCA COLA ENTERPRISE	68600 PEREZ ROAD	LUST, CHMIRS, HAZNET, HIST CORTESE	Lower	1999, 0.379, NW
59	PALM SPRINGS RECYCLI	36630 SUNAIR PLZ	SWRCY, NPDES, WDS	Lower	2113, 0.400, WNW
M60	OLESEN, KAY	68384 111	LUST, HIST CORTESE	Higher	2248, 0.426, WNW
M61	OLESEN KAY	68384 HIGHWAY 111	LUST	Higher	2248, 0.426, WNW
62	CATHEDRAL CITY ELEME	CONVERSE ROAD/PLUMLE	ENVIROSTOR, SCH	Lower	4279, 0.810, NNE
63	COCA-COLA ENTERPRISE	68-600 PEREZ	Notify 65	Higher	4601, 0.871, WNW

EXECUTIVE SUMMARY

TARGET PROPERTY SEARCH RESULTS

The target property was not listed in any of the databases searched by EDR.

DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the search radius around the target property for the following databases:

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL ---------- National Priority List
Proposed NPL ---------- Proposed National Priority List Sites
NPL LIENS ---------- Federal Superfund Liens

Federal Delisted NPL site list

Delisted NPL ---------- National Priority List Deletions

Federal CERCLIS list

FEDERAL FACILITY ---------- Federal Facility Site Information listing

Federal CERCLIS NFRAP site list

SEMS-ARCHIVE ---------- Superfund Enterprise Management System Archive

Federal RCRA CORRACTS facilities list

CORRACTS ---------- Corrective Action Report

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF ---------- RCRA - Treatment, Storage and Disposal

Federal RCRA generators list

RCRA-LQG ---------- RCRA - Large Quantity Generators
RCRA-CESQG ---------- RCRA - Conditionally Exempt Small Quantity Generator

Federal institutional controls / engineering controls registries

LUCIS ---------- Land Use Control Information System
US ENG CONTROLS ---------- Engineering Controls Sites List
US INST CONTROL ---------- Sites with Institutional Controls

Federal ERNS list

ERNS ---------- Emergency Response Notification System

EXECUTIVE SUMMARY

State- and tribal - equivalent NPL

RESPONSE ---------- State Response Sites

State and tribal landfill and/or solid waste disposal site lists

SWF/LF ---------- Solid Waste Information System

State and tribal leaking storage tank lists

SLIC ---------- Statewide SLIC Cases

State and tribal registered storage tank lists

FEMA UST ---------- Underground Storage Tank Listing
AST ---------- Aboveground Petroleum Storage Tank Facilities

State and tribal voluntary cleanup sites

INDIAN VCP ---------- Voluntary Cleanup Priority Listing
VCP ---------- Voluntary Cleanup Program Properties

State and tribal Brownfields sites

BROWNFIELDS ---------- Considered Brownfieds Sites Listing

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS ---------- A Listing of Brownfields Sites

Local Lists of Landfill / Solid Waste Disposal Sites

WMUDS/SWAT ---------- Waste Management Unit Database
HAULERS ---------- Registered Waste Tire Haulers Listing
INDIAN ODI ---------- Report on the Status of Open Dumps on Indian Lands
DEBRIS REGION 9 ---------- Torres Martinez Reservation Illegal Dump Site Locations
ODI ---------- Open Dump Inventory
IHS OPEN DUMPS ---------- Open Dumps on Indian Land

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL ---------- Delisted National Clandestine Laboratory Register
HIST Cal-Sites ---------- Historical Calsites Database
SCH ---------- School Property Evaluation Program
CDL ---------- Clandestine Drug Labs
Toxic Pits ---------- Toxic Pits Cleanup Act Sites
US CDL ---------- National Clandestine Laboratory Register

Local Land Records

LIENS ---------- Environmental Liens Listing

LIENS 2	CERCLA Lien Information
DEED	Deed Restriction Listing

Records of Emergency Release Reports

HMIRS	Hazardous Materials Information Reporting System
CHMIRS	California Hazardous Material Incident Report System
LDS	Land Disposal Sites Listing
MCS	Military Cleanup Sites Listing
SPILLS 90	SPILLS 90 data from FirstSearch

Other Ascertainable Records

FUDS	Formerly Used Defense Sites
DOD	Department of Defense Sites
SCRD DRYCLEANERS	State Coalition for Remediation of Drycleaners Listing
US FIN ASSUR	Financial Assurance Information
EPA WATCH LIST	EPA WATCH LIST
2020 COR ACTION	2020 Corrective Action Program List
TSCA	Toxic Substances Control Act
TRIS	Toxic Chemical Release Inventory System
SSTS	Section 7 Tracking Systems
ROD	Records Of Decision
RMP	Risk Management Plans
RAATS	RCRA Administrative Action Tracking System
PRP	Potentially Responsible Parties
PADS	PCB Activity Database System
ICIS	Integrated Compliance Information System
FTTS	FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
MLTS	Material Licensing Tracking System
COAL ASH DOE	Steam-Electric Plant Operation Data
COAL ASH EPA	Coal Combustion Residues Surface Impoundments List
PCB TRANSFORMER	PCB Transformer Registration Database
RADINFO	Radiation Information Database
HIST FTTS	FIFRA/TSCA Tracking System Administrative Case Listing
DOT OPS	Incident and Accident Data
CONSENT	Superfund (CERCLA) Consent Decrees
FUSRAP	Formerly Utilized Sites Remedial Action Program
UMTRA	Uranium Mill Tailings Sites
LEAD SMELTERS	Lead Smelter Sites
US AIRS	Aerometric Information Retrieval System Facility Subsystem
US MINES	Mines Master Index File
ABANDONED MINES	Abandoned Mines
UXO	Unexploded Ordnance Sites
ECHO	Enforcement & Compliance History Information
DOCKET HWC	Hazardous Waste Compliance Docket Listing
FUELS PROGRAM	EPA Fuels Program Registered Listing
CA BOND EXP. PLAN	Bond Expenditure Plan
Cortese	"Cortese" Hazardous Waste & Substances Sites List
CUPA Listings	CUPA Resources List
EMI	Emissions Inventory Data
ENF	Enforcement Action Listing
Financial Assurance	Financial Assurance Information Listing
ICE	ICE

HWP ---------- EnviroStor Permitted Facilities Listing
HWT ---------- Registered Hazardous Waste Transporter Database
MINES ---------- Mines Site Location Listing
MWMP ---------- Medical Waste Management Program Listing
NPDES ---------- NPDES Permits Listing
PEST LIC ---------- Pesticide Regulation Licenses Listing
PROC ---------- Certified Processors Database
UIC ---------- UIC Listing
WASTEWATER PITS ---------- Oil Wastewater Pits Listing
WDS ---------- Waste Discharge System
WIP ---------- Well Investigation Program Case List

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP ---------- EDR Proprietary Manufactured Gas Plants

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA LF ---------- Recovered Government Archive Solid Waste Facilities List
RGA LUST ---------- Recovered Government Archive Leaking Underground Storage Tank

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified in the following databases.

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property.
Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

STANDARD ENVIRONMENTAL RECORDS

Federal CERCLIS list

SEMS: SEMS (Superfund Enterprise Management System) tracks hazardous waste sites, potentially hazardous waste sites, and remedial activities performed in support of EPA's Superfund Program across the United States. The list was formerly know as CERCLIS, renamed to SEMS by the EPA in 2015. The list contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). This dataset also contains sites which are either proposed to or on the National Priorities List (NPL) and the sites which are in the screening and assessment phase for possible inclusion on the NPL.

A review of the SEMS list, as provided by EDR, and dated 02/07/2017 has revealed that there is 1 SEMS

site within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
SUNGATE MOBILE HOME	69333 EAST PALM CANY	SE 1/8 - 1/4 (0.209 mi.)	42	57

Federal RCRA generators list

RCRA-SQG: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

A review of the RCRA-SQG list, as provided by EDR, and dated 12/12/2016 has revealed that there are 7 RCRA-SQG sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
PALM SPRINGS OIL #9	***68830 HWY 111***	***WSW 0 - 1/8 (0.002 mi.)***	***C14***	***20***
WORLD OIL CO	***68869 BROADWAY***	***S 0 - 1/8 (0.032 mi.)***	***C28***	***40***
DUNN-EDWARDS CORPORA	***68-713 PEREZ ROAD SU***	***N 1/8 - 1/4 (0.233 mi.)***	***45***	***60***
BEST CLEANERS	***68600 HIGHWAY 111***	***W 1/8 - 1/4 (0.250 mi.)***	***47***	***64***
Lower Elevation	**Address**	**Direction / Distance**	**Map ID**	**Page**
SHELL SERVICE STATIO	***69010 HWY 111***	***SE 0 - 1/8 (0.021 mi.)***	***B20***	***32***
PALM SPRINGS MOTORS	***69-200 HY 111***	***ESE 1/8 - 1/4 (0.229 mi.)***	***H43***	***57***
PALM SPINGS MITSUBIS	68703 PEREZ RD	NW 1/8 - 1/4 (0.249 mi.)	46	63

State- and tribal - equivalent CERCLIS

ENVIROSTOR: The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifes sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

A review of the ENVIROSTOR list, as provided by EDR, and dated 01/30/2017 has revealed that there is 1 ENVIROSTOR site within approximately 1 mile of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
CATHEDRAL CITY ELEME	***CONVERSE ROAD/PLUMLE***	***NNE 1/2 - 1 (0.810 mi.)***	***62***	***86***
Facility Id: 33010009				
Status: No Action Required				

EXECUTIVE SUMMARY

State and tribal leaking storage tank lists

LUST: Leaking Underground Storage Tank (LUST) Sites included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

A review of the LUST list, as provided by EDR, has revealed that there are 19 LUST sites within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
PALM SPRINGS OIL #9	***68830 111***	***WSW 0 - 1/8 (0.002 mi.)***	***C13***	***16***
Database: RIVERSIDE CO. LUST, Date of Government Version: 04/18/2017 Database: LUST, Date of Government Version: 03/13/2017 Status: Completed - Case Closed Facility Id: 9915711 Global Id: T0606500929 Facility Status: 9				
PALM SPRINGS OIL #9	***68830 HWY 111***	***WSW 0 - 1/8 (0.002 mi.)***	***C14***	***20***
Database: LUST REG 7, Date of Government Version: 02/26/2004 Status: 7 - Remedial Action Underway Global ID: T0606500929				
WORLD OIL STATION #7	68869 HWY 111	S 0 - 1/8 (0.032 mi.)	C27	39
Database: RIVERSIDE CO. LUST, Date of Government Version: 04/18/2017 Facility Id: 95704 Facility Status: 9				
WORLD OIL CO	***68869 BROADWAY***	***S 0 - 1/8 (0.032 mi.)***	***C28***	***40***
Database: LUST REG 7, Date of Government Version: 02/26/2004 Database: LUST, Date of Government Version: 03/13/2017 Status: Completed - Case Closed Status: 9 - Case Closed Global Id: T0606500919 Global ID: T0606500919				
CHEVRON #9-3045	68630 E PALM CANYON	W 1/8 - 1/4 (0.167 mi.)	G37	50
Database: RIVERSIDE CO. LUST, Date of Government Version: 04/18/2017 Facility Id: 90960 Facility Status: 9				
CHEVRON STATION #9-3	***68630 EAST PALM CANY***	***W 1/8 - 1/4 (0.167 mi.)***	***G38***	***50***
Database: LUST REG 7, Date of Government Version: 02/26/2004 Database: LUST, Date of Government Version: 03/13/2017 Status: Completed - Case Closed Status: 9 - Case Closed Global Id: T0606500913 Global ID: T0606500913				
CIRCLE K #333	37040 CATHEDRAL CANY	W 1/4 - 1/2 (0.304 mi.)	J50	69
Database: LUST, Date of Government Version: 03/13/2017 Status: Completed - Case Closed Global Id: T0606500927				
CIRCLE K # 333	***37040 CATHEDRAL CNYN***	***W 1/4 - 1/2 (0.304 mi.)***	***J51***	***71***
Database: RIVERSIDE CO. LUST, Date of Government Version: 04/18/2017 Database: LUST REG 7, Date of Government Version: 02/26/2004 Status: 9 - Case Closed Facility Id: 9915384				

Facility Status: 9
Global ID: T0606500927

R D PARKER SERVICES | 36650 A CATHEDRAL CA | W 1/4 - 1/2 (0.315 mi.) | J52 | 71
Database: LUST REG 7, Date of Government Version: 02/26/2004
Status: 9 - Case Closed
Global ID: T0606500914

FAMILIAN PIPE & SUPP | 36283 PLAZA DRIVE | NNW 1/4 - 1/2 (0.373 mi.) | L57 | 74
Database: LUST REG 7, Date of Government Version: 02/26/2004
Database: LUST, Date of Government Version: 03/13/2017
Status: Completed - Case Closed
Status: 9 - Case Closed
Global Id: T0606500909
Global ID: T0606500909

OLESEN, KAY | ***68384 111*** | ***WNW 1/4 - 1/2 (0.426 mi.)*** | ***M60*** | ***84***
Database: RIVERSIDE CO. LUST, Date of Government Version: 04/18/2017
Database: LUST, Date of Government Version: 03/13/2017
Status: Completed - Case Closed
Facility Id: 88825
Global Id: T0606500908
Facility Status: 9

OLESEN KAY | 68384 HIGHWAY 111 | WNW 1/4 - 1/2 (0.426 mi.) | M61 | 86
Database: LUST REG 7, Date of Government Version: 02/26/2004
Status: 9 - Case Closed
Global ID: T0606500908

Lower Elevation	Address	Direction / Distance	Map ID	Page

SHELL STATION | ***69010 111*** | ***SE 0 - 1/8 (0.021 mi.)*** | ***B17*** | ***24***
Database: RIVERSIDE CO. LUST, Date of Government Version: 04/18/2017
Database: LUST, Date of Government Version: 03/13/2017
Status: Completed - Case Closed
Facility Id: 200420469
Facility Id: 89936
Global Id: T0606512976
Global Id: T0606500910
Facility Status: 9

SHELL STATION | 69010 HIGHWAY 111 | SE 0 - 1/8 (0.021 mi.) | B18 | 31
Database: LUST REG 7, Date of Government Version: 02/26/2004
Status: 9 - Case Closed
Global ID: T0606500910

PALM SPRINGS FORD | ***69200 111*** | ***ESE 1/4 - 1/2 (0.299 mi.)*** | ***I48*** | ***67***
Database: RIVERSIDE CO. LUST, Date of Government Version: 04/18/2017
Database: LUST, Date of Government Version: 03/13/2017
Status: Completed - Case Closed
Facility Id: 94180
Global Id: T0606500917
Facility Status: 9

PALM SPRINGS FORD MO | 69200 HIGHWAY 111 | ESE 1/4 - 1/2 (0.299 mi.) | I49 | 69
Database: LUST REG 7, Date of Government Version: 02/26/2004
Status: 9 - Case Closed
Global ID: T0606500917

R D PARKER SERVICE C | 36650 CATHEDRAL CANY | WNW 1/4 - 1/2 (0.333 mi.) | K53 | 72
Database: RIVERSIDE CO. LUST, Date of Government Version: 04/18/2017

Facility Id: 91233
Facility Status: 9

R D PARKER SERVICES	36650 CATHEDRAL CANY	WNW 1/4 - 1/2 (0.333 mi.)	K54	72

Database: LUST, Date of Government Version: 03/13/2017
Status: Completed - Case Closed
Global Id: T0606500914

COCA COLA ENTERPRISE	***68600 PEREZ ROAD***	***NW 1/4 - 1/2 (0.379 mi.)***	***58***	***76***

Database: RIVERSIDE CO. LUST, Date of Government Version: 04/18/2017
Database: LUST REG 7, Date of Government Version: 02/26/2004
Database: LUST, Date of Government Version: 03/13/2017
Status: Completed - Case Closed
Status: 9 - Case Closed
Facility Id: 89830
Global Id: T0606500911
Facility Status: 9
Global ID: T0606500911

INDIAN LUST: A listing of leaking underground storage tank locations on Indian Land.

A review of the INDIAN LUST list, as provided by EDR, has revealed that there is 1 INDIAN LUST site within approximately 0.5 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
CATHEDRAL CITY OIL (	***69010 HWY 111***	***SE 0 - 1/8 (0.021 mi.)***	***B23***	***36***

Database: INDIAN LUST R9, Date of Government Version: 10/06/2016

State and tribal registered storage tank lists

UST: The Underground Storage Tank database contains registered USTs. USTs are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA). The data come from the State Water Resources Control Board's Hazardous Substance Storage Container Database.

A review of the UST list, as provided by EDR, has revealed that there is 1 UST site within approximately 0.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
CATHEDRAL CITY SHELL	69010 HWY 111	SE 0 - 1/8 (0.021 mi.)	B25	39

Database: UST, Date of Government Version: 03/12/2017
Facility Id: 155

INDIAN UST: A listing of underground storage tank locations on Indian Land.

A review of the INDIAN UST list, as provided by EDR, has revealed that there is 1 INDIAN UST site within approximately 0.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
CATHEDRAL CITY OIL (	***69010 HWY 111***	***SE 0 - 1/8 (0.021 mi.)***	***B23***	***36***

Database: INDIAN UST R9, Date of Government Version: 10/06/2016

ADDITIONAL ENVIRONMENTAL RECORDS

Local Lists of Landfill / Solid Waste Disposal Sites

SWRCY: A listing of recycling facilities in California.

A review of the SWRCY list, as provided by EDR, and dated 03/13/2017 has revealed that there is 1 SWRCY site within approximately 0.5 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
PALM SPRINGS RECYCLI Cert Id: RC3197	***36630 SUNAIR PLZ***	***WNW 1/4 - 1/2 (0.400 mi.)***	***59***	***80***

Local Lists of Registered Storage Tanks

SWEEPS UST: Statewide Environmental Evaluation and Planning System. This underground storage tank listing was updated and maintained by a company contacted by the SWRCB in the early 1990's. The listing is no longer updated or maintained. The local agency is the contact for more information on a site on the SWEEPS list.

A review of the SWEEPS UST list, as provided by EDR, and dated 06/01/1994 has revealed that there are 7 SWEEPS UST sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
PALM SPRINGS OIL #9 Status: A Tank Status: A Comp Number: 803	***68830 111***	***WSW 0 - 1/8 (0.002 mi.)***	***C13***	***16***
PALM SPRINGS OIL #9 Status: A Tank Status: A Comp Number: 9083	***68830 HIGHWAY 111***	***WSW 0 - 1/8 (0.002 mi.)***	***C15***	***22***
WORLD OIL CO Status: A Tank Status: A Comp Number: 13721	***68869 BROADWAY***	***S 0 - 1/8 (0.032 mi.)***	***C28***	***40***
CHEVRON #93045 Status: A Tank Status: A Comp Number: 62369	***68630 E PALM CANYON***	***W 1/8 - 1/4 (0.167 mi.)***	***G40***	***53***
BEEP-BEEP LUBE & TUN Status: A Tank Status: A Comp Number: 1849	***68635 HIGHWAY 111***	***W 1/8 - 1/4 (0.178 mi.)***	***G41***	***55***

Lower Elevation	Address	Direction / Distance	Map ID	Page
CATHEDRAL CITY FIRE Status: A	***36913 DATE PALM DR***	***0 - 1/8 (0.000 mi.)***	***A5***	***11***

Tank Status: A
Comp Number: 44

SHELL STATION — ***69010 E PALM CANYON*** — ***SE 0 - 1/8 (0.021 mi.)*** — ***B24*** — ***37***
Status: A
Tank Status: A
Comp Number: 56698

HIST UST: Historical UST Registered Database.

A review of the HIST UST list, as provided by EDR, and dated 10/15/1990 has revealed that there are 6 HIST UST sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
PS 9 Facility Id: 00000009083	68830 HWY 111	WSW 0 - 1/8 (0.002 mi.)	C11	15
WORLD OIL CO Facility Id: 00000013721	***68869 BROADWAY***	***S 0 - 1/8 (0.032 mi.)***	***C28***	***40***
93045 Facility Id: 00000062369	68-630 E PALM CANYON	W 1/8 - 1/4 (0.167 mi.)	G39	52

Lower Elevation	Address	Direction / Distance	Map ID	Page
CATHEDRAL CITY 34 Facility Id: 00000057339 Facility Id: 00000032209	36-913 DATE PALM	0 - 1/8 (0.000 mi.)	A8	12
PALM SPRINGS MOTORS Facility Id: 00000008886	***69-200 HY 111***	***ESE 1/8 - 1/4 (0.229 mi.)***	***H43***	***57***
PALM SPRINGS MOTORS Facility Id: 00000021534	***69 200 HWY 111***	***ESE 1/8 - 1/4 (0.229 mi.)***	***H44***	***59***

CA FID UST: The Facility Inventory Database contains active and inactive underground storage tank locations. The source is the State Water Resource Control Board.

A review of the CA FID UST list, as provided by EDR, and dated 10/31/1994 has revealed that there are 6 CA FID UST sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
PALM SPRINGS OIL #9 Facility Id: 33002529 Status: A	***68830 HIGHWAY 111***	***WSW 0 - 1/8 (0.002 mi.)***	***C15***	***22***
WORLD OIL CO Facility Id: 33002231 Status: A	***68869 BROADWAY***	***S 0 - 1/8 (0.032 mi.)***	***C28***	***40***
CHEVRON #93045 Facility Id: 33000143 Status: A	***68630 E PALM CANYON***	***W 1/8 - 1/4 (0.167 mi.)***	***G40***	***53***
BEEP-BEEP LUBE & TUN Facility Id: 33006831	***68635 HIGHWAY 111***	***W 1/8 - 1/4 (0.178 mi.)***	***G41***	***55***

Status: A

Lower Elevation	Address	Direction / Distance	Map ID	Page
CATHEDRAL CITY FIRE Facility Id: 33006785 Status: A	***36913 DATE PALM DR***	***0 - 1/8 (0.000 mi.)***	***A5***	***11***
SHELL STATION Facility Id: 33007117 Status: A	***69010 E PALM CANYON***	***SE 0 - 1/8 (0.021 mi.)***	***B24***	***37***

Other Ascertainable Records

RCRA NonGen / NLR: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

A review of the RCRA NonGen / NLR list, as provided by EDR, and dated 12/12/2016 has revealed that there is 1 RCRA NonGen / NLR site within approximately 0.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
PALM SPRINGS MOTORS	***69 200 HWY 111***	***ESE 1/8 - 1/4 (0.229 mi.)***	***H44***	***59***

INDIAN RESERV: This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

A review of the INDIAN RESERV list, as provided by EDR, and dated 12/31/2014 has revealed that there is 1 INDIAN RESERV site within approximately 0.001 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
AGUA CALIENTE INDIAN		0 - 1/8 (0.000 mi.)	0	8

FINDS: The Facility Index System contains both facility information and "pointers" to other sources of information that contain more detail. These include: RCRIS; Permit Compliance System (PCS); Aerometric Information Retrieval System (AIRS); FATES (FIFRA [Federal Insecticide Fungicide Rodenticide Act] and TSCA Enforcement System, FTTS [FIFRA/TSCA Tracking System]; CERCLIS; DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes); Federal Underground Injection Control (FURS); Federal Reporting Data System (FRDS); Surface Impoundments (SIA); TSCA Chemicals in Commerce Information System (CICS); PADS; RCRA-J (medical waste transporters/disposers); TRIS; and TSCA. The source of this database is the U.S. EPA/NTIS.

A review of the FINDS list, as provided by EDR, and dated 04/04/2017 has revealed that there are 2 FINDS sites within approximately 0.001 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
CARL'S JR #724	68980 E PALM CANYON	0 - 1/8 (0.000 mi.)	B2	10
CATHEDRAL CITY/CITY	36913 DATE PALM DR	0 - 1/8 (0.000 mi.)	A3	10

DRYCLEANERS: A list of drycleaner related facilities that have EPA ID numbers. These are facilities with certain SIC codes: power laundries, family and commercial; garment pressing and cleaners' agents; linen supply; coin-operated laundries and cleaning; drycleaning plants except rugs; carpet and upholster cleaning; industrial launderers; laundry and garment services.

A review of the DRYCLEANERS list, as provided by EDR, and dated 03/09/2017 has revealed that there is 1 DRYCLEANERS site within approximately 0.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
SUPER CLEAN EPA Id: CAL000327519	69040 E PALM CANYON	SE 0 - 1/8 (0.061 mi.)	F34	49

HAZNET: The data is extracted from the copies of hazardous waste manifests received each year by the DTSC. The annual volume of manifests is typically 700,000-1,000,000 annually, representing approximately 350,000-500,000 shipments. Data from non-California manifests & continuation sheets are not included at the present time. Data are from the manifests submitted without correction, and therefore many contain some invalid values for data elements such as generator ID, TSD ID, waste category, & disposal method. The source is the Department of Toxic Substance Control is the agency. This database begins with calendar year 1993.

A review of the HAZNET list, as provided by EDR, and dated 12/31/2015 has revealed that there are 6 HAZNET sites within approximately 0.001 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
TRI MILLENIUM GEPAID: CAC002595633	68901 GROVE ST	0 - 1/8 (0.000 mi.)	C6	11

Lower Elevation	Address	Direction / Distance	Map ID	Page
CATHEDRAL CITY FIRE GEPAID: CAC002559555	36913 DATE PALM DR	0 - 1/8 (0.000 mi.)	A1	8
CATHEDRAL CITY FIRE GEPAID: CAC001324016	36913 DATE PALM	0 - 1/8 (0.000 mi.)	A4	10
CATHEDRAL CITY FIRE GEPAID: CAC002591513	36913 DATE PALM DR	0 - 1/8 (0.000 mi.)	A7	12
CITY CATHEDRAL CITY/ GEPAID: CAC001397824	36913 DATE PALM	0 - 1/8 (0.000 mi.)	A9	13
MULTI-COMMERCIAL UNI GEPAID: CAC002710761	37111 DATE PALM DR	0 - 1/8 (0.000 mi.)	A10	14

HIST CORTESE: The sites for the list are designated by the State Water Resource Control Board [LUST], the Integrated Waste Board [SWF/LS], and the Department of Toxic Substances Control [CALSITES]. This listing is no longer updated by the state agency.

A review of the HIST CORTESE list, as provided by EDR, and dated 04/01/2001 has revealed that there are 10 HIST CORTESE sites within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
PALM SPRINGS OIL #9 Reg Id: 7T2234025	***68830 111***	***WSW 0 - 1/8 (0.002 mi.)***	***C13***	***16***
WORLD OIL CO	***68869 BROADWAY***	***S 0 - 1/8 (0.032 mi.)***	***C28***	***40***

Reg Id: 7T2234015				
CHEVRON STATION #9-3 Reg Id: 7T2234009	***68630 EAST PALM CANY***	***W 1/8 - 1/4 (0.167 mi.)***	***G38***	***50***
CIRCLE K # 333 Reg Id: 7T2234023	***37040 CATHEDRAL CNYN***	***W 1/4 - 1/2 (0.304 mi.)***	***J51***	***71***
FAMILIAN PIPE & SUPP Reg Id: 7T2234005	***36283 PLAZA***	***NNW 1/4 - 1/2 (0.373 mi.)***	***L56***	***74***
OLESEN, KAY Reg Id: 7T2234004	***68384 111***	***WNW 1/4 - 1/2 (0.426 mi.)***	***M60***	***84***

Lower Elevation	Address	Direction / Distance	Map ID	Page
SHELL STATION Reg Id: 7T2234006	***69010 111***	***SE 0 - 1/8 (0.021 mi.)***	***B17***	***24***
PALM SPRINGS FORD Reg Id: 7T2234013	***69200 111***	***ESE 1/4 - 1/2 (0.299 mi.)***	***I48***	***67***
R. D. PARKER SERVICE Reg Id: 7T2234010	36650 A CATHEDRAL CN	WNW 1/4 - 1/2 (0.349 mi.)	K55	73
COCA COLA ENTERPRISE Reg Id: 7T2234007	***68600 PEREZ ROAD***	***NW 1/4 - 1/2 (0.379 mi.)***	***58***	***76***

Notify 65: Listings of all Proposition 65 incidents reported to counties by the State Water Resources Control Board and the Regional Water Quality Control Board. This database is no longer updated by the reporting agency.

A review of the Notify 65 list, as provided by EDR, and dated 12/16/2016 has revealed that there are 2 Notify 65 sites within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
COCA-COLA ENTERPRISE	68-600 PEREZ	WNW 1/2 - 1 (0.871 mi.)	63	88

Lower Elevation	Address	Direction / Distance	Map ID	Page
SHELL OIL SERVICE ST	69010 HWY 111 @ DATE	SE 0 - 1/8 (0.021 mi.)	B22	36

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR Hist Auto: EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past

sites and operations that typically create environmental concerns, but may not show up in current government records searches.

A review of the EDR Hist Auto list, as provided by EDR, has revealed that there are 11 EDR Hist Auto sites within approximately 0.125 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
PALM SPRINGS OIL	68830 HWY 111	WSW 0 - 1/8 (0.002 mi.)	C12	16
PYLES ROBERT	68904-96 HWY 111	SSE 0 - 1/8 (0.014 mi.)	D16	24
SHELL SWIFT STOP	68869 E PALM CANYON	S 0 - 1/8 (0.032 mi.)	C26	39
ROUTE 66 RIDERS INC	68885 E PALM CANYON	SSE 0 - 1/8 (0.036 mi.)	C29	47
DESERT JEWELRY MART	68783 E PALM CANYON	WSW 0 - 1/8 (0.038 mi.)	E30	47
OLIVER & WINSTON INC	68759 E US HWY 111	WSW 0 - 1/8 (0.043 mi.)	E31	48
IMMEDIATE CARE AUTO	68900 B ST	S 0 - 1/8 (0.043 mi.)	D32	48
PALM SPRINGS TIRE &	68759 E PALM CANYON	WSW 0 - 1/8 (0.053 mi.)	E33	48
CATHEDRAL CITY AUTO	68733 HWY 111	W 0 - 1/8 (0.095 mi.)	36	50

Lower Elevation	Address	Direction / Distance	Map ID	Page
SAYLOR HARRY C	69010 HWY 111	SE 0 - 1/8 (0.021 mi.)	B19	32
CATHEDRAL CITY SHELL	69010 E PALM CANYON	SE 0 - 1/8 (0.021 mi.)	B21	35

EDR Hist Cleaner: EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

A review of the EDR Hist Cleaner list, as provided by EDR, has revealed that there is 1 EDR Hist Cleaner site within approximately 0.125 miles of the target property.

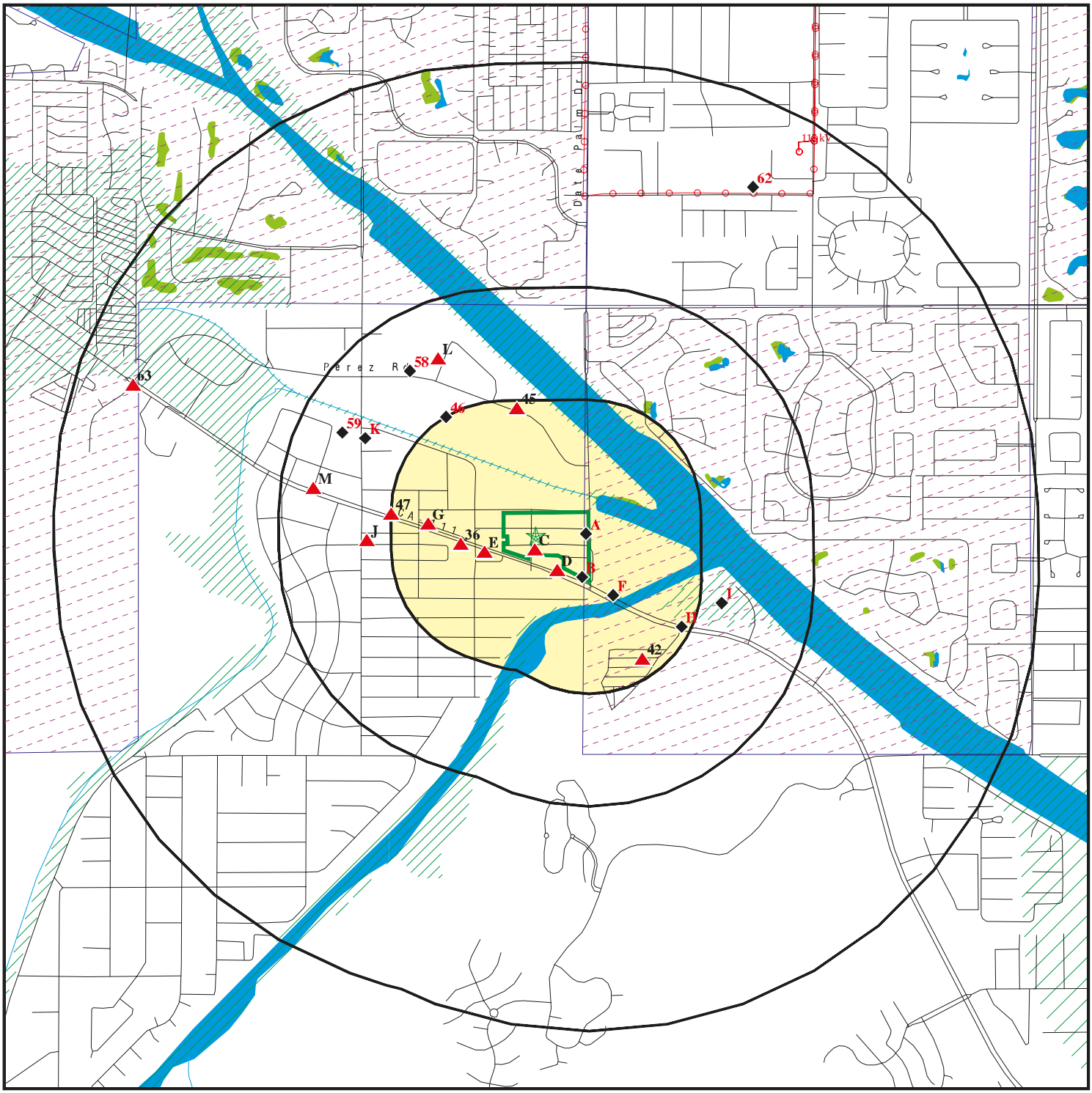
Lower Elevation	Address	Direction / Distance	Map ID	Page
SUPER CLEANERS	69040 E PALM CANYON	SE 0 - 1/8 (0.061 mi.)	F35	49

EXECUTIVE SUMMARY

Due to poor or inadequate address information, the following sites were not mapped. Count: 2 records.

Site Name	Database(s)
TRAMWAY SHELL	LUST
CVWD 80-06 LIFT STATION	LUST

OVERVIEW MAP - 04977808.2R



0 1/4 1/2 1 Miles

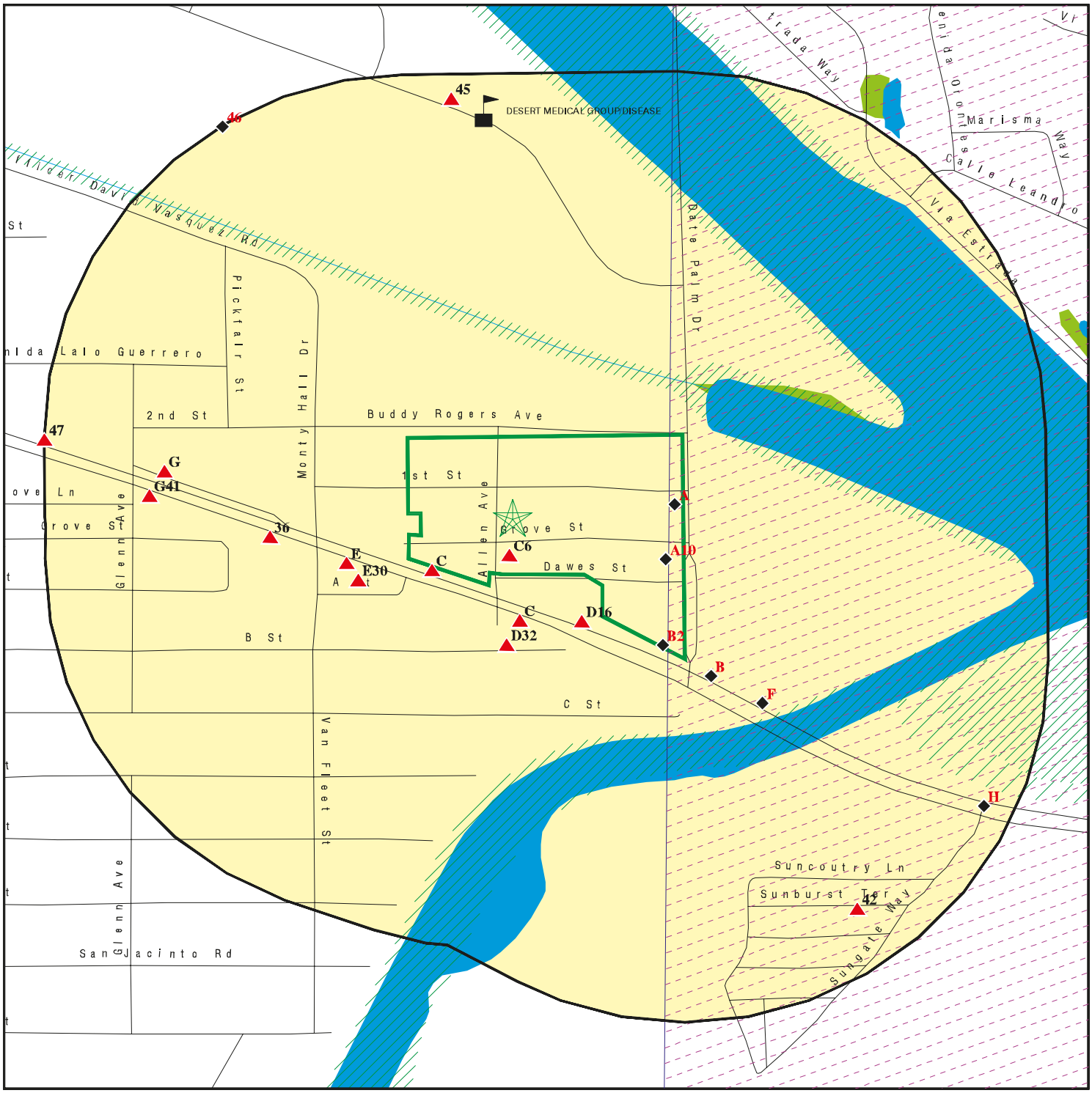
- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Manufactured Gas Plants
- National Priority List Sites
- Dept. Defense Sites
- Indian Reservations BIA
- Power transmission lines
- 100-year flood zone
- 500-year flood zone
- National Wetland Inventory
- State Wetlands
- Areas of Concern

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME:	Agua Caliente Band of Cahuilla Indian	CLIENT:	Petra Geotechnical Inc
ADDRESS:	NWC Highway 111 and Date Palm Drive Cathedral City CA 92234	CONTACT:	Ed Lump
		INQUIRY #:	04977808.2r
LAT/LONG:	33.779514 / 116.460087	DATE:	June 26, 2017 8:33 pm

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DETAIL MAP - 04977808.2R



Target Property

Sites at elevations higher than or equal to the target property

Sites at elevations lower than the target property

Manufactured Gas Plants

Sensitive Receptors

National Priority List Sites

Dept. Defense Sites

0 1/16 1/8 1/4 Miles

Indian Reservations BIA

100-year flood zone

500-year flood zone

National Wetland Inventory

State Wetlands

Areas of Concern

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME:	Agua Caliente Band of Cahuilla Indian	CLIENT:	Petra Geotechnical Inc
ADDRESS:	NWC Highway 111 and Date Palm Drive Cathedral City CA 92234	CONTACT:	Ed Lump
LAT/LONG:	33.779514 / 116.460087	INQUIRY #:	04977808.2r
		DATE:	June 26, 2017 8:35 pm

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MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
STANDARD ENVIRONMENTAL RECORDS								
Federal NPL site list								
NPL	1.000		0	0	0	0	NR	0
Proposed NPL	1.000		0	0	0	0	NR	0
NPL LIENS	0.001		0	NR	NR	NR	NR	0
Federal Delisted NPL site list								
Delisted NPL	1.000		0	0	0	0	NR	0
Federal CERCLIS list								
FEDERAL FACILITY	0.500		0	0	0	NR	NR	0
SEMS	0.500		0	1	0	NR	NR	1
Federal CERCLIS NFRAP site list								
SEMS-ARCHIVE	0.500		0	0	0	NR	NR	0
Federal RCRA CORRACTS facilities list								
CORRACTS	1.000		0	0	0	0	NR	0
Federal RCRA non-CORRACTS TSD facilities list								
RCRA-TSDF	0.500		0	0	0	NR	NR	0
Federal RCRA generators list								
RCRA-LQG	0.250		0	0	NR	NR	NR	0
RCRA-SQG	0.250		3	4	NR	NR	NR	7
RCRA-CESQG	0.250		0	0	NR	NR	NR	0
Federal institutional controls / engineering controls registries								
LUCIS	0.500		0	0	0	NR	NR	0
US ENG CONTROLS	0.500		0	0	0	NR	NR	0
US INST CONTROL	0.500		0	0	0	NR	NR	0
Federal ERNS list								
ERNS	0.001		0	NR	NR	NR	NR	0
State- and tribal - equivalent NPL								
RESPONSE	1.000		0	0	0	0	NR	0
State- and tribal - equivalent CERCLIS								
ENVIROSTOR	1.000		0	0	0	1	NR	1
State and tribal landfill and/or solid waste disposal site lists								
SWF/LF	0.500		0	0	0	NR	NR	0
State and tribal leaking storage tank lists								
LUST	0.500		6	2	11	NR	NR	19

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
INDIAN LUST	0.500		1	0	0	NR	NR	1
SLIC	0.500		0	0	0	NR	NR	0
State and tribal registered storage tank lists								
FEMA UST	0.250		0	0	NR	NR	NR	0
UST	0.250		1	0	NR	NR	NR	1
AST	0.250		0	0	NR	NR	NR	0
INDIAN UST	0.250		1	0	NR	NR	NR	1
State and tribal voluntary cleanup sites								
INDIAN VCP	0.500		0	0	0	NR	NR	0
VCP	0.500		0	0	0	NR	NR	0
State and tribal Brownfields sites								
BROWNFIELDS	0.500		0	0	0	NR	NR	0
ADDITIONAL ENVIRONMENTAL RECORDS								
Local Brownfield lists								
US BROWNFIELDS	0.500		0	0	0	NR	NR	0
Local Lists of Landfill / Solid Waste Disposal Sites								
WMUDS/SWAT	0.500		0	0	0	NR	NR	0
SWRCY	0.500		0	0	1	NR	NR	1
HAULERS	0.001		0	NR	NR	NR	NR	0
INDIAN ODI	0.500		0	0	0	NR	NR	0
DEBRIS REGION 9	0.500		0	0	0	NR	NR	0
ODI	0.500		0	0	0	NR	NR	0
IHS OPEN DUMPS	0.500		0	0	0	NR	NR	0
Local Lists of Hazardous waste / Contaminated Sites								
US HIST CDL	0.001		0	NR	NR	NR	NR	0
HIST Cal-Sites	1.000		0	0	0	0	NR	0
SCH	0.250		0	0	NR	NR	NR	0
CDL	0.001		0	NR	NR	NR	NR	0
Toxic Pits	1.000		0	0	0	0	NR	0
US CDL	0.001		0	NR	NR	NR	NR	0
Local Lists of Registered Storage Tanks								
SWEEPS UST	0.250		5	2	NR	NR	NR	7
HIST UST	0.250		3	3	NR	NR	NR	6
CA FID UST	0.250		4	2	NR	NR	NR	6
Local Land Records								
LIENS	0.001		0	NR	NR	NR	NR	0
LIENS 2	0.001		0	NR	NR	NR	NR	0
DEED	0.500		0	0	0	NR	NR	0
Records of Emergency Release Reports								
HMIRS	0.001		0	NR	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
CHMIRS	0.001		0	NR	NR	NR	NR	0
LDS	0.001		0	NR	NR	NR	NR	0
MCS	0.001		0	NR	NR	NR	NR	0
SPILLS 90	0.001		0	NR	NR	NR	NR	0
Other Ascertainable Records								
RCRA NonGen / NLR	0.250		0	1	NR	NR	NR	1
FUDS	1.000		0	0	0	0	NR	0
DOD	1.000		0	0	0	0	NR	0
SCRD DRYCLEANERS	0.500		0	0	0	NR	NR	0
US FIN ASSUR	0.001		0	NR	NR	NR	NR	0
EPA WATCH LIST	0.001		0	NR	NR	NR	NR	0
2020 COR ACTION	0.250		0	0	NR	NR	NR	0
TSCA	0.001		0	NR	NR	NR	NR	0
TRIS	0.001		0	NR	NR	NR	NR	0
SSTS	0.001		0	NR	NR	NR	NR	0
ROD	1.000		0	0	0	0	NR	0
RMP	0.001		0	NR	NR	NR	NR	0
RAATS	0.001		0	NR	NR	NR	NR	0
PRP	0.001		0	NR	NR	NR	NR	0
PADS	0.001		0	NR	NR	NR	NR	0
ICIS	0.001		0	NR	NR	NR	NR	0
FTTS	0.001		0	NR	NR	NR	NR	0
MLTS	0.001		0	NR	NR	NR	NR	0
COAL ASH DOE	0.001		0	NR	NR	NR	NR	0
COAL ASH EPA	0.500		0	0	0	NR	NR	0
PCB TRANSFORMER	0.001		0	NR	NR	NR	NR	0
RADINFO	0.001		0	NR	NR	NR	NR	0
HIST FTTS	0.001		0	NR	NR	NR	NR	0
DOT OPS	0.001		0	NR	NR	NR	NR	0
CONSENT	1.000		0	0	0	0	NR	0
INDIAN RESERV	0.001		1	NR	NR	NR	NR	1
FUSRAP	1.000		0	0	0	0	NR	0
UMTRA	0.500		0	0	0	NR	NR	0
LEAD SMELTERS	0.001		0	NR	NR	NR	NR	0
US AIRS	0.001		0	NR	NR	NR	NR	0
US MINES	0.250		0	0	NR	NR	NR	0
ABANDONED MINES	0.001		0	NR	NR	NR	NR	0
FINDS	0.001		2	NR	NR	NR	NR	2
UXO	1.000		0	0	0	0	NR	0
ECHO	0.001		0	NR	NR	NR	NR	0
DOCKET HWC	0.001		0	NR	NR	NR	NR	0
FUELS PROGRAM	0.250		0	0	NR	NR	NR	0
CA BOND EXP. PLAN	1.000		0	0	0	0	NR	0
Cortese	0.500		0	0	0	NR	NR	0
CUPA Listings	0.250		0	0	NR	NR	NR	0
DRYCLEANERS	0.250		1	0	NR	NR	NR	1
EMI	0.001		0	NR	NR	NR	NR	0
ENF	0.001		0	NR	NR	NR	NR	0
Financial Assurance	0.001		0	NR	NR	NR	NR	0
HAZNET	0.001		6	NR	NR	NR	NR	6

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
ICE	0.001		0	NR	NR	NR	NR	0
HIST CORTESE	0.500		3	1	6	NR	NR	10
HWP	1.000		0	0	0	0	NR	0
HWT	0.250		0	0	NR	NR	NR	0
MINES	0.001		0	NR	NR	NR	NR	0
MWMP	0.250		0	0	NR	NR	NR	0
NPDES	0.001		0	NR	NR	NR	NR	0
PEST LIC	0.001		0	NR	NR	NR	NR	0
PROC	0.500		0	0	0	NR	NR	0
Notify 65	1.000		1	0	0	1	NR	2
UIC	0.001		0	NR	NR	NR	NR	0
WASTEWATER PITS	0.500		0	0	0	NR	NR	0
WDS	0.001		0	NR	NR	NR	NR	0
WIP	0.250		0	0	NR	NR	NR	0
EDR HIGH RISK HISTORICAL RECORDS								
EDR Exclusive Records								
EDR MGP	1.000		0	0	0	0	NR	0
EDR Hist Auto	0.125		11	NR	NR	NR	NR	11
EDR Hist Cleaner	0.125		1	NR	NR	NR	NR	1
EDR RECOVERED GOVERNMENT ARCHIVES								
Exclusive Recovered Govt. Archives								
RGA LF	0.001		0	NR	NR	NR	NR	0
RGA LUST	0.001		0	NR	NR	NR	NR	0
- Totals --		0	50	16	18	2	0	86

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

IND RES **AGUA CALIENTE INDIAN RESERVATION** **INDIAN RESERV** **CIND200714**
Region **N/A**
, CA
< 1/8
1 ft.

INDIAN RESERV:
Feature: Indian Reservation
Name: Agua Caliente Indian Reservation
Agency: BIA

A1 **CATHEDRAL CITY FIRE DEPARTMENT** **HAZNET** **S112926588**
36913 DATE PALM DR **N/A**
< 1/8 **CATHEDRAL CITY, CA 92234**
1 ft.

Site 1 of 8 in cluster A

Relative:
Lower

Actual:
295 ft.

HAZNET:
envid: S112926588
Year: 2005
GEPAID: CAC002559555
Contact: BRYANT PHILLIPS - CAPTAIN
Telephone: 7607708211
Mailing Name: Not reported
Mailing Address: 32100 DESERT VISTA
Mailing City,St,Zip: CATHEDRAL CITY, CA 922340000
Gen County: Not reported
TSD EPA ID: CAD008364432
TSD County: Not reported
Waste Category: Other organic solids
Disposal Method: Transfer Station
Tons: 0.6
Cat Decode: Not reported
Method Decode: Not reported
Facility County: Riverside

envid: S112926588
Year: 2004
GEPAID: CAC002559555
Contact: BRYANT PHILLIPS - CAPTAIN
Telephone: 7607708211
Mailing Name: Not reported
Mailing Address: 32100 DESERT VISTA
Mailing City,St,Zip: CATHEDRAL CITY, CA 922340000
Gen County: Not reported
TSD EPA ID: CAD008364432
TSD County: Not reported
Waste Category: Other organic solids
Disposal Method: Transfer Station
Tons: 0.85
Cat Decode: Not reported
Method Decode: Not reported
Facility County: Riverside

envid: S112926588
Year: 2003
GEPAID: CAC002559555
Contact: BRYANT PHILLIPS - CAPTAIN
Telephone: 7607708211
Mailing Name: Not reported

CATHEDRAL CITY FIRE DEPARTMENT (Continued) **S112926588**

Mailing Address: 32100 DESERT VISTA
Mailing City,St,Zip: CATHEDRAL CITY, CA 922340000
Gen County: Not reported
TSD EPA ID: CAD008364432
TSD County: Not reported
Waste Category: Not reported
Disposal Method: Transfer Station
Tons: 0.01
Cat Decode: Not reported
Method Decode: Not reported
Facility County: Riverside

envid: S112926588
Year: 2003
GEPAID: CAC002559555
Contact: BRYANT PHILLIPS - CAPTAIN
Telephone: 7607708211
Mailing Name: Not reported
Mailing Address: 32100 DESERT VISTA
Mailing City,St,Zip: CATHEDRAL CITY, CA 922340000
Gen County: Not reported
TSD EPA ID: CAT080033681
TSD County: Not reported
Waste Category: Other organic solids
Disposal Method: Disposal, Land Fill
Tons: 1.05
Cat Decode: Not reported
Method Decode: Not reported
Facility County: Riverside

envid: S112926588
Year: 2002
GEPAID: CAC002559555
Contact: BRYANT PHILLIPS - CAPTAIN
Telephone: 7607708211
Mailing Name: Not reported
Mailing Address: 32100 DESERT VISTA
Mailing City,St,Zip: CATHEDRAL CITY, CA 922340000
Gen County: Not reported
TSD EPA ID: AZD980892731
TSD County: Not reported
Waste Category: Other organic solids
Disposal Method: Disposal, Land Fill
Tons: 0.4
Cat Decode: Not reported
Method Decode: Not reported
Facility County: Riverside

Click this hyperlink while viewing on your computer to access additional CA_HAZNET: detail in the EDR Site Report.

B2 **CARL'S JR #724** **FINDS** **1023364402**
68980 E PALM CANYON DR **N/A**
< 1/8 **CATHEDRAL CITY, CA 92234**
1 ft.

Site 1 of 10 in cluster B

Relative: FINDS:
Lower

Registry ID: 110066618360

Actual:
300 ft.

Environmental Interest/Information System
STATE MASTER

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

A3 **CATHEDRAL CITY/CITY OFNA FIRE DEPT** **FINDS** **1023344634**
36913 DATE PALM DR **N/A**
< 1/8 **CATHEDRAL CITY, CA 92234**
1 ft.

Site 2 of 8 in cluster A

Relative: FINDS:
Lower

Registry ID: 110066404616

Actual:
295 ft.

Environmental Interest/Information System
STATE MASTER

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

A4 **CATHEDRAL CITY FIRE DEPARTMENT** **HAZNET** **S112882496**
36913 DATE PALM **N/A**
< 1/8 **CATHEDRAL CITY, CA 92234**
1 ft.

Site 3 of 8 in cluster A

Relative: HAZNET:
Lower

envid:	S112882496
Year:	2000
GEPAID:	CAC001324016
Contact:	BRYANT PHILLIPS - CAPTAIN
Telephone:	7607708211
Mailing Name:	Not reported
Mailing Address:	32100 DESERT VISTA
Mailing City,St,Zip:	CATHEDRAL CITY, CA 922340000
Gen County:	Not reported
TSD EPA ID:	CAD982444481
TSD County:	Not reported
Waste Category:	Other organic solids
Disposal Method:	Recycler
Tons:	0.65
Cat Decode:	Not reported
Method Decode:	Not reported
Facility County:	Riverside

Actual:
295 ft.

A5 **CATHEDRAL CITY FIRE STATION** **SWEEPS UST** **S101590204**
36913 DATE PALM DR **CA FID UST** **N/A**
< 1/8 **CATHEDRAL CITY, CA 92234**
1 ft.

Site 4 of 8 in cluster A

Relative:
Lower

Actual:
295 ft.

SWEEPS UST:

Status:	Active
Comp Number:	44
Number:	4
Board Of Equalization:	Not reported
Referral Date:	10-27-92
Action Date:	10-27-92
Created Date:	07-05-90
Owner Tank Id:	Not reported
SWRCB Tank Id:	33-000-000044-000001
Tank Status:	A
Capacity:	100
Active Date:	10-27-92
Tank Use:	UNKNOWN
STG:	P
Content:	UNKNOWN CONT
Number Of Tanks:	1

CA FID UST:

Facility ID:	33006785
Regulated By:	UTNKA
Regulated ID:	Not reported
Cortese Code:	Not reported
SIC Code:	Not reported
Facility Phone:	Not reported
Mail To:	Not reported
Mailing Address:	36913 DATE PALM DR
Mailing Address 2:	Not reported
Mailing City,St,Zip:	CATHEDRAL CITY 92234
Contact:	Not reported
Contact Phone:	Not reported
DUNs Number:	Not reported
NPDES Number:	Not reported
EPA ID:	Not reported
Comments:	Not reported
Status:	Active

C6 **TRI MILLENIUM** **HAZNET** **S112948612**
68901 GROVE ST **N/A**
< 1/8 **CATHEDRAL CITY, CA 92234**
1 ft.

Site 1 of 10 in cluster C

Relative:
Higher

Actual:
308 ft.

HAZNET:

envid:	S112948612
Year:	2005
GEPAID:	CAC002595633
Contact:	BOB MCMICHAEL
Telephone:	7606125961
Mailing Name:	Not reported
Mailing Address:	68718 E PALM CANYON STE 302
Mailing City,St,Zip:	CATHEDRAL CITY, CA 92234
Gen County:	Not reported

TRI MILLENIUM (Continued) **S112948612**

TSD EPA ID: AZC950823111
TSD County: Not reported
Waste Category: Asbestos containing waste
Disposal Method: Disposal, Land Fill
Tons: 0.84
Cat Decode: Not reported
Method Decode: Not reported
Facility County: Riverside

A7 **CATHEDRAL CITY FIRE DEPARTMENT** **HAZNET** **S112946219**
36913 DATE PALM DR **N/A**
< 1/8 **CATHEDRAL CITY, CA 92234**
1 ft.

Site 5 of 8 in cluster A

Relative: Lower

Actual: 295 ft.

HAZNET:
envid: S112946219
Year: 2005
GEPAID: CAC002591513
Contact: RAYMOND HATFIELD
Telephone: 7607708211
Mailing Name: Not reported
Mailing Address: 32100 DESERT VISTA
Mailing City,St,Zip: CATHEDRAL CITY, CA 922340000
Gen County: Not reported
TSD EPA ID: CAL000283080
TSD County: Not reported
Waste Category: Other organic solids
Disposal Method: Transfer Station
Tons: 0.25
Cat Decode: Not reported
Method Decode: Not reported
Facility County: Riverside

A8 **CATHEDRAL CITY 34** **HIST UST** **U001573793**
36-913 DATE PALM **N/A**
< 1/8 **CATHEDRAL CITY, CA 92234**
1 ft.

Site 6 of 8 in cluster A

Relative: Lower

Actual: 295 ft.

HIST UST:
File Number: 0001F8E5
URL: http://geotracker.waterboards.ca.gov/ustpdfs/pdf/0001F8E5.pdf
Region: STATE
Facility ID: 00000057339
Facility Type: Other
Other Type: FIRE STATION
Contact Name: SAMUEL ORTIZ
Telephone: 6193283884
Owner Name: RIVERSIDE COUNTY FIRE DEPARTME
Owner Address: 210 W. SAN JACINTO
Owner City,St,Zip: PERRIS, CA 92370
Total Tanks: 0001

Tank Num: 001
Container Num: 1

CATHEDRAL CITY 34 (Continued) **U001573793**

Year Installed:	1975
Tank Capacity:	00001000
Tank Used for:	PRODUCT
Type of Fuel:	DIESEL
Container Construction Thickness:	Not reported
Leak Detection:	Visual, Stock Inventor

Tank Num:	001
Container Num:	1
Year Installed:	1975
Tank Capacity:	00001000
Tank Used for:	PRODUCT
Type of Fuel:	DIESEL
Container Construction Thickness:	Not reported
Leak Detection:	Visual, Stock Inventor

Tank Num:	001
Container Num:	1
Year Installed:	1975
Tank Capacity:	00001000
Tank Used for:	PRODUCT
Type of Fuel:	DIESEL
Container Construction Thickness:	Not reported
Leak Detection:	Visual, Stock Inventor

Tank Num:	001
Container Num:	1
Year Installed:	1975
Tank Capacity:	00001000
Tank Used for:	PRODUCT
Type of Fuel:	DIESEL
Container Construction Thickness:	Not reported
Leak Detection:	Visual, Stock Inventor

Click here for Geo Tracker PDF:

A9 **CITY CATHEDRAL CITY/FIRE DEPT** **HAZNET** **S112887930**
36913 DATE PALM **N/A**
< 1/8 **CATHEDRAL CITY, CA 92234**
1 ft.

Site 7 of 8 in cluster A

Relative:
Lower

Actual:
295 ft.

HAZNET:

envid:	S112887930
Year:	1998
GEPAID:	CAC001397824
Contact:	CITY CATHEDRAL CITY
Telephone:	7607708200
Mailing Name:	Not reported
Mailing Address:	32-100 DESERT VISTA
Mailing City,St,Zip:	CATHEDRAL CITY, CA 922340000
Gen County:	Not reported
TSD EPA ID:	CAT080013352
TSD County:	Not reported
Waste Category:	Tank bottom waste
Disposal Method:	Recycler
Tons:	.3127
Cat Decode:	Not reported

CITY CATHEDRAL CITY/FIRE DEPT (Continued) **S112887930**

Method Decode:	Not reported
Facility County:	Riverside
envid:	S112887930
Year:	1998
GEPAID:	CAC001397824
Contact:	CITY CATHEDRAL CITY
Telephone:	7607708200
Mailing Name:	Not reported
Mailing Address:	32-100 DESERT VISTA
Mailing City,St,Zip:	CATHEDRAL CITY, CA 922340000
Gen County:	Not reported
TSD EPA ID:	CAD982484933
TSD County:	Not reported
Waste Category:	Other empty containers 30 gallons or more
Disposal Method:	Recycler
Tons:	.5000
Cat Decode:	Not reported
Method Decode:	Not reported
Facility County:	Riverside

A10 **MULTI-COMMERCIAL UNITS** **HAZNET** **S113792361**
37111 DATE PALM DR **N/A**
< 1/8 **CATHEDRAL CITY, CA 92234**
1 ft.

Site 8 of 8 in cluster A

Relative:
Lower

Actual:
298 ft.

HAZNET:

envid:	S113792361
Year:	2012
GEPAID:	CAC002710761
Contact:	JIM SHERMAN
Telephone:	7607700389
Mailing Name:	Not reported
Mailing Address:	68700 AVENIDA LALO GUERRERO
Mailing City,St,Zip:	CATHEDRAL CITY, CA 92234
Gen County:	Riverside
TSD EPA ID:	CAD009007626
TSD County:	Los Angeles
Waste Category:	Not reported
Disposal Method:	Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Tons:	0.4
Cat Decode:	Not reported
Method Decode:	Not reported
Facility County:	Riverside

C11 **PS 9** **HIST UST** **U001573807**
WSW **68830 HWY 111** **N/A**
< 1/8 **PALM SPRINGS, CA 92234**
0.002 mi.
12 ft. **Site 2 of 10 in cluster C**

Relative:
Higher

Actual:
315 ft.

HIST UST:

File Number:	0001F860
URL:	http://geotracker.waterboards.ca.gov/ustpdfs/pdf/0001F860.pdf
Region:	STATE
Facility ID:	00000009083
Facility Type:	Gas Station
Other Type:	Not reported
Contact Name:	MONTRI PHUVADAKORN
Telephone:	2136664471
Owner Name:	PALM SPRINGS OIL CO INC
Owner Address:	5121 SUNSET BLVD.
Owner City,St,Zip:	LOS ANGELES, CA 90027
Total Tanks:	0005
Tank Num:	001
Container Num:	1
Year Installed:	Not reported
Tank Capacity:	00012000
Tank Used for:	PRODUCT
Type of Fuel:	UNLEADED
Container Construction Thickness:	1/4
Leak Detection:	Stock Inventor
Tank Num:	002
Container Num:	2
Year Installed:	Not reported
Tank Capacity:	00012000
Tank Used for:	PRODUCT
Type of Fuel:	UNLEADED
Container Construction Thickness:	1/4
Leak Detection:	Stock Inventor
Tank Num:	003
Container Num:	3
Year Installed:	Not reported
Tank Capacity:	00012000
Tank Used for:	PRODUCT
Type of Fuel:	REGULAR
Container Construction Thickness:	1/4
Leak Detection:	Stock Inventor
Tank Num:	004
Container Num:	4
Year Installed:	Not reported
Tank Capacity:	00012000
Tank Used for:	PRODUCT
Type of Fuel:	REGULAR
Container Construction Thickness:	1/4
Leak Detection:	Stock Inventor
Tank Num:	005
Container Num:	5
Year Installed:	Not reported

PS 9 (Continued) **U001573807**

Tank Capacity:	00012000
Tank Used for:	PRODUCT
Type of Fuel:	PREMIUM
Container Construction Thickness:	1/4
Leak Detection:	Stock Inventor

Click here for Geo Tracker PDF:

C12 **PALM SPRINGS OIL** **EDR Hist Auto** **1021230746**
WSW **68830 HWY 111** **N/A**
< 1/8 **CATHEDRAL CY, CA 92234**
0.002 mi.
12 ft. **Site 3 of 10 in cluster C**

Relative:
Higher

Actual:
315 ft.

EDR Hist Auto

Year:	Name:	Type:
1986	PALM SPRINGS OIL	Gasoline Service Stations
1987	PALM SPRINGS OIL	Gasoline Service Stations

C13 **PALM SPRINGS OIL #9** **LUST** **S105023149**
WSW **68830 111** **SWEEPS UST** **N/A**
< 1/8 **CATHEDRAL CITY, CA 92234** **HIST CORTESE**
0.002 mi.
12 ft. **Site 4 of 10 in cluster C**

Relative:
Higher

Actual:
315 ft.

LUST:

Region:	STATE
Global Id:	T0606500929
Latitude:	33.7791154
Longitude:	-116.4614646
Case Type:	LUST Cleanup Site
Status:	Completed - Case Closed
Status Date:	05/05/2006
Lead Agency:	RIVERSIDE COUNTY LOP
Case Worker:	LS
Local Agency:	RIVERSIDE COUNTY LOP
RB Case Number:	7T2234025
LOC Case Number:	9915711
File Location:	Not reported
Potential Media Affect:	Soil
Potential Contaminants of Concern:	Gasoline
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id:	T0606500929
Contact Type:	Local Agency Caseworker
Contact Name:	LINDA SHURLOW
Organization Name:	RIVERSIDE COUNTY LOP
Address:	47950 Arabia Street, Suite A
City:	Indio
Email:	lshurlow@rivcocha.org
Phone Number:	7608637570

Global Id: T0606500929

PALM SPRINGS OIL #9 (Continued) **S105023149**

Contact Type: Regional Board Caseworker
Contact Name: Phan Le
Organization Name: COLORADO RIVER BASIN RWQCB (REGION 7)
Address: 73720 FRED WARING DRIVE SUITE #100
City: PALM DESERT
Email: phan.le@waterboards.ca.gov
Phone Number: 7607768974

Status History:
Global Id: T0606500929
Status: Completed - Case Closed
Status Date: 05/05/2006

Global Id: T0606500929
Status: Open - Case Begin Date
Status Date: 07/02/1999

Global Id: T0606500929
Status: Open - Remediation
Status Date: 07/31/2000

Global Id: T0606500929
Status: Open - Remediation
Status Date: 01/16/2002

Global Id: T0606500929
Status: Open - Site Assessment
Status Date: 10/12/1999

Global Id: T0606500929
Status: Open - Site Assessment
Status Date: 12/10/1999

Global Id: T0606500929
Status: Open - Site Assessment
Status Date: 04/10/2000

Regulatory Activities:
Global Id: T0606500929
Action Type: Other
Date: 10/12/1999
Action: Leak Reported

Global Id: T0606500929
Action Type: ENFORCEMENT
Date: 01/27/2003
Action: Technical Correspondence / Assistance / Other

Global Id: T0606500929
Action Type: Other
Date: 07/02/1999
Action: Leak Stopped

Global Id: T0606500929
Action Type: ENFORCEMENT
Date: 04/24/2003

PALM SPRINGS OIL #9 (Continued) **S105023149**

Action: Technical Correspondence / Assistance / Other

Global Id: T0606500929
Action Type: ENFORCEMENT
Date: 03/17/2003
Action: Technical Correspondence / Assistance / Other

Global Id: T0606500929
Action Type: ENFORCEMENT
Date: 11/06/2002
Action: Technical Correspondence / Assistance / Other

Global Id: T0606500929
Action Type: ENFORCEMENT
Date: 04/28/2006
Action: File review

Global Id: T0606500929
Action Type: ENFORCEMENT
Date: 02/23/2006
Action: File review

Global Id: T0606500929
Action Type: ENFORCEMENT
Date: 03/01/2006
Action: Technical Correspondence / Assistance / Other

Global Id: T0606500929
Action Type: ENFORCEMENT
Date: 02/28/2006
Action: File review

Global Id: T0606500929
Action Type: ENFORCEMENT
Date: 02/28/2006
Action: LOP Case Closure Summary to RB

Global Id: T0606500929
Action Type: ENFORCEMENT
Date: 06/05/2003
Action: Technical Correspondence / Assistance / Other

Global Id: T0606500929
Action Type: Other
Date: 10/12/1999
Action: Leak Discovery

Global Id: T0606500929
Action Type: REMEDIATION
Date: 11/01/2001
Action: Soil Vapor Extraction (SVE)

RIVERSIDE CO. LUST:
Region: RIVERSIDE
Facility ID: 9915711
Employee: Shurlow-LOP

PALM SPRINGS OIL #9 (Continued) **S105023149**

Site Closed: Yes
Case Type: Soil only
Facility Status: closed/action completed
Casetype Decode: Soil only is impacted
Fstatus Decode: Closed/Action completed

SWEEPS UST:
Status: Active
Comp Number: 803
Number: 1
Board Of Equalization: 44-017921
Referral Date: 09-17-92
Action Date: 09-17-92
Created Date: 09-17-92
Owner Tank Id: Not reported
SWRCB Tank Id: 33-000-000803-000001
Tank Status: A
Capacity: 12000
Active Date: 09-17-92
Tank Use: M.V. FUEL
STG: P
Content: PRM UNLEADED
Number Of Tanks: 4

Status: Active
Comp Number: 803
Number: 1
Board Of Equalization: 44-017921
Referral Date: 09-17-92
Action Date: 09-17-92
Created Date: 09-17-92
Owner Tank Id: Not reported
SWRCB Tank Id: 33-000-000803-000002
Tank Status: A
Capacity: 12000
Active Date: 09-17-92
Tank Use: M.V. FUEL
STG: P
Content: REG UNLEADED
Number Of Tanks: Not reported

Status: Active
Comp Number: 803
Number: 1
Board Of Equalization: 44-017921
Referral Date: 09-17-92
Action Date: 09-17-92
Created Date: 09-17-92
Owner Tank Id: Not reported
SWRCB Tank Id: 33-000-000803-000003
Tank Status: A
Capacity: 12000
Active Date: 09-17-92
Tank Use: M.V. FUEL
STG: P
Content: REG UNLEADED
Number Of Tanks: Not reported

PALM SPRINGS OIL #9 (Continued) **S105023149**

Status:	Active
Comp Number:	803
Number:	1
Board Of Equalization:	44-017921
Referral Date:	09-17-92
Action Date:	09-17-92
Created Date:	09-17-92
Owner Tank Id:	Not reported
SWRCB Tank Id:	33-000-000803-000004
Tank Status:	A
Capacity:	12000
Active Date:	09-17-92
Tank Use:	M.V. FUEL
STG:	P
Content:	REG UNLEADED
Number Of Tanks:	Not reported

HIST CORTESE:

Region:	CORTESE
Facility County Code:	33
Reg By:	LTNKA
Reg Id:	7T2234025

C14 **PALM SPRINGS OIL #9** **RCRA-SQG** **1000294440**
WSW **68830 HWY 111** **LUST** **CAD981660772**
< 1/8 **CATHEDRAL CITY, CA 92234** **FINDS**
0.002 mi. **ECHO**
12 ft. **Site 5 of 10 in cluster C**

Relative:
Higher

Actual:
315 ft.

RCRA-SQG:

Date form received by agency:	10/08/1986
Facility name:	PALM SPRINGS OIL #9
Facility address:	68830 HWY 111 CATHEDRAL CITY, CA 92234
EPA ID:	CAD981660772
Mailing address:	5121 SUNSET BLVD LOS ANGELES, CA 90027
Contact:	ENVIRONMENTAL MANAGER
Contact address:	68830 HWY 111 CATHEDRAL CITY, CA 92234
Contact country:	US
Contact telephone:	(213) 666-4471
Contact email:	Not reported
EPA Region:	09
Classification:	Small Small Quantity Generator
Description:	Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:

Owner/operator name:	STAGG OIL CO INC
Owner/operator address:	NOT REQUIRED NOT REQUIRED, ME 99999
Owner/operator country:	Not reported
Owner/operator telephone:	(415) 555-1212

PALM SPRINGS OIL #9 (Continued) **1000294440**

Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: NOT REQUIRED
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: (415) 555-1212
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Violation Status: No violations found

LUST REG 7:
Region: 7
Status: 7 - Remedial Action Underway
Case Num: 7T2234025
Substance: Gasoline - Automotive
ID: 1071
Global ID: T0606500929
Lead Agency: Local Agency
Case Worker: YO

FINDS:

Registry ID: 110005994923

Environmental Interest/Information System
RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

STATE MASTER

PALM SPRINGS OIL #9 (Continued) **1000294440**

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:

Envid:	1000294440
Registry ID:	110005994923
DFR URL:	http://echo.epa.gov/detailed-facility-report?fid=110005994923

C15 **PALM SPRINGS OIL #9** **SWEEPS UST** **S101631081**
WSW **68830 HIGHWAY 111** **CA FID UST** **N/A**
< 1/8 **PALM SPRINGS, CA 92234**
0.002 mi.
12 ft. **Site 6 of 10 in cluster C**

Relative:
Higher

Actual:
315 ft.

SWEEPS UST:

Status:	Active
Comp Number:	9083
Number:	1
Board Of Equalization:	44-017921
Referral Date:	11-17-92
Action Date:	11-17-92
Created Date:	02-29-88
Owner Tank Id:	000803
SWRCB Tank Id:	33-000-009083-000001
Tank Status:	A
Capacity:	12000
Active Date:	11-17-92
Tank Use:	M.V. FUEL
STG:	P
Content:	REG UNLEADED
Number Of Tanks:	5

Status:	Active
Comp Number:	9083
Number:	1
Board Of Equalization:	44-017921
Referral Date:	11-17-92
Action Date:	11-17-92
Created Date:	02-29-88
Owner Tank Id:	000803
SWRCB Tank Id:	33-000-009083-000002
Tank Status:	A
Capacity:	12000
Active Date:	11-17-92
Tank Use:	M.V. FUEL
STG:	P
Content:	REG UNLEADED
Number Of Tanks:	Not reported

Status:	Active
Comp Number:	9083
Number:	1
Board Of Equalization:	44-017921
Referral Date:	11-17-92
Action Date:	11-17-92
Created Date:	02-29-88

PALM SPRINGS OIL #9 (Continued) **S101631081**

Owner Tank Id: 000803
SWRCB Tank Id: 33-000-009083-000003
Tank Status: A
Capacity: 12000
Active Date: 11-17-92
Tank Use: M.V. FUEL
STG: P
Content: LEADED
Number Of Tanks: Not reported

Status: Active
Comp Number: 9083
Number: 1
Board Of Equalization: 44-017921
Referral Date: 11-17-92
Action Date: 11-17-92
Created Date: 02-29-88
Owner Tank Id: 000803
SWRCB Tank Id: 33-000-009083-000004
Tank Status: A
Capacity: 12000
Active Date: 11-17-92
Tank Use: M.V. FUEL
STG: P
Content: LEADED
Number Of Tanks: Not reported

Status: Active
Comp Number: 9083
Number: 1
Board Of Equalization: 44-017921
Referral Date: 11-17-92
Action Date: 11-17-92
Created Date: 02-29-88
Owner Tank Id: 000803
SWRCB Tank Id: 33-000-009083-000005
Tank Status: A
Capacity: 12000
Active Date: 11-17-92
Tank Use: M.V. FUEL
STG: P
Content: REG UNLEADED
Number Of Tanks: Not reported

CA FID UST:
Facility ID: 33002529
Regulated By: UTNKA
Regulated ID: Not reported
Cortese Code: Not reported
SIC Code: Not reported
Facility Phone: 6193246867
Mail To: Not reported
Mailing Address: 14011 VENTURA BLVD
Mailing Address 2: Not reported
Mailing City,St,Zip: CATHEDRAL CITY 92234
Contact: Not reported
Contact Phone: Not reported

PALM SPRINGS OIL #9 (Continued) **S101631081**

DUNs Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported
Status: Active

Facility ID: 33002529
Regulated By: UTNKA
Regulated ID: 00009083
Cortese Code: Not reported
SIC Code: Not reported
Facility Phone: 2136664471
Mail To: Not reported
Mailing Address: 5121 SUNSET BLVD
Mailing Address 2: Not reported
Mailing City,St,Zip: PALM SPRINGS 92234
Contact: Not reported
Contact Phone: Not reported
DUNs Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported
Status: Active

D16 **PYLES ROBERT** **EDR Hist Auto** **1021897602**
SSE **68904-96 HWY 111** **N/A**
< 1/8 **CATHEDRAL CY, CA 92234**
0.014 mi.
76 ft. **Site 1 of 2 in cluster D**

Relative: EDR Hist Auto
Higher

Year:	Name:	Type:
Actual: 1974	PYLES ROBERT	Gasoline Service Stations

309 ft.

B17 **SHELL STATION** **LUST** **S105023150**
SE **69010 111** **HIST CORTESE** **N/A**
< 1/8 **CATHEDRAL CITY, CA 92234**
0.021 mi.
113 ft. **Site 2 of 10 in cluster B**

Relative: LUST:
Lower

Region: STATE
Global Id: T0606512976
Actual: Latitude: 33.778092686
300 ft. Longitude: -116.457633778
Case Type: LUST Cleanup Site
Status: Completed - Case Closed
Status Date: 08/26/2010
Lead Agency: RIVERSIDE COUNTY LOP
Case Worker: LS
Local Agency: RIVERSIDE COUNTY LOP
RB Case Number: 7t2234032
LOC Case Number: 200420469
File Location: Local Agency
Potential Media Affect: Aquifer used for drinking water supply

SHELL STATION (Continued) **S105023150**

Potential Contaminants of Concern: Gasoline
Site History: ***Data prior to 2005 does not appear in GeoTracker. Consult agency file for all site data*** On February 23, 2004, 3-12K gasoline and 1-500 gallon waste oil tank were removed. Up to 1400 ppm TPHg was detected at 3 under dispenser 5, 36 ppb MTBE at 14 in the tank pit, 42 ppm TBA at 14 in the tank pit and 1.5 ppm ethanol at 14 in the tank pit. On March 13, 2004 the tank pit was over excavated down to 19. Up to 51 ppm TBA was detected at the bottom of the pit. 5 borings were drilled October 24-28, 2005 to 100-140. All borings had TPHd, up to 53 ppm. All borings had TPHg, up to 7.8 ppm. All borings had MTBE, up to 13 ppm, and all borings had TBA, up to 52 ppm. Detectable concentrations of hydrocarbons were detected to 140 where the boring was terminated. Two borings were converted to dual nested vapor wells. VE-1 was screened from 15-25 and 30-45. VE-2 was screened from 15-30 and 35-45. Monitoring well MW-1 was drilled March 23-24, 2006. Groundwater was encountered at 193. Up to 0.21 ppm MTBE was detected in the soil. A grab water sample was obtained prior to development and 48 ppb MTBE was detected. A water sample was taken on March 29, 2006 and showed 11 ppb MTBE. Based on the results of the grab sample, one additional boring and two additional wells were installed March 30 through April 5, 2006. Up to 8.6 ppm MTBE and 210 ppm TBA was detected in the soils. An additional boring was drilled June 5, 2006 to 100 near the north property line. 10 ppm TPHd was detected at 10 and 2.5 ppm naphthalene was detected at 35. Another boring was drilled in the old tank pit to 45 and a nested SVE well was installed, screened from 22-27 and 35-45. A maximum of 2.4 ppm TPHg was detected at 35, MTBE was detected to a maximum of 0.82 to 30 and TBA was detected t a maximum of 90 ppm at 30. SVE-4 was installed April 14, 2006 as a dual nested SVE well screened from 15-30 and 35-45. TPHg was detected in the 30-45 samples with a maximum of 4.8 ppm. Benzene was detected at 40 at 4.6 ppb. MTBE was detected from 25-45 with a maximum of 0.3 ppm. TBA was detected from 30-45 with a maximum of 2.4 ppm. Low levels of VOCs were detected. The SVE system began operating September 25, 2006 using all 4 SVE wells and was run until June 25, 2007 when a rebound test was successfully completed. Influent TPHg went from 74 ppmv to ND<3 ppm. MTBE went from 56 ppmv to 0.07 ppmv. TBA went from 15 ppmv to ND<0.002 ppmv. Ethanol went from 0.014 to 0.0084 ppmv. Case closed 08/26/2010 following well abandonments

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id:	T0606512976
Contact Type:	Regional Board Caseworker
Contact Name:	KAI DUNN
Organization Name:	COLORADO RIVER BASIN RWQCB (REGION 7)
Address:	73-720 FRED WARING DR. STE 100
City:	PALM DESERT
Email:	kai.dunn@waterboards.ca.gov
Phone Number:	Not reported

Global Id:	T0606512976
Contact Type:	Local Agency Caseworker
Contact Name:	LINDA SHURLOW
Organization Name:	RIVERSIDE COUNTY LOP
Address:	47950 Arabia Street, Suite A
City:	Indio

SHELL STATION (Continued) **S105023150**

Email: lshurlow@rivcocha.org
Phone Number: 7608637570

Status History:
Global Id: T0606512976
Status: Completed - Case Closed
Status Date: 08/26/2010

Global Id: T0606512976
Status: Open - Case Begin Date
Status Date: 02/23/2004

Global Id: T0606512976
Status: Open - Remediation
Status Date: 05/22/2006

Global Id: T0606512976
Status: Open - Site Assessment
Status Date: 04/05/2004

Global Id: T0606512976
Status: Open - Site Assessment
Status Date: 05/18/2004

Regulatory Activities:
Global Id: T0606512976
Action Type: ENFORCEMENT
Date: 03/21/2008
Action: Staff Letter - #032108

Global Id: T0606512976
Action Type: ENFORCEMENT
Date: 01/09/2008
Action: Staff Letter - #010908

Global Id: T0606512976
Action Type: ENFORCEMENT
Date: 04/29/2009
Action: Staff Letter - #RCDEH042909

Global Id: T0606512976
Action Type: ENFORCEMENT
Date: 04/08/2009
Action: File review

Global Id: T0606512976
Action Type: Other
Date: 04/05/2004
Action: Leak Reported

Global Id: T0606512976
Action Type: RESPONSE
Date: 09/23/2007
Action: Other Report / Document

Global Id: T0606512976

SHELL STATION (Continued) **S105023150**

Action Type: RESPONSE
Date: 06/10/2010
Action: Request for Closure

Global Id: T0606512976
Action Type: ENFORCEMENT
Date: 10/15/2008
Action: File review

Global Id: T0606512976
Action Type: ENFORCEMENT
Date: 08/04/2009
Action: Staff Letter - #Riv Co 080409

Global Id: T0606512976
Action Type: ENFORCEMENT
Date: 07/14/2009
Action: File review

Global Id: T0606512976
Action Type: ENFORCEMENT
Date: 07/22/2007
Action: Staff Letter - #072307

Global Id: T0606512976
Action Type: ENFORCEMENT
Date: 04/29/2008
Action: File review

Global Id: T0606512976
Action Type: ENFORCEMENT
Date: 08/26/2010
Action: Closure/No Further Action Letter - #RCDEH Closure

Global Id: T0606512976
Action Type: ENFORCEMENT
Date: 10/15/2007
Action: File review

Global Id: T0606512976
Action Type: RESPONSE
Date: 01/15/2008
Action: Other Workplan

Global Id: T0606512976
Action Type: RESPONSE
Date: 01/15/2010
Action: Monitoring Report - Quarterly

Global Id: T0606512976
Action Type: RESPONSE
Date: 08/15/2008
Action: Other Report / Document

Global Id: T0606512976
Action Type: RESPONSE
Date: 11/18/2007

SHELL STATION (Continued) **S105023150**

Action:	Other Workplan
Global Id:	T0606512976
Action Type:	ENFORCEMENT
Date:	10/03/2007
Action:	Staff Letter - #100307
Global Id:	T0606512976
Action Type:	Other
Date:	02/23/2004
Action:	Leak Stopped
Global Id:	T0606512976
Action Type:	ENFORCEMENT
Date:	10/29/2008
Action:	Technical Correspondence / Assistance / Other
Global Id:	T0606512976
Action Type:	ENFORCEMENT
Date:	06/02/2010
Action:	Staff Letter - #RCDEH 060210
Global Id:	T0606512976
Action Type:	ENFORCEMENT
Date:	07/30/2007
Action:	File review
Global Id:	T0606512976
Action Type:	ENFORCEMENT
Date:	01/12/2009
Action:	File review
Global Id:	T0606512976
Action Type:	ENFORCEMENT
Date:	04/24/2007
Action:	File review
Global Id:	T0606512976
Action Type:	ENFORCEMENT
Date:	01/24/2008
Action:	File review
Global Id:	T0606512976
Action Type:	RESPONSE
Date:	08/06/2010
Action:	Well Destruction Report
Global Id:	T0606512976
Action Type:	ENFORCEMENT
Date:	07/15/2004
Action:	Technical Correspondence / Assistance / Other
Global Id:	T0606512976
Action Type:	ENFORCEMENT
Date:	03/14/2007
Action:	Staff Letter - #031407

SHELL STATION (Continued) **S105023150**

Global Id: T0606512976
Action Type: ENFORCEMENT
Date: 11/26/2007
Action: Staff Letter - #112607

Global Id: T0606512976
Action Type: Other
Date: 04/05/2004
Action: Leak Discovery

Global Id: T0606512976
Action Type: ENFORCEMENT
Date: 07/11/2008
Action: File review

Global Id: T0606512976
Action Type: RESPONSE
Date: 10/15/2009
Action: Monitoring Report - Quarterly

Global Id: T0606512976
Action Type: RESPONSE
Date: 04/15/2010
Action: Monitoring Report - Annually

Global Id: T0606512976
Action Type: REMEDIATION
Date: 09/25/2006
Action: Soil Vapor Extraction (SVE)

Region: STATE
Global Id: T0606500910
Latitude: 33.7780325486966
Longitude: -116.457590600525
Case Type: LUST Cleanup Site
Status: Completed - Case Closed
Status Date: 09/13/1996
Lead Agency: RIVERSIDE COUNTY LOP
Case Worker: RIV
Local Agency: RIVERSIDE COUNTY LOP
RB Case Number: 7T2234006
LOC Case Number: 89936
File Location: Local Agency Warehouse
Potential Media Affect: Soil
Potential Contaminants of Concern: Gasoline
Site History: Not reported

Click here to access the California GeoTracker records for this facility:

Contact:
Global Id: T0606500910
Contact Type: Regional Board Caseworker
Contact Name: Phan Le
Organization Name: COLORADO RIVER BASIN RWQCB (REGION 7)
Address: 73720 FRED WARING DRIVE SUITE #100
City: PALM DESERT
Email: phan.le@waterboards.ca.gov

SHELL STATION (Continued) **S105023150**

Phone Number: 7607768974

Global Id: T0606500910
Contact Type: Local Agency Caseworker
Contact Name: Riverside County LOP Closed Cases
Organization Name: RIVERSIDE COUNTY LOP
Address: 3880 LEMON ST SUITE 200
City: RIVERSIDE
Email: Not reported
Phone Number: 9519558980

Status History:
Global Id: T0606500910
Status: Completed - Case Closed
Status Date: 09/13/1996

Global Id: T0606500910
Status: Open - Case Begin Date
Status Date: 03/23/1989

Global Id: T0606500910
Status: Open - Remediation
Status Date: 01/10/1992

Global Id: T0606500910
Status: Open - Remediation
Status Date: 06/04/1996

Global Id: T0606500910
Status: Open - Site Assessment
Status Date: 03/23/1989

Global Id: T0606500910
Status: Open - Site Assessment
Status Date: 04/25/1990

Global Id: T0606500910
Status: Open - Site Assessment
Status Date: 04/27/1990

Global Id: T0606500910
Status: Open - Site Assessment
Status Date: 05/07/1990

Regulatory Activities:
Global Id: T0606500910
Action Type: Other
Date: 10/06/1989
Action: Leak Reported

Global Id: T0606500910
Action Type: ENFORCEMENT
Date: 04/20/1997
Action: File review - #RCDEH Upload Site File 10/29/2015

Global Id: T0606500910

SHELL STATION (Continued) **S105023150**

Action Type: Other
Date: 07/07/1989
Action: Leak Discovery

Global Id: T0606500910
Action Type: ENFORCEMENT
Date: 04/21/1997
Action: Closure/No Further Action Letter - #Riv Co Closure

Global Id: T0606500910
Action Type: Other
Date: 07/07/1989
Action: Leak Stopped

RIVERSIDE CO. LUST:
Region: RIVERSIDE
Facility ID: 200420469
Employee: Shurlow-LOP
Site Closed: Yes
Case Type: Drinking Water Aquifer affected
Facility Status: closed/action completed
Casetype Decode: An Aquifer used for Drinking Water supply has been contaminated.
Fstatus Decode: Closed/Action completed

Region: RIVERSIDE
Facility ID: 89936
Employee: Shurlow-LOP
Site Closed: Yes
Case Type: Soil only
Facility Status: closed/action completed
Casetype Decode: Soil only is impacted
Fstatus Decode: Closed/Action completed

HIST CORTESE:
Region: CORTESE
Facility County Code: 33
Reg By: LTNKA
Reg Id: 7T2234006

B18 **SHELL STATION** **LUST** **S106152983**
SE **69010 HIGHWAY 111** **N/A**
< 1/8 **CATHEDRAL CITY, CA**
0.021 mi.
113 ft. **Site 3 of 10 in cluster B**

Relative:
Lower

Actual:
300 ft.

LUST REG 7:
Region: 7
Status: 9 - Case Closed
Case Num: 7T2234006
Substance: Gasoline - Automotive
ID: 1142
Global ID: T0606500910
Lead Agency: Local Agency
Case Worker: KO

B19 **SAYLOR HARRY C** **EDR Hist Auto** **1020249747**
SE **69010 HWY 111** **N/A**
< 1/8 **CATHEDRAL CY, CA 92234**
0.021 mi.
113 ft. **Site 4 of 10 in cluster B**

Relative:
Lower

Actual:
300 ft.

EDR Hist Auto

Year:	Name:	Type:
1977	SAYLOR HARRY C	Gasoline Service Stations
1978	SAYLOR HARRY C	Gasoline Service Stations
1979	SAYLOR HARRY C	Gasoline Service Stations
1980	SAYLOR HARRY C	Gasoline Service Stations
1982	SAYLOR HARRY C	Gasoline Service Stations
1983	SAYLOR HARRY C	Gasoline Service Stations
1985	SAYLOR HARRY C	Gasoline Service Stations
1986	SAYLOR HARRY C	Gasoline Service Stations
1987	SAYLOR HARRY C	Gasoline Service Stations
1988	SAYLOR HARRY C	Gasoline Service Stations
1989	CATHEDRAL SHELL	Gasoline Service Stations
1990	CATHEDRAL SHELL	Gasoline Service Stations
1991	CATHEDRAL SHELL	Gasoline Service Stations
1992	CATHEDRAL SHELL	Gasoline Service Stations
1993	CATHEDRAL SHELL	Gasoline Service Stations
1994	CATHEDRAL SHELL	Gasoline Service Stations
1995	CATHEDRAL SHELL	Gasoline Service Stations
1996	CATHEDRAL SHELL	Gasoline Service Stations
1997	CATHEDRAL SHELL	Gasoline Service Stations
1998	CATHEDRAL SHELL	Gasoline Service Stations
1999	CATHEDRAL SHELL	Gasoline Service Stations
2000	CATHEDRAL SHELL	Gasoline Service Stations
2001	CATHEDRAL SHELL	Gasoline Service Stations

B20 **SHELL SERVICE STATION** **RCRA-SQG** **1004678562**
SE **69010 HWY 111** **FINDS** **CAR000110569**
< 1/8 **CATHEDRAL CITY, CA 92234** **ECHO**
0.021 mi. **HAZNET**
113 ft. **Site 5 of 10 in cluster B**

Relative:
Lower

Actual:
300 ft.

RCRA-SQG:

Date form received by agency:	12/03/2001
Facility name:	SHELL SERVICE STATION
Facility address:	69010 HWY 111 SAP 135145 CATHEDRAL CITY, CA 92234
EPA ID:	CAR000110569
Mailing address:	P O BOX 2648 HOUSTON, TX 772522648
Contact:	SONDRA BIENVENU
Contact address:	P O BOX 2648 HOUSTON, TX 772522648
Contact country:	US
Contact telephone:	(713) 241-5036
Contact email:	Not reported
EPA Region:	09
Classification:	Small Small Quantity Generator
Description:	Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of

SHELL SERVICE STATION (Continued) **1004678562**

hazardous waste at any time

Owner/Operator Summary:
Owner/operator name: EQUILON ENTERPRISES L L C
Owner/operator address: P O BOX 2648
HOUSTON, TX 77252
Owner/operator country: Not reported
Owner/operator telephone: (713) 241-5036
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: D018
. Waste name: BENZENE

Violation Status: No violations found

FINDS:

Registry ID: 110012212961

Environmental Interest/Information System
California Hazardous Waste Tracking System - Datamart (HWTS-DATAMART) provides California with information on hazardous waste shipments for generators, transporters, and treatment, storage, and disposal facilities.

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

SHELL SERVICE STATION (Continued) **1004678562**

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:

Envid:	1004678562
Registry ID:	110012212961
DFR URL:	http://echo.epa.gov/detailed-facility-report?fid=110012212961

HAZNET:

envid:	1004678562
Year:	2004
GEPAID:	CAR000110569
Contact:	N CORTEZ/ENVT'L DATA ANALYST
Telephone:	2818742224
Mailing Name:	Not reported
Mailing Address:	12700 NORTHBOROUGH DRIVE MFT 240-G
Mailing City,St,Zip:	Houston, TX 770672508
Gen County:	Not reported
TSD EPA ID:	CAD028409019
TSD County:	Not reported
Waste Category:	Aqueous solution with total organic residues less than 10 percent
Disposal Method:	Treatment, Tank
Tons:	1.25
Cat Decode:	Not reported
Method Decode:	Not reported
Facility County:	Riverside

envid:	1004678562
Year:	2004
GEPAID:	CAR000110569
Contact:	N CORTEZ/ENVT'L DATA ANALYST
Telephone:	2818742224
Mailing Name:	Not reported
Mailing Address:	12700 NORTHBOROUGH DRIVE MFT 240-G
Mailing City,St,Zip:	Houston, TX 770672508
Gen County:	Not reported
TSD EPA ID:	CAT080013352
TSD County:	Not reported
Waste Category:	Aqueous solution with total organic residues less than 10 percent
Disposal Method:	Recycler
Tons:	4.17
Cat Decode:	Not reported
Method Decode:	Not reported
Facility County:	Riverside

envid:	1004678562
Year:	2004
GEPAID:	CAR000110569
Contact:	N CORTEZ/ENVT'L DATA ANALYST
Telephone:	2818742224
Mailing Name:	Not reported
Mailing Address:	12700 NORTHBOROUGH DRIVE MFT 240-G
Mailing City,St,Zip:	Houston, TX 770672508
Gen County:	Not reported
TSD EPA ID:	CAD982484933

SHELL SERVICE STATION (Continued) **1004678562**

TSD County:	Not reported
Waste Category:	Other empty containers 30 gallons or more
Disposal Method:	Recycler
Tons:	2.25
Cat Decode:	Not reported
Method Decode:	Not reported
Facility County:	Riverside
envid:	1004678562
Year:	2004
GEPAID:	CAR000110569
Contact:	N CORTEZ/ENVT'L DATA ANALYST
Telephone:	2818742224
Mailing Name:	Not reported
Mailing Address:	12700 NORTHBOROUGH DRIVE MFT 240-G
Mailing City,St,Zip:	Houston, TX 770672508
Gen County:	Not reported
TSD EPA ID:	CAD982484933
TSD County:	Not reported
Waste Category:	Other empty containers 30 gallons or more
Disposal Method:	Disposal, Other
Tons:	15.15
Cat Decode:	Not reported
Method Decode:	Not reported
Facility County:	Riverside

B21 **CATHEDRAL CITY SHELL** **EDR Hist Auto** **1020535816**
SE **69010 E PALM CANYON DR** **N/A**
< 1/8 **CATHEDRAL CITY, CA 92234**
0.021 mi.
113 ft. **Site 6 of 10 in cluster B**

Relative: EDR Hist Auto
Lower

Actual:
300 ft.

Year:	Name:	Type:
1994	CATHEDRAL CITY SHELL	General Automotive Repair Shops
1995	CATHEDRAL CITY SHELL	General Automotive Repair Shops
1996	CATHEDRAL CITY SHELL	General Automotive Repair Shops
1997	CATHEDRAL CITY SHELL	General Automotive Repair Shops
1998	CATHEDRAL CITY SHELL	General Automotive Repair Shops
1999	CATHEDRAL CITY SHELL	General Automotive Repair Shops
2000	CATHEDRAL CITY SHELL	General Automotive Repair Shops
2001	CATHEDRAL CITY SHELL	General Automotive Repair Shops
2002	CATHEDRAL CITY SHELL	General Automotive Repair Shops
2003	CATHEDRAL CITY SHELL	General Automotive Repair Shops
2004	CATHEDRAL CITY SHELL	General Automotive Repair Shops
2005	CATHEDRAL CITY SHELL	General Automotive Repair Shops
2006	CATHEDRAL CITY SHELL	General Automotive Repair Shops

B22 **SHELL OIL SERVICE STATION** **Notify 65** **S100178944**
SE **69010 HWY 111 @ DATE PLAM** **N/A**
< 1/8 **CATHEDRAL CITY, CA 92234**
0.021 mi.
113 ft. **Site 7 of 10 in cluster B**

Relative:
Lower

Actual:
300 ft.

NOTIFY 65:

Date Reported:	Not reported
Staff Initials:	Not reported
Board File Number:	Not reported
Facility Type:	Not reported
Discharge Date:	Not reported
Issue Date:	Not reported
Incident Description:	Not reported

B23 **CATHEDRAL CITY OIL (NOW EQUILION WAS SHELL)** **INDIAN LUST** **1011869667**
SE **69010 HWY 111** **INDIAN UST** **N/A**
< 1/8 **CATHEDRAL CITY, CA 92234**
0.021 mi.
113 ft. **Site 8 of 10 in cluster B**

Relative:
Lower

Actual:
300 ft.

Indian LUST:

Facility ID:	AGUA006
Region:	9
Facility Tel:	(760) 324-9931
Tribe Name:	AGUA CALIENTE
LUST Status:	Closed
Last Event Date:	2004-02-25 00:00:00
Latitude:	33.778055999999999
Longitude:	-116.457639
Last Status:	Cleanup Completed (NFA - Confirmed Release)

Indian UST:

Region:	9
Alternate Facility ID:	AGUA006
Facility Name2:	CATHEDRAL
Tank ID:	TANK 1
Tank Status:	Permanently Out of Use
Status Date:	-
Substance Description:	Used Oil
Tribe:	AGUA CALIENTE
Facility County:	Not reported
Facility Telephone:	(760) 324-9931
Overfill installed:	TRUE
Spill installed:	TRUE
Date installed:	1-Jan-89
Federally Regulated Tank:	TRUE

Region:	9
Alternate Facility ID:	AGUA006
Facility Name2:	CATHEDRAL
Tank ID:	TANK 4
Tank Status:	Permanently Out of Use
Status Date:	23-Feb-04
Substance Description:	Gasoline
Tribe:	AGUA CALIENTE
Facility County:	Not reported
Facility Telephone:	(760) 324-9931
Overfill installed:	TRUE

CATHEDRAL CITY OIL (NOW EQUILION WAS SHELL) (Continued) **1011869667**

Spill installed:	TRUE
Date installed:	1-Jan-89
Federally Regulated Tank:	TRUE
Region:	9
Alternate Facility ID:	AGUA006
Facility Name2:	CATHEDRAL
Tank ID:	TANK 3
Tank Status:	Permanently Out of Use
Status Date:	23-Feb-04
Substance Description:	Gasoline
Tribe:	AGUA CALIENTE
Facility County:	Not reported
Facility Telephone:	(760) 324-9931
Overfill installed:	TRUE
Spill installed:	TRUE
Date installed:	1-Jan-89
Federally Regulated Tank:	TRUE
Region:	9
Alternate Facility ID:	AGUA006
Facility Name2:	CATHEDRAL
Tank ID:	TANK 2
Tank Status:	Permanently Out of Use
Status Date:	23-Feb-04
Substance Description:	Gasoline
Tribe:	AGUA CALIENTE
Facility County:	Not reported
Facility Telephone:	(760) 324-9931
Overfill installed:	TRUE
Spill installed:	TRUE
Date installed:	1-Jan-89
Federally Regulated Tank:	TRUE

B24 **SHELL STATION** **SWEEPS UST** **S101590345**
SE **69010 E PALM CANYON DR** **CA FID UST** **N/A**
< 1/8 **CATHEDRAL CITY, CA 92234**
0.021 mi.
113 ft. **Site 9 of 10 in cluster B**

Relative:
Lower

Actual:
300 ft.

SWEEPS UST:

Status:	Active
Comp Number:	56698
Number:	1
Board Of Equalization:	44-000074
Referral Date:	11-18-92
Action Date:	11-18-92
Created Date:	09-21-89
Owner Tank Id:	000966
SWRCB Tank Id:	33-000-056698-000001
Tank Status:	A
Capacity:	12000
Active Date:	11-18-92
Tank Use:	M.V. FUEL
STG:	P
Content:	LEADED
Number Of Tanks:	4

SHELL STATION (Continued) **S101590345**

Status:	Active
Comp Number:	56698
Number:	1
Board Of Equalization:	44-000074
Referral Date:	11-18-92
Action Date:	11-18-92
Created Date:	09-21-89
Owner Tank Id:	000966
SWRCB Tank Id:	33-000-056698-000002
Tank Status:	A
Capacity:	12000
Active Date:	11-18-92
Tank Use:	M.V. FUEL
STG:	P
Content:	REG UNLEADED
Number Of Tanks:	Not reported

Status:	Active
Comp Number:	56698
Number:	1
Board Of Equalization:	44-000074
Referral Date:	11-18-92
Action Date:	11-18-92
Created Date:	09-21-89
Owner Tank Id:	000966
SWRCB Tank Id:	33-000-056698-000003
Tank Status:	A
Capacity:	12000
Active Date:	11-18-92
Tank Use:	M.V. FUEL
STG:	P
Content:	REG UNLEADED
Number Of Tanks:	Not reported

Status:	Active
Comp Number:	56698
Number:	1
Board Of Equalization:	44-000074
Referral Date:	11-18-92
Action Date:	11-18-92
Created Date:	09-21-89
Owner Tank Id:	000966
SWRCB Tank Id:	33-000-056698-000004
Tank Status:	A
Capacity:	550
Active Date:	11-18-92
Tank Use:	OIL
STG:	W
Content:	WASTE OIL
Number Of Tanks:	Not reported

CA FID UST:

Facility ID:	33007117
Regulated By:	UTNKA
Regulated ID:	Not reported
Cortese Code:	Not reported
SIC Code:	Not reported

SHELL STATION (Continued) **S101590345**

Facility Phone:	6193249931
Mail To:	Not reported
Mailing Address:	511 N BROOKHURST ST
Mailing Address 2:	Not reported
Mailing City,St,Zip:	CATHEDRAL CITY 92234
Contact:	Not reported
Contact Phone:	Not reported
DUNs Number:	Not reported
NPDES Number:	Not reported
EPA ID:	Not reported
Comments:	Not reported
Status:	Active

B25 **CATHEDRAL CITY SHELL** **UST** **U004186665**
SE **69010 HWY 111** **N/A**
< 1/8 **CATHEDRAL CITY, CA 92234**
0.021 mi.
113 ft. **Site 10 of 10 in cluster B**

Relative: **Lower**

Actual: **300 ft.**

UST:

Facility ID:	155
Permitting Agency:	RIVERSIDE COUNTY
Latitude:	33.77721
Longitude:	-116.45613

C26 **SHELL SWIFT STOP** **EDR Hist Auto** **1021990942**
South **68869 E PALM CANYON DR** **N/A**
< 1/8 **CATHEDRAL CITY, CA 92234**
0.032 mi.
167 ft. **Site 7 of 10 in cluster C**

Relative: **Higher**

Actual: **314 ft.**

EDR Hist Auto

Year:	Name:	Type:
1991	SHELL SWIFT STOP	Gasoline Service Stations
1992	SHELL SWIFT STOP	Gasoline Service Stations
1993	SHELL SWIFT STOP	Gasoline Service Stations
1994	SHELL SWIFT STOP	Gasoline Service Stations
1995	SHELL SWIFT STOP	Gasoline Service Stations
1996	WORLD OIL MARKETING COMPANY	Gasoline Service Stations
1996	WORAD OIL CO	Gasoline Service Stations
1997	WORLD OIL MARKETING COMPANY	Gasoline Service Stations
1997	WORAD OIL CO	Gasoline Service Stations

C27 **WORLD OIL STATION #71** **LUST** **S103821003**
South **68869 HWY 111** **N/A**
< 1/8 **CATHEDRAL CITY, CA**
0.032 mi.
167 ft. **Site 8 of 10 in cluster C**

Relative: **Higher**

Actual: **314 ft.**

RIVERSIDE CO. LUST:

Region:	RIVERSIDE
Facility ID:	95704
Employee:	Shurlow-LOP
Site Closed:	Yes

WORLD OIL STATION #71 (Continued) **S103821003**

Case Type: Soil only
Facility Status: closed/action completed
Casetype Decode: Soil only is impacted
Fstatus Decode: Closed/Action completed

C28 **WORLD OIL CO** **RCRA-SQG** **1000278380**
South **68869 BROADWAY** **LUST** **CAD981160906**
< 1/8 **CATHEDRAL CITY, CA 92234** **SWEEPS UST**
0.032 mi. **HIST UST**
167 ft. **Site 9 of 10 in cluster C** **CA FID UST**
FINDS
Relative: **ECHO**
Higher **HIST CORTESE**

Actual: **314 ft.**

RCRA-SQG:
Date form received by agency: 09/01/1996
Facility name: WORLD OIL CO
Facility address: 68869 BROADWAY
CATHEDRAL CITY, CA 92234
EPA ID: CAD981160906
Mailing address: 9302 S GARFIELD
SOUTH GATE, CA 90280
Contact: Not reported
Contact address: Not reported
Not reported
Contact country: US
Contact telephone: Not reported
Contact email: Not reported
EPA Region: 09
Classification: Small Small Quantity Generator
Description: Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:
Owner/operator name: NOT REQUIRED
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: (415) 555-1212
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: WORLD OIL MARKETING CO #71
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: (415) 555-1212
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

WORLD OIL CO (Continued) **1000278380**

Handler Activities Summary:
- U.S. importer of hazardous waste: No
- Mixed waste (haz. and radioactive): No
- Recycler of hazardous waste: No
- Transporter of hazardous waste: No
- Treater, storer or disposer of HW: No
- Underground injection activity: No
- On-site burner exemption: No
- Furnace exemption: No
- Used oil fuel burner: No
- Used oil processor: No
- User oil refiner: No
- Used oil fuel marketer to burner: No
- Used oil Specification marketer: No
- Used oil transfer facility: No
- Used oil transporter: No

Historical Generators:
- Date form received by agency: 10/29/1985
- Site name: WORLD OIL CO
- Classification: Large Quantity Generator

- Violation Status: No violations found

LUST:
- Region: STATE
- Global Id: T0606500919
- Latitude: 33.7782479847298
- Longitude: -116.460425731638
- Case Type: LUST Cleanup Site
- Status: Completed - Case Closed
- Status Date: 06/03/1996
- Lead Agency: RIVERSIDE COUNTY LOP
- Case Worker: RIV
- Local Agency: RIVERSIDE COUNTY LOP
- RB Case Number: 7T2234015
- LOC Case Number: 95704
- File Location: Local Agency Warehouse
- Potential Media Affect: Soil
- Potential Contaminants of Concern: Gasoline
- Site History: Not reported

Click here to access the California GeoTracker records for this facility:

Contact:
- Global Id: T0606500919
- Contact Type: Regional Board Caseworker
- Contact Name: Phan Le
- Organization Name: COLORADO RIVER BASIN RWQCB (REGION 7)
- Address: 73720 FRED WARING DRIVE SUITE #100
- City: PALM DESERT
- Email: phan.le@waterboards.ca.gov
- Phone Number: 7607768974

- Global Id: T0606500919
- Contact Type: Local Agency Caseworker
- Contact Name: Riverside County LOP Closed Cases

WORLD OIL CO (Continued) **1000278380**

Organization Name: RIVERSIDE COUNTY LOP
Address: 3880 LEMON ST SUITE 200
City: RIVERSIDE
Email: Not reported
Phone Number: 9519558980

Status History:
Global Id: T0606500919
Status: Completed - Case Closed
Status Date: 06/03/1996

Global Id: T0606500919
Status: Open - Case Begin Date
Status Date: 08/10/1995

Regulatory Activities:
Global Id: T0606500919
Action Type: Other
Date: 08/22/1995
Action: Leak Reported

Global Id: T0606500919
Action Type: ENFORCEMENT
Date: 06/03/1996
Action: Closure/No Further Action Letter - #Riv Co Closure

Global Id: T0606500919
Action Type: ENFORCEMENT
Date: 06/02/1996
Action: File review - #RCDEH Upload Site File 9/11/2015

Global Id: T0606500919
Action Type: Other
Date: 08/10/1995
Action: Leak Discovery

Global Id: T0606500919
Action Type: Other
Date: 08/29/1995
Action: Leak Stopped

LUST REG 7:
Region: 7
Status: 9 - Case Closed
Case Num: 7T2234015
Substance: Gasoline - Automotive
ID: 1276
Global ID: T0606500919
Lead Agency: Local Agency
Case Worker: KO

SWEEPS UST:
Status: Active
Comp Number: 13721

WORLD OIL CO (Continued) **1000278380**

Number: 1
Board Of Equalization: 44-011113
Referral Date: 06-19-89
Action Date: 06-19-89
Created Date: 02-29-88
Owner Tank Id: 7101
SWRCB Tank Id: 33-000-013721-000001
Tank Status: A
Capacity: 12000
Active Date: 06-19-89
Tank Use: M.V. FUEL
STG: P
Content: LEADED
Number Of Tanks: 6

Status: Active
Comp Number: 13721
Number: 1
Board Of Equalization: 44-011113
Referral Date: 06-19-89
Action Date: 06-19-89
Created Date: 02-29-88
Owner Tank Id: 7102
SWRCB Tank Id: 33-000-013721-000002
Tank Status: A
Capacity: 10000
Active Date: 06-19-89
Tank Use: M.V. FUEL
STG: P
Content: LEADED
Number Of Tanks: Not reported

Status: Active
Comp Number: 13721
Number: 1
Board Of Equalization: 44-011113
Referral Date: 06-19-89
Action Date: 06-19-89
Created Date: 02-29-88
Owner Tank Id: 7103
SWRCB Tank Id: 33-000-013721-000003
Tank Status: A
Capacity: 12000
Active Date: 06-19-89
Tank Use: M.V. FUEL
STG: P
Content: REG UNLEADED
Number Of Tanks: Not reported

Status: Active
Comp Number: 13721
Number: 1
Board Of Equalization: 44-011113
Referral Date: 06-19-89
Action Date: 06-19-89
Created Date: 02-29-88
Owner Tank Id: 7104

WORLD OIL CO (Continued) **1000278380**

SWRCB Tank Id: 33-000-013721-000004
Tank Status: A
Capacity: 10000
Active Date: 06-19-89
Tank Use: M.V. FUEL
STG: P
Content: REG UNLEADED
Number Of Tanks: Not reported

Status: Active
Comp Number: 13721
Number: 1
Board Of Equalization: 44-011113
Referral Date: 06-19-89
Action Date: 06-19-89
Created Date: 02-29-88
Owner Tank Id: 7105
SWRCB Tank Id: 33-000-013721-000005
Tank Status: A
Capacity: 12000
Active Date: 06-19-89
Tank Use: M.V. FUEL
STG: P
Content: REG UNLEADED
Number Of Tanks: Not reported

Status: Active
Comp Number: 13721
Number: 1
Board Of Equalization: 44-011113
Referral Date: 06-19-89
Action Date: 06-19-89
Created Date: 02-29-88
Owner Tank Id: 7106
SWRCB Tank Id: 33-000-013721-000006
Tank Status: A
Capacity: 10000
Active Date: 06-19-89
Tank Use: M.V. FUEL
STG: P
Content: DIESEL
Number Of Tanks: Not reported

HIST UST:
File Number: 0001FB1A
URL: http://geotracker.waterboards.ca.gov/ustpdfs/pdf/0001FB1A.pdf
Region: STATE
Facility ID: 00000013721
Facility Type: Gas Station
Other Type: Not reported
Contact Name: RON COLEMAN
Telephone: 2135608801
Owner Name: WORLD OIL MARKETING COMPANY
Owner Address: 9302 S. GARFIELD AVENUE
Owner City,St,Zip: SOUTH GATE, CA 90280
Total Tanks: 0006

WORLD OIL CO (Continued) **1000278380**

Tank Num:	001
Container Num:	7101
Year Installed:	Not reported
Tank Capacity:	00012000
Tank Used for:	PRODUCT
Type of Fuel:	REGULAR
Container Construction Thickness:	Not reported
Leak Detection:	Stock Inventor

Tank Num:	002
Container Num:	7102
Year Installed:	Not reported
Tank Capacity:	00010000
Tank Used for:	PRODUCT
Type of Fuel:	REGULAR
Container Construction Thickness:	Not reported
Leak Detection:	Stock Inventor

Tank Num:	003
Container Num:	7103
Year Installed:	Not reported
Tank Capacity:	00012000
Tank Used for:	PRODUCT
Type of Fuel:	UNLEADED
Container Construction Thickness:	Not reported
Leak Detection:	Stock Inventor

Tank Num:	004
Container Num:	7104
Year Installed:	Not reported
Tank Capacity:	00010000
Tank Used for:	PRODUCT
Type of Fuel:	UNLEADED
Container Construction Thickness:	Not reported
Leak Detection:	Stock Inventor

Tank Num:	005
Container Num:	7105
Year Installed:	Not reported
Tank Capacity:	00012000
Tank Used for:	PRODUCT
Type of Fuel:	06
Container Construction Thickness:	Not reported
Leak Detection:	Stock Inventor

Tank Num:	006
Container Num:	7106
Year Installed:	Not reported
Tank Capacity:	00010000
Tank Used for:	PRODUCT
Type of Fuel:	DIESEL
Container Construction Thickness:	Not reported
Leak Detection:	Stock Inventor

Click here for Geo Tracker PDF:

WORLD OIL CO (Continued) **1000278380**

CA FID UST:
- Facility ID: 33002231
- Regulated By: UTNKA
- Regulated ID: 00013721
- Cortese Code: Not reported
- SIC Code: Not reported
- Facility Phone: 2135608801
- Mail To: Not reported
- Mailing Address: 9302 S GARFIELD AVE
- Mailing Address 2: Not reported
- Mailing City,St,Zip: CATHEDRAL CITY 92234
- Contact: Not reported
- Contact Phone: Not reported
- DUNs Number: Not reported
- NPDES Number: Not reported
- EPA ID: Not reported
- Comments: Not reported
- Status: Active

FINDS:

Registry ID: 110002678460

Environmental Interest/Information System

California Hazardous Waste Tracking System - Datamart (HWTS-DATAMART) provides California with information on hazardous waste shipments for generators, transporters, and treatment, storage, and disposal facilities.

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:
- Envid: 1000278380
- Registry ID: 110002678460
- DFR URL: http://echo.epa.gov/detailed-facility-report?fid=110002678460

HIST CORTESE:
- Region: CORTESE
- Facility County Code: 33
- Reg By: LTNKA
- Reg Id: 7T2234015

C29
SSE
< 1/8
0.036 mi.
192 ft.

ROUTE 66 RIDERS INC
68885 E PALM CANYON DR
CATHEDRAL CITY, CA 92234

EDR Hist Auto **1020706943**
N/A

Site 10 of 10 in cluster C

Relative:
Higher

Actual:
314 ft.

EDR Hist Auto

Year:	Name:	Type:
1989	CATHEDRAL CITY FIRESTONE	General Automotive Repair Shops
1991	CATHEDRAL CITY FIRESTONE	General Automotive Repair Shops
1992	CATHEDRAL CITY FIRESTONE	General Automotive Repair Shops
1993	CATHEDRAL CITY FIRESTONE	General Automotive Repair Shops
1994	CATHEDRAL CITY FIRESTONE	General Automotive Repair Shops
1995	CATHEDRAL CITY FIRESTONE	General Automotive Repair Shops
1996	CATHEDRAL CITY FIRESTONE	General Automotive Repair Shops
1997	CATHEDRAL CITY FIRESTONE	General Automotive Repair Shops
1997	ROUTE 66 RIDERS INC	Gasoline Service Stations, NEC
1998	ROUTE 66 RIDERS INC	Gasoline Service Stations, NEC
1999	ROUTE 66 RIDERS INC	Gasoline Service Stations, NEC
2000	ROUTE 66 RIDERS INC	Gasoline Service Stations, NEC
2001	ROUTE 66 RIDERS INC	Gasoline Service Stations, NEC
2002	ROUTE 66 RIDERS INC	Gasoline Service Stations, NEC
2003	ROUTE 66 RIDERS INC	Gasoline Service Stations, NEC
2004	ROUTE 66 RIDERS INC	Gasoline Service Stations, NEC
2005	ROUTE 66 RIDERS INC	Gasoline Service Stations, NEC
2006	ROUTE 66 RIDERS INC	Gasoline Service Stations, NEC
2007	ROUTE 66 RIDERS INC	Gasoline Service Stations, NEC
2008	ROUTE 66 RIDERS INC	Gasoline Service Stations, NEC

E30
WSW
< 1/8
0.038 mi.
198 ft.

DESERT JEWELRY MART
68783 E PALM CANYON DR
CATHEDRAL CITY, CA 92234

EDR Hist Auto **1021721243**
N/A

Site 1 of 3 in cluster E

Relative:
Higher

Actual:
322 ft.

EDR Hist Auto

Year:	Name:	Type:
1995	DESERT JEWELRY MART	Jewelry Stores, NEC
1996	DESERT JEWELRY MART	Jewelry Stores, NEC
1997	DESERT JEWELRY MART	Jewelry Stores, NEC
1998	DESERT JEWELRY MART	Jewelry Stores, NEC
1999	DESERT JEWELRY MART	Jewelry Stores, NEC
2000	DESERT JEWELRY MART	Jewelry Stores, NEC
2001	DESERT JEWELRY MART	Jewelry Stores, NEC
2002	DESERT JEWELRY MART	Jewelry Stores, NEC
2003	DESERT JEWELRY MART	Jewelry Stores, NEC
2004	DESERT JEWELRY MART	Jewelry Stores, NEC
2005	DESERT JEWELRY MART	Jewelry Stores, NEC
2006	DESERT JEWELRY MART	Jewelry Stores, NEC
2007	PENORISS INC	Jewelry Stores, NEC
2008	PENORISS INC	Jewelry Stores, NEC
2009	PENORISS INC	Jewelry Stores, NEC
2010	PENORISS INC	Jewelry Stores, NEC
2011	PENORISS INC	Jewelry Stores, NEC
2012	PENORISS INC	Jewelry Stores, NEC
2013	PENORISS INC	Jewelry Stores, NEC
2014	PENORISS INC	Jewelry Stores, NEC

E31
WSW
< 1/8
0.043 mi.
225 ft.

OLIVER & WINSTON INC
68759 E US HWY 111
CATHEDRAL CITY, CA 92234

EDR Hist Auto **1021038479**
N/A

Site 2 of 3 in cluster E

Relative:
Higher

Actual:
321 ft.

EDR Hist Auto

Year:	Name:	Type:
1989	OLIVER & WINSTON INC	Auto And Home Supply Stores, NEC
1990	OLIVER & WINSTON INC	Auto And Home Supply Stores, NEC
1991	OLIVER & WINSTON INC	Auto And Home Supply Stores, NEC
1992	OLIVER & WINSTON INC	Auto And Home Supply Stores, NEC
1993	OLIVER & WINSTON INC	Auto And Home Supply Stores, NEC
1994	OLIVER & WINSTON INC	Auto And Home Supply Stores, NEC

D32
South
< 1/8
0.043 mi.
225 ft.

IMMEDIATE CARE AUTO REPAIR
68900 B ST
CATHEDRAL CY, CA 92234

EDR Hist Auto **1020591691**
N/A

Site 2 of 2 in cluster D

Relative:
Higher

Actual:
317 ft.

EDR Hist Auto

Year:	Name:	Type:
1988	IMMEDIATE CARE AUTO REPAIR	General Automotive Repair Shops
1989	PHILS IMMEDIATE CARE AUT	General Automotive Repair Shops
1989	IMMEDIATE CARE AUTO REPAIR	General Automotive Repair Shops
1990	IMMEDIATE CARE AUTO REPAIR	General Automotive Repair Shops
1991	IMMEDIATE CARE AUTO REPAIR	General Automotive Repair Shops
1992	IMMEDIATE CARE AUTO REPAIR	General Automotive Repair Shops
1993	IMMEDIATE CARE AUTO REPAIR	General Automotive Repair Shops
1994	IMMEDIATE CARE AUTO REPAIR	General Automotive Repair Shops

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E33
WSW
< 1/8
0.053 mi.
278 ft.

PALM SPRINGS TIRE & AUTOMOTIVE
68759 E PALM CANYON DR
CATHEDRAL CITY, CA 92234

EDR Hist Auto **1021049352**
N/A

Site 3 of 3 in cluster E

Relative:
Higher

Actual:
323 ft.

EDR Hist Auto

Year:	Name:	Type:
1998	PALM SPRINGS TIRE & AUTOMOTIVE	General Automotive Repair Shops
1999	PALM SPRINGS TIRE & AUTOMOTIVE	General Automotive Repair Shops
2000	PALM SPRINGS TIRE & AUTOMOTIVE	General Automotive Repair Shops
2001	PALM SPRINGS TIRE & AUTOMOTIVE	General Automotive Repair Shops
2002	PALM SPRINGS TIRE & AUTOMOTIVE	General Automotive Repair Shops
2003	PALM SPRINGS TIRE & AUTOMOTIVE	General Automotive Repair Shops
2004	PALM SPRINGS TIRE & AUTOMOTIVE	General Automotive Repair Shops

F34 **SUPER CLEAN** **DRYCLEANERS** **S108541315**
SE **69040 E PALM CANYON DR STE A** **N/A**
< 1/8 **CATHEDRAL CITY, CA 92234**
0.061 mi.
324 ft. **Site 1 of 2 in cluster F**

Relative:
Lower

Actual:
297 ft.

DRYCLEANERS:

EPA Id:	CAL000327519
NAICS Code:	333312
NAICS Description:	Commercial Laundry, Drycleaning, and Pressing Machine Manufacturing
SIC Code:	3582
SIC Description:	Commercial Laundry, Drycleaning and Pressing Machines
Create Date:	12/05/2007
Facility Active:	No
Inactive Date:	06/30/2008
Facility Addr2:	Not reported
Owner Name:	JAMES & GENY KARNES
Owner Address:	37066 BANKSIDE DR APT 4
Owner Address 2:	Not reported
Owner Telephone:	7609927443
Contact Name:	JAMES KARNES
Contact Address:	37066 BANKSIDE DR APT 4
Contact Address 2:	Not reported
Contact Telephone:	7609927443
Mailing Name:	Not reported
Mailing Address 1:	69040 E PALM CANYON DR STE A
Mailing Address 2:	Not reported
Mailing City:	CATHEDRAL CITY
Mailing State:	CA
Mailing Zip:	922341447
Owner Fax:	Not reported
Region Code:	4

F35 **SUPER CLEANERS** **EDR Hist Cleaner** **1018436102**
SE **69040 E PALM CANYON DR** **N/A**
< 1/8 **CATHEDRAL CITY, CA 92234**
0.061 mi.
324 ft. **Site 2 of 2 in cluster F**

Relative:
Lower

Actual:
297 ft.

EDR Hist Cleaner

Year:	Name:	Type:
1999	BEST CLEANERS OF DESERT	Drycleaning Plants, Except Rugs, NEC
2000	SUPER CLEANERS	Drycleaning Plants, Except Rugs, NEC
2001	SUPER CLEANERS	Drycleaning Plants, Except Rugs, NEC
2002	SUPER CLEANERS	Drycleaning Plants, Except Rugs, NEC
2003	SUPER CLEANERS	Drycleaning Plants, Except Rugs, NEC
2004	SUPER CLEANERS	Drycleaning Plants, Except Rugs, NEC
2005	SUPER CLEANERS	Drycleaning Plants, Except Rugs, NEC
2005	DAKOTA 1 50 CLEANERS	Drycleaning Plants, Except Rugs, NEC
2006	DAKOTA 1 50 CLEANERS	Drycleaning Plants, Except Rugs, NEC
2007	DAKOTA 1 50 CLEANERS	Drycleaning Plants, Except Rugs, NEC
2008	SUPER CLEANERS	Drycleaning Plants, Except Rugs, NEC
2008	DAKOTA 1 50 CLEANERS	Drycleaning Plants, Except Rugs, NEC
2009	SUPER CLEANERS	Drycleaning Plants, Except Rugs, NEC

36
West
< 1/8
0.095 mi.
503 ft.

CATHEDRAL CITY AUTO SUPPLY
68733 HWY 111
CATHEDRAL CY, CA 92234

EDR Hist Auto **1020159637**
N/A

Relative:
Higher

Actual:
319 ft.

EDR Hist Auto

Year:	Name:	Type:
1987	CATHEDRAL CITY AUTO SUPPLY	Motor Vehicle Supplies And New Parts

---

G37
West
1/8-1/4
0.167 mi.
883 ft.

CHEVRON #9-3045
68630 E PALM CANYON DR
CATHEDRAL CITY, CA

Site 1 of 5 in cluster G

LUST **S104970772**
N/A

Relative:
Higher

Actual:
319 ft.

RIVERSIDE CO. LUST:

Region:	RIVERSIDE
Facility ID:	90960
Employee:	Shurlow-LOP
Site Closed:	Yes
Case Type:	Soil only
Facility Status:	closed/action completed
Casetype Decode:	Soil only is impacted
Fstatus Decode:	Closed/Action completed

G38
West
1/8-1/4
0.167 mi.
883 ft.

CHEVRON STATION #9-3045
68630 EAST PALM CANYON DRIVE
CATHEDRAL CITY, CA 92234

Site 2 of 5 in cluster G

LUST **S105023146**
HIST CORTESE **N/A**

Relative:
Higher

Actual:
319 ft.

LUST:

Region:	STATE
Global Id:	T0606500913
Latitude:	33.780128410854
Longitude:	-116.464278275394
Case Type:	LUST Cleanup Site
Status:	Completed - Case Closed
Status Date:	10/05/2005
Lead Agency:	RIVERSIDE COUNTY LOP
Case Worker:	RIV
Local Agency:	RIVERSIDE COUNTY LOP
RB Case Number:	7T2234009
LOC Case Number:	90960
File Location:	Local Agency Warehouse
Potential Media Affect:	Soil
Potential Contaminants of Concern:	Gasoline
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id:	T0606500913
Contact Type:	Regional Board Caseworker
Contact Name:	Phan Le
Organization Name:	COLORADO RIVER BASIN RWQCB (REGION 7)
Address:	73720 FRED WARING DRIVE SUITE #100

CHEVRON STATION #9-3045 (Continued) **S105023146**

City: PALM DESERT
Email: phan.le@waterboards.ca.gov
Phone Number: 7607768974

Global Id: T0606500913
Contact Type: Local Agency Caseworker
Contact Name: Riverside County LOP Closed Cases
Organization Name: RIVERSIDE COUNTY LOP
Address: 3880 LEMON ST SUITE 200
City: RIVERSIDE
Email: Not reported
Phone Number: 9519558980

Status History:
Global Id: T0606500913
Status: Completed - Case Closed
Status Date: 10/05/2005

Global Id: T0606500913
Status: Open - Case Begin Date
Status Date: 10/18/1990

Global Id: T0606500913
Status: Open - Remediation
Status Date: 02/21/1992

Global Id: T0606500913
Status: Open - Remediation
Status Date: 09/23/1993

Global Id: T0606500913
Status: Open - Site Assessment
Status Date: 10/18/1990

Global Id: T0606500913
Status: Open - Site Assessment
Status Date: 10/29/1990

Global Id: T0606500913
Status: Open - Site Assessment
Status Date: 11/01/1990

Global Id: T0606500913
Status: Open - Site Assessment
Status Date: 07/15/1991

Regulatory Activities:
Global Id: T0606500913
Action Type: Other
Date: 10/23/1990
Action: Leak Reported

Global Id: T0606500913
Action Type: ENFORCEMENT
Date: 11/17/2008
Action: Closure/No Further Action Letter - #Site Closure

CHEVRON STATION #9-3045 (Continued) **S105023146**

Global Id: T0606500913
Action Type: Other
Date: 10/18/1990
Action: Leak Discovery

Global Id: T0606500913
Action Type: ENFORCEMENT
Date: 11/16/2008
Action: File review - #RCDEH Upload Site File 9/5/2014

Global Id: T0606500913
Action Type: Other
Date: 10/18/1990
Action: Leak Stopped

LUST REG 7:
Region: 7
Status: 9 - Case Closed
Case Num: 7T2234009
Substance: Gasoline - Automotive
ID: 619
Global ID: T0606500913
Lead Agency: Local Agency
Case Worker: KO

HIST CORTESE:
Region: CORTESE
Facility County Code: 33
Reg By: LTNKA
Reg Id: 7T2234009

G39 **93045** **HIST UST** **U001573787**
West **68-630 E PALM CANYON DR** **N/A**
1/8-1/4 **CATHEDRAL CITY, CA 92234**
0.167 mi.
883 ft. **Site 3 of 5 in cluster G**

Relative:
Higher

Actual:
319 ft.

HIST UST:
File Number: 0001F4C8
URL: http://geotracker.waterboards.ca.gov/ustpdfs/pdf/0001F4C8.pdf
Region: STATE
Facility ID: 00000062369
Facility Type: Gas Station
Other Type: Not reported
Contact Name: KRINGS,HARRY
Telephone: 6193282513
Owner Name: CHEVRON U.S.A. INC.
Owner Address: 575 MARKET
Owner City,St,Zip: SAN FRANCISCO, CA 94105
Total Tanks: 0004

Tank Num: 001
Container Num: 1
Year Installed: 1971
Tank Capacity: 00010000
Tank Used for: PRODUCT

93045 (Continued) **U001573787**

Type of Fuel:	Not reported
Container Construction Thickness:	0000250
Leak Detection:	Stock Inventor
Tank Num:	002
Container Num:	2
Year Installed:	1971
Tank Capacity:	00010000
Tank Used for:	PRODUCT
Type of Fuel:	Not reported
Container Construction Thickness:	0000250
Leak Detection:	Stock Inventor
Tank Num:	003
Container Num:	3
Year Installed:	1971
Tank Capacity:	00005000
Tank Used for:	PRODUCT
Type of Fuel:	Not reported
Container Construction Thickness:	0000250
Leak Detection:	Stock Inventor
Tank Num:	004
Container Num:	4
Year Installed:	1971
Tank Capacity:	00001000
Tank Used for:	WASTE
Type of Fuel:	Not reported
Container Construction Thickness:	0000130
Leak Detection:	Stock Inventor

Click here for Geo Tracker PDF:

G40
West
1/8-1/4
0.167 mi.
883 ft.

CHEVRON #93045 **SWEEPS UST S101589817**
68630 E PALM CANYON DR **CA FID UST N/A**
CATHEDRAL CITY, CA 92234

Site 4 of 5 in cluster G

Relative:
Higher

Actual:
319 ft.

SWEEPS UST:

Status:	Active
Comp Number:	62369
Number:	1
Board Of Equalization:	44-018433
Referral Date:	02-27-92
Action Date:	02-27-92
Created Date:	02-29-88
Owner Tank Id:	38767
SWRCB Tank Id:	33-000-062369-000005
Tank Status:	A
Capacity:	12000
Active Date:	02-27-92
Tank Use:	M.V. FUEL
STG:	P
Content:	MID GRADE UN
Number Of Tanks:	4
Status:	Active

CHEVRON #93045 (Continued) **S101589817**

Comp Number: 62369
Number: 1
Board Of Equalization: 44-018433
Referral Date: 02-27-92
Action Date: 02-27-92
Created Date: 02-29-88
Owner Tank Id: 38778
SWRCB Tank Id: 33-000-062369-000006
Tank Status: A
Capacity: 12000
Active Date: 02-27-92
Tank Use: M.V. FUEL
STG: P
Content: REG UNLEADED
Number Of Tanks: Not reported

Status: Active
Comp Number: 62369
Number: 1
Board Of Equalization: 44-018433
Referral Date: 02-27-92
Action Date: 02-27-92
Created Date: 02-29-88
Owner Tank Id: 38769
SWRCB Tank Id: 33-000-062369-000007
Tank Status: A
Capacity: 12000
Active Date: 02-27-92
Tank Use: M.V. FUEL
STG: P
Content: REG UNLEADED
Number Of Tanks: Not reported

Status: Active
Comp Number: 62369
Number: 1
Board Of Equalization: 44-018433
Referral Date: 02-27-92
Action Date: 02-27-92
Created Date: 02-29-88
Owner Tank Id: Not reported
SWRCB Tank Id: 33-000-062369-000008
Tank Status: A
Capacity: 1000
Active Date: 02-27-92
Tank Use: OIL
STG: W
Content: WASTE OIL
Number Of Tanks: Not reported

CA FID UST:
Facility ID: 33000143
Regulated By: UTNKA
Regulated ID: 00062369
Cortese Code: Not reported
SIC Code: Not reported
Facility Phone: 6193282513

CHEVRON #93045 (Continued) **S101589817**

Mail To: Not reported
Mailing Address: P O BOX 2833
Mailing Address 2: Not reported
Mailing City,St,Zip: CATHEDRAL CITY 92234
Contact: Not reported
Contact Phone: Not reported
DUNs Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported
Status: Active

G41 **BEEP-BEEP LUBE & TUNE** **SWEEPS UST** **S101631080**
West **68635 HIGHWAY 111** **CA FID UST** **N/A**
1/8-1/4 **CATHEDRAL CITY, CA 92234**
0.178 mi.
938 ft. **Site 5 of 5 in cluster G**

Relative:
Higher

Actual:
321 ft.

SWEEPS UST:
Status: Active
Comp Number: 1849
Number: 2
Board Of Equalization: Not reported
Referral Date: 08-26-91
Action Date: 08-26-91
Created Date: 08-26-91
Owner Tank Id: Not reported
SWRCB Tank Id: 33-000-001849-000001
Tank Status: A
Capacity: 10
Active Date: 08-26-91
Tank Use: M.V. FUEL
STG: P
Content: UNKNOWN CONT
Number Of Tanks: 5

Status: Active
Comp Number: 1849
Number: 2
Board Of Equalization: Not reported
Referral Date: 08-26-91
Action Date: 08-26-91
Created Date: 08-26-91
Owner Tank Id: Not reported
SWRCB Tank Id: 33-000-001849-000002
Tank Status: A
Capacity: 10
Active Date: 08-26-91
Tank Use: M.V. FUEL
STG: P
Content: UNKNOWN CONT
Number Of Tanks: Not reported

Status: Active
Comp Number: 1849
Number: 2
Board Of Equalization: Not reported
Referral Date: 08-26-91

BEEP-BEEP LUBE & TUNE (Continued) **S101631080**

Action Date: 08-26-91
Created Date: 08-26-91
Owner Tank Id: Not reported
SWRCB Tank Id: 33-000-001849-000003
Tank Status: A
Capacity: 10
Active Date: 08-26-91
Tank Use: M.V. FUEL
STG: P
Content: UNKNOWN CONT
Number Of Tanks: Not reported

Status: Active
Comp Number: 1849
Number: 2
Board Of Equalization: Not reported
Referral Date: 08-26-91
Action Date: 08-26-91
Created Date: 08-26-91
Owner Tank Id: Not reported
SWRCB Tank Id: 33-000-001849-000004
Tank Status: A
Capacity: 10
Active Date: 08-26-91
Tank Use: M.V. FUEL
STG: P
Content: UNKNOWN CONT
Number Of Tanks: Not reported

Status: Active
Comp Number: 1849
Number: 2
Board Of Equalization: Not reported
Referral Date: 08-26-91
Action Date: 08-26-91
Created Date: 08-26-91
Owner Tank Id: Not reported
SWRCB Tank Id: 33-000-001849-000005
Tank Status: A
Capacity: 10
Active Date: 08-26-91
Tank Use: OIL
STG: W
Content: WASTE OIL
Number Of Tanks: Not reported

CA FID UST:
Facility ID: 33006831
Regulated By: UTNKA
Regulated ID: Not reported
Cortese Code: Not reported
SIC Code: Not reported
Facility Phone: Not reported
Mail To: Not reported
Mailing Address: 3320 RED ROSE
Mailing Address 2: Not reported
Mailing City,St,Zip: CATHEDRAL CITY 92234

BEEP-BEEP LUBE & TUNE (Continued) **S101631080**

Contact: Not reported
Contact Phone: Not reported
DUNs Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported
Status: Active

42
SE
1/8-1/4
0.209 mi.
1102 ft.

SUNGATE MOBILE HOME RENDER SAFE **SEMS** **1018148632**
69333 EAST PALM CANYON DRIVE **CAN000900221**
CATHEDRAL CITY, CA 92234

Relative:
Higher

Actual:
313 ft.

SEMS:
Site ID: 900221
EPA ID: CAN000900221
Federal Facility: N
NPL: Not on the NPL
Non NPL Status: Removal Only Site (No Site Assessment Work Needed)

H43
ESE
1/8-1/4
0.229 mi.
1210 ft.

PALM SPRINGS MOTORS INC **RCRA-SQG** **1000294436**
69-200 HY 111 **HIST UST** **CAD981573991**
CATHEDRAL CITY, CA 92234

Site 1 of 2 in cluster H

Relative:
Lower

Actual:
298 ft.

RCRA-SQG:
Date form received by agency: 03/06/2002
Facility name: PALM SPRINGS MOTORS INC
Facility address: 69-200 HY 111
CATHEDRAL CITY, CA 92234
EPA ID: CAD981573991
Contact: THOMAS R PENDLETON
Contact address: Not reported
Not reported
Contact country: US
Contact telephone: (760) 328-2102
Telephone ext.: 221
Contact email: Not reported
EPA Region: 09
Classification: Small Small Quantity Generator
Description: Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:
Owner/operator name: WILLIAM JORRANCE
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: (415) 555-1212
Legal status: Private
Owner/Operator Type: Owner

PALM SPRINGS MOTORS INC (Continued) **1000294436**

Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: NOT REQUIRED
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: (415) 555-1212
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:
Date form received by agency: 03/06/2002
Site name: PALM SPRINGS MOTORS INC
Classification: Large Quantity Generator

Date form received by agency: 09/30/1986
Site name: PALM SPRINGS MOTORS
Classification: Small Quantity Generator

Violation Status: No violations found

HIST UST:
File Number: 0001F85F
URL: http://geotracker.waterboards.ca.gov/ustpdfs/pdf/0001F85F.pdf
Region: STATE
Facility ID: 00000008886
Facility Type: Other
Other Type: AUTO SALES & SERVICE
Contact Name: WM. S. TORRANCE, DEALER
Telephone: 6193282102
Owner Name: PALM SPRINGS MOTORS, INC.
Owner Address: 69-200 HIGHWAY #111
Owner City,St,Zip: CATHEDRAL CITY, CA 92234
Total Tanks: 0001

Tank Num: 001
Container Num: 1

PALM SPRINGS MOTORS INC (Continued) **1000294436**

Year Installed:	1983
Tank Capacity:	00001000
Tank Used for:	PRODUCT
Type of Fuel:	UNLEADED
Container Construction Thickness:	Not reported
Leak Detection:	None

Tank Num:	001
Container Num:	1
Year Installed:	1983
Tank Capacity:	00001000
Tank Used for:	PRODUCT
Type of Fuel:	UNLEADED
Container Construction Thickness:	Not reported
Leak Detection:	None

Click here for Geo Tracker PDF:

H44 **PALM SPRINGS MOTORS INC** **HIST UST** **1000294434**
ESE **69 200 HWY 111** **RCRA NonGen / NLR** **CAD005994504**
1/8-1/4 **CATHEDRAL CITY, CA 92234**
0.229 mi.
1210 ft. **Site 2 of 2 in cluster H**

Relative:
Lower

Actual:
298 ft.

HIST UST:

File Number:	Not reported
URL:	Not reported
Region:	STATE
Facility ID:	00000021534
Facility Type:	Other
Other Type:	AUTO SALES & SERVICE
Contact Name:	WM. S. TORRANCE
Telephone:	6193282102
Owner Name:	PALMS SPRINGS MOTORS, INC.
Owner Address:	69-200 HIGHWAY #111
Owner City,St,Zip:	CATHEDRAL CITY, CA 92234
Total Tanks:	0001

Tank Num:	001
Container Num:	0000000001
Year Installed:	1983
Tank Capacity:	00001000
Tank Used for:	PRODUCT
Type of Fuel:	UNLEADED
Container Construction Thickness:	Not reported
Leak Detection:	Groundwater Monitoring Well

RCRA NonGen / NLR:

Date form received by agency:	07/11/2002
Facility name:	PALM SPRINGS MOTORS INC
Facility address:	69 200 HWY 111 CATHEDRAL CITY, CA 92234
EPA ID:	CAD005994504
Contact:	TERRY O BRIEN
Contact address:	69 200 HWY 111 CATHEDRAL CITY, CA 92234
Contact country:	US

PALM SPRINGS MOTORS INC (Continued) **1000294434**

Contact telephone: (760) 328-2102
Contact email: Not reported
EPA Region: 09
Classification: Non-Generator
Description: Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:
Owner/operator name: WILLIAM TORRANCE
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: (415) 555-1212
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: NOT REQUIRED
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: (415) 555-1212
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Violation Status: No violations found

---

45 North 1/8-1/4 0.233 mi. 1231 ft.

DUNN-EDWARDS CORPORATION
68-713 PEREZ ROAD SUITE 3
CATHEDRAL CITY, CA 92234

RCRA-SQG FINDS ECHO HAZNET **1000306650 CAD981399884**

Relative: Higher

Actual: 304 ft.

RCRA-SQG:
Date form received by agency: 09/01/1996
Facility name: DUNN-EDWARDS CORPORATION
Facility address: 68-713 PEREZ ROAD SUITE 3
CATHEDRAL CITY, CA 92234
EPA ID: CAD981399884

DUNN-EDWARDS CORPORATION (Continued) **1000306650**

Mailing address:	4885 EAST FIFTY SECOND PLACE LOS ANGELES, CA 90040
Contact:	Not reported
Contact address:	Not reported Not reported
Contact country:	US
Contact telephone:	Not reported
Contact email:	Not reported
EPA Region:	09
Land type:	Facility is not located on Indian land. Additional information is not known.
Classification:	Small Small Quantity Generator
Description:	Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:

Owner/operator name:	RUSSELL T JACOBS PRES
Owner/operator address:	NOT REQUIRED NOT REQUIRED, ME 99999
Owner/operator country:	Not reported
Owner/operator telephone:	(415) 555-1212
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Owner/operator name:	NOT REQUIRED
Owner/operator address:	NOT REQUIRED NOT REQUIRED, ME 99999
Owner/operator country:	Not reported
Owner/operator telephone:	(415) 555-1212
Legal status:	Private
Owner/Operator Type:	Operator
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Handler Activities Summary:

U.S. importer of hazardous waste:	No
Mixed waste (haz. and radioactive):	No
Recycler of hazardous waste:	No
Transporter of hazardous waste:	No
Treater, storer or disposer of HW:	No
Underground injection activity:	No
On-site burner exemption:	No
Furnace exemption:	No
Used oil fuel burner:	No
Used oil processor:	No
User oil refiner:	No
Used oil fuel marketer to burner:	No
Used oil Specification marketer:	No
Used oil transfer facility:	No
Used oil transporter:	No

DUNN-EDWARDS CORPORATION (Continued) **1000306650**

Historical Generators:
Date form received by agency: 04/25/1986
Site name: DUNN-EDWARDS CORPORATION
Classification: Large Quantity Generator

Violation Status: No violations found

Evaluation Action Summary:
Evaluation date: 11/28/1992
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State Contractor/Grantee

FINDS:

Registry ID: 110002694139

Environmental Interest/Information System
RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:
Envid: 1000306650
Registry ID: 110002694139
DFR URL: http://echo.epa.gov/detailed-facility-report?fid=110002694139

HAZNET:
envid: 1000306650
Year: 1993
GEPAID: CAD981399884
Contact: DUNN-EDWARDS CORPORATION
Telephone: 8005374098
Mailing Name: Not reported
Mailing Address: 4885 E 52ND PL ENVIRONMENTAL A
Mailing City,St,Zip: LOS ANGELES, CA 900400000
Gen County: Not reported
TSD EPA ID: CAD008364432
TSD County: Not reported
Waste Category: Unspecified solvent mixture
Disposal Method: Not reported
Tons: 0.68799999999
Cat Decode: Not reported
Method Decode: Not reported
Facility County: Sacramento

envid: 1000306650
Year: 1993

DUNN-EDWARDS CORPORATION (Continued) **1000306650**

GEPAID: CAD981399884
Contact: DUNN-EDWARDS CORPORATION
Telephone: 8005374098
Mailing Name: Not reported
Mailing Address: 4885 E 52ND PL ENVIRONMENTAL A
Mailing City,St,Zip: LOS ANGELES, CA 900400000
Gen County: Not reported
TSD EPA ID: UTD991301748
TSD County: Not reported
Waste Category: Latex waste
Disposal Method: Not reported
Tons: 0.2293
Cat Decode: Not reported
Method Decode: Not reported
Facility County: Sacramento

46
NW
1/8-1/4
0.249 mi.
1316 ft.

Relative:
Lower

Actual:
291 ft.

PALM SPINGS MITSUBISHI SHOP ANNEX **RCRA-SQG** **1008194813**
68703 PEREZ RD **CAR000161307**
CATHEDRAL CITY, CA 92234

RCRA-SQG:
Date form received by agency: 03/16/2005
Facility name: PALM SPINGS MITSUBISHI SHOP ANNEX
Facility address: 68703 PEREZ RD
STE A 16
CATHEDRAL CITY, CA 92234
EPA ID: CAR000161307
Mailing address: 68130 KYLE RD
CATHEDRAL CITY, CA 92234
Contact: SEAN PENTONY
Contact address: 68130 KYLE RD
CATHEDRAL CITY, CA 92234
Contact country: US
Contact telephone: 760-770-7100
Contact email: Not reported
EPA Region: 09
Classification: Small Small Quantity Generator
Description: Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:
Owner/operator name: CLIFF SHAMALEY
Owner/operator address: Not reported
Not reported
Owner/operator country: US
Owner/operator telephone: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: 12/10/2004
Owner/Op end date: Not reported

Owner/operator name: PALM SPRINGS AUTOMOTIVE GROUP INC

PALM SPINGS MITSUBISHI SHOP ANNEX (Continued) **1008194813**

Owner/operator address: 68130 KYLE RD
CATHEDRAL CITY, CA 92234
Owner/operator country: US
Owner/operator telephone: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: 12/10/2004
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

. Waste code: D001
. Waste name: IGNITABLE WASTE

Violation Status: No violations found

47
West
1/8-1/4
0.250 mi.
1318 ft.

BEST CLEANERS **RCRA-SQG** **1000596101**
68600 HIGHWAY 111 **FINDS** **CAD983600644**
CATHEDRAL CITY, CA 92234 **ECHO**
HAZNET

Relative:
Higher

Actual:
324 ft.

RCRA-SQG:
Date form received by agency: 08/02/1991
Facility name: BEST CLEANERS
Facility address: 68600 HIGHWAY 111
CATHEDRAL CITY, CA 92234
EPA ID: CAD983600644
Mailing address: HIGHWAY 111
CATHEDRAL CITY, CA 92234
Contact: ROBERT YOUNG
Contact address: 68600 HIGHWAY 111
CATHEDRAL CITY, CA 92234
Contact country: US
Contact telephone: (619) 328-1447
Contact email: Not reported
EPA Region: 09
Classification: Small Small Quantity Generator
Description: Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

BEST CLEANERS (Continued) **1000596101**

Owner/Operator Summary:
Owner/operator name: ROBERT YOUNG
Owner/operator address: 68600 HIGHWAY 111
CATHEDRAL CITY, CA 92234
Owner/operator country: Not reported
Owner/operator telephone: (619) 328-1447
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Violation Status: No violations found

FINDS:

Registry ID: 110005996253

Environmental Interest/Information System
RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:
Envid: 1000596101
Registry ID: 110005996253
DFR URL: http://echo.epa.gov/detailed-facility-report?fid=110005996253

HAZNET:
envid: 1000596101
Year: 1998
GEPAID: CAD983600644
Contact: ROBERT YOUNG

BEST CLEANERS (Continued) **1000596101**

Telephone:	6193217814
Mailing Name:	Not reported
Mailing Address:	69040 E PALM CANYON DR STE A
Mailing City,St,Zip:	CATHEDRAL CITY, CA 922341447
Gen County:	Not reported
TSD EPA ID:	CAT000613927
TSD County:	Not reported
Waste Category:	Liquids with halogenated organic compounds >= 1,000 Mg./L
Disposal Method:	Transfer Station
Tons:	.3900
Cat Decode:	Not reported
Method Decode:	Not reported
Facility County:	Riverside

envid:	1000596101
Year:	1997
GEPAID:	CAD983600644
Contact:	ROBERT YOUNG
Telephone:	6193217814
Mailing Name:	Not reported
Mailing Address:	69040 E PALM CANYON DR STE A
Mailing City,St,Zip:	CATHEDRAL CITY, CA 922341447
Gen County:	Not reported
TSD EPA ID:	CAT000613927
TSD County:	Not reported
Waste Category:	Liquids with halogenated organic compounds >= 1,000 Mg./L
Disposal Method:	Transfer Station
Tons:	.6750
Cat Decode:	Not reported
Method Decode:	Not reported
Facility County:	Riverside

envid:	1000596101
Year:	1996
GEPAID:	CAD983600644
Contact:	ROBERT YOUNG
Telephone:	6193217814
Mailing Name:	Not reported
Mailing Address:	69040 E PALM CANYON DR STE A
Mailing City,St,Zip:	CATHEDRAL CITY, CA 922341447
Gen County:	Not reported
TSD EPA ID:	CAT000613927
TSD County:	Not reported
Waste Category:	Liquids with halogenated organic compounds >= 1,000 Mg./L
Disposal Method:	Transfer Station
Tons:	1.0850
Cat Decode:	Not reported
Method Decode:	Not reported
Facility County:	Riverside

envid:	1000596101
Year:	1995
GEPAID:	CAD983600644
Contact:	ROBERT YOUNG
Telephone:	6193217814
Mailing Name:	Not reported
Mailing Address:	69040 E PALM CANYON DR STE A

BEST CLEANERS (Continued) **1000596101**

Mailing City,St,Zip:	CATHEDRAL CITY, CA 922341447
Gen County:	Not reported
TSD EPA ID:	CAT000613927
TSD County:	Not reported
Waste Category:	Liquids with halogenated organic compounds >= 1,000 Mg./L
Disposal Method:	Transfer Station
Tons:	.5850
Cat Decode:	Not reported
Method Decode:	Not reported
Facility County:	Riverside

envid:	1000596101
Year:	1994
GEPAID:	CAD983600644
Contact:	ROBERT YOUNG
Telephone:	6193217814
Mailing Name:	Not reported
Mailing Address:	69040 E PALM CANYON DR STE A
Mailing City,St,Zip:	CATHEDRAL CITY, CA 922341447
Gen County:	Not reported
TSD EPA ID:	CAT000613927
TSD County:	Not reported
Waste Category:	Liquids with halogenated organic compounds >= 1,000 Mg./L
Disposal Method:	Transfer Station
Tons:	.8225
Cat Decode:	Not reported
Method Decode:	Not reported
Facility County:	Riverside

Click this hyperlink while viewing on your computer to access
1 additional CA_HAZNET: record(s) in the EDR Site Report.

I48 **PALM SPRINGS FORD** **LUST** **S105023151**
ESE **69200 111** **HIST CORTESE** **N/A**
1/4-1/2 **CATHEDRAL CITY, CA 92234**
0.299 mi.
1578 ft. **Site 1 of 2 in cluster I**

Relative:
Lower

Actual:
275 ft.

LUST:

Region:	STATE
Global Id:	T0606500917
Latitude:	33.777095586068
Longitude:	-116.453597743586
Case Type:	LUST Cleanup Site
Status:	Completed - Case Closed
Status Date:	09/06/1994
Lead Agency:	RIVERSIDE COUNTY LOP
Case Worker:	RIV
Local Agency:	RIVERSIDE COUNTY LOP
RB Case Number:	7T2234013
LOC Case Number:	94180
File Location:	Local Agency Warehouse
Potential Media Affect:	Soil
Potential Contaminants of Concern:	Gasoline
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

PALM SPRINGS FORD (Continued) **S105023151**

Contact:
Global Id: T0606500917
Contact Type: Regional Board Caseworker
Contact Name: Phan Le
Organization Name: COLORADO RIVER BASIN RWQCB (REGION 7)
Address: 73720 FRED WARING DRIVE SUITE #100
City: PALM DESERT
Email: phan.le@waterboards.ca.gov
Phone Number: 7607768974

Global Id: T0606500917
Contact Type: Local Agency Caseworker
Contact Name: Riverside County LOP Closed Cases
Organization Name: RIVERSIDE COUNTY LOP
Address: 3880 LEMON ST SUITE 200
City: RIVERSIDE
Email: Not reported
Phone Number: 9519558980

Status History:
Global Id: T0606500917
Status: Completed - Case Closed
Status Date: 09/06/1994

Global Id: T0606500917
Status: Open - Case Begin Date
Status Date: 11/17/1993

Regulatory Activities:
Global Id: T0606500917
Action Type: Other
Date: 03/07/1994
Action: Leak Reported

Global Id: T0606500917
Action Type: ENFORCEMENT
Date: 06/09/1994
Action: Closure/No Further Action Letter - #Riv Co Closure

Global Id: T0606500917
Action Type: Other
Date: 12/13/1993
Action: Leak Discovery

Global Id: T0606500917
Action Type: Other
Date: 11/17/1993
Action: Leak Stopped

Global Id: T0606500917
Action Type: ENFORCEMENT
Date: 06/08/1994
Action: File review - #RCDEH Upload Site File 9/29/2015

PALM SPRINGS FORD (Continued) **S105023151**

RIVERSIDE CO. LUST:

Region:	RIVERSIDE
Facility ID:	94180
Employee:	Hoy
Site Closed:	Yes
Case Type:	Soil only
Facility Status:	closed/action completed
Casetype Decode:	Soil only is impacted
Fstatus Decode:	Closed/Action completed

HIST CORTESE:

Region:	CORTESE
Facility County Code:	33
Reg By:	LTNKA
Reg Id:	7T2234013

I49 **PALM SPRINGS FORD MOTORS** **LUST** **S106152961**
ESE **69200 HIGHWAY 111** **N/A**
1/4-1/2 **CATHEDRAL CITY, CA**
0.299 mi.
1578 ft. **Site 2 of 2 in cluster I**

Relative:
Lower

Actual:
275 ft.

LUST REG 7:

Region:	7
Status:	9 - Case Closed
Case Num:	7T2234013
Substance:	Gasoline - Automotive
ID:	1060
Global ID:	T0606500917
Lead Agency:	Local Agency
Case Worker:	KO

J50 **CIRCLE K #333** **LUST** **S104574430**
West **37040 CATHEDRAL CANYON DR** **N/A**
1/4-1/2 **CATHEDRAL CITY, CA 92234**
0.304 mi.
1604 ft. **Site 1 of 3 in cluster J**

Relative:
Higher

Actual:
341 ft.

LUST:

Region:	STATE
Global Id:	T0606500927
Latitude:	33.7795578391039
Longitude:	-116.466670876057
Case Type:	LUST Cleanup Site
Status:	Completed - Case Closed
Status Date:	04/28/2000
Lead Agency:	RIVERSIDE COUNTY LOP
Case Worker:	RIV
Local Agency:	RIVERSIDE COUNTY LOP
RB Case Number:	7T2234023
LOC Case Number:	9915384
File Location:	Not reported
Potential Media Affect:	Soil
Potential Contaminants of Concern:	Gasoline
Site History:	Not reported

CIRCLE K #333 (Continued) **S104574430**

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id:	T0606500927
Contact Type:	Regional Board Caseworker
Contact Name:	Phan Le
Organization Name:	COLORADO RIVER BASIN RWQCB (REGION 7)
Address:	73720 FRED WARING DRIVE SUITE #100
City:	PALM DESERT
Email:	phan.le@waterboards.ca.gov
Phone Number:	7607768974

Global Id:	T0606500927
Contact Type:	Local Agency Caseworker
Contact Name:	Riverside County LOP Closed Cases
Organization Name:	RIVERSIDE COUNTY LOP
Address:	3880 LEMON ST SUITE 200
City:	RIVERSIDE
Email:	Not reported
Phone Number:	9519558980

Status History:

Global Id:	T0606500927
Status:	Completed - Case Closed
Status Date:	04/28/2000

Global Id:	T0606500927
Status:	Open - Case Begin Date
Status Date:	03/23/1999

Global Id:	T0606500927
Status:	Open - Site Assessment
Status Date:	08/31/1999

Global Id:	T0606500927
Status:	Open - Site Assessment
Status Date:	09/01/1999

Global Id:	T0606500927
Status:	Open - Site Assessment
Status Date:	01/26/2000

Regulatory Activities:

Global Id:	T0606500927
Action Type:	Other
Date:	07/07/1999
Action:	Leak Reported

Global Id:	T0606500927
Action Type:	ENFORCEMENT
Date:	11/18/2008
Action:	Closure/No Further Action Letter - #Site Closure

Global Id:	T0606500927
Action Type:	ENFORCEMENT
Date:	11/17/2008

CIRCLE K #333 (Continued) **S104574430**

Action: File review - #RCDEH Upload Site File 2/18/2015

Global Id: T0606500927
Action Type: Other
Date: 03/23/1999
Action: Leak Stopped

Global Id: T0606500927
Action Type: Other
Date: 07/07/1999
Action: Leak Discovery

J51 **CIRCLE K # 333** **LUST S105023142**
West **37040 CATHEDRAL CNYN** **HIST CORTESE N/A**
1/4-1/2 **CATHEDRAL CITY, CA 92234**
0.304 mi.
1604 ft. **Site 2 of 3 in cluster J**

Relative:
Higher

Actual:
341 ft.

LUST REG 7:
Region: 7
Status: 9 - Case Closed
Case Num: 7T2234023
Substance: Gasoline - Automotive
ID: 631
Global ID: T0606500927
Lead Agency: Local Agency
Case Worker: YO

RIVERSIDE CO. LUST:
Region: RIVERSIDE
Facility ID: 9915384
Employee: Shurlow-LOP
Site Closed: Yes
Case Type: Soil only
Facility Status: closed/action completed
Casetype Decode: Soil only is impacted
Fstatus Decode: Closed/Action completed

HIST CORTESE:
Region: CORTESE
Facility County Code: 33
Reg By: LTNKA
Reg Id: 7T2234023

J52 **R D PARKER SERVICES** **LUST S104816279**
West **36650 A CATHEDRAL CANYON** **N/A**
1/4-1/2 **CATHEDRAL CITY, CA**
0.315 mi.
1663 ft. **Site 3 of 3 in cluster J**

Relative:
Higher

Actual:
348 ft.

LUST REG 7:
Region: 7
Status: 9 - Case Closed
Case Num: 7T2234010

R D PARKER SERVICES (Continued) **S104816279**

Substance: Waste oil/Used oil
ID: 1092
Global ID: T0606500914
Lead Agency: Local Agency
Case Worker: KO

K53 **R D PARKER SERVICE CENTER** **LUST** **S103820852**
WNW **36650 CATHEDRAL CANYON RD** **N/A**
1/4-1/2 **CATHEDRAL CITY, CA**
0.333 mi.
1759 ft. **Site 1 of 3 in cluster K**

Relative:
Lower

Actual:
301 ft.

RIVERSIDE CO. LUST:

Region:	RIVERSIDE
Facility ID:	91233
Employee:	Lehmann
Site Closed:	Yes
Case Type:	Soil only
Facility Status:	closed/action completed
Casetype Decode:	Soil only is impacted
Fstatus Decode:	Closed/Action completed

K54 **R D PARKER SERVICES** **LUST** **S109284977**
WNW **36650 CATHEDRAL CANYON** **N/A**
1/4-1/2 **CATHEDRAL CITY, CA 92234**
0.333 mi.
1759 ft. **Site 2 of 3 in cluster K**

Relative:
Lower

Actual:
301 ft.

LUST:

Region:	STATE
Global Id:	T0606500914
Latitude:	33.7824408054021
Longitude:	-116.466388353933
Case Type:	LUST Cleanup Site
Status:	Completed - Case Closed
Status Date:	07/10/1992
Lead Agency:	RIVERSIDE COUNTY LOP
Case Worker:	RIV
Local Agency:	RIVERSIDE COUNTY LOP
RB Case Number:	7T2234010
LOC Case Number:	91233
File Location:	Local Agency Warehouse
Potential Media Affect:	Soil
Potential Contaminants of Concern:	Waste Oil / Motor / Hydraulic / Lubricating
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id:	T0606500914
Contact Type:	Regional Board Caseworker
Contact Name:	Phan Le
Organization Name:	COLORADO RIVER BASIN RWQCB (REGION 7)
Address:	73720 FRED WARING DRIVE SUITE #100
City:	PALM DESERT
Email:	phan.le@waterboards.ca.gov
Phone Number:	7607768974

R D PARKER SERVICES (Continued) **S109284977**

Global Id: T0606500914
Contact Type: Local Agency Caseworker
Contact Name: Riverside County LOP Closed Cases
Organization Name: RIVERSIDE COUNTY LOP
Address: 3880 LEMON ST SUITE 200
City: RIVERSIDE
Email: Not reported
Phone Number: 9519558980

Status History:
Global Id: T0606500914
Status: Completed - Case Closed
Status Date: 07/10/1992

Global Id: T0606500914
Status: Open - Case Begin Date
Status Date: 03/26/1991

Regulatory Activities:
Global Id: T0606500914
Action Type: Other
Date: 03/27/1991
Action: Leak Reported

Global Id: T0606500914
Action Type: ENFORCEMENT
Date: 08/16/1991
Action: Closure/No Further Action Letter - #Riv Co Closure

Global Id: T0606500914
Action Type: Other
Date: 03/26/1991
Action: Leak Discovery

Global Id: T0606500914
Action Type: Other
Date: 03/26/1991
Action: Leak Stopped

Global Id: T0606500914
Action Type: ENFORCEMENT
Date: 08/15/1991
Action: File review - #RCDEH uploaded file 9/30/2015

K55 **R. D. PARKER SERVICES** **HIST CORTESE** **S105023140**
WNW **36650 A CATHEDRAL CNYN DRIV** **N/A**
1/4-1/2 **CATHEDRAL CITY, CA**
0.349 mi.
1845 ft. **Site 3 of 3 in cluster K**

Relative:
Lower

Actual:
298 ft.

HIST CORTESE:
Region: CORTESE
Facility County Code: 33
Reg By: LTNKA
Reg Id: 7T2234010

L56 **FAMILIAN PIPE & SUPPLY** **HIST UST** **U001573802**
NNW **36283 PLAZA** **HIST CORTESE** **N/A**
1/4-1/2 **CATHEDRAL CITY, CA 91409**
0.373 mi.
1972 ft. **Site 1 of 2 in cluster L**

Relative:
Higher

Actual:
304 ft.

HIST UST:

File Number:	Not reported
URL:	Not reported
Region:	STATE
Facility ID:	00000010915
Facility Type:	Other
Other Type:	WHOLESALE PLUMBING
Contact Name:	MIKE WILLIAMSON, BRANCH MANAGE
Telephone:	6193286581
Owner Name:	FAMILIAN PIPE & SUPPLY
Owner Address:	7651 WOODMAN AVENUE
Owner City,St,Zip:	VAN NUYS, CA 91402
Total Tanks:	0001
Tank Num:	001
Container Num:	11
Year Installed:	1972
Tank Capacity:	00008000
Tank Used for:	PRODUCT
Type of Fuel:	DIESEL
Container Construction Thickness:	Not reported
Leak Detection:	Stock Inventor

HIST CORTESE:

Region:	CORTESE
Facility County Code:	33
Reg By:	LTNKA
Reg Id:	7T2234005

L57 **FAMILIAN PIPE & SUPPLY** **LUST** **S106152907**
NNW **36283 PLAZA DRIVE** **N/A**
1/4-1/2 **CATHEDRAL CITY, CA 92234**
0.373 mi.
1972 ft. **Site 2 of 2 in cluster L**

Relative:
Higher

Actual:
304 ft.

LUST:

Region:	STATE
Global Id:	T0606500909
Latitude:	33.7853179
Longitude:	-116.46403
Case Type:	LUST Cleanup Site
Status:	Completed - Case Closed
Status Date:	08/24/1992
Lead Agency:	RIVERSIDE COUNTY LOP
Case Worker:	RIV
Local Agency:	RIVERSIDE COUNTY LOP
RB Case Number:	7T2234005
LOC Case Number:	Not reported
File Location:	Not reported
Potential Media Affect:	Soil
Potential Contaminants of Concern:	Diesel
Site History:	Not reported

FAMILIAN PIPE & SUPPLY (Continued) **S106152907**

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id:	T0606500909
Contact Type:	Regional Board Caseworker
Contact Name:	Phan Le
Organization Name:	COLORADO RIVER BASIN RWQCB (REGION 7)
Address:	73720 FRED WARING DRIVE SUITE #100
City:	PALM DESERT
Email:	phan.le@waterboards.ca.gov
Phone Number:	7607768974

Global Id:	T0606500909
Contact Type:	Local Agency Caseworker
Contact Name:	Riverside County LOP Closed Cases
Organization Name:	RIVERSIDE COUNTY LOP
Address:	3880 LEMON ST SUITE 200
City:	RIVERSIDE
Email:	Not reported
Phone Number:	9519558980

Status History:

Global Id:	T0606500909
Status:	Completed - Case Closed
Status Date:	08/24/1992

Global Id:	T0606500909
Status:	Open - Case Begin Date
Status Date:	09/30/1988

Regulatory Activities:

Global Id:	T0606500909
Action Type:	Other
Date:	12/05/1988
Action:	Leak Reported

Global Id:	T0606500909
Action Type:	Other
Date:	12/05/1988
Action:	Leak Discovery

Global Id:	T0606500909
Action Type:	Other
Date:	09/30/1988
Action:	Leak Stopped

LUST REG 7:

Region:	7
Status:	9 - Case Closed
Case Num:	7T2234005
Substance:	Diesel fuel oil and additives
ID:	760
Global ID:	T0606500909
Lead Agency:	Local Agency

FAMILIAN PIPE & SUPPLY (Continued) **S106152907**

Case Worker: KO

58
NW
1/4-1/2
0.379 mi.
1999 ft.

COCA COLA ENTERPRISES WEST
68600 PEREZ ROAD
CATHEDRAL CITY, CA 92234

LUST **S102428186**
CHMIRS **N/A**
HAZNET
HIST CORTESE

Relative:
Lower

Actual:
301 ft.

LUST:

Region:	STATE
Global Id:	T0606500911
Latitude:	33.7855027474975
Longitude:	-116.464724326389
Case Type:	LUST Cleanup Site
Status:	Completed - Case Closed
Status Date:	07/24/1992
Lead Agency:	RIVERSIDE COUNTY LOP
Case Worker:	RIV
Local Agency:	RIVERSIDE COUNTY LOP
RB Case Number:	7T2234007
LOC Case Number:	89830
File Location:	Local Agency Warehouse
Potential Media Affect:	Soil
Potential Contaminants of Concern:	Gasoline
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id:	T0606500911
Contact Type:	Regional Board Caseworker
Contact Name:	Phan Le
Organization Name:	COLORADO RIVER BASIN RWQCB (REGION 7)
Address:	73720 FRED WARING DRIVE SUITE #100
City:	PALM DESERT
Email:	phan.le@waterboards.ca.gov
Phone Number:	7607768974

Global Id:	T0606500911
Contact Type:	Local Agency Caseworker
Contact Name:	Riverside County LOP Closed Cases
Organization Name:	RIVERSIDE COUNTY LOP
Address:	3880 LEMON ST SUITE 200
City:	RIVERSIDE
Email:	Not reported
Phone Number:	9519558980

Status History:

Global Id:	T0606500911
Status:	Completed - Case Closed
Status Date:	07/24/1992

Global Id:	T0606500911
Status:	Open - Case Begin Date
Status Date:	08/23/1989

Regulatory Activities:

COCA COLA ENTERPRISES WEST (Continued) **S102428186**

Global Id: T0606500911
Action Type: Other
Date: 08/23/1989
Action: Leak Reported

Global Id: T0606500911
Action Type: Other
Date: 08/23/1989
Action: Leak Discovery

Global Id: T0606500911
Action Type: ENFORCEMENT
Date: 08/23/1989
Action: File review - #RCDEH Upload Site File 3/11/2015

Global Id: T0606500911
Action Type: Other
Date: 08/23/1989
Action: Leak Stopped

Global Id: T0606500911
Action Type: ENFORCEMENT
Date: 08/24/1989
Action: Closure/No Further Action Letter - #Riv Co Closure

LUST REG 7:
Region: 7
Status: 9 - Case Closed
Case Num: 7T2234007
Substance: Gasoline - Automotive
ID: 665
Global ID: T0606500911
Lead Agency: Local Agency
Case Worker: KO

RIVERSIDE CO. LUST:
Region: RIVERSIDE
Facility ID: 89830
Employee: Whitehead
Site Closed: Yes
Case Type: Undefined
Facility Status: closed/action completed
Casetype Decode: Undefined
Fstatus Decode: Closed/Action completed

CHMIRS:
OES Incident Number: 15-3333
OES notification: 06/13/2015
OES Date: Not reported
OES Time: Not reported
Date Completed: **Not reported**
Property Use: Not reported
Agency Id Number: Not reported
Agency Incident Number: Not reported
Time Notified: Not reported

COCA COLA ENTERPRISES WEST (Continued) **S102428186**

Time Completed:	Not reported
Surrounding Area:	Not reported
Estimated Temperature:	Not reported
Property Management:	Not reported
More Than Two Substances Involved?:	Not reported
Resp Agncy Personel # Of Decontaminated:	Not reported
Responding Agency Personel # Of Injuries:	Not reported
Responding Agency Personel # Of Fatalities:	Not reported
Others Number Of Decontaminated:	Not reported
Others Number Of Injuries:	Not reported
Others Number Of Fatalities:	Not reported
Vehicle Make/year:	Not reported
Vehicle License Number:	Not reported
Vehicle State:	Not reported
Vehicle Id Number:	Not reported
CA DOT PUC/ICC Number:	Not reported
Company Name:	Not reported
Reporting Officer Name/ID:	Not reported
Report Date:	Not reported
Facility Telephone:	Not reported
Waterway Involved:	No
Waterway:	Not reported
Spill Site:	Other
Cleanup By:	Reporting Party
Containment:	Not reported
What Happened:	Not reported
Type:	Not reported
Measure:	Not reported
Other:	Not reported
Type:	VAPOR
Measure:	Lbs.
Other:	Not reported
Date/Time:	945
Year:	2015
Agency:	Desert Ice Castle
Incident Date:	06/13/2015
Admin Agency:	Riverside County Environmental Health
Amount:	Not reported
Contained:	Yes
Site Type:	Not reported
E Date:	Not reported
Substance:	Ammonia
Quantity Released:	200-250
Unknown:	Not reported
Substance #2:	Not reported
Substance #3:	Not reported
Evacuations:	Not reported
Number of Injuries:	Not reported
Number of Fatalities:	Not reported
#1 Pipeline:	No
#2 Pipeline:	No
#3 Pipeline:	No
#1 Vessel >= 300 Tons:	No
#2 Vessel >= 300 Tons:	No
#3 Vessel >= 300 Tons:	No
Evacs:	No
Injuries:	No

COCA COLA ENTERPRISES WEST (Continued) **S102428186**

Fatals: No
Comments: Not reported
Description: RP states, "An opening of a valve caused the release of approx. 200-250 lbs of ammonia."

HAZNET:

envid: S102428186
Year: 2015
GEPAID: CAL000368423
Contact: ANTHONY LIU
Telephone: 7608083276
Mailing Name: Not reported
Mailing Address: 68600 PEREZ RD
Mailing City,St,Zip: CATHEDRAL CITY, CA 922340000
Gen County: Riverside
TSD EPA ID: NVT330010000
TSD County: 99
Waste Category: Waste oil and mixed oil
Disposal Method: Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Tons: 0.532
Cat Decode: Waste oil and mixed oil
Method Decode: Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Facility County: Riverside

envid: S102428186
Year: 2015
GEPAID: CAL000368423
Contact: ANTHONY LIU
Telephone: 7608083276
Mailing Name: Not reported
Mailing Address: 68600 PEREZ RD
Mailing City,St,Zip: CATHEDRAL CITY, CA 922340000
Gen County: Riverside
TSD EPA ID: NVT330010000
TSD County: 99
Waste Category: Other organic solids
Disposal Method: Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Tons: 0.075
Cat Decode: Other organic solids
Method Decode: Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Facility County: Riverside

envid: S102428186
Year: 2013
GEPAID: CAL000368423
Contact: ANDREW LUCZYNSKI
Telephone: 9097089933
Mailing Name: Not reported
Mailing Address: 68600 PEREZ RD
Mailing City,St,Zip: CATHEDRAL CITY, CA 922340000
Gen County: Riverside
TSD EPA ID: CAT080013352
TSD County: Los Angeles

COCA COLA ENTERPRISES WEST (Continued) **S102428186**

Waste Category: Not reported
Disposal Method: Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Tons: 0.85
Cat Decode: Not reported
Method Decode: Not reported
Facility County: Not reported

HIST CORTESE:
Region: CORTESE
Facility County Code: 33
Reg By: LTNKA
Reg Id: 7T2234007

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59 WNW 1/4-1/2 0.400 mi. 2113 ft. **PALM SPRINGS RECYCLING** **SWRCY S106104716**
36630 SUNAIR PLZ **NPDES N/A**
CATHEDRAL CITY, CA 92234 **WDS**

Relative: Lower

Actual: 300 ft.

SWRCY:
Reg Id: 27286
Cert Id: RC3197
Mailing Address: 36630 Sunair Plz
Mailing City: Cathedral City
Mailing State: CA
Mailing Zip Code: 92234
Website: Not reported
Email: bracamonte5807@aol.com
Phone Number: (760) 321-4087
Grand Father: N
Rural: N
Operation Begin Date: 06/12/1989
Aluminium: Y
Glass: Y
Plastic: Y
Bimetal: Y
Agency: N/A
Monday Hours Of Operation: 8:00 am - 4:00 pm; Closed 11:30 am - 12:00 pm
Tuesday Hours Of Operation: 8:00 am - 4:00 pm; Closed 11:30 am - 12:00 pm
Wednesday Hours Of Operation: 8:00 am - 4:00 pm; Closed 11:30 am - 12:00 pm
Thursday Hours Of Operation: 8:00 am - 4:00 pm; Closed 11:30 am - 12:00 pm
Friday Hours Of Operation: 8:00 am - 4:00 pm; Closed 11:30 am - 12:00 pm
Saturday Hours Of Operation: 8:00 am - 1:00 pm
Sunday Hours Of Operation: CLOSED
Organization ID: 18823
Organization Name: Palm Springs Recycling Center Inc

NPDES:
Npdes Number: CAS000001
Facility Status: Active
Agency Id: 0
Region: 7
Regulatory Measure Id: 205465
Order No: 97-03-DWQ
Regulatory Measure Type: Enrollee
Place Id: Not reported

PALM SPRINGS RECYCLING (Continued) **S106104716**

WDID:	7 33I011649
Program Type:	Industrial
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	06/08/1995
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Discharge Name:	Palm Springs Recycling
Discharge Address:	36630 Sunair Plz
Discharge City:	Cathedral City
Discharge State:	California
Discharge Zip:	92234
RECEIVED DATE:	Not reported
PROCESSED DATE:	Not reported
STATUS CODE NAME:	Not reported
STATUS DATE:	Not reported
PLACE SIZE:	Not reported
PLACE SIZE UNIT:	Not reported
FACILITY CONTACT NAME:	Not reported
FACILITY CONTACT TITLE:	Not reported
FACILITY CONTACT PHONE:	Not reported
FACILITY CONTACT PHONE EXT:	Not reported
FACILITY CONTACT EMAIL:	Not reported
OPERATOR NAME:	Not reported
OPERATOR ADDRESS:	Not reported
OPERATOR CITY:	Not reported
OPERATOR STATE:	Not reported
OPERATOR ZIP:	Not reported
OPERATOR CONTACT NAME:	Not reported
OPERATOR CONTACT TITLE:	Not reported
OPERATOR CONTACT PHONE:	Not reported
OPERATOR CONTACT PHONE EXT:	Not reported
OPERATOR CONTACT EMAIL:	Not reported
OPERATOR TYPE:	Not reported
DEVELOPER NAME:	Not reported
DEVELOPER ADDRESS:	Not reported
DEVELOPER CITY:	Not reported
DEVELOPER STATE:	Not reported
DEVELOPER ZIP:	Not reported
DEVELOPER CONTACT NAME:	Not reported
DEVELOPER CONTACT TITLE:	Not reported
CONSTYPE LINEAR UTILITY IND:	Not reported
EMERGENCY PHONE NO:	Not reported
EMERGENCY PHONE EXT:	Not reported
CONSTYPE ABOVE GROUND IND:	Not reported
CONSTYPE BELOW GROUND IND:	Not reported
CONSTYPE CABLE LINE IND:	Not reported
CONSTYPE COMM LINE IND:	Not reported
CONSTYPE COMMERTIAL IND:	Not reported
CONSTYPE ELECTRICAL LINE IND:	Not reported
CONSTYPE GAS LINE IND:	Not reported
CONSTYPE INDUSTRIAL IND:	Not reported
CONSTYPE OTHER DESRIPTION:	Not reported
CONSTYPE OTHER IND:	Not reported
CONSTYPE RECONS IND:	Not reported
CONSTYPE RESIDENTIAL IND:	Not reported
CONSTYPE TRANSPORT IND:	Not reported
CONSTYPE UTILITY DESCRIPTION:	Not reported

PALM SPRINGS RECYCLING (Continued) **S106104716**

CONSTYPE UTILITY IND:	Not reported
CONSTYPE WATER SEWER IND:	Not reported
DIR DISCHARGE USWATER IND:	Not reported
RECEIVING WATER NAME:	Not reported
CERTIFIER NAME:	Not reported
CERTIFIER TITLE:	Not reported
CERTIFICATION DATE:	Not reported
PRIMARY SIC:	Not reported
SECONDARY SIC:	Not reported
TERTIARY SIC:	Not reported
Npdes Number:	Not reported
Facility Status:	Not reported
Agency Id:	Not reported
Region:	7
Regulatory Measure Id:	205465
Order No:	Not reported
Regulatory Measure Type:	Industrial
Place Id:	Not reported
WDID:	7 33I011649
Program Type:	Not reported
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	Not reported
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Discharge Name:	Not reported
Discharge Address:	Not reported
Discharge City:	Not reported
Discharge State:	Not reported
Discharge Zip:	Not reported
RECEIVED DATE:	5/9/2008
PROCESSED DATE:	6/8/1995
STATUS CODE NAME:	Active
STATUS DATE:	6/8/1995
PLACE SIZE:	39204
PLACE SIZE UNIT:	SqFt
FACILITY CONTACT NAME:	Rick Bracamonte
FACILITY CONTACT TITLE:	CEO
FACILITY CONTACT PHONE:	760-321-4087
FACILITY CONTACT PHONE EXT:	Not reported
FACILITY CONTACT EMAIL:	bracamonte5807@aol.com
OPERATOR NAME:	Palm Springs Recycling
OPERATOR ADDRESS:	36630 Sunair Plz
OPERATOR CITY:	Cathedral City
OPERATOR STATE:	California
OPERATOR ZIP:	92234
OPERATOR CONTACT NAME:	Rick Bracamonte
OPERATOR CONTACT TITLE:	Not reported
OPERATOR CONTACT PHONE:	760-321-4087
OPERATOR CONTACT PHONE EXT:	Not reported
OPERATOR CONTACT EMAIL:	bracamonte5807@aol.com
OPERATOR TYPE:	Private Business
DEVELOPER NAME:	Not reported
DEVELOPER ADDRESS:	Not reported
DEVELOPER CITY:	Not reported
DEVELOPER STATE:	California
DEVELOPER ZIP:	Not reported

PALM SPRINGS RECYCLING (Continued) **S106104716**

DEVELOPER CONTACT NAME:	Not reported
DEVELOPER CONTACT TITLE:	Not reported
CONSTYPE LINEAR UTILITY IND:	Not reported
EMERGENCY PHONE NO:	760-321-4087
EMERGENCY PHONE EXT:	Not reported
CONSTYPE ABOVE GROUND IND:	Not reported
CONSTYPE BELOW GROUND IND:	Not reported
CONSTYPE CABLE LINE IND:	Not reported
CONSTYPE COMM LINE IND:	Not reported
CONSTYPE COMMERTIAL IND:	Not reported
CONSTYPE ELECTRICAL LINE IND:	Not reported
CONSTYPE GAS LINE IND:	Not reported
CONSTYPE INDUSTRIAL IND:	Not reported
CONSTYPE OTHER DESRIPTION:	Not reported
CONSTYPE OTHER IND:	Not reported
CONSTYPE RECONS IND:	Not reported
CONSTYPE RESIDENTIAL IND:	Not reported
CONSTYPE TRANSPORT IND:	Not reported
CONSTYPE UTILITY DESCRIPTION:	Not reported
CONSTYPE UTILITY IND:	Not reported
CONSTYPE WATER SEWER IND:	Not reported
DIR DISCHARGE USWATER IND:	N
RECEIVING WATER NAME:	Whitewater River
CERTIFIER NAME:	Sauce Adelman
CERTIFIER TITLE:	Bookkeeper
CERTIFICATION DATE:	22-JUL-15
PRIMARY SIC:	5093-Scrap and Waste Materials
SECONDARY SIC:	Not reported
TERTIARY SIC:	Not reported

WDS:

Facility ID:	7 33I011649
Facility Type:	Not reported
Facility Status:	Active - Any facility with a continuous or seasonal discharge that is under Waste Discharge Requirements.
NPDES Number:	CAS000001 The 1st 2 characters designate the state. The remaining 7 are assigned by the Regional Board
Subregion:	7
Facility Telephone:	Not reported
Facility Contact:	Not reported
Agency Name:	PALM SPRINGS RECYCLING
Agency Address:	Not reported
Agency City,St,Zip:	0
Agency Contact:	Not reported
Agency Telephone:	Not reported
Agency Type:	Not reported
SIC Code:	0
SIC Code 2:	Not reported
Primary Waste Type:	Not reported
Primary Waste:	Not reported
Waste Type2:	Not reported
Waste2:	Not reported
Primary Waste Type:	Not reported
Secondary Waste:	Not reported
Secondary Waste Type:	Not reported
Design Flow:	0
Baseline Flow:	0

PALM SPRINGS RECYCLING (Continued) **S106104716**

Reclamation:	Not reported
POTW:	Not reported
Treat To Water:	Minor Threat to Water Quality. A violation of a regional board order should cause a relatively minor impairment of beneficial uses compared to a major or minor threat. Not: All nurds without a TTWQ will be considered a minor threat to water quality unless coded at a higher Level. A Zero (0) may be used to code those NURDS that are found to represent no threat to water quality.
Complexity:	Category C - Facilities having no waste treatment systems, such as cooling water dischargers or thosewho must comply through best management practices, facilities with passive waste treatment and disposal systems, such as septic systems with subsurface disposal, or dischargers having waste storage systems with land disposal such as dairy waste ponds.

M60 **OLESEN, KAY** **LUST** **S105023148**
WNW **68384 111** **HIST CORTESE** **N/A**
1/4-1/2 **CATHEDRAL CITY, CA 92210**
0.426 mi.
2248 ft. **Site 1 of 2 in cluster M**

Relative:
Higher

Actual:
327 ft.

LUST:

Region:	STATE
Global Id:	T0606500908
Latitude:	33.78131858134
Longitude:	-116.468786782803
Case Type:	LUST Cleanup Site
Status:	Completed - Case Closed
Status Date:	08/27/1992
Lead Agency:	RIVERSIDE COUNTY LOP
Case Worker:	RIV
Local Agency:	RIVERSIDE COUNTY LOP
RB Case Number:	7T2234004
LOC Case Number:	88825
File Location:	Local Agency Warehouse
Potential Media Affect:	Soil
Potential Contaminants of Concern:	Waste Oil / Motor / Hydraulic / Lubricating
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id:	T0606500908
Contact Type:	Regional Board Caseworker
Contact Name:	Phan Le
Organization Name:	COLORADO RIVER BASIN RWQCB (REGION 7)
Address:	73720 FRED WARING DRIVE SUITE #100
City:	PALM DESERT
Email:	phan.le@waterboards.ca.gov
Phone Number:	7607768974

Global Id:	T0606500908
Contact Type:	Local Agency Caseworker
Contact Name:	Riverside County LOP Closed Cases
Organization Name:	RIVERSIDE COUNTY LOP
Address:	3880 LEMON ST SUITE 200
City:	RIVERSIDE
Email:	Not reported

OLESEN, KAY (Continued) **S105023148**

Phone Number: 9519558980

Status History:
Global Id: T0606500908
Status: Completed - Case Closed
Status Date: 08/27/1992

Global Id: T0606500908
Status: Open - Case Begin Date
Status Date: 10/26/1988

Regulatory Activities:
Global Id: T0606500908
Action Type: Other
Date: 11/10/1988
Action: Leak Reported

Global Id: T0606500908
Action Type: Other
Date: 11/10/1988
Action: Leak Discovery

Global Id: T0606500908
Action Type: ENFORCEMENT
Date: 04/13/1989
Action: File review - #RCDEH Upload Site File 6/4/2015

Global Id: T0606500908
Action Type: Other
Date: 10/26/1988
Action: Leak Stopped

Global Id: T0606500908
Action Type: ENFORCEMENT
Date: 04/14/1989
Action: Closure/No Further Action Letter - #Riv Co Closure

RIVERSIDE CO. LUST:
Region: RIVERSIDE
Facility ID: 88825
Employee: Lehmann
Site Closed: Yes
Case Type: Soil only
Facility Status: closed/action completed
Casetype Decode: Soil only is impacted
Fstatus Decode: Closed/Action completed

HIST CORTESE:
Region: CORTESE
Facility County Code: 33
Reg By: LTNKA
Reg Id: 7T2234004

M61
WNW
1/4-1/2
0.426 mi.
2248 ft.

OLESEN KAY — **LUST** — **S104816277**
68384 HIGHWAY 111 — **N/A**
CATHEDRAL CITY, CA

Site 2 of 2 in cluster M

Relative:
Higher

Actual:
327 ft.

LUST REG 7:

Region:	7
Status:	9 - Case Closed
Case Num:	7T2234004
Substance:	Waste oil/Used oil
ID:	1047
Global ID:	T0606500908
Lead Agency:	Local Agency
Case Worker:	KO

62
NNE
1/2-1
0.810 mi.
4279 ft.

CATHEDRAL CITY ELEMENTARY SCHOOL SITE — **ENVIROSTOR SCH** — **S118756697**
CONVERSE ROAD/PLUMLEY ROAD — **N/A**
CATHEDRAL CITY, CA 92234

Relative:
Lower

Actual:
297 ft.

ENVIROSTOR:

Facility ID:	33010009
Status:	No Action Required
Status Date:	01/13/2000
Site Code:	404004
Site Type:	School Investigation
Site Type Detailed:	School
Acres:	14.3
NPL:	NO
Regulatory Agencies:	SMBRP
Lead Agency:	SMBRP
Program Manager:	Not reported
Supervisor:	Mark Malinowski
Division Branch:	Southern California Schools & Brownfields Outreach
Assembly:	56
Senate:	28
Special Program:	Not reported
Restricted Use:	NO
Site Mgmt Req:	NONE SPECIFIED
Funding:	School District
Latitude:	33.79083
Longitude:	-116.4517
APN:	NONE SPECIFIED
Past Use:	AGRICULTURAL - ROW CROPS
Potential COC:	NONE SPECIFIED No Contaminants found
Confirmed COC:	NONE SPECIFIED
Potential Description:	NMA
Alias Name:	CATHEDRAL CITY ELEMENTARY SCHOOL
Alias Type:	Alternate Name
Alias Name:	PALM SPRINGS USD
Alias Type:	Alternate Name
Alias Name:	PALM SPRINGS USD-CATHEDRAL CITY ELEM
Alias Type:	Alternate Name
Alias Name:	404004
Alias Type:	Project Code (Site Code)
Alias Name:	33010009
Alias Type:	Envirostor ID Number

CATHEDRAL CITY ELEMENTARY SCHOOL SITE (Continued) **S118756697**

Completed Info:

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Cost Recovery Closeout Memo
Completed Date:	03/02/2000
Comments:	Not reported

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Phase 1
Completed Date:	01/13/2000
Comments:	Not reported

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Site Inspections/Visit (Non LUR)
Completed Date:	01/08/2000
Comments:	Not reported

Future Area Name:	Not reported
Future Sub Area Name:	Not reported
Future Document Type:	Not reported
Future Due Date:	Not reported
Schedule Area Name:	Not reported
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Not reported
Schedule Due Date:	Not reported
Schedule Revised Date:	Not reported

SCH:

Facility ID:	33010009
Site Type:	School Investigation
Site Type Detail:	School
Site Mgmt. Req.:	NONE SPECIFIED
Acres:	14.3
National Priorities List:	NO
Cleanup Oversight Agencies:	SMBRP
Lead Agency:	SMBRP
Lead Agency Description:	DTSC - Site Cleanup Program
Project Manager:	Not reported
Supervisor:	Mark Malinowski
Division Branch:	Southern California Schools & Brownfields Outreach
Site Code:	404004
Assembly:	56
Senate:	28
Special Program Status:	Not reported
Status:	No Action Required
Status Date:	01/13/2000
Restricted Use:	NO
Funding:	School District
Latitude:	33.79083
Longitude:	-116.4517
APN:	NONE SPECIFIED
Past Use:	AGRICULTURAL - ROW CROPS
Potential COC:	NONE SPECIFIED, No Contaminants found

CATHEDRAL CITY ELEMENTARY SCHOOL SITE (Continued) **S118756697**

Confirmed COC: NONE SPECIFIED
Potential Description: NMA
Alias Name: CATHEDRAL CITY ELEMENTARY SCHOOL
Alias Type: Alternate Name
Alias Name: PALM SPRINGS USD
Alias Type: Alternate Name
Alias Name: PALM SPRINGS USD-CATHEDRAL CITY ELEM
Alias Type: Alternate Name
Alias Name: 404004
Alias Type: Project Code (Site Code)
Alias Name: 33010009
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Cost Recovery Closeout Memo
Completed Date: 03/02/2000
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Phase 1
Completed Date: 01/13/2000
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Inspections/Visit (Non LUR)
Completed Date: 01/08/2000
Comments: Not reported

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

63
WNW
1/2-1
0.871 mi.
4601 ft.

Relative:
Higher

Actual:
321 ft.

COCA-COLA ENTERPRISES WEST **Notify 65** **S100231373**
68-600 PEREZ **N/A**
CATHEDRAL CITY, CA

NOTIFY 65:
Date Reported: Not reported
Staff Initials: Not reported
Board File Number: Not reported
Facility Type: Not reported
Discharge Date: Not reported
Issue Date: Not reported
Incident Description: Not reported

Count: 2 records. ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
PALM SPRINGS	S105181489	TRAMWAY SHELL	NORTH PALM CANYON DRIVE		LUST
RANCHO MIRAGE	S106117721	CVWD 80-06 LIFT STATION	00 C CLUB & HITEWATER		LUST

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Number of Days to Update: Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL: National Priority List

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 04/05/2017
Date Data Arrived at EDR: 04/21/2017
Date Made Active in Reports: 05/12/2017
Number of Days to Update: 21

Source: EPA
Telephone: N/A
Last EDR Contact: 06/08/2017
Next Scheduled EDR Contact: 07/17/2017
Data Release Frequency: Quarterly

NPL Site Boundaries

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)
Telephone: 202-564-7333

EPA Region 1
Telephone 617-918-1143

EPA Region 3
Telephone 215-814-5418

EPA Region 4
Telephone 404-562-8033

EPA Region 5
Telephone 312-886-6686

EPA Region 6
Telephone: 214-655-6659

EPA Region 7
Telephone: 913-551-7247

EPA Region 8
Telephone: 303-312-6774

EPA Region 9
Telephone: 415-947-4246

EPA Region 10
Telephone 206-553-8665

Proposed NPL: Proposed National Priority List Sites

A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

Date of Government Version: 04/05/2017
Date Data Arrived at EDR: 04/21/2017
Date Made Active in Reports: 05/12/2017
Number of Days to Update: 21

Source: EPA
Telephone: N/A
Last EDR Contact: 06/09/2017
Next Scheduled EDR Contact: 07/17/2017
Data Release Frequency: Quarterly

NPL LIENS: Federal Superfund Liens

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/1991
Date Data Arrived at EDR: 02/02/1994
Date Made Active in Reports: 03/30/1994
Number of Days to Update: 56

Source: EPA
Telephone: 202-564-4267
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Federal Delisted NPL site list

Delisted NPL: National Priority List Deletions

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 04/05/2017
Date Data Arrived at EDR: 04/21/2017
Date Made Active in Reports: 05/12/2017
Number of Days to Update: 21

Source: EPA
Telephone: N/A
Last EDR Contact: 06/09/2017
Next Scheduled EDR Contact: 07/17/2017
Data Release Frequency: Quarterly

Federal CERCLIS list

FEDERAL FACILITY: Federal Facility Site Information listing

A listing of National Priority List (NPL) and Base Realignment and Closure (BRAC) sites found in the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) Database where EPA Federal Facilities Restoration and Reuse Office is involved in cleanup activities.

Date of Government Version: 11/07/2016
Date Data Arrived at EDR: 01/05/2017
Date Made Active in Reports: 04/07/2017
Number of Days to Update: 92

Source: Environmental Protection Agency
Telephone: 703-603-8704
Last EDR Contact: 04/07/2017
Next Scheduled EDR Contact: 07/17/2017
Data Release Frequency: Varies

SEMS: Superfund Enterprise Management System

SEMS (Superfund Enterprise Management System) tracks hazardous waste sites, potentially hazardous waste sites, and remedial activities performed in support of EPA's Superfund Program across the United States. The list was formerly know as CERCLIS, renamed to SEMS by the EPA in 2015. The list contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). This dataset also contains sites which are either proposed to or on the National Priorities List (NPL) and the sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 02/07/2017
Date Data Arrived at EDR: 04/19/2017
Date Made Active in Reports: 05/05/2017
Number of Days to Update: 16

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 06/08/2017
Next Scheduled EDR Contact: 07/31/2017
Data Release Frequency: Quarterly

Federal CERCLIS NFRAP site list

SEMS-ARCHIVE: Superfund Enterprise Management System Archive

SEMS-ARCHIVE (Superfund Enterprise Management System Archive) tracks sites that have no further interest under the Federal Superfund Program based on available information. The list was formerly known as the CERCLIS-NFRAP, renamed to SEMS ARCHIVE by the EPA in 2015. EPA may perform a minimal level of assessment work at a site while it is archived if site conditions change and/or new information becomes available. Archived sites have been removed and archived from the inventory of SEMS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list the site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. The decision does not necessarily mean that there is no hazard associated with a given site; it only means that. based upon available information, the location is not judged to be potential NPL site.

Date of Government Version: 02/07/2017
Date Data Arrived at EDR: 04/19/2017
Date Made Active in Reports: 05/05/2017
Number of Days to Update: 16

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 06/08/2017
Next Scheduled EDR Contact: 07/31/2017
Data Release Frequency: Quarterly

Federal RCRA CORRACTS facilities list

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 12/12/2016
Date Data Arrived at EDR: 12/28/2016
Date Made Active in Reports: 02/10/2017
Number of Days to Update: 44

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 05/02/2017
Next Scheduled EDR Contact: 04/10/2017
Data Release Frequency: Quarterly

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF: RCRA - Treatment, Storage and Disposal

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 12/12/2016
Date Data Arrived at EDR: 12/28/2016
Date Made Active in Reports: 02/10/2017
Number of Days to Update: 44

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 05/02/2017
Next Scheduled EDR Contact: 04/10/2017
Data Release Frequency: Quarterly

Federal RCRA generators list

RCRA-LQG: RCRA - Large Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Date of Government Version: 12/12/2016
Date Data Arrived at EDR: 12/28/2016
Date Made Active in Reports: 02/10/2017
Number of Days to Update: 44

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 05/02/2017
Next Scheduled EDR Contact: 04/10/2017
Data Release Frequency: Quarterly

RCRA-SQG: RCRA - Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

Date of Government Version: 12/12/2016
Date Data Arrived at EDR: 12/28/2016
Date Made Active in Reports: 02/10/2017
Number of Days to Update: 44

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 05/02/2017
Next Scheduled EDR Contact: 04/10/2017
Data Release Frequency: Quarterly

RCRA-CESQG: RCRA - Conditionally Exempt Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 12/12/2016
Date Data Arrived at EDR: 12/28/2016
Date Made Active in Reports: 02/10/2017
Number of Days to Update: 44

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 05/02/2017
Next Scheduled EDR Contact: 04/10/2017
Data Release Frequency: Varies

Federal institutional controls / engineering controls registries

LUCIS: Land Use Control Information System

LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 12/28/2016
Date Data Arrived at EDR: 01/04/2017
Date Made Active in Reports: 04/07/2017
Number of Days to Update: 93

Source: Department of the Navy
Telephone: 843-820-7326
Last EDR Contact: 05/15/2017
Next Scheduled EDR Contact: 08/28/2017
Data Release Frequency: Varies

US ENG CONTROLS: Engineering Controls Sites List

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 02/13/2017
Date Data Arrived at EDR: 02/28/2017
Date Made Active in Reports: 06/09/2017
Number of Days to Update: 101

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 05/31/2017
Next Scheduled EDR Contact: 09/11/2017
Data Release Frequency: Varies

US INST CONTROL: Sites with Institutional Controls

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 02/13/2017
Date Data Arrived at EDR: 02/28/2017
Date Made Active in Reports: 06/09/2017
Number of Days to Update: 101

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 05/31/2017
Next Scheduled EDR Contact: 09/11/2017
Data Release Frequency: Varies

Federal ERNS list

ERNS: Emergency Response Notification System

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 09/26/2016
Date Data Arrived at EDR: 09/29/2016
Date Made Active in Reports: 11/11/2016
Number of Days to Update: 43

Source: National Response Center, United States Coast Guard
Telephone: 202-267-2180
Last EDR Contact: 03/29/2017
Next Scheduled EDR Contact: 07/10/2017
Data Release Frequency: Annually

State- and tribal - equivalent NPL

RESPONSE: State Response Sites

Identifies confirmed release sites where DTSC is involved in remediation, either in a lead or oversight capacity. These confirmed release sites are generally high-priority and high potential risk.

Date of Government Version: 01/30/2017
Date Data Arrived at EDR: 01/31/2017
Date Made Active in Reports: 05/23/2017
Number of Days to Update: 112

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 05/02/2017
Next Scheduled EDR Contact: 08/14/2017
Data Release Frequency: Quarterly

State- and tribal - equivalent CERCLIS

ENVIROSTOR: EnviroStor Database

The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifes sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

Date of Government Version: 01/30/2017
Date Data Arrived at EDR: 01/31/2017
Date Made Active in Reports: 05/23/2017
Number of Days to Update: 112

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 05/02/2017
Next Scheduled EDR Contact: 08/14/2017
Data Release Frequency: Quarterly

State and tribal landfill and/or solid waste disposal site lists

SWF/LF (SWIS): Solid Waste Information System

Active, Closed and Inactive Landfills. SWF/LF records typically contain an inve ntory of solid waste disposal facilities or landfills. These may be active or i nactive facilities or open dumps that failed to meet RCRA Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 02/13/2017
Date Data Arrived at EDR: 02/15/2017
Date Made Active in Reports: 05/02/2017
Number of Days to Update: 76

Source: Department of Resources Recycling and Recovery
Telephone: 916-341-6320
Last EDR Contact: 05/17/2017
Next Scheduled EDR Contact: 08/28/2017
Data Release Frequency: Quarterly

State and tribal leaking storage tank lists

LUST: Leaking Underground Fuel Tank Report (GEOTRACKER)
Leaking Underground Storage Tank (LUST) Sites included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 03/13/2017
Date Data Arrived at EDR: 03/14/2017
Date Made Active in Reports: 05/02/2017
Number of Days to Update: 49
Source: State Water Resources Control Board
Telephone: see region list
Last EDR Contact: 06/14/2017
Next Scheduled EDR Contact: 09/25/2017
Data Release Frequency: Quarterly

LUST REG 6V: Leaking Underground Storage Tank Case Listing
Leaking Underground Storage Tank locations. Inyo, Kern, Los Angeles, Mono, San Bernardino counties.

Date of Government Version: 06/07/2005
Date Data Arrived at EDR: 06/07/2005
Date Made Active in Reports: 06/29/2005
Number of Days to Update: 22
Source: California Regional Water Quality Control Board Victorville Branch Office (6)
Telephone: 760-241-7365
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

LUST REG 4: Underground Storage Tank Leak List
Los Angeles, Ventura counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/07/2004
Date Data Arrived at EDR: 09/07/2004
Date Made Active in Reports: 10/12/2004
Number of Days to Update: 35
Source: California Regional Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6710
Last EDR Contact: 09/06/2011
Next Scheduled EDR Contact: 12/19/2011
Data Release Frequency: No Update Planned

LUST REG 3: Leaking Underground Storage Tank Database
Leaking Underground Storage Tank locations. Monterey, San Benito, San Luis Obispo, Santa Barbara, Santa Cruz counties.

Date of Government Version: 05/19/2003
Date Data Arrived at EDR: 05/19/2003
Date Made Active in Reports: 06/02/2003
Number of Days to Update: 14
Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-542-4786
Last EDR Contact: 07/18/2011
Next Scheduled EDR Contact: 10/31/2011
Data Release Frequency: No Update Planned

LUST REG 2: Fuel Leak List
Leaking Underground Storage Tank locations. Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, Sonoma counties.

Date of Government Version: 09/30/2004
Date Data Arrived at EDR: 10/20/2004
Date Made Active in Reports: 11/19/2004
Number of Days to Update: 30
Source: California Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-622-2433
Last EDR Contact: 09/19/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: Quarterly

LUST REG 1: Active Toxic Site Investigation
Del Norte, Humboldt, Lake, Mendocino, Modoc, Siskiyou, Sonoma, Trinity counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/01/2001
Date Data Arrived at EDR: 02/28/2001
Date Made Active in Reports: 03/29/2001
Number of Days to Update: 29
Source: California Regional Water Quality Control Board North Coast (1)
Telephone: 707-570-3769
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

LUST REG 6L: Leaking Underground Storage Tank Case Listing
For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/09/2003
Date Data Arrived at EDR: 09/10/2003
Date Made Active in Reports: 10/07/2003
Number of Days to Update: 27

Source: California Regional Water Quality Control Board Lahontan Region (6)
Telephone: 530-542-5572
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

LUST REG 5: Leaking Underground Storage Tank Database

Leaking Underground Storage Tank locations. Alameda, Alpine, Amador, Butte, Colusa, Contra Costa, Calveras, El Dorado, Fresno, Glenn, Kern, Kings, Lake, Lassen, Madera, Mariposa, Merced, Modoc, Napa, Nevada, Placer, Plumas, Sacramento, San Joaquin, Shasta, Solano, Stanislaus, Sutter, Tehama, Tulare, Tuolumne, Yolo, Yuba counties.

Date of Government Version: 07/01/2008
Date Data Arrived at EDR: 07/22/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 9

Source: California Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-4834
Last EDR Contact: 07/01/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: No Update Planned

LUST REG 7: Leaking Underground Storage Tank Case Listing

Leaking Underground Storage Tank locations. Imperial, Riverside, San Diego, Santa Barbara counties.

Date of Government Version: 02/26/2004
Date Data Arrived at EDR: 02/26/2004
Date Made Active in Reports: 03/24/2004
Number of Days to Update: 27

Source: California Regional Water Quality Control Board Colorado River Basin Region (7)
Telephone: 760-776-8943
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

LUST REG 8: Leaking Underground Storage Tanks

California Regional Water Quality Control Board Santa Ana Region (8). For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/14/2005
Date Data Arrived at EDR: 02/15/2005
Date Made Active in Reports: 03/28/2005
Number of Days to Update: 41

Source: California Regional Water Quality Control Board Santa Ana Region (8)
Telephone: 909-782-4496
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: Varies

LUST REG 9: Leaking Underground Storage Tank Report

Orange, Riverside, San Diego counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 03/01/2001
Date Data Arrived at EDR: 04/23/2001
Date Made Active in Reports: 05/21/2001
Number of Days to Update: 28

Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-637-5595
Last EDR Contact: 09/26/2011
Next Scheduled EDR Contact: 01/09/2012
Data Release Frequency: No Update Planned

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land

A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 11/14/2016
Date Data Arrived at EDR: 01/26/2017
Date Made Active in Reports: 05/05/2017
Number of Days to Update: 99

Source: EPA Region 1
Telephone: 617-918-1313
Last EDR Contact: 04/28/2017
Next Scheduled EDR Contact: 08/07/2017
Data Release Frequency: Varies

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Florida, Mississippi and North Carolina.

Date of Government Version: 10/14/2016
Date Data Arrived at EDR: 01/27/2017
Date Made Active in Reports: 05/05/2017
Number of Days to Update: 98

Source: EPA Region 4
Telephone: 404-562-8677
Last EDR Contact: 04/28/2017
Next Scheduled EDR Contact: 08/07/2017
Data Release Frequency: Semi-Annually

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 10/07/2016
Date Data Arrived at EDR: 01/26/2017
Date Made Active in Reports: 05/05/2017
Number of Days to Update: 99

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 04/28/2017
Next Scheduled EDR Contact: 08/07/2017
Data Release Frequency: Quarterly

INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 10/06/2016
Date Data Arrived at EDR: 01/26/2017
Date Made Active in Reports: 05/05/2017
Number of Days to Update: 99

Source: Environmental Protection Agency
Telephone: 415-972-3372
Last EDR Contact: 04/28/2017
Next Scheduled EDR Contact: 08/07/2017
Data Release Frequency: Quarterly

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 10/01/2016
Date Data Arrived at EDR: 01/26/2017
Date Made Active in Reports: 05/05/2017
Number of Days to Update: 99

Source: EPA Region 6
Telephone: 214-665-6597
Last EDR Contact: 04/28/2017
Next Scheduled EDR Contact: 08/07/2017
Data Release Frequency: Varies

INDIAN LUST R5: Leaking Underground Storage Tanks on Indian Land
Leaking underground storage tanks located on Indian Land in Michigan, Minnesota and Wisconsin.

Date of Government Version: 11/14/2016
Date Data Arrived at EDR: 01/26/2017
Date Made Active in Reports: 05/05/2017
Number of Days to Update: 99

Source: EPA, Region 5
Telephone: 312-886-7439
Last EDR Contact: 04/28/2017
Next Scheduled EDR Contact: 08/07/2017
Data Release Frequency: Varies

INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 10/17/2016
Date Data Arrived at EDR: 01/26/2017
Date Made Active in Reports: 05/05/2017
Number of Days to Update: 99

Source: EPA Region 8
Telephone: 303-312-6271
Last EDR Contact: 04/28/2017
Next Scheduled EDR Contact: 08/07/2017
Data Release Frequency: Quarterly

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 09/01/2016
Date Data Arrived at EDR: 01/26/2017
Date Made Active in Reports: 05/05/2017
Number of Days to Update: 99

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 04/28/2017
Next Scheduled EDR Contact: 08/07/2017
Data Release Frequency: Varies

SLIC: Statewide SLIC Cases (GEOTRACKER)
Cleanup Program Sites (CPS; also known as Site Cleanups [SC] and formerly known as Spills, Leaks, Investigations, and Cleanups [SLIC] sites) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 03/13/2017
Date Data Arrived at EDR: 03/14/2017
Date Made Active in Reports: 05/02/2017
Number of Days to Update: 49

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/14/2017
Next Scheduled EDR Contact: 09/25/2017
Data Release Frequency: Varies

SLIC REG 1: Active Toxic Site Investigations

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2003
Date Data Arrived at EDR: 04/07/2003
Date Made Active in Reports: 04/25/2003
Number of Days to Update: 18

Source: California Regional Water Quality Control Board, North Coast Region (1)
Telephone: 707-576-2220
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

SLIC REG 2: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/30/2004
Date Data Arrived at EDR: 10/20/2004
Date Made Active in Reports: 11/19/2004
Number of Days to Update: 30

Source: Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-286-0457
Last EDR Contact: 09/19/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: Quarterly

SLIC REG 3: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/18/2006
Date Data Arrived at EDR: 05/18/2006
Date Made Active in Reports: 06/15/2006
Number of Days to Update: 28

Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-549-3147
Last EDR Contact: 07/18/2011
Next Scheduled EDR Contact: 10/31/2011
Data Release Frequency: Semi-Annually

SLIC REG 4: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/17/2004
Date Data Arrived at EDR: 11/18/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 47

Source: Region Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6600
Last EDR Contact: 07/01/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: Varies

SLIC REG 5: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/01/2005
Date Data Arrived at EDR: 04/05/2005
Date Made Active in Reports: 04/21/2005
Number of Days to Update: 16

Source: Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-3291
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: Semi-Annually

SLIC REG 6V: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/24/2005
Date Data Arrived at EDR: 05/25/2005
Date Made Active in Reports: 06/16/2005
Number of Days to Update: 22

Source: Regional Water Quality Control Board, Victorville Branch
Telephone: 619-241-6583
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: Semi-Annually

SLIC REG 6L: SLIC Sites
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/07/2004
Date Data Arrived at EDR: 09/07/2004
Date Made Active in Reports: 10/12/2004
Number of Days to Update: 35
Source: California Regional Water Quality Control Board, Lahontan Region
Telephone: 530-542-5574
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

SLIC REG 7: SLIC List
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/24/2004
Date Data Arrived at EDR: 11/29/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 36
Source: California Regional Quality Control Board, Colorado River Basin Region
Telephone: 760-346-7491
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

SLIC REG 8: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2008
Date Data Arrived at EDR: 04/03/2008
Date Made Active in Reports: 04/14/2008
Number of Days to Update: 11
Source: California Region Water Quality Control Board Santa Ana Region (8)
Telephone: 951-782-3298
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: Semi-Annually

SLIC REG 9: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/10/2007
Date Data Arrived at EDR: 09/11/2007
Date Made Active in Reports: 09/28/2007
Number of Days to Update: 17
Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-467-2980
Last EDR Contact: 08/08/2011
Next Scheduled EDR Contact: 11/21/2011
Data Release Frequency: Annually

State and tribal registered storage tank lists

FEMA UST: Underground Storage Tank Listing
A listing of all FEMA owned underground storage tanks.

Date of Government Version: 01/01/2010
Date Data Arrived at EDR: 02/16/2010
Date Made Active in Reports: 04/12/2010
Number of Days to Update: 55
Source: FEMA
Telephone: 202-646-5797
Last EDR Contact: 04/11/2017
Next Scheduled EDR Contact: 07/24/2017
Data Release Frequency: Varies

UST: Active UST Facilities
Active UST facilities gathered from the local regulatory agencies

Date of Government Version: 03/12/2017
Date Data Arrived at EDR: 03/16/2017
Date Made Active in Reports: 05/12/2017
Number of Days to Update: 57
Source: SWRCB
Telephone: 916-341-5851
Last EDR Contact: 06/14/2017
Next Scheduled EDR Contact: 09/25/2017
Data Release Frequency: Semi-Annually

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

AST: Aboveground Petroleum Storage Tank Facilities
A listing of aboveground storage tank petroleum storage tank locations.

Date of Government Version: 07/06/2016
Date Data Arrived at EDR: 07/12/2016
Date Made Active in Reports: 09/19/2016
Number of Days to Update: 69

Source: California Environmental Protection Agency
Telephone: 916-327-5092
Last EDR Contact: 03/24/2017
Next Scheduled EDR Contact: 07/10/2017
Data Release Frequency: Quarterly

INDIAN UST R5: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 5 (Michigan, Minnesota and Wisconsin and Tribal Nations).

Date of Government Version: 01/14/2017
Date Data Arrived at EDR: 01/26/2017
Date Made Active in Reports: 05/05/2017
Number of Days to Update: 99

Source: EPA Region 5
Telephone: 312-886-6136
Last EDR Contact: 04/28/2017
Next Scheduled EDR Contact: 08/07/2017
Data Release Frequency: Varies

INDIAN UST R6: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 6 (Louisiana, Arkansas, Oklahoma, New Mexico, Texas and 65 Tribes).

Date of Government Version: 10/01/2016
Date Data Arrived at EDR: 01/26/2017
Date Made Active in Reports: 05/05/2017
Number of Days to Update: 99

Source: EPA Region 6
Telephone: 214-665-7591
Last EDR Contact: 04/28/2017
Next Scheduled EDR Contact: 08/07/2017
Data Release Frequency: Semi-Annually

INDIAN UST R7: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 7 (Iowa, Kansas, Missouri, Nebraska, and 9 Tribal Nations).

Date of Government Version: 09/01/2016
Date Data Arrived at EDR: 01/26/2017
Date Made Active in Reports: 05/05/2017
Number of Days to Update: 99

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 04/28/2017
Next Scheduled EDR Contact: 08/07/2017
Data Release Frequency: Varies

INDIAN UST R8: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 27 Tribal Nations).

Date of Government Version: 10/17/2016
Date Data Arrived at EDR: 01/26/2017
Date Made Active in Reports: 05/05/2017
Number of Days to Update: 99

Source: EPA Region 8
Telephone: 303-312-6137
Last EDR Contact: 04/28/2017
Next Scheduled EDR Contact: 08/07/2017
Data Release Frequency: Quarterly

INDIAN UST R9: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 9 (Arizona, California, Hawaii, Nevada, the Pacific Islands, and Tribal Nations).

Date of Government Version: 10/06/2016
Date Data Arrived at EDR: 01/26/2017
Date Made Active in Reports: 05/05/2017
Number of Days to Update: 99

Source: EPA Region 9
Telephone: 415-972-3368
Last EDR Contact: 04/28/2017
Next Scheduled EDR Contact: 08/07/2017
Data Release Frequency: Quarterly

INDIAN UST R1: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

Date of Government Version: 11/14/2016
Date Data Arrived at EDR: 01/26/2017
Date Made Active in Reports: 05/05/2017
Number of Days to Update: 99

Source: EPA, Region 1
Telephone: 617-918-1313
Last EDR Contact: 04/28/2017
Next Scheduled EDR Contact: 08/07/2017
Data Release Frequency: Varies

INDIAN UST R4: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and Tribal Nations)

Date of Government Version: 10/14/2016
Date Data Arrived at EDR: 01/27/2017
Date Made Active in Reports: 05/05/2017
Number of Days to Update: 98

Source: EPA Region 4
Telephone: 404-562-9424
Last EDR Contact: 04/28/2017
Next Scheduled EDR Contact: 08/07/2017
Data Release Frequency: Semi-Annually

INDIAN UST R10: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 10 (Alaska, Idaho, Oregon, Washington, and Tribal Nations).

Date of Government Version: 10/07/2016
Date Data Arrived at EDR: 01/26/2017
Date Made Active in Reports: 05/05/2017
Number of Days to Update: 99

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 04/28/2017
Next Scheduled EDR Contact: 08/07/2017
Data Release Frequency: Quarterly

State and tribal voluntary cleanup sites

INDIAN VCP R1: Voluntary Cleanup Priority Listing

A listing of voluntary cleanup priority sites located on Indian Land located in Region 1.

Date of Government Version: 07/27/2015
Date Data Arrived at EDR: 09/29/2015
Date Made Active in Reports: 02/18/2016
Number of Days to Update: 142

Source: EPA, Region 1
Telephone: 617-918-1102
Last EDR Contact: 03/27/2017
Next Scheduled EDR Contact: 07/10/2017
Data Release Frequency: Varies

INDIAN VCP R7: Voluntary Cleanup Priority Lisitng

A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

Date of Government Version: 03/20/2008
Date Data Arrived at EDR: 04/22/2008
Date Made Active in Reports: 05/19/2008
Number of Days to Update: 27

Source: EPA, Region 7
Telephone: 913-551-7365
Last EDR Contact: 04/20/2009
Next Scheduled EDR Contact: 07/20/2009
Data Release Frequency: Varies

VCP: Voluntary Cleanup Program Properties

Contains low threat level properties with either confirmed or unconfirmed releases and the project proponents have request that DTSC oversee investigation and/or cleanup activities and have agreed to provide coverage for DTSC's costs.

Date of Government Version: 01/30/2017
Date Data Arrived at EDR: 01/31/2017
Date Made Active in Reports: 05/23/2017
Number of Days to Update: 112

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 05/02/2017
Next Scheduled EDR Contact: 08/14/2017
Data Release Frequency: Quarterly

State and tribal Brownfields sites

BROWNFIELDS: Considered Brownfieds Sites Listing
A listing of sites the SWRCB considers to be Brownfields since these are sites have come to them through the MOA Process.

Date of Government Version: 01/03/2017
Date Data Arrived at EDR: 01/04/2017
Date Made Active in Reports: 03/02/2017
Number of Days to Update: 57
Source: State Water Resources Control Board
Telephone: 916-323-7905
Last EDR Contact: 03/29/2017
Next Scheduled EDR Contact: 07/10/2017
Data Release Frequency: Varies

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS: A Listing of Brownfields Sites
Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties takes development pressures off of undeveloped, open land, and both improves and protects the environment. Assessment, Cleanup and Redevelopment Exchange System (ACRES) stores information reported by EPA Brownfields grant recipients on brownfields properties assessed or cleaned up with grant funding as well as information on Targeted Brownfields Assessments performed by EPA Regions. A listing of ACRES Brownfield sites is obtained from Cleanups in My Community. Cleanups in My Community provides information on Brownfields properties for which information is reported back to EPA, as well as areas served by Brownfields grant programs.

Date of Government Version: 03/02/2017
Date Data Arrived at EDR: 03/02/2017
Date Made Active in Reports: 04/07/2017
Number of Days to Update: 36
Source: Environmental Protection Agency
Telephone: 202-566-2777
Last EDR Contact: 03/02/2017
Next Scheduled EDR Contact: 07/03/2017
Data Release Frequency: Semi-Annually

Local Lists of Landfill / Solid Waste Disposal Sites

WMUDS/SWAT: Waste Management Unit Database
Waste Management Unit Database System. WMUDS is used by the State Water Resources Control Board staff and the Regional Water Quality Control Boards for program tracking and inventory of waste management units. WMUDS is composed of the following databases: Facility Information, Scheduled Inspections Information, Waste Management Unit Information, SWAT Program Information, SWAT Report Summary Information, SWAT Report Summary Data, Chapter 15 (formerly Subchapter 15) Information, Chapter 15 Monitoring Parameters, TPCA Program Information, RCRA Program Information, Closure Information, and Interested Parties Information.

Date of Government Version: 04/01/2000
Date Data Arrived at EDR: 04/10/2000
Date Made Active in Reports: 05/10/2000
Number of Days to Update: 30
Source: State Water Resources Control Board
Telephone: 916-227-4448
Last EDR Contact: 05/05/2017
Next Scheduled EDR Contact: 08/21/2017
Data Release Frequency: No Update Planned

SWRCY: Recycler Database
A listing of recycling facilities in California.

Date of Government Version: 03/13/2017
Date Data Arrived at EDR: 03/14/2017
Date Made Active in Reports: 05/03/2017
Number of Days to Update: 50
Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 06/14/2017
Next Scheduled EDR Contact: 09/25/2017
Data Release Frequency: Quarterly

HAULERS: Registered Waste Tire Haulers Listing
A listing of registered waste tire haulers.

Date of Government Version: 01/13/2017
Date Data Arrived at EDR: 01/17/2017
Date Made Active in Reports: 05/31/2017
Number of Days to Update: 134
Source: Integrated Waste Management Board
Telephone: 916-341-6422
Last EDR Contact: 05/15/2017
Next Scheduled EDR Contact: 08/28/2017
Data Release Frequency: Varies

INDIAN ODI: Report on the Status of Open Dumps on Indian Lands
Location of open dumps on Indian land.

Date of Government Version: 12/31/1998
Date Data Arrived at EDR: 12/03/2007
Date Made Active in Reports: 01/24/2008
Number of Days to Update: 52
Source: Environmental Protection Agency
Telephone: 703-308-8245
Last EDR Contact: 05/01/2017
Next Scheduled EDR Contact: 08/14/2017
Data Release Frequency: Varies

ODI: Open Dump Inventory
An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985
Date Data Arrived at EDR: 08/09/2004
Date Made Active in Reports: 09/17/2004
Number of Days to Update: 39
Source: Environmental Protection Agency
Telephone: 800-424-9346
Last EDR Contact: 06/09/2004
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

DEBRIS REGION 9: Torres Martinez Reservation Illegal Dump Site Locations
A listing of illegal dump sites location on the Torres Martinez Indian Reservation located in eastern Riverside County and northern Imperial County, California.

Date of Government Version: 01/12/2009
Date Data Arrived at EDR: 05/07/2009
Date Made Active in Reports: 09/21/2009
Number of Days to Update: 137
Source: EPA, Region 9
Telephone: 415-947-4219
Last EDR Contact: 04/24/2017
Next Scheduled EDR Contact: 08/07/2017
Data Release Frequency: No Update Planned

IHS OPEN DUMPS: Open Dumps on Indian Land
A listing of all open dumps located on Indian Land in the United States.

Date of Government Version: 04/01/2014
Date Data Arrived at EDR: 08/06/2014
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 176
Source: Department of Health & Human Serivces, Indian Health Service
Telephone: 301-443-1452
Last EDR Contact: 05/05/2017
Next Scheduled EDR Contact: 08/14/2017
Data Release Frequency: Varies

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL: National Clandestine Laboratory Register
A listing of clandestine drug lab locations that have been removed from the DEAs National Clandestine Laboratory Register.

Date of Government Version: 02/09/2017
Date Data Arrived at EDR: 03/08/2017
Date Made Active in Reports: 06/09/2017
Number of Days to Update: 93
Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 02/28/2017
Next Scheduled EDR Contact: 06/12/2017
Data Release Frequency: No Update Planned

HIST CAL-SITES: Calsites Database
The Calsites database contains potential or confirmed hazardous substance release properties. In 1996, California EPA reevaluated and significantly reduced the number of sites in the Calsites database. No longer updated by the state agency. It has been replaced by ENVIROSTOR.

Date of Government Version: 08/08/2005
Date Data Arrived at EDR: 08/03/2006
Date Made Active in Reports: 08/24/2006
Number of Days to Update: 21

Source: Department of Toxic Substance Control
Telephone: 916-323-3400
Last EDR Contact: 02/23/2009
Next Scheduled EDR Contact: 05/25/2009
Data Release Frequency: No Update Planned

SCH: School Property Evaluation Program

This category contains proposed and existing school sites that are being evaluated by DTSC for possible hazardous materials contamination. In some cases, these properties may be listed in the CalSites category depending on the level of threat to public health and safety or the environment they pose.

Date of Government Version: 01/30/2017
Date Data Arrived at EDR: 01/31/2017
Date Made Active in Reports: 05/23/2017
Number of Days to Update: 112

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 05/02/2017
Next Scheduled EDR Contact: 08/14/2017
Data Release Frequency: Quarterly

CDL: Clandestine Drug Labs

A listing of drug lab locations. Listing of a location in this database does not indicate that any illegal drug lab materials were or were not present there, and does not constitute a determination that the location either requires or does not require additional cleanup work.

Date of Government Version: 12/31/2016
Date Data Arrived at EDR: 03/17/2017
Date Made Active in Reports: 05/10/2017
Number of Days to Update: 54

Source: Department of Toxic Substances Control
Telephone: 916-255-6504
Last EDR Contact: 04/10/2017
Next Scheduled EDR Contact: 07/24/2017
Data Release Frequency: Varies

TOXIC PITS: Toxic Pits Cleanup Act Sites

Toxic PITS Cleanup Act Sites. TOXIC PITS identifies sites suspected of containing hazardous substances where cleanup has not yet been completed.

Date of Government Version: 07/01/1995
Date Data Arrived at EDR: 08/30/1995
Date Made Active in Reports: 09/26/1995
Number of Days to Update: 27

Source: State Water Resources Control Board
Telephone: 916-227-4364
Last EDR Contact: 01/26/2009
Next Scheduled EDR Contact: 04/27/2009
Data Release Frequency: No Update Planned

US CDL: Clandestine Drug Labs

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 02/09/2017
Date Data Arrived at EDR: 03/08/2017
Date Made Active in Reports: 06/09/2017
Number of Days to Update: 93

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 05/31/2017
Next Scheduled EDR Contact: 09/11/2017
Data Release Frequency: Quarterly

Local Lists of Registered Storage Tanks

SWEEPS UST: SWEEPS UST Listing

Statewide Environmental Evaluation and Planning System. This underground storage tank listing was updated and maintained by a company contacted by the SWRCB in the early 1990's. The listing is no longer updated or maintained. The local agency is the contact for more information on a site on the SWEEPS list.

Date of Government Version: 06/01/1994
Date Data Arrived at EDR: 07/07/2005
Date Made Active in Reports: 08/11/2005
Number of Days to Update: 35

Source: State Water Resources Control Board
Telephone: N/A
Last EDR Contact: 06/03/2005
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

UST MENDOCINO: Mendocino County UST Database
A listing of underground storage tank locations in Mendocino County.

Date of Government Version: 03/09/2017
Date Data Arrived at EDR: 03/17/2017
Date Made Active in Reports: 05/23/2017
Number of Days to Update: 67

Source: Department of Public Health
Telephone: 707-463-4466
Last EDR Contact: 05/24/2017
Next Scheduled EDR Contact: 09/11/2017
Data Release Frequency: Annually

HIST UST: Hazardous Substance Storage Container Database
The Hazardous Substance Storage Container Database is a historical listing of UST sites. Refer to local/county source for current data.

Date of Government Version: 10/15/1990
Date Data Arrived at EDR: 01/25/1991
Date Made Active in Reports: 02/12/1991
Number of Days to Update: 18

Source: State Water Resources Control Board
Telephone: 916-341-5851
Last EDR Contact: 07/26/2001
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

CA FID UST: Facility Inventory Database
The Facility Inventory Database (FID) contains a historical listing of active and inactive underground storage tank locations from the State Water Resource Control Board. Refer to local/county source for current data.

Date of Government Version: 10/31/1994
Date Data Arrived at EDR: 09/05/1995
Date Made Active in Reports: 09/29/1995
Number of Days to Update: 24

Source: California Environmental Protection Agency
Telephone: 916-341-5851
Last EDR Contact: 12/28/1998
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

Local Land Records

LIENS: Environmental Liens Listing
A listing of property locations with environmental liens for California where DTSC is a lien holder.

Date of Government Version: 03/06/2017
Date Data Arrived at EDR: 03/07/2017
Date Made Active in Reports: 04/21/2017
Number of Days to Update: 45

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 06/02/2017
Next Scheduled EDR Contact: 09/18/2017
Data Release Frequency: Varies

LIENS 2: CERCLA Lien Information
A Federal CERCLA ('Superfund') lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

Date of Government Version: 02/18/2014
Date Data Arrived at EDR: 03/18/2014
Date Made Active in Reports: 04/24/2014
Number of Days to Update: 37

Source: Environmental Protection Agency
Telephone: 202-564-6023
Last EDR Contact: 06/09/2017
Next Scheduled EDR Contact: 08/07/2017
Data Release Frequency: Varies

DEED: Deed Restriction Listing

Site Mitigation and Brownfields Reuse Program Facility Sites with Deed Restrictions & Hazardous Waste Management Program Facility Sites with Deed / Land Use Restriction. The DTSC Site Mitigation and Brownfields Reuse Program (SMBRP) list includes sites cleaned up under the program's oversight and generally does not include current or former hazardous waste facilities that required a hazardous waste facility permit. The list represents deed restrictions that are active. Some sites have multiple deed restrictions. The DTSC Hazardous Waste Management Program (HWMP) has developed a list of current or former hazardous waste facilities that have a recorded land use restriction at the local county recorder's office. The land use restrictions on this list were required by the DTSC HWMP as a result of the presence of hazardous substances that remain on site after the facility (or part of the facility) has been closed or cleaned up. The types of land use restriction include deed notice, deed restriction, or a land use restriction that binds current and future owners.

Date of Government Version: 03/06/2017
Date Data Arrived at EDR: 03/07/2017
Date Made Active in Reports: 05/23/2017
Number of Days to Update: 77

Source: DTSC and SWRCB
Telephone: 916-323-3400
Last EDR Contact: 06/06/2017
Next Scheduled EDR Contact: 09/18/2017
Data Release Frequency: Semi-Annually

Records of Emergency Release Reports

HMIRS: Hazardous Materials Information Reporting System

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 12/28/2016
Date Data Arrived at EDR: 12/28/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 37

Source: U.S. Department of Transportation
Telephone: 202-366-4555
Last EDR Contact: 03/29/2017
Next Scheduled EDR Contact: 07/10/2017
Data Release Frequency: Annually

CHMIRS: California Hazardous Material Incident Report System

California Hazardous Material Incident Reporting System. CHMIRS contains information on reported hazardous material incidents (accidental releases or spills).

Date of Government Version: 12/06/2016
Date Data Arrived at EDR: 01/25/2017
Date Made Active in Reports: 05/10/2017
Number of Days to Update: 105

Source: Office of Emergency Services
Telephone: 916-845-8400
Last EDR Contact: 04/28/2017
Next Scheduled EDR Contact: 08/07/2017
Data Release Frequency: Varies

LDS: Land Disposal Sites Listing (GEOTRACKER)

Land Disposal sites (Landfills) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 03/13/2017
Date Data Arrived at EDR: 03/14/2017
Date Made Active in Reports: 05/02/2017
Number of Days to Update: 49

Source: State Water Qualilty Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/14/2017
Next Scheduled EDR Contact: 09/25/2017
Data Release Frequency: Quarterly

MCS: Military Cleanup Sites Listing (GEOTRACKER)

Military sites (consisting of: Military UST sites; Military Privatized sites; and Military Cleanup sites [formerly known as DoD non UST]) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 03/13/2017
Date Data Arrived at EDR: 03/14/2017
Date Made Active in Reports: 05/02/2017
Number of Days to Update: 49

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/14/2017
Next Scheduled EDR Contact: 09/25/2017
Data Release Frequency: Quarterly

SPILLS 90: SPILLS90 data from FirstSearch

Spills 90 includes those spill and release records available exclusively from FirstSearch databases. Typically, they may include chemical, oil and/or hazardous substance spills recorded after 1990. Duplicate records that are already included in EDR incident and release records are not included in Spills 90.

Date of Government Version: 06/06/2012
Date Data Arrived at EDR: 01/03/2013
Date Made Active in Reports: 02/22/2013
Number of Days to Update: 50

Source: FirstSearch
Telephone: N/A
Last EDR Contact: 01/03/2013
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

Other Ascertainable Records

RCRA NonGen / NLR: RCRA - Non Generators / No Longer Regulated

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

Date of Government Version: 12/12/2016
Date Data Arrived at EDR: 12/28/2016
Date Made Active in Reports: 02/10/2017
Number of Days to Update: 44

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 05/02/2017
Next Scheduled EDR Contact: 04/10/2017
Data Release Frequency: Varies

FUDS: Formerly Used Defense Sites

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 01/31/2015
Date Data Arrived at EDR: 07/08/2015
Date Made Active in Reports: 10/13/2015
Number of Days to Update: 97

Source: U.S. Army Corps of Engineers
Telephone: 202-528-4285
Last EDR Contact: 02/24/2017
Next Scheduled EDR Contact: 06/05/2017
Data Release Frequency: Varies

DOD: Department of Defense Sites

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 11/10/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 62

Source: USGS
Telephone: 888-275-8747
Last EDR Contact: 04/14/2017
Next Scheduled EDR Contact: 07/24/2017
Data Release Frequency: Semi-Annually

FEDLAND: Federal and Indian Lands

Federally and Indian administrated lands of the United States. Lands included are administrated by: Army Corps of Engineers, Bureau of Reclamation, National Wild and Scenic River, National Wildlife Refuge, Public Domain Land, Wilderness, Wilderness Study Area, Wildlife Management Area, Bureau of Indian Affairs, Bureau of Land Management, Department of Justice, Forest Service, Fish and Wildlife Service, National Park Service.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 02/06/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 339

Source: U.S. Geological Survey
Telephone: 888-275-8747
Last EDR Contact: 04/14/2017
Next Scheduled EDR Contact: 07/24/2017
Data Release Frequency: N/A

SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners Listing

The State Coalition for Remediation of Drycleaners was established in 1998, with support from the U.S. EPA Office of Superfund Remediation and Technology Innovation. It is comprised of representatives of states with established drycleaner remediation programs. Currently the member states are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

Date of Government Version: 01/01/2017
Date Data Arrived at EDR: 02/03/2017
Date Made Active in Reports: 04/07/2017
Number of Days to Update: 63

Source: Environmental Protection Agency
Telephone: 615-532-8599
Last EDR Contact: 05/19/2017
Next Scheduled EDR Contact: 08/28/2017
Data Release Frequency: Varies

US FIN ASSUR: Financial Assurance Information

All owners and operators of facilities that treat, store, or dispose of hazardous waste are required to provide proof that they will have sufficient funds to pay for the clean up, closure, and post-closure care of their facilities.

Date of Government Version: 02/13/2017
Date Data Arrived at EDR: 02/15/2017
Date Made Active in Reports: 05/12/2017
Number of Days to Update: 86

Source: Environmental Protection Agency
Telephone: 202-566-1917
Last EDR Contact: 05/17/2017
Next Scheduled EDR Contact: 08/28/2017
Data Release Frequency: Quarterly

EPA WATCH LIST: EPA WATCH LIST

EPA maintains a "Watch List" to facilitate dialogue between EPA, state and local environmental agencies on enforcement matters relating to facilities with alleged violations identified as either significant or high priority. Being on the Watch List does not mean that the facility has actually violated the law only that an investigation by EPA or a state or local environmental agency has led those organizations to allege that an unproven violation has in fact occurred. Being on the Watch List does not represent a higher level of concern regarding the alleged violations that were detected, but instead indicates cases requiring additional dialogue between EPA, state and local agencies - primarily because of the length of time the alleged violation has gone unaddressed or unresolved.

Date of Government Version: 08/30/2013
Date Data Arrived at EDR: 03/21/2014
Date Made Active in Reports: 06/17/2014
Number of Days to Update: 88

Source: Environmental Protection Agency
Telephone: 617-520-3000
Last EDR Contact: 05/08/2017
Next Scheduled EDR Contact: 08/21/2017
Data Release Frequency: Quarterly

2020 COR ACTION: 2020 Corrective Action Program List

The EPA has set ambitious goals for the RCRA Corrective Action program by creating the 2020 Corrective Action Universe. This RCRA cleanup baseline includes facilities expected to need corrective action. The 2020 universe contains a wide variety of sites. Some properties are heavily contaminated while others were contaminated but have since been cleaned up. Still others have not been fully investigated yet, and may require little or no remediation. Inclusion in the 2020 Universe does not necessarily imply failure on the part of a facility to meet its RCRA obligations.

Date of Government Version: 04/22/2013
Date Data Arrived at EDR: 03/03/2015
Date Made Active in Reports: 03/09/2015
Number of Days to Update: 6

Source: Environmental Protection Agency
Telephone: 703-308-4044
Last EDR Contact: 05/05/2017
Next Scheduled EDR Contact: 08/21/2017
Data Release Frequency: Varies

TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/2012
Date Data Arrived at EDR: 01/15/2015
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 14

Source: EPA
Telephone: 202-260-5521
Last EDR Contact: 03/24/2017
Next Scheduled EDR Contact: 07/03/2017
Data Release Frequency: Every 4 Years

TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 11/24/2015
Date Made Active in Reports: 04/05/2016
Number of Days to Update: 133

Source: EPA
Telephone: 202-566-0250
Last EDR Contact: 05/26/2017
Next Scheduled EDR Contact: 09/04/2017
Data Release Frequency: Annually

SSTS: Section 7 Tracking Systems

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 12/31/2009
Date Data Arrived at EDR: 12/10/2010
Date Made Active in Reports: 02/25/2011
Number of Days to Update: 77

Source: EPA
Telephone: 202-564-4203
Last EDR Contact: 04/26/2017
Next Scheduled EDR Contact: 08/07/2017
Data Release Frequency: Annually

ROD: Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 11/25/2013
Date Data Arrived at EDR: 12/12/2013
Date Made Active in Reports: 02/24/2014
Number of Days to Update: 74

Source: EPA
Telephone: 703-416-0223
Last EDR Contact: 06/09/2017
Next Scheduled EDR Contact: 09/18/2017
Data Release Frequency: Annually

RMP: Risk Management Plans

When Congress passed the Clean Air Act Amendments of 1990, it required EPA to publish regulations and guidance for chemical accident prevention at facilities using extremely hazardous substances. The Risk Management Program Rule (RMP Rule) was written to implement Section 112(r) of these amendments. The rule, which built upon existing industry codes and standards, requires companies of all sizes that use certain flammable and toxic substances to develop a Risk Management Program, which includes a(n): Hazard assessment that details the potential effects of an accidental release, an accident history of the last five years, and an evaluation of worst-case and alternative accidental releases; Prevention program that includes safety precautions and maintenance, monitoring, and employee training measures; and Emergency response program that spells out emergency health care, employee training measures and procedures for informing the public and response agencies (e.g the fire department) should an accident occur.

Date of Government Version: 02/01/2017
Date Data Arrived at EDR: 02/09/2017
Date Made Active in Reports: 04/07/2017
Number of Days to Update: 57

Source: Environmental Protection Agency
Telephone: 202-564-8600
Last EDR Contact: 04/21/2017
Next Scheduled EDR Contact: 08/07/2017
Data Release Frequency: Varies

RAATS: RCRA Administrative Action Tracking System

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995
Date Data Arrived at EDR: 07/03/1995
Date Made Active in Reports: 08/07/1995
Number of Days to Update: 35

Source: EPA
Telephone: 202-564-4104
Last EDR Contact: 06/02/2008
Next Scheduled EDR Contact: 09/01/2008
Data Release Frequency: No Update Planned

PRP: Potentially Responsible Parties
A listing of verified Potentially Responsible Parties

Date of Government Version: 10/25/2013
Date Data Arrived at EDR: 10/17/2014
Date Made Active in Reports: 10/20/2014
Number of Days to Update: 3
Source: EPA
Telephone: 202-564-6023
Last EDR Contact: 06/06/2017
Next Scheduled EDR Contact: 08/21/2017
Data Release Frequency: Quarterly

PADS: PCB Activity Database System
PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 01/20/2016
Date Data Arrived at EDR: 04/28/2016
Date Made Active in Reports: 09/02/2016
Number of Days to Update: 127
Source: EPA
Telephone: 202-566-0500
Last EDR Contact: 04/10/2017
Next Scheduled EDR Contact: 07/24/2017
Data Release Frequency: Annually

ICIS: Integrated Compliance Information System
The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 11/18/2016
Date Data Arrived at EDR: 11/23/2016
Date Made Active in Reports: 02/10/2017
Number of Days to Update: 79
Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 04/10/2017
Next Scheduled EDR Contact: 07/24/2017
Data Release Frequency: Quarterly

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25
Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Telephone: 202-566-1667
Last EDR Contact: 05/19/2017
Next Scheduled EDR Contact: 09/04/2017
Data Release Frequency: Quarterly

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25
Source: EPA
Telephone: 202-566-1667
Last EDR Contact: 05/19/2017
Next Scheduled EDR Contact: 09/04/2017
Data Release Frequency: Quarterly

MLTS: Material Licensing Tracking System
MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 08/30/2016
Date Data Arrived at EDR: 09/08/2016
Date Made Active in Reports: 10/21/2016
Number of Days to Update: 43
Source: Nuclear Regulatory Commission
Telephone: 301-415-7169
Last EDR Contact: 05/08/2017
Next Scheduled EDR Contact: 08/21/2017
Data Release Frequency: Quarterly

COAL ASH DOE: Steam-Electric Plant Operation Data
A listing of power plants that store ash in surface ponds.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 08/07/2009
Date Made Active in Reports: 10/22/2009
Number of Days to Update: 76
Source: Department of Energy
Telephone: 202-586-8719
Last EDR Contact: 06/05/2017
Next Scheduled EDR Contact: 09/18/2017
Data Release Frequency: Varies

COAL ASH EPA: Coal Combustion Residues Surface Impoundments List
A listing of coal combustion residues surface impoundments with high hazard potential ratings.

Date of Government Version: 07/01/2014
Date Data Arrived at EDR: 09/10/2014
Date Made Active in Reports: 10/20/2014
Number of Days to Update: 40
Source: Environmental Protection Agency
Telephone: N/A
Last EDR Contact: 06/05/2017
Next Scheduled EDR Contact: 09/18/2017
Data Release Frequency: Varies

PCB TRANSFORMER: PCB Transformer Registration Database
The database of PCB transformer registrations that includes all PCB registration submittals.

Date of Government Version: 02/01/2011
Date Data Arrived at EDR: 10/19/2011
Date Made Active in Reports: 01/10/2012
Number of Days to Update: 83
Source: Environmental Protection Agency
Telephone: 202-566-0517
Last EDR Contact: 04/28/2017
Next Scheduled EDR Contact: 08/07/2017
Data Release Frequency: Varies

RADINFO: Radiation Information Database
The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

Date of Government Version: 01/04/2017
Date Data Arrived at EDR: 01/06/2017
Date Made Active in Reports: 02/10/2017
Number of Days to Update: 35
Source: Environmental Protection Agency
Telephone: 202-343-9775
Last EDR Contact: 04/06/2017
Next Scheduled EDR Contact: 07/17/2017
Data Release Frequency: Quarterly

HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing
A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40
Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2007
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

HIST FTTS INSP: FIFRA/TSCA Tracking System Inspection & Enforcement Case Listing
A complete inspection and enforcement case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2008
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

DOT OPS: Incident and Accident Data

Department of Transporation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 07/31/2012
Date Data Arrived at EDR: 08/07/2012
Date Made Active in Reports: 09/18/2012
Number of Days to Update: 42

Source: Department of Transporation, Office of Pipeline Safety
Telephone: 202-366-4595
Last EDR Contact: 05/02/2017
Next Scheduled EDR Contact: 08/14/2017
Data Release Frequency: Varies

CONSENT: Superfund (CERCLA) Consent Decrees

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 09/30/2016
Date Data Arrived at EDR: 11/18/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 77

Source: Department of Justice, Consent Decree Library
Telephone: Varies
Last EDR Contact: 03/27/2017
Next Scheduled EDR Contact: 07/10/2017
Data Release Frequency: Varies

BRS: Biennial Reporting System

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/2013
Date Data Arrived at EDR: 02/24/2015
Date Made Active in Reports: 09/30/2015
Number of Days to Update: 218

Source: EPA/NTIS
Telephone: 800-424-9346
Last EDR Contact: 05/26/2017
Next Scheduled EDR Contact: 09/04/2017
Data Release Frequency: Biennially

INDIAN RESERV: Indian Reservations

This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 07/14/2015
Date Made Active in Reports: 01/10/2017
Number of Days to Update: 546

Source: USGS
Telephone: 202-208-3710
Last EDR Contact: 04/14/2017
Next Scheduled EDR Contact: 07/24/2017
Data Release Frequency: Semi-Annually

FUSRAP: Formerly Utilized Sites Remedial Action Program

DOE established the Formerly Utilized Sites Remedial Action Program (FUSRAP) in 1974 to remediate sites where radioactive contamination remained from Manhattan Project and early U.S. Atomic Energy Commission (AEC) operations.

Date of Government Version: 12/23/2016
Date Data Arrived at EDR: 12/27/2016
Date Made Active in Reports: 02/17/2017
Number of Days to Update: 52

Source: Department of Energy
Telephone: 202-586-3559
Last EDR Contact: 05/05/2017
Next Scheduled EDR Contact: 08/21/2017
Data Release Frequency: Varies

UMTRA: Uranium Mill Tailings Sites

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

Date of Government Version: 09/14/2010
Date Data Arrived at EDR: 10/07/2011
Date Made Active in Reports: 03/01/2012
Number of Days to Update: 146

Source: Department of Energy
Telephone: 505-845-0011
Last EDR Contact: 05/22/2017
Next Scheduled EDR Contact: 09/04/2017
Data Release Frequency: Varies

LEAD SMELTER 1: Lead Smelter Sites

A listing of former lead smelter site locations.

Date of Government Version: 12/05/2016
Date Data Arrived at EDR: 01/05/2017
Date Made Active in Reports: 02/10/2017
Number of Days to Update: 36

Source: Environmental Protection Agency
Telephone: 703-603-8787
Last EDR Contact: 06/09/2017
Next Scheduled EDR Contact: 07/17/2017
Data Release Frequency: Varies

LEAD SMELTER 2: Lead Smelter Sites

A list of several hundred sites in the U.S. where secondary lead smelting was done from 1931and 1964. These sites may pose a threat to public health through ingestion or inhalation of contaminated soil or dust

Date of Government Version: 04/05/2001
Date Data Arrived at EDR: 10/27/2010
Date Made Active in Reports: 12/02/2010
Number of Days to Update: 36

Source: American Journal of Public Health
Telephone: 703-305-6451
Last EDR Contact: 12/02/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

US AIRS (AFS): Aerometric Information Retrieval System Facility Subsystem (AFS)

The database is a sub-system of Aerometric Information Retrieval System (AIRS). AFS contains compliance data on air pollution point sources regulated by the U.S. EPA and/or state and local air regulatory agencies. This information comes from source reports by various stationary sources of air pollution, such as electric power plants, steel mills, factories, and universities, and provides information about the air pollutants they produce. Action, air program, air program pollutant, and general level plant data. It is used to track emissions and compliance data from industrial plants.

Date of Government Version: 10/12/2016
Date Data Arrived at EDR: 10/26/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 100

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 03/07/2017
Next Scheduled EDR Contact: 07/10/2017
Data Release Frequency: Annually

US AIRS MINOR: Air Facility System Data

A listing of minor source facilities.

Date of Government Version: 10/12/2016
Date Data Arrived at EDR: 10/26/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 100

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 03/07/2017
Next Scheduled EDR Contact: 04/10/2017
Data Release Frequency: Annually

US MINES: Mines Master Index File

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 02/08/2017
Date Data Arrived at EDR: 02/28/2017
Date Made Active in Reports: 04/07/2017
Number of Days to Update: 38

Source: Department of Labor, Mine Safety and Health Administration
Telephone: 303-231-5959
Last EDR Contact: 05/31/2017
Next Scheduled EDR Contact: 09/11/2017
Data Release Frequency: Semi-Annually

US MINES 2: Ferrous and Nonferrous Metal Mines Database Listing

This map layer includes ferrous (ferrous metal mines are facilities that extract ferrous metals, such as iron ore or molybdenum) and nonferrous (Nonferrous metal mines are facilities that extract nonferrous metals, such as gold, silver, copper, zinc, and lead) metal mines in the United States.

Date of Government Version: 12/05/2005
Date Data Arrived at EDR: 02/29/2008
Date Made Active in Reports: 04/18/2008
Number of Days to Update: 49

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 05/31/2017
Next Scheduled EDR Contact: 09/11/2017
Data Release Frequency: Varies

US MINES 3: Active Mines & Mineral Plants Database Listing

Active Mines and Mineral Processing Plant operations for commodities monitored by the Minerals Information Team of the USGS.

Date of Government Version: 04/14/2011
Date Data Arrived at EDR: 06/08/2011
Date Made Active in Reports: 09/13/2011
Number of Days to Update: 97

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 06/02/2017
Next Scheduled EDR Contact: 09/11/2017
Data Release Frequency: Varies

ABANDONED MINES: Abandoned Mines

An inventory of land and water impacted by past mining (primarily coal mining) is maintained by OSMRE to provide information needed to implement the Surface Mining Control and Reclamation Act of 1977 (SMCRA). The inventory contains information on the location, type, and extent of AML impacts, as well as, information on the cost associated with the reclamation of those problems. The inventory is based upon field surveys by State, Tribal, and OSMRE program officials. It is dynamic to the extent that it is modified as new problems are identified and existing problems are reclaimed.

Date of Government Version: 03/14/2017
Date Data Arrived at EDR: 03/17/2017
Date Made Active in Reports: 04/07/2017
Number of Days to Update: 21

Source: Department of Interior
Telephone: 202-208-2609
Last EDR Contact: 06/09/2017
Next Scheduled EDR Contact: 09/25/2017
Data Release Frequency: Quarterly

FINDS: Facility Index System/Facility Registry System

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 04/04/2017
Date Data Arrived at EDR: 04/07/2017
Date Made Active in Reports: 05/12/2017
Number of Days to Update: 35

Source: EPA
Telephone: (415) 947-8000
Last EDR Contact: 06/07/2017
Next Scheduled EDR Contact: 09/18/2017
Data Release Frequency: Quarterly

ECHO: Enforcement & Compliance History Information

ECHO provides integrated compliance and enforcement information for about 800,000 regulated facilities nationwide.

Date of Government Version: 03/19/2017
Date Data Arrived at EDR: 03/21/2017
Date Made Active in Reports: 05/12/2017
Number of Days to Update: 52

Source: Environmental Protection Agency
Telephone: 202-564-2280
Last EDR Contact: 06/07/2017
Next Scheduled EDR Contact: 09/18/2017
Data Release Frequency: Quarterly

UXO: Unexploded Ordnance Sites

A listing of unexploded ordnance site locations

Date of Government Version: 10/25/2015
Date Data Arrived at EDR: 01/29/2016
Date Made Active in Reports: 04/05/2016
Number of Days to Update: 67

Source: Department of Defense
Telephone: 571-373-0407
Last EDR Contact: 05/22/2017
Next Scheduled EDR Contact: 07/31/2017
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

DOCKET HWC: Hazardous Waste Compliance Docket Listing
A complete list of the Federal Agency Hazardous Waste Compliance Docket Facilities.

Date of Government Version: 06/02/2016
Date Data Arrived at EDR: 06/03/2016
Date Made Active in Reports: 09/02/2016
Number of Days to Update: 91
Source: Environmental Protection Agency
Telephone: 202-564-0527
Last EDR Contact: 05/24/2017
Next Scheduled EDR Contact: 09/11/2017
Data Release Frequency: Varies

FUELS PROGRAM: EPA Fuels Program Registered Listing
This listing includes facilities that are registered under the Part 80 (Code of Federal Regulations) EPA Fuels Programs. All companies now are required to submit new and updated registrations.

Date of Government Version: 02/22/2017
Date Data Arrived at EDR: 02/22/2017
Date Made Active in Reports: 05/12/2017
Number of Days to Update: 79
Source: EPA
Telephone: 800-385-6164
Last EDR Contact: 05/24/2017
Next Scheduled EDR Contact: 09/04/2017
Data Release Frequency: Quarterly

CA BOND EXP. PLAN: Bond Expenditure Plan
Department of Health Services developed a site-specific expenditure plan as the basis for an appropriation of Hazardous Substance Cleanup Bond Act funds. It is not updated.

Date of Government Version: 01/01/1989
Date Data Arrived at EDR: 07/27/1994
Date Made Active in Reports: 08/02/1994
Number of Days to Update: 6
Source: Department of Health Services
Telephone: 916-255-2118
Last EDR Contact: 05/31/1994
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

CORTESE: "Cortese" Hazardous Waste & Substances Sites List
The sites for the list are designated by the State Water Resource Control Board (LUST), the Integrated Waste Board (SWF/LS), and the Department of Toxic Substances Control (Cal-Sites).

Date of Government Version: 12/28/2016
Date Data Arrived at EDR: 12/28/2016
Date Made Active in Reports: 03/02/2017
Number of Days to Update: 64
Source: CAL EPA/Office of Emergency Information
Telephone: 916-323-3400
Last EDR Contact: 03/29/2017
Next Scheduled EDR Contact: 07/10/2017
Data Release Frequency: Quarterly

DRYCLEANERS: Cleaner Facilities
A list of drycleaner related facilities that have EPA ID numbers. These are facilities with certain SIC codes: power laundries, family and commercial; garment pressing and cleaner's agents; linen supply; coin-operated laundries and cleaning; drycleaning plants, except rugs; carpet and upholster cleaning; industrial launderers; laundry and garment services.

Date of Government Version: 03/09/2017
Date Data Arrived at EDR: 04/11/2017
Date Made Active in Reports: 05/23/2017
Number of Days to Update: 42
Source: Department of Toxic Substance Control
Telephone: 916-327-4498
Last EDR Contact: 06/02/2017
Next Scheduled EDR Contact: 09/18/2017
Data Release Frequency: Annually

EMI: Emissions Inventory Data
Toxics and criteria pollutant emissions data collected by the ARB and local air pollution agencies.

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 09/23/2016
Date Made Active in Reports: 10/24/2016
Number of Days to Update: 31
Source: California Air Resources Board
Telephone: 916-322-2990
Last EDR Contact: 03/21/2017
Next Scheduled EDR Contact: 07/03/2017
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

ENF: Enforcement Action Listing

A listing of Water Board Enforcement Actions. Formal is everything except Oral/Verbal Communication, Notice of Violation, Expedited Payment Letter, and Staff Enforcement Letter.

Date of Government Version: 01/23/2017
Date Data Arrived at EDR: 01/27/2017
Date Made Active in Reports: 05/25/2017
Number of Days to Update: 118

Source: State Water Resoruces Control Board
Telephone: 916-445-9379
Last EDR Contact: 04/24/2017
Next Scheduled EDR Contact: 08/07/2017
Data Release Frequency: Varies

Financial Assurance 1: Financial Assurance Information Listing

Financial Assurance information

Date of Government Version: 04/25/2016
Date Data Arrived at EDR: 04/29/2016
Date Made Active in Reports: 06/21/2016
Number of Days to Update: 53

Source: Department of Toxic Substances Control
Telephone: 916-255-3628
Last EDR Contact: 06/02/2017
Next Scheduled EDR Contact: 08/07/2017
Data Release Frequency: Varies

Financial Assurance 2: Financial Assurance Information Listing

A listing of financial assurance information for solid waste facilities. Financial assurance is intended to ensure that resources are available to pay for the cost of closure, post-closure care, and corrective measures if the owner or operator of a regulated facility is unable or unwilling to pay.

Date of Government Version: 02/14/2017
Date Data Arrived at EDR: 02/17/2017
Date Made Active in Reports: 05/25/2017
Number of Days to Update: 97

Source: California Integrated Waste Management Board
Telephone: 916-341-6066
Last EDR Contact: 05/15/2017
Next Scheduled EDR Contact: 08/28/2017
Data Release Frequency: Varies

HAZNET: Facility and Manifest Data

Facility and Manifest Data. The data is extracted from the copies of hazardous waste manifests received each year by the DTSC. The annual volume of manifests is typically 700,000 - 1,000,000 annually, representing approximately 350,000 - 500,000 shipments. Data are from the manifests submitted without correction, and therefore many contain some invalid values for data elements such as generator ID, TSD ID, waste category, and disposal method. This database begins with calendar year 1993.

Date of Government Version: 12/31/2015
Date Data Arrived at EDR: 10/12/2016
Date Made Active in Reports: 12/15/2016
Number of Days to Update: 64

Source: California Environmental Protection Agency
Telephone: 916-255-1136
Last EDR Contact: 04/14/2017
Next Scheduled EDR Contact: 07/24/2017
Data Release Frequency: Annually

ICE: ICE

Contains data pertaining to the Permitted Facilities with Inspections / Enforcements sites tracked in Envirostor.

Date of Government Version: 11/21/2016
Date Data Arrived at EDR: 11/22/2016
Date Made Active in Reports: 01/23/2017
Number of Days to Update: 62

Source: Department of Toxic Subsances Control
Telephone: 877-786-9427
Last EDR Contact: 05/24/2017
Next Scheduled EDR Contact: 09/04/2017
Data Release Frequency: Quarterly

HIST CORTESE: Hazardous Waste & Substance Site List

The sites for the list are designated by the State Water Resource Control Board [LUST], the Integrated Waste Board [SWF/LS], and the Department of Toxic Substances Control [CALSITES]. This listing is no longer updated by the state agency.

Date of Government Version: 04/01/2001
Date Data Arrived at EDR: 01/22/2009
Date Made Active in Reports: 04/08/2009
Number of Days to Update: 76

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 01/22/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

HWP: EnviroStor Permitted Facilities Listing
Detailed information on permitted hazardous waste facilities and corrective action ("cleanups") tracked in EnviroStor.

Date of Government Version: 11/21/2016
Date Data Arrived at EDR: 11/22/2016
Date Made Active in Reports: 01/23/2017
Number of Days to Update: 62
Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 05/24/2017
Next Scheduled EDR Contact: 09/04/2017
Data Release Frequency: Quarterly

HWT: Registered Hazardous Waste Transporter Database
A listing of hazardous waste transporters. In California, unless specifically exempted, it is unlawful for any person to transport hazardous wastes unless the person holds a valid registration issued by DTSC. A hazardous waste transporter registration is valid for one year and is assigned a unique registration number.

Date of Government Version: 04/11/2017
Date Data Arrived at EDR: 04/13/2017
Date Made Active in Reports: 04/26/2017
Number of Days to Update: 13
Source: Department of Toxic Substances Control
Telephone: 916-440-7145
Last EDR Contact: 04/13/2017
Next Scheduled EDR Contact: 07/24/2017
Data Release Frequency: Quarterly

MINES: Mines Site Location Listing
A listing of mine site locations from the Office of Mine Reclamation.

Date of Government Version: 09/12/2016
Date Data Arrived at EDR: 09/14/2016
Date Made Active in Reports: 10/14/2016
Number of Days to Update: 30
Source: Department of Conservation
Telephone: 916-322-1080
Last EDR Contact: 06/14/2017
Next Scheduled EDR Contact: 09/25/2017
Data Release Frequency: Varies

MWMP: Medical Waste Management Program Listing
The Medical Waste Management Program (MWMP) ensures the proper handling and disposal of medical waste by permitting and inspecting medical waste Offsite Treatment Facilities (PDF) and Transfer Stations (PDF) throughout the state. MWMP also oversees all Medical Waste Transporters.

Date of Government Version: 12/02/2016
Date Data Arrived at EDR: 12/06/2016
Date Made Active in Reports: 03/02/2017
Number of Days to Update: 86
Source: Department of Public Health
Telephone: 916-558-1784
Last EDR Contact: 06/06/2017
Next Scheduled EDR Contact: 09/18/2017
Data Release Frequency: Varies

NPDES: NPDES Permits Listing
A listing of NPDES permits, including stormwater.

Date of Government Version: 11/14/2016
Date Data Arrived at EDR: 11/15/2016
Date Made Active in Reports: 03/02/2017
Number of Days to Update: 107
Source: State Water Resources Control Board
Telephone: 916-445-9379
Last EDR Contact: 05/17/2017
Next Scheduled EDR Contact: 08/28/2017
Data Release Frequency: Quarterly

PEST LIC: Pesticide Regulation Licenses Listing
A listing of licenses and certificates issued by the Department of Pesticide Regulation. The DPR issues licenses and/or certificates to: Persons and businesses that apply or sell pesticides; Pest control dealers and brokers; Persons who advise on agricultural pesticide applications.

Date of Government Version: 12/06/2016
Date Data Arrived at EDR: 12/06/2016
Date Made Active in Reports: 03/03/2017
Number of Days to Update: 87
Source: Department of Pesticide Regulation
Telephone: 916-445-4038
Last EDR Contact: 06/07/2017
Next Scheduled EDR Contact: 09/18/2017
Data Release Frequency: Quarterly

PROC: Certified Processors Database
A listing of certified processors.

Date of Government Version: 03/13/2017
Date Data Arrived at EDR: 03/14/2017
Date Made Active in Reports: 05/03/2017
Number of Days to Update: 50
Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 06/14/2017
Next Scheduled EDR Contact: 09/25/2017
Data Release Frequency: Quarterly

NOTIFY 65: Proposition 65 Records
Listings of all Proposition 65 incidents reported to counties by the State Water Resources Control Board and the Regional Water Quality Control Board. This database is no longer updated by the reporting agency.

Date of Government Version: 12/16/2016
Date Data Arrived at EDR: 12/22/2016
Date Made Active in Reports: 03/02/2017
Number of Days to Update: 70
Source: State Water Resources Control Board
Telephone: 916-445-3846
Last EDR Contact: 04/03/2017
Next Scheduled EDR Contact: 07/03/2017
Data Release Frequency: No Update Planned

UIC: UIC Listing
A listing of wells identified as underground injection wells, in the California Oil and Gas Wells database.

Date of Government Version: 01/20/2017
Date Data Arrived at EDR: 03/14/2017
Date Made Active in Reports: 05/03/2017
Number of Days to Update: 50
Source: Deaprtment of Conservation
Telephone: 916-445-2408
Last EDR Contact: 06/14/2017
Next Scheduled EDR Contact: 09/25/2017
Data Release Frequency: Varies

WASTEWATER PITS: Oil Wastewater Pits Listing
Water officials discovered that oil producers have been dumping chemical-laden wastewater into hundreds of unlined pits that are operating without proper permits. Inspections completed by the Central Valley Regional Water Quality Control Board revealed the existence of previously unidentified waste sites. The water board?s review found that more than one-third of the region?s active disposal pits are operating without permission.

Date of Government Version: 04/15/2015
Date Data Arrived at EDR: 04/17/2015
Date Made Active in Reports: 06/23/2015
Number of Days to Update: 67
Source: RWQCB, Central Valley Region
Telephone: 559-445-5577
Last EDR Contact: 04/14/2017
Next Scheduled EDR Contact: 07/24/2017
Data Release Frequency: Varies

WDS: Waste Discharge System
Sites which have been issued waste discharge requirements.

Date of Government Version: 06/19/2007
Date Data Arrived at EDR: 06/20/2007
Date Made Active in Reports: 06/29/2007
Number of Days to Update: 9
Source: State Water Resources Control Board
Telephone: 916-341-5227
Last EDR Contact: 05/22/2017
Next Scheduled EDR Contact: 09/04/2017
Data Release Frequency: Quarterly

WIP: Well Investigation Program Case List
Well Investigation Program case in the San Gabriel and San Fernando Valley area.

Date of Government Version: 07/03/2009
Date Data Arrived at EDR: 07/21/2009
Date Made Active in Reports: 08/03/2009
Number of Days to Update: 13
Source: Los Angeles Water Quality Control Board
Telephone: 213-576-6726
Last EDR Contact: 03/24/2017
Next Scheduled EDR Contact: 07/10/2017
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP: EDR Proprietary Manufactured Gas Plants

The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

EDR Hist Auto: EDR Exclusive Historic Gas Stations

EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR Hist Cleaner: EDR Exclusive Historic Dry Cleaners

EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA LF: Recovered Government Archive Solid Waste Facilities List

The EDR Recovered Government Archive Landfill database provides a list of landfills derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Resources Recycling and Recovery in California.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 01/13/2014
Number of Days to Update: 196

Source: Department of Resources Recycling and Recovery
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

RGA LUST: Recovered Government Archive Leaking Underground Storage Tank

The EDR Recovered Government Archive Leaking Underground Storage Tank database provides a list of LUST incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the State Water Resources Control Board in California.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 12/30/2013
Number of Days to Update: 182

Source: State Water Resources Control Board
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

COUNTY RECORDS

ALAMEDA COUNTY:

Contaminated Sites

A listing of contaminated sites overseen by the Toxic Release Program (oil and groundwater contamination from chemical releases and spills) and the Leaking Underground Storage Tank Program (soil and ground water contamination from leaking petroleum USTs).

Date of Government Version: 04/10/2017
Date Data Arrived at EDR: 04/11/2017
Date Made Active in Reports: 05/12/2017
Number of Days to Update: 31

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 04/10/2017
Next Scheduled EDR Contact: 07/24/2017
Data Release Frequency: Semi-Annually

Underground Tanks

Underground storage tank sites located in Alameda county.

Date of Government Version: 04/10/2017
Date Data Arrived at EDR: 04/11/2017
Date Made Active in Reports: 05/02/2017
Number of Days to Update: 21

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 04/10/2017
Next Scheduled EDR Contact: 04/24/2047
Data Release Frequency: Semi-Annually

AMADOR COUNTY:

CUPA Facility List

Cupa Facility List

Date of Government Version: 03/06/2017
Date Data Arrived at EDR: 03/08/2017
Date Made Active in Reports: 04/14/2017
Number of Days to Update: 37

Source: Amador County Environmental Health
Telephone: 209-223-6439
Last EDR Contact: 06/02/2017
Next Scheduled EDR Contact: 09/18/2017
Data Release Frequency: Varies

BUTTE COUNTY:

CUPA Facility Listing

Cupa facility list.

Date of Government Version: 01/31/2017
Date Data Arrived at EDR: 02/07/2017
Date Made Active in Reports: 05/12/2017
Number of Days to Update: 94

Source: Public Health Department
Telephone: 530-538-7149
Last EDR Contact: 04/10/2017
Next Scheduled EDR Contact: 07/24/2017
Data Release Frequency: No Update Planned

CALVERAS COUNTY:

CUPA Facility Listing
Cupa Facility Listing

Date of Government Version: 01/09/2017
Date Data Arrived at EDR: 01/11/2017
Date Made Active in Reports: 03/02/2017
Number of Days to Update: 50

Source: Calveras County Environmental Health
Telephone: 209-754-6399
Last EDR Contact: 03/27/2017
Next Scheduled EDR Contact: 07/10/2017
Data Release Frequency: Quarterly

COLUSA COUNTY:

CUPA Facility List
Cupa facility list.

Date of Government Version: 02/23/2017
Date Data Arrived at EDR: 02/24/2017
Date Made Active in Reports: 05/12/2017
Number of Days to Update: 77

Source: Health & Human Services
Telephone: 530-458-0396
Last EDR Contact: 06/02/2017
Next Scheduled EDR Contact: 08/21/2017
Data Release Frequency: Varies

CONTRA COSTA COUNTY:

Site List
List includes sites from the underground tank, hazardous waste generator and business plan/2185 programs.

Date of Government Version: 11/17/2016
Date Data Arrived at EDR: 11/22/2016
Date Made Active in Reports: 01/26/2017
Number of Days to Update: 65

Source: Contra Costa Health Services Department
Telephone: 925-646-2286
Last EDR Contact: 05/01/2017
Next Scheduled EDR Contact: 08/14/2017
Data Release Frequency: Semi-Annually

DEL NORTE COUNTY:

CUPA Facility List
Cupa Facility list

Date of Government Version: 01/31/2017
Date Data Arrived at EDR: 02/03/2017
Date Made Active in Reports: 04/14/2017
Number of Days to Update: 70

Source: Del Norte County Environmental Health Division
Telephone: 707-465-0426
Last EDR Contact: 05/01/2017
Next Scheduled EDR Contact: 08/14/2017
Data Release Frequency: Varies

EL DORADO COUNTY:

CUPA Facility List
CUPA facility list.

Date of Government Version: 02/24/2017
Date Data Arrived at EDR: 02/28/2017
Date Made Active in Reports: 05/12/2017
Number of Days to Update: 73

Source: El Dorado County Environmental Management Department
Telephone: 530-621-6623
Last EDR Contact: 05/01/2017
Next Scheduled EDR Contact: 08/14/2017
Data Release Frequency: Varies

FRESNO COUNTY:

CUPA Resources List

Certified Unified Program Agency. CUPA's are responsible for implementing a unified hazardous materials and hazardous waste management regulatory program. The agency provides oversight of businesses that deal with hazardous materials, operate underground storage tanks or aboveground storage tanks.

Date of Government Version: 04/06/2017
Date Data Arrived at EDR: 04/07/2017
Date Made Active in Reports: 05/17/2017
Number of Days to Update: 40

Source: Dept. of Community Health
Telephone: 559-445-3271
Last EDR Contact: 03/31/2017
Next Scheduled EDR Contact: 07/17/2017
Data Release Frequency: Semi-Annually

GLENN COUNTY:

CUPA Facility List

Cupa facility list

Date of Government Version: 12/02/2016
Date Data Arrived at EDR: 02/03/2017
Date Made Active in Reports: 05/25/2017
Number of Days to Update: 111

Source: Glenn County Air Pollution Control District
Telephone: 830-934-6500
Last EDR Contact: 04/24/2017
Next Scheduled EDR Contact: 08/07/2017
Data Release Frequency: Varies

HUMBOLDT COUNTY:

CUPA Facility List

CUPA facility list.

Date of Government Version: 03/20/2017
Date Data Arrived at EDR: 03/21/2017
Date Made Active in Reports: 05/17/2017
Number of Days to Update: 57

Source: Humboldt County Environmental Health
Telephone: N/A
Last EDR Contact: 05/22/2017
Next Scheduled EDR Contact: 09/04/2017
Data Release Frequency: Varies

IMPERIAL COUNTY:

CUPA Facility List

Cupa facility list.

Date of Government Version: 01/23/2017
Date Data Arrived at EDR: 01/25/2017
Date Made Active in Reports: 03/02/2017
Number of Days to Update: 36

Source: San Diego Border Field Office
Telephone: 760-339-2777
Last EDR Contact: 04/24/2017
Next Scheduled EDR Contact: 08/07/2017
Data Release Frequency: Varies

INYO COUNTY:

CUPA Facility List
Cupa facility list.

Date of Government Version: 03/09/2017
Date Data Arrived at EDR: 03/09/2017
Date Made Active in Reports: 05/25/2017
Number of Days to Update: 77

Source: Inyo County Environmental Health Services
Telephone: 760-878-0238
Last EDR Contact: 06/02/2017
Next Scheduled EDR Contact: 09/04/2017
Data Release Frequency: Varies

KERN COUNTY:

Underground Storage Tank Sites & Tank Listing
Kern County Sites and Tanks Listing.

Date of Government Version: 02/07/2017
Date Data Arrived at EDR: 02/10/2017
Date Made Active in Reports: 05/02/2017
Number of Days to Update: 81

Source: Kern County Environment Health Services Department
Telephone: 661-862-8700
Last EDR Contact: 05/05/2017
Next Scheduled EDR Contact: 08/21/2017
Data Release Frequency: Quarterly

KINGS COUNTY:

CUPA Facility List
A listing of sites included in the county's Certified Unified Program Agency database. California's Secretary for Environmental Protection established the unified hazardous materials and hazardous waste regulatory program as required by chapter 6.11 of the California Health and Safety Code. The Unified Program consolidates the administration, permits, inspections, and enforcement activities.

Date of Government Version: 03/06/2017
Date Data Arrived at EDR: 03/07/2017
Date Made Active in Reports: 05/17/2017
Number of Days to Update: 71

Source: Kings County Department of Public Health
Telephone: 559-584-1411
Last EDR Contact: 05/22/2017
Next Scheduled EDR Contact: 09/04/2017
Data Release Frequency: Varies

LAKE COUNTY:

CUPA Facility List
Cupa facility list

Date of Government Version: 01/18/2017
Date Data Arrived at EDR: 01/20/2017
Date Made Active in Reports: 03/02/2017
Number of Days to Update: 41

Source: Lake County Environmental Health
Telephone: 707-263-1164
Last EDR Contact: 04/17/2017
Next Scheduled EDR Contact: 07/31/2017
Data Release Frequency: Varies

LASSEN COUNTY:

CUPA Facility List
Cupa facility list

Date of Government Version: 11/30/2016
Date Data Arrived at EDR: 02/03/2017
Date Made Active in Reports: 05/25/2017
Number of Days to Update: 111

Source: Lassen County Environmental Health
Telephone: 530-251-8528
Last EDR Contact: 11/30/2017
Next Scheduled EDR Contact: 08/07/2017
Data Release Frequency: Varies

LOS ANGELES COUNTY:

San Gabriel Valley Areas of Concern
San Gabriel Valley areas where VOC contamination is at or above the MCL as designated by region 9 EPA office.

Date of Government Version: 03/30/2009
Date Data Arrived at EDR: 03/31/2009
Date Made Active in Reports: 10/23/2009
Number of Days to Update: 206
Source: EPA Region 9
Telephone: 415-972-3178
Last EDR Contact: 03/20/2017
Next Scheduled EDR Contact: 07/03/2017
Data Release Frequency: No Update Planned

HMS: Street Number List
Industrial Waste and Underground Storage Tank Sites.

Date of Government Version: 11/14/2016
Date Data Arrived at EDR: 11/18/2016
Date Made Active in Reports: 01/23/2017
Number of Days to Update: 66
Source: Department of Public Works
Telephone: 626-458-3517
Last EDR Contact: 04/10/2017
Next Scheduled EDR Contact: 07/24/2017
Data Release Frequency: Semi-Annually

List of Solid Waste Facilities
Solid Waste Facilities in Los Angeles County.

Date of Government Version: 04/17/2017
Date Data Arrived at EDR: 04/18/2017
Date Made Active in Reports: 05/02/2017
Number of Days to Update: 14
Source: La County Department of Public Works
Telephone: 818-458-5185
Last EDR Contact: 04/18/2017
Next Scheduled EDR Contact: 07/31/2017
Data Release Frequency: Varies

City of Los Angeles Landfills
Landfills owned and maintained by the City of Los Angeles.

Date of Government Version: 01/01/2016
Date Data Arrived at EDR: 01/26/2016
Date Made Active in Reports: 03/22/2016
Number of Days to Update: 56
Source: Engineering & Construction Division
Telephone: 213-473-7869
Last EDR Contact: 04/17/2017
Next Scheduled EDR Contact: 07/31/2017
Data Release Frequency: Varies

Site Mitigation List
Industrial sites that have had some sort of spill or complaint.

Date of Government Version: 03/29/2016
Date Data Arrived at EDR: 04/06/2016
Date Made Active in Reports: 06/13/2016
Number of Days to Update: 68
Source: Community Health Services
Telephone: 323-890-7806
Last EDR Contact: 04/17/2017
Next Scheduled EDR Contact: 07/31/2017
Data Release Frequency: Annually

City of El Segundo Underground Storage Tank
Underground storage tank sites located in El Segundo city.

Date of Government Version: 01/17/2017
Date Data Arrived at EDR: 01/18/2017
Date Made Active in Reports: 05/10/2017
Number of Days to Update: 112
Source: City of El Segundo Fire Department
Telephone: 310-524-2236
Last EDR Contact: 04/17/2017
Next Scheduled EDR Contact: 07/31/2017
Data Release Frequency: Semi-Annually

City of Long Beach Underground Storage Tank
Underground storage tank sites located in the city of Long Beach.

Date of Government Version: 03/09/2017
Date Data Arrived at EDR: 03/10/2017
Date Made Active in Reports: 05/03/2017
Number of Days to Update: 54
Source: City of Long Beach Fire Department
Telephone: 562-570-2563
Last EDR Contact: 04/24/2017
Next Scheduled EDR Contact: 08/07/2017
Data Release Frequency: Annually

City of Torrance Underground Storage Tank
Underground storage tank sites located in the city of Torrance.

Date of Government Version: 01/10/2017
Date Data Arrived at EDR: 01/13/2017
Date Made Active in Reports: 05/03/2017
Number of Days to Update: 110

Source: City of Torrance Fire Department
Telephone: 310-618-2973
Last EDR Contact: 04/10/2017
Next Scheduled EDR Contact: 07/24/2017
Data Release Frequency: Semi-Annually

MADERA COUNTY:

CUPA Facility List
A listing of sites included in the county's Certified Unified Program Agency database. California's Secretary for Environmental Protection established the unified hazardous materials and hazardous waste regulatory program as required by chapter 6.11 of the California Health and Safety Code. The Unified Program consolidates the administration, permits, inspections, and enforcement activities.

Date of Government Version: 03/03/2017
Date Data Arrived at EDR: 03/07/2017
Date Made Active in Reports: 05/17/2017
Number of Days to Update: 71

Source: Madera County Environmental Health
Telephone: 559-675-7823
Last EDR Contact: 05/22/2017
Next Scheduled EDR Contact: 09/04/2017
Data Release Frequency: Varies

MARIN COUNTY:

Underground Storage Tank Sites
Currently permitted USTs in Marin County.

Date of Government Version: 03/31/2017
Date Data Arrived at EDR: 04/06/2017
Date Made Active in Reports: 05/03/2017
Number of Days to Update: 27

Source: Public Works Department Waste Management
Telephone: 415-473-6647
Last EDR Contact: 03/31/2017
Next Scheduled EDR Contact: 07/17/2017
Data Release Frequency: Semi-Annually

MERCED COUNTY:

CUPA Facility List
CUPA facility list.

Date of Government Version: 02/22/2017
Date Data Arrived at EDR: 02/23/2017
Date Made Active in Reports: 05/17/2017
Number of Days to Update: 83

Source: Merced County Environmental Health
Telephone: 209-381-1094
Last EDR Contact: 06/02/2017
Next Scheduled EDR Contact: 09/04/2017
Data Release Frequency: Varies

MONO COUNTY:

CUPA Facility List
CUPA Facility List

Date of Government Version: 02/21/2017
Date Data Arrived at EDR: 03/02/2017
Date Made Active in Reports: 05/17/2017
Number of Days to Update: 76

Source: Mono County Health Department
Telephone: 760-932-5580
Last EDR Contact: 05/24/2017
Next Scheduled EDR Contact: 09/11/2017
Data Release Frequency: Varies

MONTEREY COUNTY:

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

CUPA Facility Listing
CUPA Program listing from the Environmental Health Division.

Date of Government Version: 06/24/2016
Date Data Arrived at EDR: 06/27/2016
Date Made Active in Reports: 08/09/2016
Number of Days to Update: 43

Source: Monterey County Health Department
Telephone: 831-796-1297
Last EDR Contact: 05/22/2017
Next Scheduled EDR Contact: 09/04/2017
Data Release Frequency: Varies

NAPA COUNTY:

Sites With Reported Contamination
A listing of leaking underground storage tank sites located in Napa county.

Date of Government Version: 01/09/2017
Date Data Arrived at EDR: 01/11/2017
Date Made Active in Reports: 03/02/2017
Number of Days to Update: 50

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 05/24/2017
Next Scheduled EDR Contact: 09/11/2017
Data Release Frequency: No Update Planned

Closed and Operating Underground Storage Tank Sites
Underground storage tank sites located in Napa county.

Date of Government Version: 03/15/2017
Date Data Arrived at EDR: 03/16/2017
Date Made Active in Reports: 05/09/2017
Number of Days to Update: 54

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 05/24/2017
Next Scheduled EDR Contact: 09/11/2017
Data Release Frequency: No Update Planned

NEVADA COUNTY:

CUPA Facility List
CUPA facility list.

Date of Government Version: 02/09/2017
Date Data Arrived at EDR: 02/10/2017
Date Made Active in Reports: 05/17/2017
Number of Days to Update: 96

Source: Community Development Agency
Telephone: 530-265-1467
Last EDR Contact: 05/01/2017
Next Scheduled EDR Contact: 08/14/2017
Data Release Frequency: Varies

ORANGE COUNTY:

List of Industrial Site Cleanups
Petroleum and non-petroleum spills.

Date of Government Version: 02/06/2017
Date Data Arrived at EDR: 02/10/2017
Date Made Active in Reports: 04/21/2017
Number of Days to Update: 70

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 05/08/2017
Next Scheduled EDR Contact: 08/21/2017
Data Release Frequency: Annually

List of Underground Storage Tank Cleanups
Orange County Underground Storage Tank Cleanups (LUST).

Date of Government Version: 11/04/2016
Date Data Arrived at EDR: 11/11/2016
Date Made Active in Reports: 01/23/2017
Number of Days to Update: 73

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 05/08/2017
Next Scheduled EDR Contact: 08/21/2017
Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

List of Underground Storage Tank Facilities
Orange County Underground Storage Tank Facilities (UST).

Date of Government Version: 02/06/2017
Date Data Arrived at EDR: 02/07/2017
Date Made Active in Reports: 05/03/2017
Number of Days to Update: 85

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 05/09/2017
Next Scheduled EDR Contact: 08/21/2017
Data Release Frequency: Quarterly

PLACER COUNTY:

Master List of Facilities
List includes aboveground tanks, underground tanks and cleanup sites.

Date of Government Version: 09/02/2016
Date Data Arrived at EDR: 09/06/2016
Date Made Active in Reports: 10/14/2016
Number of Days to Update: 38

Source: Placer County Health and Human Services
Telephone: 530-745-2363
Last EDR Contact: 06/02/2017
Next Scheduled EDR Contact: 09/18/2017
Data Release Frequency: Semi-Annually

PLUMAS COUNTY:

CUPA Facility List
Plumas County CUPA Program facilities.

Date of Government Version: 01/31/2017
Date Data Arrived at EDR: 02/03/2017
Date Made Active in Reports: 05/25/2017
Number of Days to Update: 111

Source: Plumas County Environmental Health
Telephone: 530-283-6355
Last EDR Contact: 06/02/2017
Next Scheduled EDR Contact: 08/07/2017
Data Release Frequency: Varies

RIVERSIDE COUNTY:

Listing of Underground Tank Cleanup Sites
Riverside County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 04/18/2017
Date Data Arrived at EDR: 04/20/2017
Date Made Active in Reports: 04/21/2017
Number of Days to Update: 1

Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 03/20/2017
Next Scheduled EDR Contact: 07/03/2017
Data Release Frequency: Quarterly

Underground Storage Tank Tank List
Underground storage tank sites located in Riverside county.

Date of Government Version: 01/19/2017
Date Data Arrived at EDR: 01/25/2017
Date Made Active in Reports: 05/03/2017
Number of Days to Update: 98

Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 03/20/2017
Next Scheduled EDR Contact: 07/03/2017
Data Release Frequency: Quarterly

SACRAMENTO COUNTY:

Toxic Site Clean-Up List
List of sites where unauthorized releases of potentially hazardous materials have occurred.

Date of Government Version: 11/07/2016
Date Data Arrived at EDR: 01/05/2017
Date Made Active in Reports: 03/02/2017
Number of Days to Update: 56

Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 04/04/2017
Next Scheduled EDR Contact: 07/17/2017
Data Release Frequency: Quarterly

Master Hazardous Materials Facility List

Any business that has hazardous materials on site - hazardous material storage sites, underground storage tanks, waste generators.

Date of Government Version: 11/08/2016
Date Data Arrived at EDR: 01/05/2017
Date Made Active in Reports: 03/02/2017
Number of Days to Update: 56

Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 04/04/2017
Next Scheduled EDR Contact: 07/17/2017
Data Release Frequency: Quarterly

SAN BENITO COUNTY:

CUPA Facility List

Cupa facility list

Date of Government Version: 11/30/2016
Date Data Arrived at EDR: 02/09/2017
Date Made Active in Reports: 05/25/2017
Number of Days to Update: 105

Source: San Benito County Environmental Health
Telephone: N/A
Last EDR Contact: 05/05/2017
Next Scheduled EDR Contact: 08/21/2017
Data Release Frequency: Varies

SAN BERNARDINO COUNTY:

Hazardous Material Permits

This listing includes underground storage tanks, medical waste handlers/generators, hazardous materials handlers, hazardous waste generators, and waste oil generators/handlers.

Date of Government Version: 12/09/2016
Date Data Arrived at EDR: 12/13/2016
Date Made Active in Reports: 03/03/2017
Number of Days to Update: 80

Source: San Bernardino County Fire Department Hazardous Materials Division
Telephone: 909-387-3041
Last EDR Contact: 05/08/2017
Next Scheduled EDR Contact: 08/21/2017
Data Release Frequency: Quarterly

SAN DIEGO COUNTY:

Hazardous Materials Management Division Database

The database includes: HE58 - This report contains the business name, site address, business phone number, establishment 'H' permit number, type of permit, and the business status. HE17 - In addition to providing the same information provided in the HE58 listing, HE17 provides inspection dates, violations received by the establishment, hazardous waste generated, the quantity, method of storage, treatment/disposal of waste and the hauler, and information on underground storage tanks. Unauthorized Release List - Includes a summary of environmental contamination cases in San Diego County (underground tank cases, non-tank cases, groundwater contamination, and soil contamination are included.)

Date of Government Version: 10/05/2016
Date Data Arrived at EDR: 12/06/2016
Date Made Active in Reports: 03/02/2017
Number of Days to Update: 86

Source: Hazardous Materials Management Division
Telephone: 619-338-2268
Last EDR Contact: 06/07/2017
Next Scheduled EDR Contact: 09/18/2017
Data Release Frequency: Quarterly

Solid Waste Facilities
San Diego County Solid Waste Facilities.

Date of Government Version: 10/31/2015
Date Data Arrived at EDR: 11/07/2015
Date Made Active in Reports: 01/04/2016
Number of Days to Update: 58
Source: Department of Health Services
Telephone: 619-338-2209
Last EDR Contact: 04/24/2017
Next Scheduled EDR Contact: 08/07/2017
Data Release Frequency: Varies

Environmental Case Listing
The listing contains all underground tank release cases and projects pertaining to properties contaminated with hazardous substances that are actively under review by the Site Assessment and Mitigation Program.

Date of Government Version: 03/23/2010
Date Data Arrived at EDR: 06/15/2010
Date Made Active in Reports: 07/09/2010
Number of Days to Update: 24
Source: San Diego County Department of Environmental Health
Telephone: 619-338-2371
Last EDR Contact: 06/05/2017
Next Scheduled EDR Contact: 09/18/2017
Data Release Frequency: No Update Planned

SAN FRANCISCO COUNTY:

Local Oversite Facilities
A listing of leaking underground storage tank sites located in San Francisco county.

Date of Government Version: 09/19/2008
Date Data Arrived at EDR: 09/19/2008
Date Made Active in Reports: 09/29/2008
Number of Days to Update: 10
Source: Department Of Public Health San Francisco County
Telephone: 415-252-3920
Last EDR Contact: 05/05/2017
Next Scheduled EDR Contact: 08/21/2017
Data Release Frequency: Quarterly

Underground Storage Tank Information
Underground storage tank sites located in San Francisco county.

Date of Government Version: 02/28/2017
Date Data Arrived at EDR: 03/02/2017
Date Made Active in Reports: 05/03/2017
Number of Days to Update: 62
Source: Department of Public Health
Telephone: 415-252-3920
Last EDR Contact: 05/05/2017
Next Scheduled EDR Contact: 08/21/2017
Data Release Frequency: Quarterly

SAN JOAQUIN COUNTY:

San Joaquin Co. UST
A listing of underground storage tank locations in San Joaquin county.

Date of Government Version: 03/21/2017
Date Data Arrived at EDR: 03/23/2017
Date Made Active in Reports: 05/09/2017
Number of Days to Update: 47
Source: Environmental Health Department
Telephone: N/A
Last EDR Contact: 03/20/2017
Next Scheduled EDR Contact: 07/03/2017
Data Release Frequency: Semi-Annually

SAN LUIS OBISPO COUNTY:

CUPA Facility List
Cupa Facility List.

Date of Government Version: 02/21/2017
Date Data Arrived at EDR: 02/21/2017
Date Made Active in Reports: 05/23/2017
Number of Days to Update: 91
Source: San Luis Obispo County Public Health Department
Telephone: 805-781-5596
Last EDR Contact: 06/02/2017
Next Scheduled EDR Contact: 09/04/2017
Data Release Frequency: Varies

SAN MATEO COUNTY:

Business Inventory
List includes Hazardous Materials Business Plan, hazardous waste generators, and underground storage tanks.

Date of Government Version: 03/15/2017
Date Data Arrived at EDR: 04/07/2017
Date Made Active in Reports: 05/10/2017
Number of Days to Update: 33
Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 06/09/2017
Next Scheduled EDR Contact: 09/25/2017
Data Release Frequency: Annually

Fuel Leak List
A listing of leaking underground storage tank sites located in San Mateo county.

Date of Government Version: 03/15/2017
Date Data Arrived at EDR: 04/07/2017
Date Made Active in Reports: 04/21/2017
Number of Days to Update: 14
Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 06/09/2017
Next Scheduled EDR Contact: 09/25/2017
Data Release Frequency: Semi-Annually

SANTA BARBARA COUNTY:

CUPA Facility Listing
CUPA Program Listing from the Environmental Health Services division.

Date of Government Version: 09/08/2011
Date Data Arrived at EDR: 09/09/2011
Date Made Active in Reports: 10/07/2011
Number of Days to Update: 28
Source: Santa Barbara County Public Health Department
Telephone: 805-686-8167
Last EDR Contact: 05/22/2017
Next Scheduled EDR Contact: 09/04/2017
Data Release Frequency: Varies

SANTA CLARA COUNTY:

Cupa Facility List
Cupa facility list

Date of Government Version: 02/22/2017
Date Data Arrived at EDR: 02/23/2017
Date Made Active in Reports: 05/23/2017
Number of Days to Update: 89
Source: Department of Environmental Health
Telephone: 408-918-1973
Last EDR Contact: 05/22/2017
Next Scheduled EDR Contact: 09/04/2017
Data Release Frequency: Varies

HIST LUST - Fuel Leak Site Activity Report
A listing of open and closed leaking underground storage tanks. This listing is no longer updated by the county. Leaking underground storage tanks are now handled by the Department of Environmental Health.

Date of Government Version: 03/29/2005
Date Data Arrived at EDR: 03/30/2005
Date Made Active in Reports: 04/21/2005
Number of Days to Update: 22
Source: Santa Clara Valley Water District
Telephone: 408-265-2600
Last EDR Contact: 03/23/2009
Next Scheduled EDR Contact: 06/22/2009
Data Release Frequency: No Update Planned

LOP Listing
A listing of leaking underground storage tanks located in Santa Clara county.

Date of Government Version: 03/03/2014
Date Data Arrived at EDR: 03/05/2014
Date Made Active in Reports: 03/18/2014
Number of Days to Update: 13
Source: Department of Environmental Health
Telephone: 408-918-3417
Last EDR Contact: 05/24/2017
Next Scheduled EDR Contact: 09/11/2017
Data Release Frequency: Annually

Hazardous Material Facilities
Hazardous material facilities, including underground storage tank sites.

Date of Government Version: 11/07/2016
Date Data Arrived at EDR: 11/10/2016
Date Made Active in Reports: 01/24/2017
Number of Days to Update: 75

Source: City of San Jose Fire Department
Telephone: 408-535-7694
Last EDR Contact: 05/05/2017
Next Scheduled EDR Contact: 08/21/2017
Data Release Frequency: Annually

SANTA CRUZ COUNTY:

CUPA Facility List
CUPA facility listing.

Date of Government Version: 01/21/2017
Date Data Arrived at EDR: 02/22/2017
Date Made Active in Reports: 05/23/2017
Number of Days to Update: 90

Source: Santa Cruz County Environmental Health
Telephone: 831-464-2761
Last EDR Contact: 05/22/2017
Next Scheduled EDR Contact: 09/04/2017
Data Release Frequency: Varies

SHASTA COUNTY:

CUPA Facility List
Cupa Facility List.

Date of Government Version: 03/14/2017
Date Data Arrived at EDR: 03/17/2017
Date Made Active in Reports: 05/23/2017
Number of Days to Update: 67

Source: Shasta County Department of Resource Management
Telephone: 530-225-5789
Last EDR Contact: 05/22/2017
Next Scheduled EDR Contact: 09/04/2017
Data Release Frequency: Varies

SOLANO COUNTY:

Leaking Underground Storage Tanks
A listing of leaking underground storage tank sites located in Solano county.

Date of Government Version: 11/29/2016
Date Data Arrived at EDR: 12/21/2016
Date Made Active in Reports: 12/22/2016
Number of Days to Update: 1

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 06/09/2017
Next Scheduled EDR Contact: 09/25/2017
Data Release Frequency: Quarterly

Underground Storage Tanks
Underground storage tank sites located in Solano county.

Date of Government Version: 03/15/2017
Date Data Arrived at EDR: 03/17/2017
Date Made Active in Reports: 05/03/2017
Number of Days to Update: 47

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 06/09/2017
Next Scheduled EDR Contact: 09/25/2017
Data Release Frequency: Quarterly

SONOMA COUNTY:

Cupa Facility List
Cupa Facility list

Date of Government Version: 03/01/2017
Date Data Arrived at EDR: 03/30/2017
Date Made Active in Reports: 05/23/2017
Number of Days to Update: 54

Source: County of Sonoma Fire & Emergency Services Department
Telephone: 707-565-1174
Last EDR Contact: 03/27/2017
Next Scheduled EDR Contact: 07/10/2017
Data Release Frequency: Varies

Leaking Underground Storage Tank Sites

A listing of leaking underground storage tank sites located in Sonoma county.

Date of Government Version: 01/04/2017
Date Data Arrived at EDR: 01/06/2017
Date Made Active in Reports: 03/02/2017
Number of Days to Update: 55

Source: Department of Health Services
Telephone: 707-565-6565
Last EDR Contact: 03/27/2017
Next Scheduled EDR Contact: 07/10/2017
Data Release Frequency: Quarterly

STANISLAUS COUNTY:

CUPA Facility List

Cupa facility list

Date of Government Version: 01/20/2017
Date Data Arrived at EDR: 01/24/2017
Date Made Active in Reports: 05/18/2017
Number of Days to Update: 114

Source: Stanislaus County Department of Ennvironmental Protection
Telephone: 209-525-6751
Last EDR Contact: 11/30/2017
Next Scheduled EDR Contact: 07/31/2017
Data Release Frequency: Varies

SUTTER COUNTY:

Underground Storage Tanks

Underground storage tank sites located in Sutter county.

Date of Government Version: 12/02/2016
Date Data Arrived at EDR: 12/06/2016
Date Made Active in Reports: 01/10/2017
Number of Days to Update: 35

Source: Sutter County Department of Agriculture
Telephone: 530-822-7500
Last EDR Contact: 06/02/2017
Next Scheduled EDR Contact: 09/18/2017
Data Release Frequency: Semi-Annually

TEHAMA COUNTY:

CUPA Facility List

Cupa facilities

Date of Government Version: 01/05/2017
Date Data Arrived at EDR: 02/10/2017
Date Made Active in Reports: 05/25/2017
Number of Days to Update: 104

Source: Tehama County Department of Environmental Health
Telephone: 530-527-8020
Last EDR Contact: 05/05/2017
Next Scheduled EDR Contact: 08/21/2017
Data Release Frequency: Varies

TRINITY COUNTY:

CUPA Facility List

Cupa facility list

Date of Government Version: 01/23/2017
Date Data Arrived at EDR: 01/25/2017
Date Made Active in Reports: 05/18/2017
Number of Days to Update: 113

Source: Department of Toxic Substances Control
Telephone: 760-352-0381
Last EDR Contact: 04/24/2017
Next Scheduled EDR Contact: 08/07/2017
Data Release Frequency: Varies

TULARE COUNTY:

CUPA Facility List
Cupa program facilities

Date of Government Version: 01/05/2017
Date Data Arrived at EDR: 02/10/2017
Date Made Active in Reports: 05/25/2017
Number of Days to Update: 104

Source: Tulare County Environmental Health Services Division
Telephone: 559-624-7400
Last EDR Contact: 06/02/2017
Next Scheduled EDR Contact: 08/21/2017
Data Release Frequency: Varies

TUOLUMNE COUNTY:

CUPA Facility List
Cupa facility list

Date of Government Version: 01/25/2017
Date Data Arrived at EDR: 01/27/2017
Date Made Active in Reports: 03/02/2017
Number of Days to Update: 34

Source: Divison of Environmental Health
Telephone: 209-533-5633
Last EDR Contact: 04/24/2017
Next Scheduled EDR Contact: 08/07/2017
Data Release Frequency: Varies

VENTURA COUNTY:

Business Plan, Hazardous Waste Producers, and Operating Underground Tanks
The BWT list indicates by site address whether the Environmental Health Division has Business Plan (B), Waste Producer (W), and/or Underground Tank (T) information.

Date of Government Version: 12/27/2016
Date Data Arrived at EDR: 01/27/2017
Date Made Active in Reports: 05/10/2017
Number of Days to Update: 103

Source: Ventura County Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 04/24/2017
Next Scheduled EDR Contact: 08/07/2017
Data Release Frequency: Quarterly

Inventory of Illegal Abandoned and Inactive Sites
Ventura County Inventory of Closed, Illegal Abandoned, and Inactive Sites.

Date of Government Version: 12/01/2011
Date Data Arrived at EDR: 12/01/2011
Date Made Active in Reports: 01/19/2012
Number of Days to Update: 49

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 03/31/2017
Next Scheduled EDR Contact: 07/17/2017
Data Release Frequency: Annually

Listing of Underground Tank Cleanup Sites
Ventura County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 05/29/2008
Date Data Arrived at EDR: 06/24/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 37

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 05/15/2017
Next Scheduled EDR Contact: 08/28/2017
Data Release Frequency: Quarterly

Medical Waste Program List
To protect public health and safety and the environment from potential exposure to disease causing agents, the Environmental Health Division Medical Waste Program regulates the generation, handling, storage, treatment and disposal of medical waste throughout the County.

Date of Government Version: 09/26/2016
Date Data Arrived at EDR: 10/27/2016
Date Made Active in Reports: 01/24/2017
Number of Days to Update: 89

Source: Ventura County Resource Management Agency
Telephone: 805-654-2813
Last EDR Contact: 04/24/2017
Next Scheduled EDR Contact: 08/07/2017
Data Release Frequency: Quarterly

Underground Tank Closed Sites List
Ventura County Operating Underground Storage Tank Sites (UST)/Underground Tank Closed Sites List.

Date of Government Version: 02/27/2017
Date Data Arrived at EDR: 03/15/2017
Date Made Active in Reports: 05/03/2017
Number of Days to Update: 49
Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 06/14/2017
Next Scheduled EDR Contact: 09/25/2017
Data Release Frequency: Quarterly

YOLO COUNTY:

Underground Storage Tank Comprehensive Facility Report
Underground storage tank sites located in Yolo county.

Date of Government Version: 03/31/2017
Date Data Arrived at EDR: 04/06/2017
Date Made Active in Reports: 05/03/2017
Number of Days to Update: 27
Source: Yolo County Department of Health
Telephone: 530-666-8646
Last EDR Contact: 03/31/2017
Next Scheduled EDR Contact: 07/17/2017
Data Release Frequency: Annually

YUBA COUNTY:

CUPA Facility List
CUPA facility listing for Yuba County.

Date of Government Version: 01/30/2017
Date Data Arrived at EDR: 01/31/2017
Date Made Active in Reports: 05/23/2017
Number of Days to Update: 112
Source: Yuba County Environmental Health Department
Telephone: 530-749-7523
Last EDR Contact: 05/01/2017
Next Scheduled EDR Contact: 08/14/2017
Data Release Frequency: Varies

OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

CT MANIFEST: Hazardous Waste Manifest Data
Facility and manifest data. Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a tsd facility.

Date of Government Version: 07/30/2013
Date Data Arrived at EDR: 08/19/2013
Date Made Active in Reports: 10/03/2013
Number of Days to Update: 45
Source: Department of Energy & Environmental Protection
Telephone: 860-424-3375
Last EDR Contact: 05/15/2017
Next Scheduled EDR Contact: 08/28/2017
Data Release Frequency: No Update Planned

NJ MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2015
Date Data Arrived at EDR: 09/29/2016
Date Made Active in Reports: 01/03/2017
Number of Days to Update: 96
Source: Department of Environmental Protection
Telephone: N/A
Last EDR Contact: 04/11/2017
Next Scheduled EDR Contact: 07/24/2017
Data Release Frequency: Annually

NY MANIFEST: Facility and Manifest Data
Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

Date of Government Version: 01/30/2017
Date Data Arrived at EDR: 02/01/2017
Date Made Active in Reports: 02/13/2017
Number of Days to Update: 12

Source: Department of Environmental Conservation
Telephone: 518-402-8651
Last EDR Contact: 05/03/2017
Next Scheduled EDR Contact: 08/14/2017
Data Release Frequency: Annually

PA MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2015
Date Data Arrived at EDR: 07/22/2016
Date Made Active in Reports: 11/22/2016
Number of Days to Update: 123

Source: Department of Environmental Protection
Telephone: 717-783-8990
Last EDR Contact: 04/18/2017
Next Scheduled EDR Contact: 07/31/2017
Data Release Frequency: Annually

RI MANIFEST: Manifest information
Hazardous waste manifest information

Date of Government Version: 12/31/2013
Date Data Arrived at EDR: 06/19/2015
Date Made Active in Reports: 07/15/2015
Number of Days to Update: 26

Source: Department of Environmental Management
Telephone: 401-222-2797
Last EDR Contact: 05/22/2017
Next Scheduled EDR Contact: 09/04/2017
Data Release Frequency: Annually

WI MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2015
Date Data Arrived at EDR: 04/14/2016
Date Made Active in Reports: 06/03/2016
Number of Days to Update: 50

Source: Department of Natural Resources
Telephone: N/A
Last EDR Contact: 06/12/2017
Next Scheduled EDR Contact: 09/25/2017
Data Release Frequency: Annually

Oil/Gas Pipelines
Source: PennWell Corporation
Petroleum Bundle (Crude Oil, Refined Products, Petrochemicals, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)) N = Natural Gas Bundle (Natural Gas, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)). This map includes information copyrighted by PennWell Corporation. This information is provided on a best effort basis and PennWell Corporation does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of PennWell.

Electric Power Transmission Line Data
Source: PennWell Corporation
This map includes information copyrighted by PennWell Corporation. This information is provided on a best effort basis and PennWell Corporation does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of PennWell.

Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

AHA Hospitals:
Source: American Hospital Association, Inc.
Telephone: 312-280-5991
The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing
Source: Centers for Medicare & Medicaid Services
Telephone: 410-786-3000
A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

Nursing Homes
Source: National Institutes of Health
Telephone: 301-594-6248
Information on Medicare and Medicaid certified nursing homes in the United States.

Public Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

Private Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on private school locations in the United States.

Daycare Centers: Licensed Facilities
Source: Department of Social Services
Telephone: 916-657-4041

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.
Source: FEMA
Telephone: 877-336-2627
Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetland Inventory
Source: Department of Fish & Game
Telephone: 916-445-0411

Current USGS 7.5 Minute Topographic Map
Source: U.S. Geological Survey

STREET AND ADDRESS INFORMATION

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GEOCHECK ®- PHYSICAL SETTING SOURCE ADDENDUM

TARGET PROPERTY ADDRESS

AGUA CALIENTE BAND OF CAHUILLA INDIAN
NWC HIGHWAY 111 AND DATE PALM DRIVE
CATHEDRAL CITY, CA 92234

TARGET PROPERTY COORDINATES

Latitude (North):	33.779514 - 33° 46' 46.25''
Longitude (West):	116.460087 - 116° 27' 36.31''
Universal Tranverse Mercator:	Zone 11
UTM X (Meters):	549989.6
UTM Y (Meters):	3737646.5
Elevation:	304 ft. above sea level

USGS TOPOGRAPHIC MAP

Target Property Map:	5639316 CATHEDRAL CITY, CA
Version Date:	2012

EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

Assessment of the impact of contaminant migration generally has two principal investigative components:

1. Groundwater flow direction, and
2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW DIRECTION INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

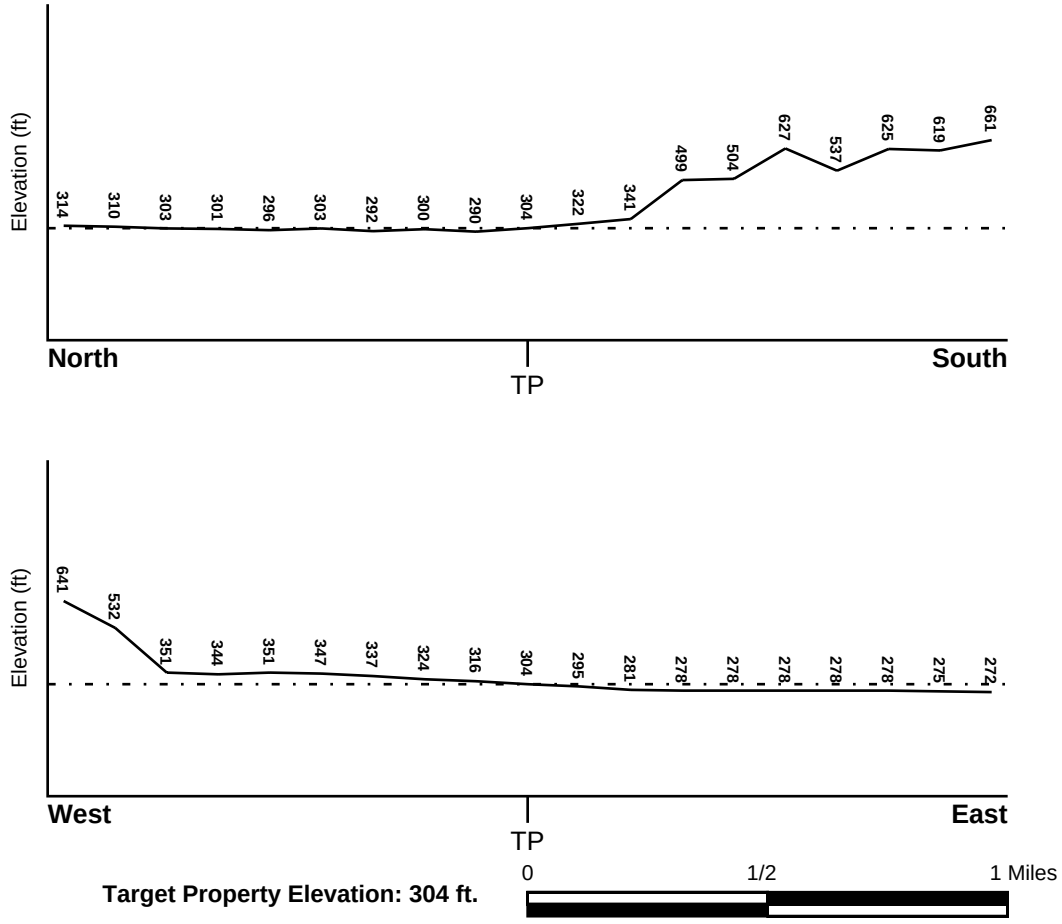
TOPOGRAPHIC INFORMATION

Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

TARGET PROPERTY TOPOGRAPHY

General Topographic Gradient: General NNE

SURROUNDING TOPOGRAPHY: ELEVATION PROFILES



Target Property Elevation: 304 ft.

Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

FEMA FLOOD ZONE

Flood Plain Panel at Target Property	FEMA Source Type
06065C1589G	FEMA FIRM Flood data

Additional Panels in search area:	FEMA Source Type
06065C1586G	FEMA FIRM Flood data
06065C1587G	FEMA FIRM Flood data
06065C1588G	FEMA FIRM Flood data

NATIONAL WETLAND INVENTORY

NWI Quad at Target Property	NWI Electronic Data Coverage
CATHEDRAL CITY	YES - refer to the Overview Map and Detail Map

HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Site-Specific Hydrogeological Data*:

Search Radius:	1.25 miles
Status:	Not found

AQUIFLOW®

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

MAP ID	LOCATION FROM TP	GENERAL DIRECTION GROUNDWATER FLOW
Not Reported		

* ©1996 Site−specific hydrogeological data gathered by CERCLIS Alerts, Inc., Bainbridge Island, WA. All rights reserved. All of the information and opinions presented are those of the cited EPA report(s), which were completed under a Comprehensive Environmental Response Compensation and Liability Information System (CERCLIS) investigation.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW VELOCITY INFORMATION

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

ROCK STRATIGRAPHIC UNIT

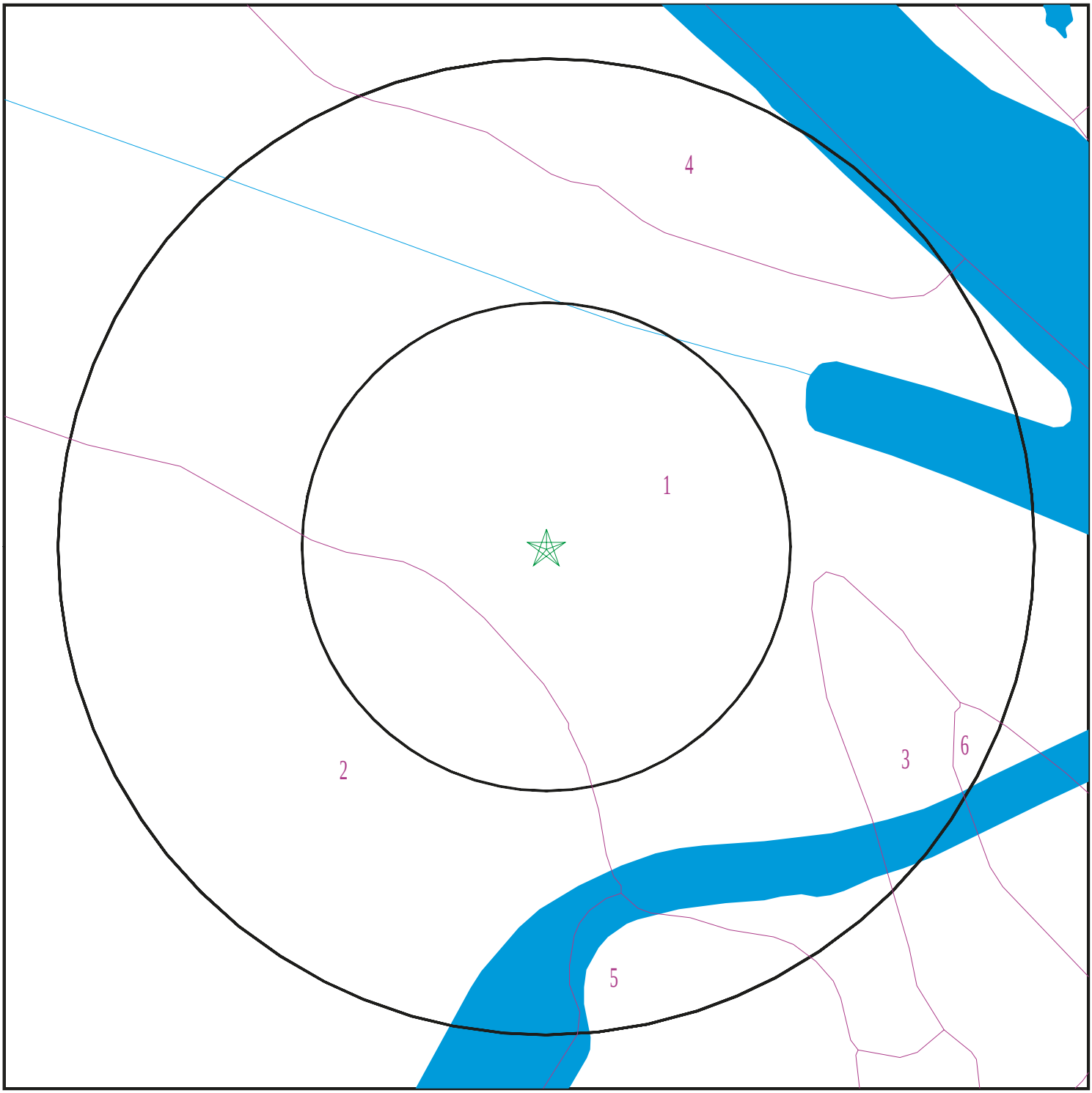
Era:	Cenozoic
System:	Quaternary
Series:	Quaternary
Code:	Q *(decoded above as Era, System & Series)*

GEOLOGIC AGE IDENTIFICATION

Category: Stratifed Sequence

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

SSURGO SOIL MAP - 04977808.2r



Target Property
SSURGO Soil
Water

0 1/16 1/8 1/4 Miles

N

SITE NAME:	Agua Caliente Band of Cahuilla Indian	CLIENT:	Petra Geotechnical Inc
ADDRESS:	NWC Highway 111 and Date Palm Drive Cathedral City CA 92234	CONTACT:	Ed Lump
LAT/LONG:	33.779514 / 116.460087	INQUIRY #:	04977808.2r
		DATE:	June 26, 2017 8:36 pm

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GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. The following information is based on Soil Conservation Service SSURGO data.

Soil Map ID: 1

Soil Component Name: Carsitas

Soil Surface Texture: gravelly sand

Hydrologic Group: Class A - High infiltration rates. Soils are deep, well drained to excessively drained sands and gravels.

Soil Drainage Class: Excessively drained

Hydric Status: Partially hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	9 inches	gravelly sand	Granular materials (35 pct. or less passing No. 200), Stone Fragments, Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Clean Sands, Poorly graded sand.	Max: 141 Min: 42	Max: 8.4 Min: 7.9
2	9 inches	59 inches	gravelly sand	Granular materials (35 pct. or less passing No. 200), Stone Fragments, Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Clean Sands, Poorly graded sand.	Max: 141 Min: 42	Max: 8.4 Min: 7.9

Soil Map ID: 2

Soil Component Name: Carsitas

Soil Surface Texture: cobbly sand

Hydrologic Group: Class A - High infiltration rates. Soils are deep, well drained to excessively drained sands and gravels.

Soil Drainage Class: Excessively drained

Hydric Status: Partially hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	9 inches	cobbly sand	Granular materials (35 pct. or less passing No. 200), Stone Fragments, Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Clean Sands, Poorly graded sand.	Max: 141 Min: 42	Max: 8.4 Min: 7.9
2	9 inches	59 inches	gravelly sand	Granular materials (35 pct. or less passing No. 200), Stone Fragments, Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Clean Sands, Poorly graded sand.	Max: 141 Min: 42	Max: 8.4 Min: 7.9

Soil Map ID: 3

Soil Component Name: Coachella

Soil Surface Texture: fine sand

Hydrologic Group: Class A - High infiltration rates. Soils are deep, well drained to excessively drained sands and gravels.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	11 inches	fine sand	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 14	Max: 8.4 Min: 7.9
2	11 inches	59 inches	sand	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 14	Max: 8.4 Min: 7.9

Soil Map ID: 4

Soil Component Name: Myoma

Soil Surface Texture: fine sand

Hydrologic Group: Class A - High infiltration rates. Soils are deep, well drained to excessively drained sands and gravels.

Soil Drainage Class: Somewhat excessively drained

Hydric Status: Partially hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	18 inches	fine sand	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141 Min: 42	Max: 9 Min: 7.9
2	18 inches	59 inches	sand	Granular materials (35 pct. or less passing No. 200), Stone Fragments, Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141 Min: 42	Max: 9 Min: 7.9

Soil Map ID: 5

Soil Component Name: Rock outcrop

Soil Surface Texture: unweathered bedrock

Hydrologic Group: Class D - Very slow infiltration rates. Soils are clayey, have a high water table, or are shallow to an impervious layer.

Soil Drainage Class:
Hydric Status: Partially hydric

Corrosion Potential - Uncoated Steel: Not Reported

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	59 inches	unweathered bedrock	Not reported	Not reported	Max: 141 Min: 0.07	Max: Min:

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Map ID: 6

Soil Component Name: Indio

Soil Surface Texture: fine sandy loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	9 inches	fine sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 14 Min: 4	Max: 8.4 Min: 7.9
2	9 inches	59 inches	very fine sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 14 Min: 4	Max: 8.4 Min: 7.9

LOCAL / REGIONAL WATER AGENCY RECORDS

EDR Local/Regional Water Agency records provide water well information to assist the environmental professional in assessing sources that may impact ground water flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

WELL SEARCH DISTANCE INFORMATION

DATABASE	SEARCH DISTANCE (miles)
Federal USGS	1.000
Federal FRDS PWS	Nearest PWS within 0.001 miles
State Database	1.000

FEDERAL USGS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
1	USGS40000138127	1/4 - 1/2 Mile WNW
B5	USGS40000138157	1/2 - 1 Mile NW
B6	USGS40000138168	1/2 - 1 Mile NW
C7	USGS40000138173	1/2 - 1 Mile NW

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

MAP ID	WELL ID	LOCATION FROM TP

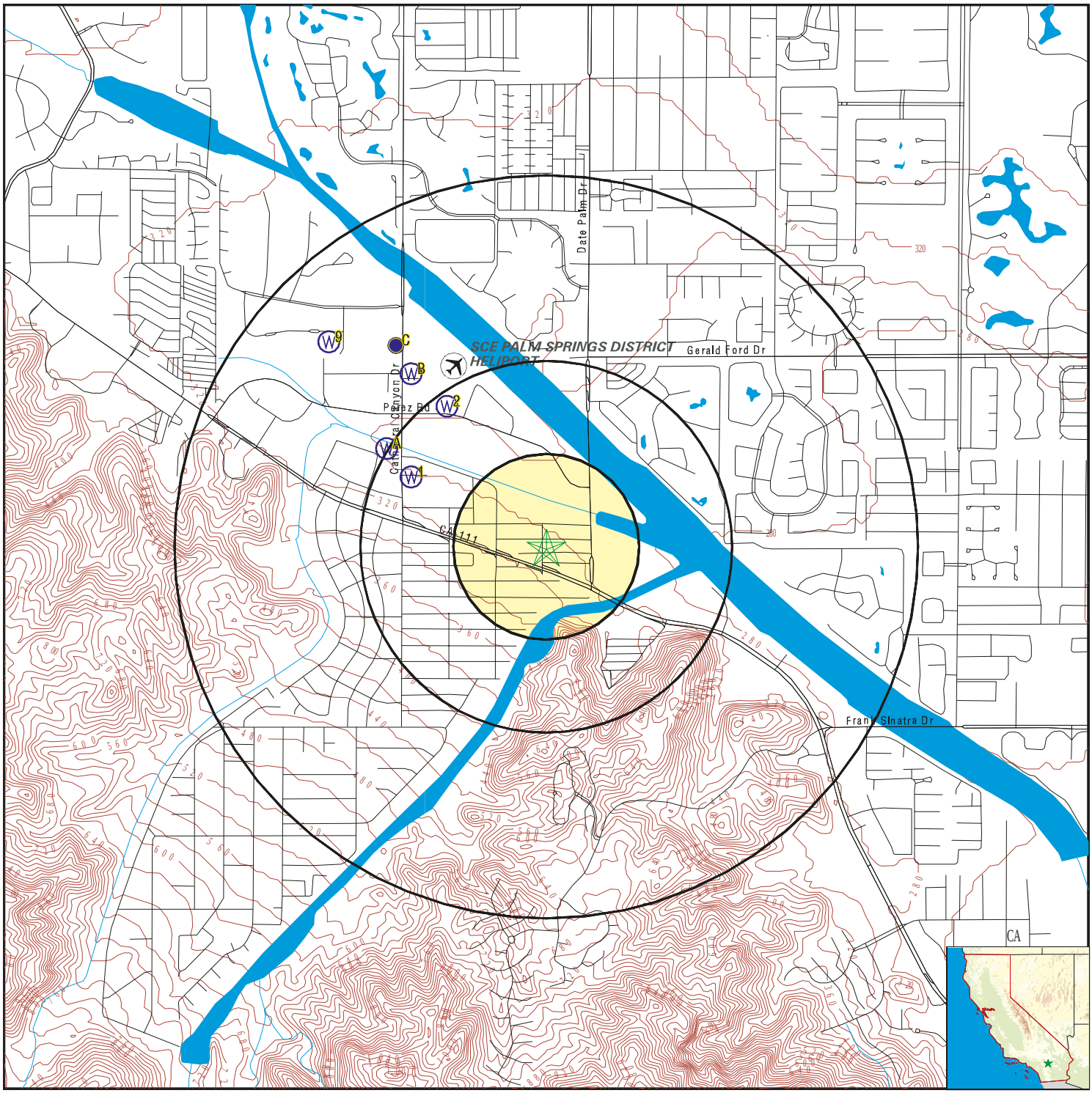
No PWS System Found

Note: PWS System location is not always the same as well location.

STATE DATABASE WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
2	CADW60000005515	1/4 - 1/2 Mile NW
A3	4871	1/2 - 1 Mile WNW
A4	4873	1/2 - 1 Mile WNW
C8	4872	1/2 - 1 Mile NW
9	4870	1/2 - 1 Mile NW

PHYSICAL SETTING SOURCE MAP - 04977808.2r



- County Boundary
- Major Roads
- Contour Lines
- Earthquake Fault Lines
- Airports
- Earthquake epicenter, Richter 5 or greater
- Water Wells
- Public Water Supply Wells
- Cluster of Multiple Icons
- Groundwater Flow Direction
- GI Indeterminate Groundwater Flow at Location
- GV Groundwater Flow Varies at Location
- HD Closest Hydrogeological Data
- Oil, gas or related wells

SITE NAME:	Agua Caliente Band of Cahuilla Indian	CLIENT:	Petra Geotechnical Inc
ADDRESS:	NWC Highway 111 and Date Palm Drive Cathedral City CA 92234	CONTACT:	Ed Lump
		INQUIRY #:	04977808.2r
LAT/LONG:	33.779514 / 116.460087	DATE:	June 26, 2017 8:36 pm

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GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

1
WNW
1/4 - 1/2 Mile
Lower

FED USGS **USGS40000138127**

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-334656116275601		
Monloc name:	004S005E33G001S		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	18100200	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	33.7822425
Longitude:	-116.4664023	Sourcemap scale:	Not Reported
Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	287.00
Vert measure units:	feet	Vertacc measure val:	20
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Basin and Range basin-fill aquifers		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	Not Reported	Welldepth:	435
Welldepth units:	ft	Wellholedepth:	494
Wellholedepth units:	ft		

Ground-water levels, Number of Measurements: 0

2
NW
1/4 - 1/2 Mile
Lower

CA WELLS **CADW60000005515**

Objectid:	5515
Latitude:	33.785
Longitude:	-116.464722
Site code:	337850N1164647W001
State well numbe:	04S05E33B004S
Local well name:	'Well 19'
Well use id:	4
Well use descrip:	Residential
County id:	33
County name:	Riverside
Basin code:	'7-21.01'
Basin desc:	Indio
Dwr region id:	80238
Dwr region:	Southern Region Office
Site id:	CADW60000005515

A3
WNW
1/2 - 1 Mile
Lower

CA WELLS **4871**

Water System Information:

Prime Station Code:	04S/05E-33B01 S	User ID:	WAT
FRDS Number:	3310005035	County:	Riverside
District Number:	14	Station Type:	WELL/AMBNT/MUN/INTAKE/SUPPLY
Water Type:	Well/Groundwater	Well Status:	Abandoned
Source Lat/Long:	334700.0 1162800.0	Precision:	Undefined
Source Name:	WELL C-3 - ABANDONED		
System Number:	3310005		
System Name:	DESERT WATER AGENCY		
Organization That Operates System:			
	P.O. DRAWER 1710		
	PALM SPRINGS, CA 92263		
Pop Served:	63010	Connections:	18731
Area Served:	PALM SPRINGS AND VICINITY		

A4
WNW **CA WELLS** **4873**
1/2 - 1 Mile
Lower

Water System Information:

Prime Station Code:	04S/05E-33G01 S	User ID:	WAT
FRDS Number:	3310005036	County:	Riverside
District Number:	14	Station Type:	WELL/AMBNT/MUN/INTAKE/SUPPLY
Water Type:	Well/Groundwater	Well Status:	Monitoring Well
Source Lat/Long:	334700.0 1162800.0	Precision:	Undefined
Source Name:	WELL C-4 - MONITORING		
System Number:	3310005		
System Name:	DESERT WATER AGENCY		
Organization That Operates System:			
	P.O. DRAWER 1710		
	PALM SPRINGS, CA 92263		
Pop Served:	63010	Connections:	18731
Area Served:	PALM SPRINGS AND VICINITY		

B5
NW **FED USGS** **USGS40000138157**
1/2 - 1 Mile
Higher

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-334709116275601		
Monloc name:	004S005E33B002S		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	18100200	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	33.7858535
Longitude:	-116.4664022	Sourcemap scale:	Not Reported
Horiz Acc measure:	Unknown	Horiz Acc measure units:	Unknown
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	305.00
Vert measure units:	feet	Vertacc measure val:	10
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Basin and Range basin-fill aquifers		
Formation type:	Not Reported		

Aquifer type:	Not Reported		
Construction date:	Not Reported	Welldepth:	Not Reported
Welldepth units:	Not Reported	Wellholedepth:	Not Reported
Wellholedepth units:	Not Reported		

Ground-water levels, Number of Measurements: 0

B6
NW
1/2 - 1 Mile
Higher

FED USGS **USGS40000138168**

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-334712116275601		
Monloc name:	004S005E33B001S		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	18100200	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	33.7866868
Longitude:	-116.4664022	Sourcemap scale:	Not Reported
Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	302.00
Vert measure units:	feet	Vertacc measure val:	20
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Basin and Range basin-fill aquifers		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	Not Reported	Welldepth:	288
Welldepth units:	ft	Wellholedepth:	342
Wellholedepth units:	ft		

Ground-water levels, Number of Measurements: 0

C7
NW
1/2 - 1 Mile
Higher

FED USGS **USGS40000138173**

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-334714116275701		
Monloc name:	004S005E33B004S		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	18100200	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	33.7872423
Longitude:	-116.46668	Sourcemap scale:	24000
Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	Not Reported
Vert measure units:	Not Reported	Vertacc measure val:	Not Reported
Vert accmeasure units:	Not Reported		
Vertcollection method:	Not Reported		
Vert coord refsys:	Not Reported	Countrycode:	US
Aquifername:	Basin and Range basin-fill aquifers		
Formation type:	Not Reported		

Aquifer type:	Not Reported		
Construction date:	Not Reported	Welldepth:	843
Welldepth units:	ft	Wellholedepth:	843
Wellholedepth units:	ft		

Ground-water levels, Number of Measurements: 0

C8
NW **CA WELLS** **4872**
1/2 - 1 Mile
Higher

Water System Information:

Prime Station Code:	04S/05E-33B03 S	User ID:	WAT
FRDS Number:	3310005021	County:	Riverside
District Number:	14	Station Type:	WELL/AMBNT
Water Type:	Well/Groundwater	Well Status:	Standby Untreated
Source Lat/Long:	334715.0 1162800.0	Precision:	100 Feet (one Second)
Source Name:	WELL 19 - STANDBY		
System Number:	3310005		
System Name:	DESERT WATER AGENCY		
Organization That Operates System:			
	P.O. DRAWER 1710		
	PALM SPRINGS, CA 92263		
Pop Served:	63010	Connections:	18731
Area Served:	PALM SPRINGS AND VICINITY		
Sample Collected:	11-SEP-07	Findings:	20. C
Chemical:	SOURCE TEMPERATURE C		

9
NW **CA WELLS** **4870**
1/2 - 1 Mile
Higher

Water System Information:

Prime Station Code:	04S/05E-29R01 S	User ID:	WAT
FRDS Number:	3310005016	County:	Riverside
District Number:	14	Station Type:	WELL/AMBNT/MUN
Water Type:	Well/Groundwater	Well Status:	Destroyed
Source Lat/Long:	334715.0 1162810.0	Precision:	100 Feet (one Second)
Source Name:	WELL 12 - DESTROYED		
System Number:	3310005		
System Name:	DESERT WATER AGENCY		
Organization That Operates System:			
	P.O. DRAWER 1710		
	PALM SPRINGS, CA 92263		
Pop Served:	63010	Connections:	18731
Area Served:	PALM SPRINGS AND VICINITY		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS
RADON

AREA RADON INFORMATION

State Database: CA Radon

Radon Test Results

Zipcode	Num Tests	> 4 pCi/L
92234	11	0

Federal EPA Radon Zone for RIVERSIDE County: 2

Note: Zone 1 indoor average level > 4 pCi/L.
: Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.
: Zone 3 indoor average level < 2 pCi/L.

Federal Area Radon Information for Zip Code: 92234

Number of sites tested: 1

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	0.000 pCi/L	100%	0%	0%
Living Area - 2nd Floor	0.800 pCi/L	100%	0%	0%
Basement	Not Reported	Not Reported	Not Reported	Not Reported

PHYSICAL SETTING SOURCE RECORDS SEARCHED

TOPOGRAPHIC INFORMATION

USGS 7.5' Digital Elevation Model (DEM)
Source: United States Geologic Survey
EDR acquired the USGS 7.5' Digital Elevation Model in 2002 and updated it in 2006. The 7.5 minute DEM corresponds to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps. The DEM provides elevation data with consistent elevation units and projection.

Current USGS 7.5 Minute Topographic Map
Source: U.S. Geological Survey

HYDROLOGIC INFORMATION

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.
Source: FEMA
Telephone: 877-336-2627
Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetland Inventory
Source: Department of Fish & Game
Telephone: 916-445-0411

HYDROGEOLOGIC INFORMATION

AQUIFLOW^{R} Information System
Source: EDR proprietary database of groundwater flow information
EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

GEOLOGIC INFORMATION

Geologic Age and Rock Stratigraphic Unit
Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

STATSGO: State Soil Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)
The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

SSURGO: Soil Survey Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)
Telephone: 800-672-5559
SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Service, mapping scales generally range from 1:12,000 to 1:63,360. Field mapping methods using national standards are used to construct the soil maps in the Soil Survey Geographic (SSURGO) database. SSURGO digitizing duplicates the original soil survey maps. This level of mapping is designed for use by landowners, townships and county natural resource planning and management.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

LOCAL / REGIONAL WATER AGENCY RECORDS

FEDERAL WATER WELLS

PWS: Public Water Systems
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

PWS ENF: Public Water Systems Violation and Enforcement Data
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

USGS Water Wells: USGS National Water Inventory System (NWIS)
This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

STATE RECORDS

Water Well Database
Source: Department of Water Resources
Telephone: 916-651-9648

California Drinking Water Quality Database
Source: Department of Public Health
Telephone: 916-324-2319
The database includes all drinking water compliance and special studies monitoring for the state of California since 1984. It consists of over 3,200,000 individual analyses along with well and water system information.

OTHER STATE DATABASE INFORMATION

California Oil and Gas Well Locations
Source: Department of Conservation
Telephone: 916-323-1779
Oil and Gas well locations in the state.

RADON

State Database: CA Radon
Source: Department of Health Services
Telephone: 916-324-2208
Radon Database for California

Area Radon Information
Source: USGS
Telephone: 703-356-4020
The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

EPA Radon Zones
Source: EPA
Telephone: 703-356-4020
Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

OTHER

Airport Landing Facilities: Private and public use landing facilities
Source: Federal Aviation Administration, 800-457-6656

Epicenters: World earthquake epicenters, Richter 5 or greater
Source: Department of Commerce, National Oceanic and Atmospheric Administration

California Earthquake Fault Lines: The fault lines displayed on EDR's Topographic map are digitized quaternary fault lines, prepared in 1975 by the United State Geological Survey. Additional information (also from 1975) regarding activity at specific fault lines comes from California's Preliminary Fault Activity Map prepared by the California Division of Mines and Geology.

STREET AND ADDRESS INFORMATION

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Agua Caliente Band of Cahuilla Indian
NWC Highway 111 and Date Palm Drive
Cathedral City, CA 92234

Inquiry Number: 4977808.3
June 26, 2017

Certified Sanborn® Map Report

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

Certified Sanborn® Map Report

06/26/17

Site Name:

Agua Caliente Band of Cahuilla
NWC Highway 111 and Date P
Cathedral City, CA 92234
EDR Inquiry # 4977808.3

Client Name:

Petra Geotechnical Inc
3198 Airport Loop Drive Suite A2
Costa Mesa, CA 92626-0000
Contact: Ed Lump

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The Sanborn Library is continually enhanced with newly identified map archives. This report accesses all maps in the collection as of the day this report was generated.

Certified Sanborn Results:

Certification # F2E2-4C7D-869D

PO # J.N. 17-246

Project Agua Caliente Band of Cahuilla

UNMAPPED PROPERTY

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Sanborn® Library search results

Certification #: F2E2-4C7D-869D

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- ✓ Library of Congress
- ✓ University Publications of America
- ✓ EDR Private Collection

The Sanborn Library LLC Since 1866™

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Agua Caliente Band of Cahuilla Indian
NWC Highway 111 and Date Palm Drive
Cathedral City, CA 92234

Inquiry Number: 4977808.4
June 26, 2017

EDR Historical Topo Map Report
with QuadMatch™

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

EDR Historical Topo Map Report

06/26/17

Site Name:

Agua Caliente Band of Cahuilla
NWC Highway 111 and Date P
Cathedral City, CA 92234
EDR Inquiry # 4977808.4

Client Name:

Petra Geotechnical Inc
3198 Airport Loop Drive Suite A2
Costa Mesa, CA 92626-0000
Contact: Ed Lump

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Search Results:

P.O.# J.N. 17-246

Project: Agua Caliente Band of Cahuilla

Coordinates:

Latitude:	33.779514 33° 46' 46" North
Longitude:	-116.460087 -116° 27' 36" West
UTM Zone:	Zone 11 North
UTM X Meters:	549988.53
UTM Y Meters:	3737840.32
Elevation:	303.75' above sea level

Maps Provided:

2012
1981
1972
1958
1947
1944
1941
1904

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Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

2012 Source Sheets



Cathedral City
2012
7.5-minute, 24000

1981 Source Sheets



Cathedral City
1981
7.5-minute, 24000
Aerial Photo Revised 1978

1972 Source Sheets



Cathedral City
1972
7.5-minute, 24000
Aerial Photo Revised 1972

1958 Source Sheets



Cathedral City
1958
7.5-minute, 24000
Aerial Photo Revised 1956

Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

1947 Source Sheets



THOUSAND PALMS
1947
15-minute, 50000

1944 Source Sheets



Edom
1944
15-minute, 62500
Aerial Photo Revised 1941

1941 Source Sheets



Edom
1941
15-minute, 62500
Aerial Photo Revised 1941

1904 Source Sheets



Indio
1904
30-minute, 125000

Historical Topo Map

2012



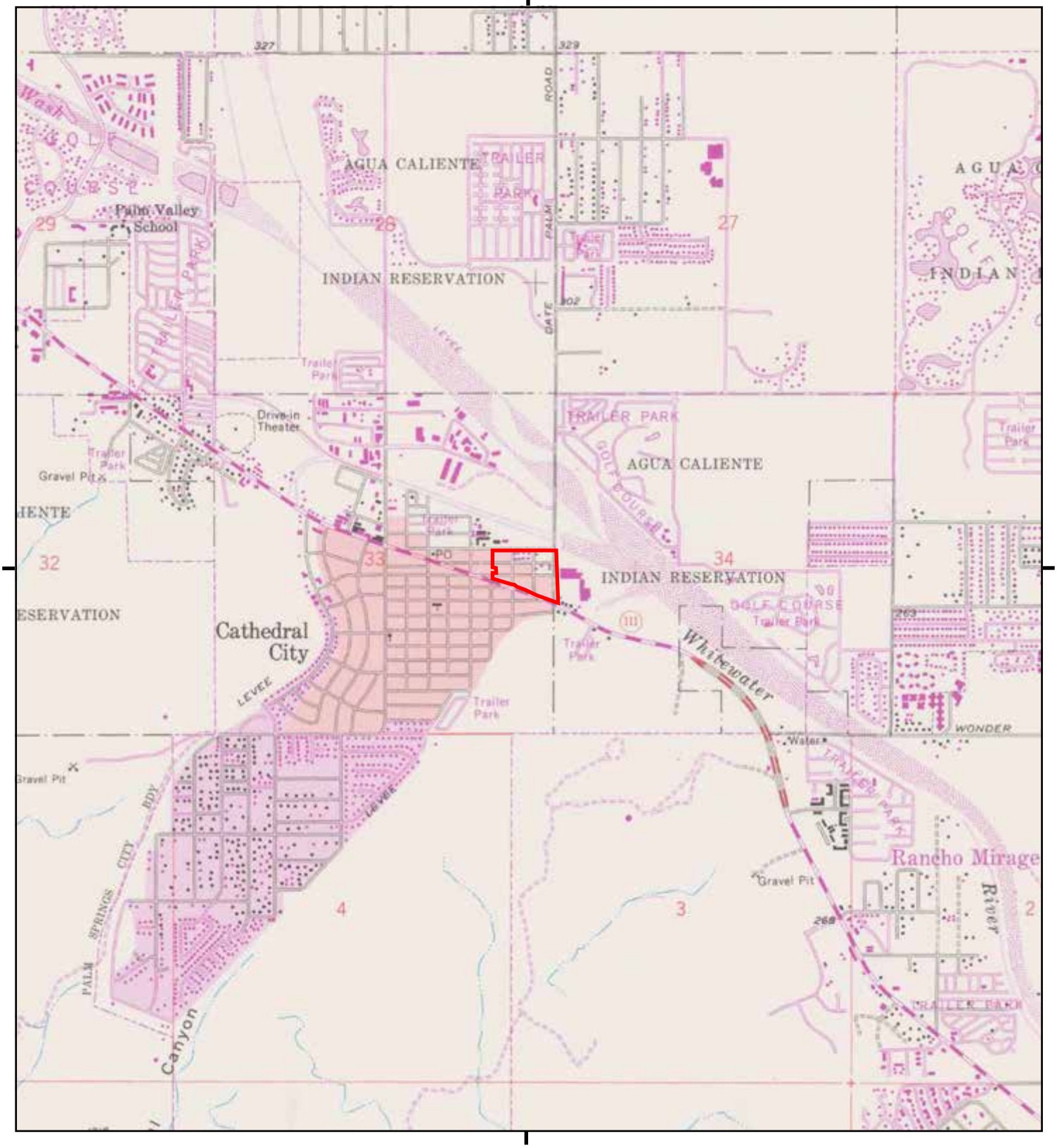
This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Cathedral City, 2012, 7.5-minute

SITE NAME: Agua Caliente Band of Cahuilla Indian
ADDRESS: NWC Highway 111 and Date Palm Drive
Cathedral City, CA 92234
CLIENT: Petra Geotechnical Inc



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

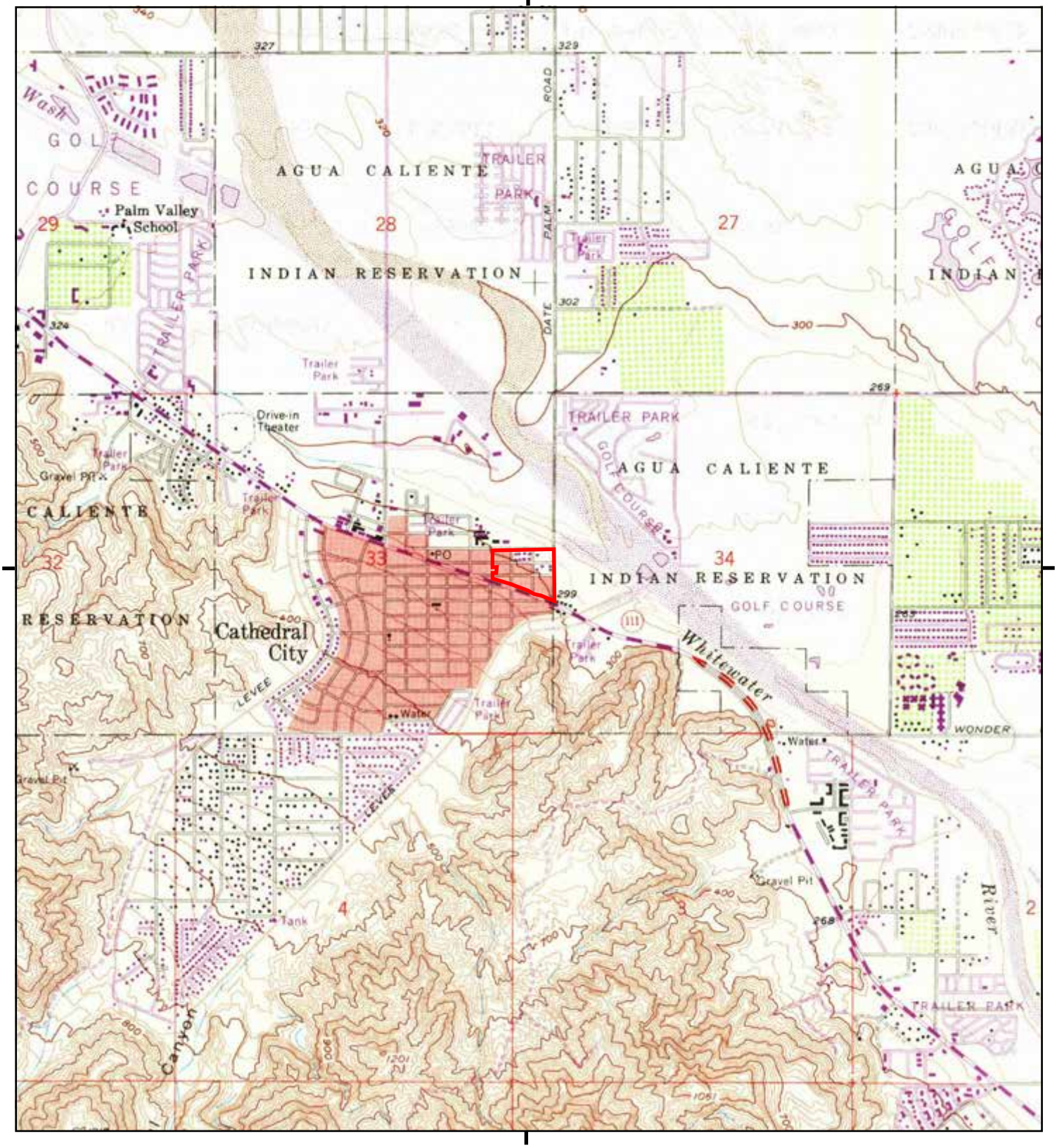
TP, Cathedral City, 1981, 7.5-minute

SITE NAME: Agua Caliente Band of Cahuilla Indian
ADDRESS: NWC Highway 111 and Date Palm Drive
Cathedral City, CA 92234
CLIENT: Petra Geotechnical Inc

N

Historical Topo Map

1972



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

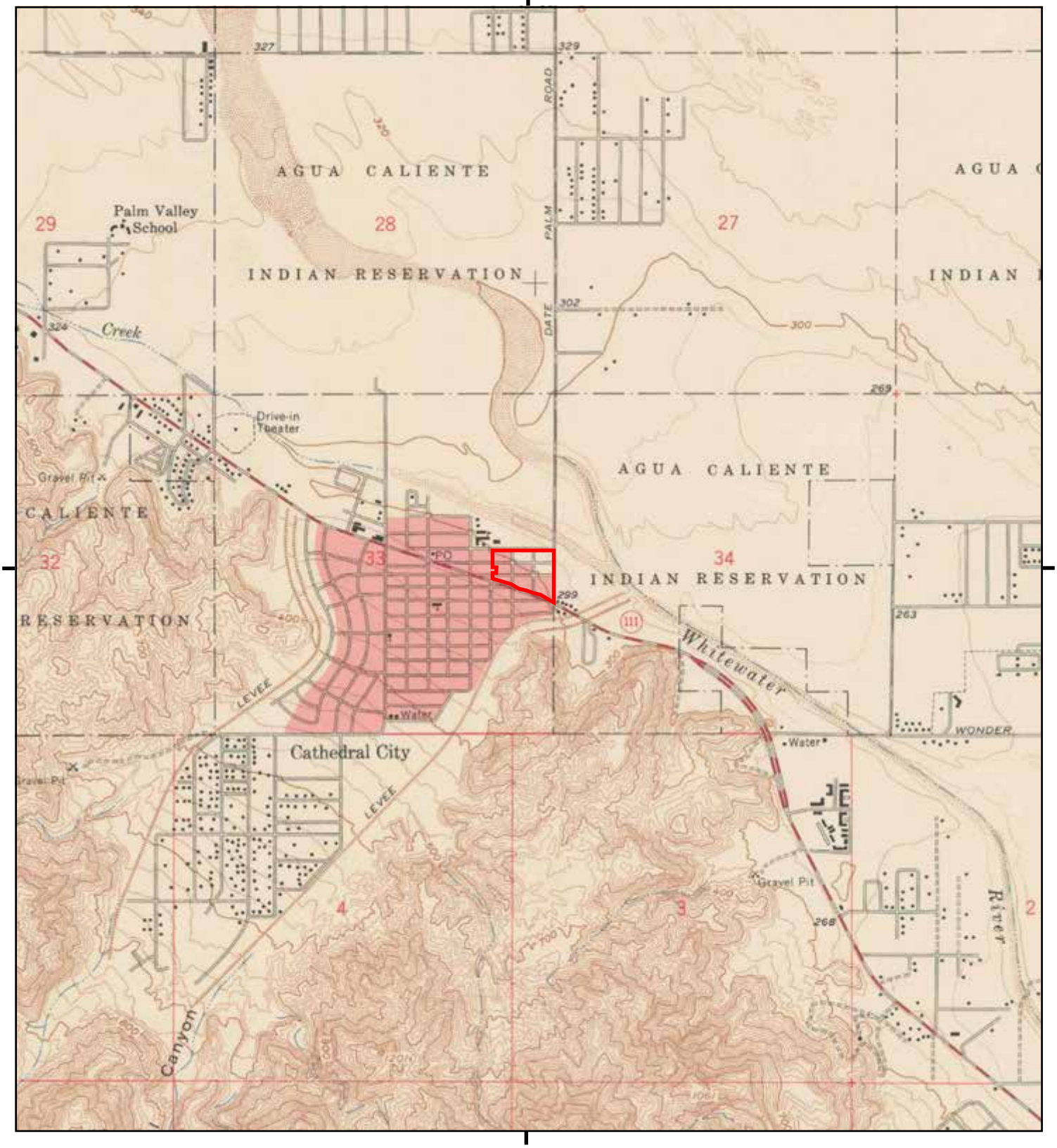
TP, Cathedral City, 1972, 7.5-minute

SITE NAME: Agua Caliente Band of Cahuilla Indian
ADDRESS: NWC Highway 111 and Date Palm Drive
Cathedral City, CA 92234
CLIENT: Petra Geotechnical Inc

N

Historical Topo Map

1958



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

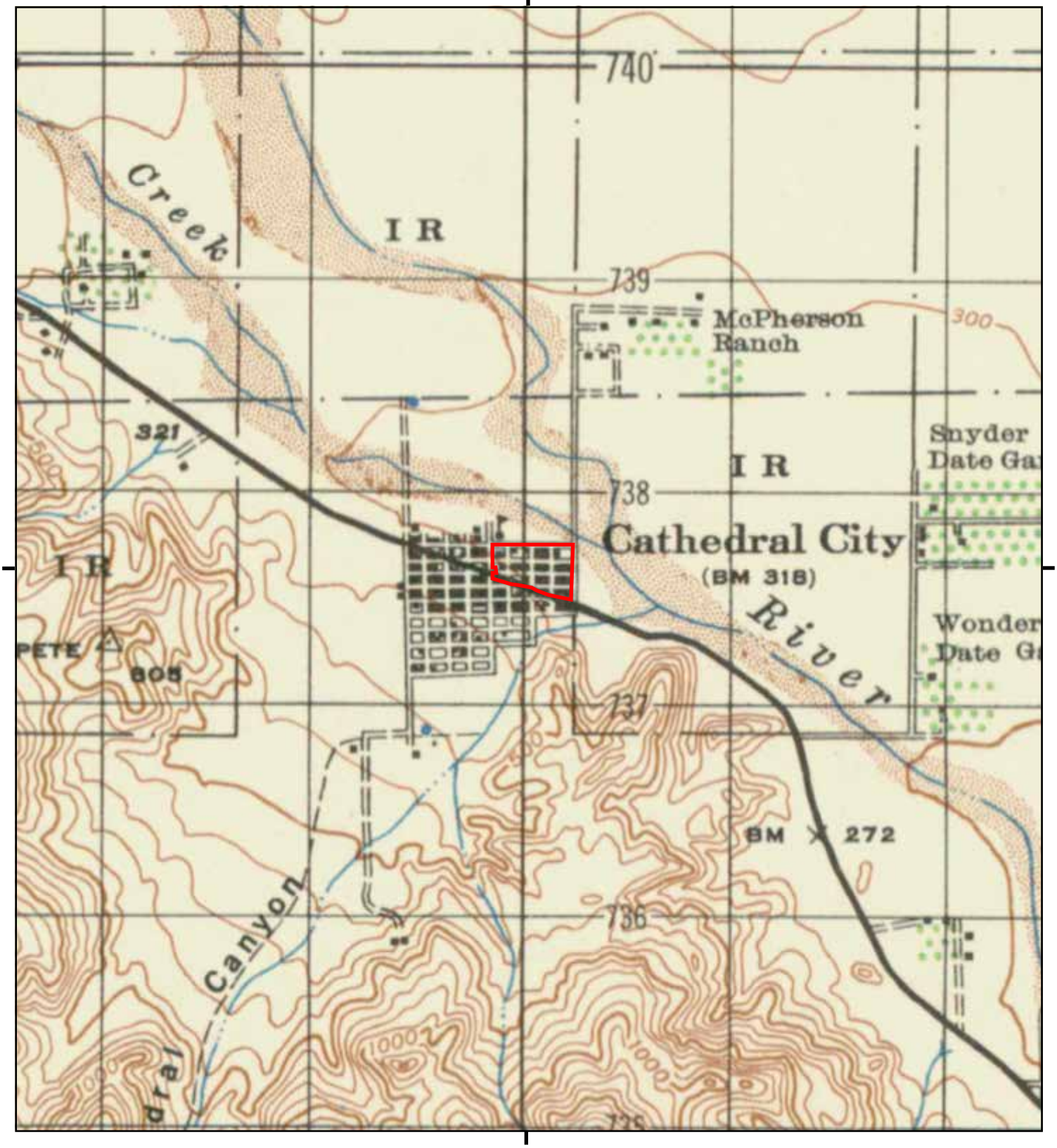
TP, Cathedral City, 1958, 7.5-minute

SITE NAME: Agua Caliente Band of Cahuilla Indian
ADDRESS: NWC Highway 111 and Date Palm Drive
Cathedral City, CA 92234
CLIENT: Petra Geotechnical Inc

N

Historical Topo Map

1947



This report includes information from the following map sheet(s).

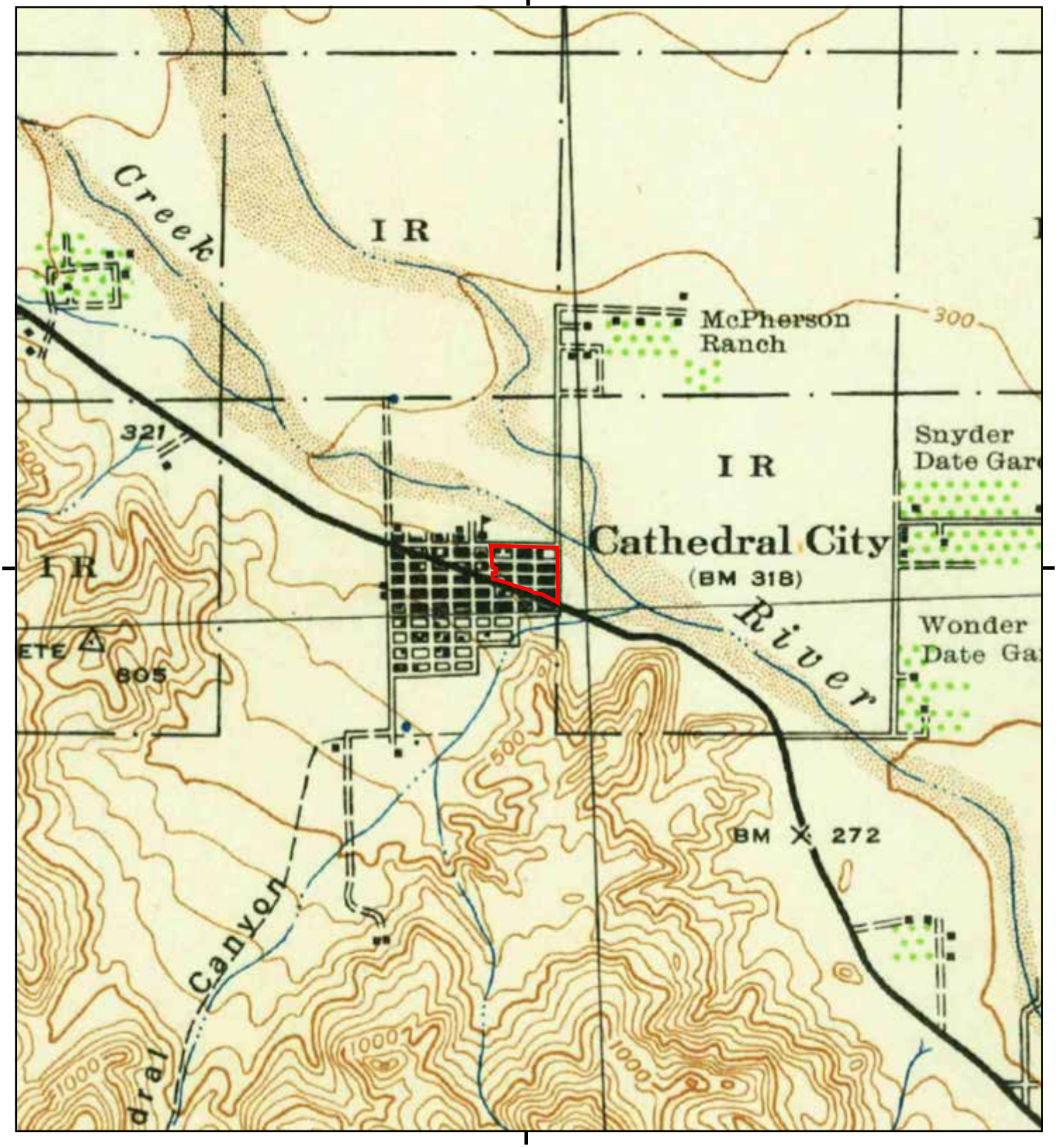
0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, THOUSAND PALMS, 1947, 15-minute

SITE NAME: Agua Caliente Band of Cahuilla Indian
ADDRESS: NWC Highway 111 and Date Palm Drive
Cathedral City, CA 92234
CLIENT: Petra Geotechnical Inc

N



This report includes information from the following map sheet(s).

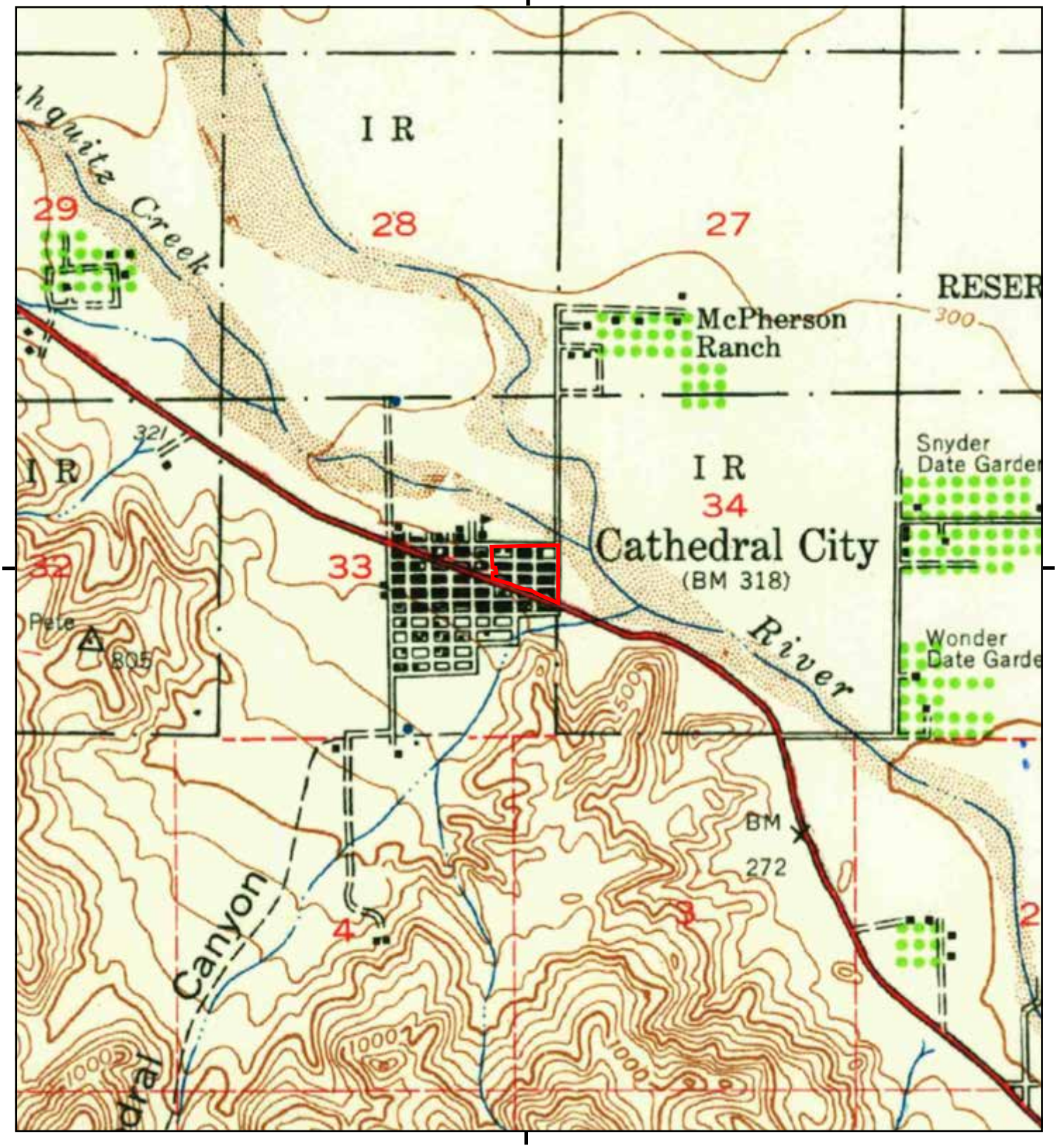
0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Edom, 1944, 15-minute

SITE NAME: Agua Caliente Band of Cahuilla Indian
ADDRESS: NWC Highway 111 and Date Palm Drive
Cathedral City, CA 92234
CLIENT: Petra Geotechnical Inc

N



This report includes information from the following map sheet(s).

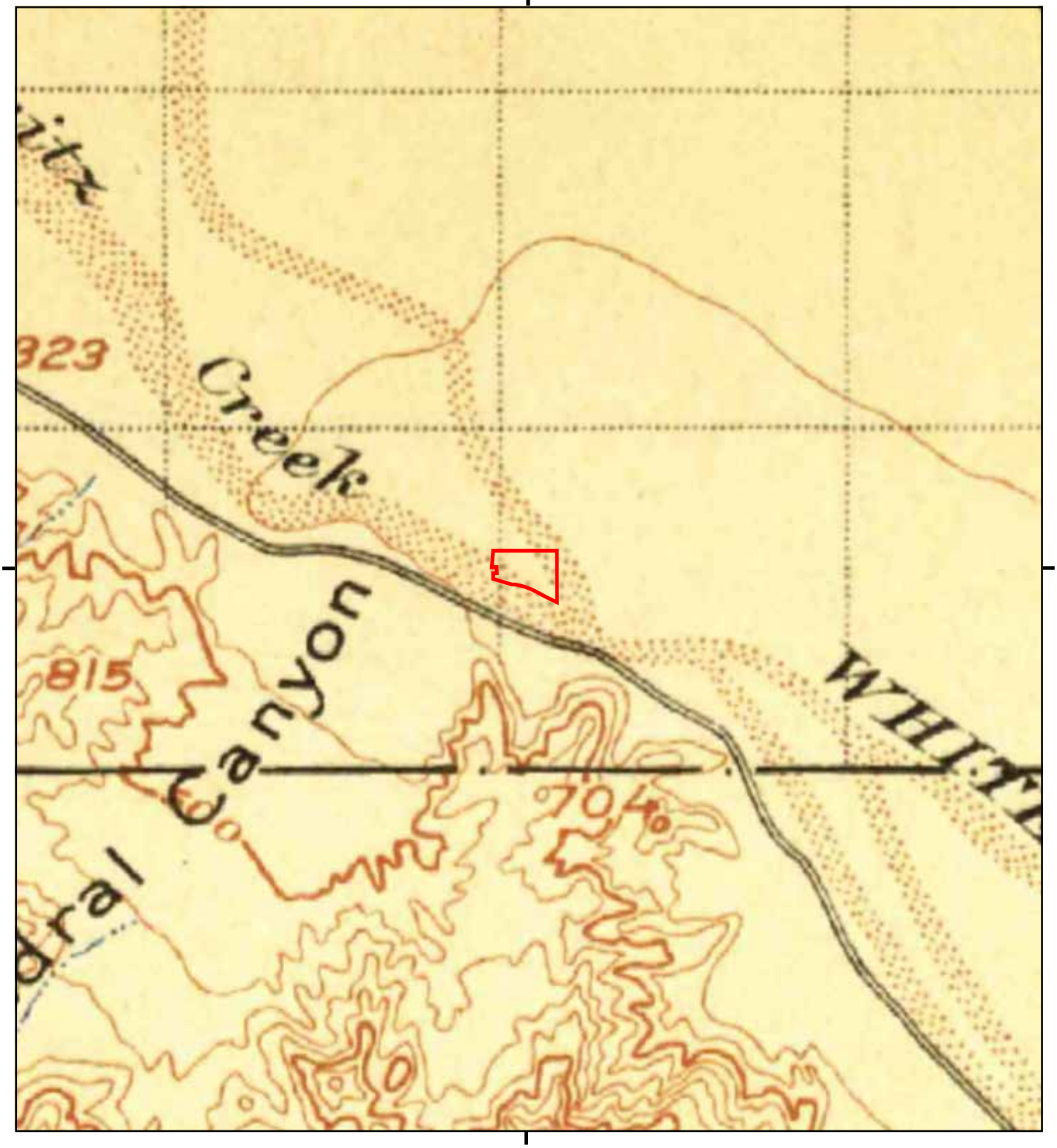
0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Edom, 1941, 15-minute

SITE NAME: Agua Caliente Band of Cahuilla Indian
ADDRESS: NWC Highway 111 and Date Palm Drive
Cathedral City, CA 92234
CLIENT: Petra Geotechnical Inc

N



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Indio, 1904, 30-minute

SITE NAME: Agua Caliente Band of Cahuilla Indian
ADDRESS: NWC Highway 111 and Date Palm Drive
Cathedral City, CA 92234
CLIENT: Petra Geotechnical Inc

N

Agua Caliente Band of Cahuilla Indian
NWC Highway 111 and Date Palm Drive
Cathedral City, CA 92234

Inquiry Number: 4977808.5
June 30, 2017

The EDR-City Directory Image Report

Environmental Data Resources Inc

6 Armstrong Road
Shelton, CT 06484
800.352.0050
www.edrnet.com

TABLE OF CONTENTS

SECTION

Executive Summary

Findings

City Directory Images

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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EXECUTIVE SUMMARY

DESCRIPTION

Environmental Data Resources, Inc.'s (EDR) City Directory Report is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's City Directory Report includes a search of available city directory data at 5 year intervals.

RESEARCH SUMMARY

The following research sources were consulted in the preparation of this report. A check mark indicates where information was identified in the source and provided in this report.

Year	Target Street	Cross Street	Source
2013	☑	☐	Cole Information Services
2008	☑	☐	Cole Information Services
2003	☑	☐	Cole Information Services
1999	☑	☐	Cole Information Services
1995	☑	☐	Cole Information Services
1992	☑	☐	Cole Information Services
1990	☑	☐	Haines Criss-Cross Directory
1985	☑	☐	Haines Criss-Cross Directory
1980	☑	☐	Haines Criss-Cross Directory
1975	☑	☐	Haines Criss-Cross Directory

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FINDINGS

TARGET PROPERTY STREET

NWC Highway 111 and Date Palm Drive
Cathedral City, CA 92234

Year	*CD Image*	*Source*

DATE PALM DR

2013	pg A1	Cole Information Services
2008	pg A3	Cole Information Services
2003	pg A5	Cole Information Services
1999	pg A7	Cole Information Services
1995	pg A9	Cole Information Services
1992	pg A11	Cole Information Services
1990	pg A14	Haines Criss-Cross Directory
1985	pg A18	Haines Criss-Cross Directory
1980	pg A20	Haines Criss-Cross Directory
1980	pg A21	Haines Criss-Cross Directory
1975	pg A23	Haines Criss-Cross Directory
1975	pg A24	Haines Criss-Cross Directory

E PALM CANYON DR

2013	pg A2	Cole Information Services
2008	pg A4	Cole Information Services
2003	pg A6	Cole Information Services
1999	pg A8	Cole Information Services
1995	pg A10	Cole Information Services
1992	pg A13	Cole Information Services
1990	pg A15	Haines Criss-Cross Directory
1990	pg A16	Haines Criss-Cross Directory
1990	pg A17	Haines Criss-Cross Directory
1985	pg A19	Haines Criss-Cross Directory
1980	pg A22	Haines Criss-Cross Directory
1975	pg A25	Haines Criss-Cross Directory

FINDINGS

CROSS STREETS

No Cross Streets Identified

City Directory Images

Target Street	Cross Street	Source
✓	-	Cole Information Services

DATE PALM DR 2013

35919	JERLYN COIN LAUNDRY
35935	ALBERTSONS
	SAVON DRUGS
35943	CELLOS
35950	US BANK
35955	MICHAELS CAFE
35959	CATHEDRAL CITY FLORAL
36001	HZAZ INC
36100	MEL SCHMIDT
	RECREATIONAL VEHICLE PARK OASIS OF P
36101	HOLIDAY INN CATHEDRAL CITY
	HOLIDAY INN EXPRESS HOTELS & SUITE
36200	AJS ON THE GREEN
	DATE PALM COUNTRY CLUB
	REILLYS IRISH PUB & RESTAURANT
36701	FLOOR STYLES

Target Street	Cross Street	Source
✓	-	Cole Information Services

E PALM CANYON DR 2013

68780	ESCOW SERVICES CORPORATION
68783	ALLEN TRACEY BAIL BONDS
	CONTINENTAL BARBER SHOP
	DESERT JEWELRY MART
	HURWITZ MICHAEL I
	MICHAEL HURWITZ
68820	EL GALLITO HOMEMADE TEX MEX
68823	ANGEL VIEW CRIPPLED CHILDRENS FOUND
68930	GOODYS CAFE
68950	CATHEDRAL CITY CHAMBER OF COMMERCE
	CLUB JAVA
68980	CARLS JR
69020	SALSAS RESTAURANT
69026	BIG LOTS
69032	JUST SOUP
69036	ALTERATIONS & TAILOR BY GUME

Target Street	Cross Street	Source
✓	-	Cole Information Services

DATE PALM DR 2008

35935	ALBERTSONS
	ALBERTSONS 6562
	BOYS & GIRLS CLUB OF CATHDR CITY
	SAV ON DRUGS
35939	GOIN POSTAL CATHEDRAL CITY
35943	ROCKYS PIZZA
35947	DENNIS E CARTER DC
35950	PFF BANK & TRUST
35955	MICHAELS CAFE
35959	CATHEDRAL CITY FLORIST & FLORAL GA
	FLOWER GALLERY
	SHELLEY WEISER
35963	AMERICAN GENERAL FINANCIAL SERVICES
35975	AMERICAN GENERAL FINANCIAL
36001	CLEAN ENERGY
36101	HOLIDAY INN EXPRESS
36200	CLUB CAFE
	DATE PALM COUNTRY CLUB
	EQUITY LIFESTYLE PROPERTIES
	LEONS BAR & GRILL
	MANUFACTURED HM COMMUNITIES INC
36701	FLOOR STYLES LLC
	S FLOOR
37005	SMART & FINAL
37055	SMART & FINAL INC
37111	GENEVA RODRIGUEZ REAL ESTATE
	GENEVA RODRIQUEZ
	NARSCO
	NORTH AMERICAN RUBBER STAMP CO

Target Street	Cross Street	Source
✓	-	Cole Information Services

E PALM CANYON DR 2008

68778	JAVED AHMAD MD TARGET BENEFIT PENSIO
68783	CONTINENTAL BARBER SHOP
	DESERT JEWELRY MART
	MICHAEL HURWITZ
	MICHAEL I HURWITZ
	ROYAL ALLIANCE ASSOCIATES INC
	SARA SALCIDO IMMIGRATION & COURT SER
	TRACEY ALLEN BAIL BONDS
68784	RED TOMATO & ORIGINAL HOUSE OF LAM
	TRILUSSA RISTORANTE
68792	DESIGNER WINDOW FASHIONS BY SHADY DE
	SHADY DEALS
68798	GUY VITAMIN
	VITAMIN GUY
68805	BUDDY GRECOS LLC
68823	ANGEL VIEW CRIPPLED CHILDRENS
68864	STATUARY STORE
68885	ROUTE 66 RIDERS INC
68930	GOODYS CAFE
68950	CLUB JAVA
	CURL UP & DYE
	MANHATAN TRAVEL AGENCY
	THE FLOWER
69020	SALSAS RESTAURANT
	TACO SALSAS
69026	BIG LOTS STORES INC
69028	OAK GALLERY
	OAK LIQUIDATORS THE
69032	COTTONS CONFECTIONS
	JUST SOUP
69034	DESERT PAINTBALL
69036	QUEEN OF PEACE BOOKS & GIFTS

Target Street	Cross Street	Source
✓	-	Cole Information Services

DATE PALM DR 2003

35919	JERLYN COIN LAUNDRY
35931	OCCUPANT UNKNOWN
	VIDEO DEPOT CATHEDRAL CITY
35935	ALBRTSN FOOD & DRUG FOOD CNTR
	ALBRTSN FOOD & DRUG SAV ON DRU
35943	OCCUPANT UNKNOWN
	TAQUERIA CHICALI
35947	EDMOND CARTER
35950	OCCUPANT UNKNOWN
35955	MICHAELS CAFE
35959	OCCUPANT UNKNOWN
36100	ALAN LEY
	B STORR
	DAVID WALLACE
	EDWARD GONNOUD
	GERALD BONE
	JACK GARNETT
	JAMES KELLY
	JAMES MCGEE
	JANELLE N BROWN
	JEFF MANN
	JOHN WALSH
	PALM SPRINGS OASIS RV PARK
	PETER ARA
36101	HOLIDAY INN EXPRESS
36200	DEANZA PALM SPRINGS CNTRY CLUB
	GEORGE ORENDY
	LKSD RSTRNT OF THE DATE PALM
	LORRAINE SLAMEN
	THE CLUB CAF
36701	FLOOR STYLES
	OCCUPANT UNKNOWN
36913	PATRICK COLLEARY
37055	MICHAEL ROMERO
37100	IDENTIFICATION SERVICE CTR
37111	FIBERTO CORNEJO
	JOHNNIES BARBER SHOP
	M EVIGAN
	MYSTIC DESERT
	NARSCO NORTH AMERCAN RBR STAMP
	STEVEN DURRANT

Target Street	Cross Street	Source
✓	-	Cole Information Services

E PALM CANYON DR 2003

68736	TRADING POST
68738	DESERT JEWELRY MART
68759	ELITE TIRE & AUTOMOTIVE
68778	JACK ADAMS
68783	ALCOHOLICS ANONYMOUS
	AMERICAS FIRST CHOICE PBLSHNG
	BARBARA GAST P F P TAX & FNNCL
	CHERS HEALTHY NAIL SPA
	CONTINENTAL BARBER SHOP
	DESERT ANTIQUE MART
	HURWITZ MICHAEL I ATTYS
	MARKS RECORDS
	MICHAEL HURWITZ
68784	HOUSE OF LAMB
68788	SHADY DEALS
68798	GUY VITAMIN
68805	GOLDEN TRIANGLE
	OCCUPANT UNKNOWN
68823	ANGEL VIEW CRPLD CHILD FNDTN
68830	OCCUPANT UNKNOWN
68864	STATUARY STORE
68870	OCCUPANT UNKNOWN
68885	AUTO GLASS N WNDW TINT OF PALM
	OCCUPANT UNKNOWN
	ROUTE 66 RIDERS INC
	TEMECULA AUTO GLASS
68887	CATHEDRAL CITY RINGSIDE
68930	GOODYS CAFE
68950	BEACH DWGHT STNTN INSRNC AGNCY
	BRAKKAS TAE KWON DO ACADEMY
	CURL UP & DYE
	THE FLOWER CO
68980	CARLS JR RESTAURANT
69010	CATHEDRAL SHELL
69020	TACO SALSAS
69026	OCCUPANT UNKNOWN
	PIC & SAVE
69028	JAMES WHITEHEAD
	OAK LIQUIDATORS
	TOTS TO TEENS FURNITURE WORLD
69034	JOY LANE PRODUCTS
69036	QUEEN OF PEACE BOOKS & GIFTS

Target Street	Cross Street	Source
✓	-	Cole Information Services

DATE PALM DR 1999

35919 JERLYN COIN LAUNDRY
35935 LUCKY STORES CATHEDRAL CITY
SAV ON PHARMACY CATHEDRAL CITY
35943 CHICALI TACO
ROSITAS MEXICAN RESTAURANT
35950 PFF BANK & TRUST CATHEDRAL CITY
35955 HAPPY DUCK CAFE
35959 BLOCK H & R LOCAL OFFICES
35963 DOMINOS PIZZA
36100 BUILDING INSPECTIONS
PALM SPRINGS OASIS RV PARK
RECREATIONAL VEHICLE PARK O
36200 CADDYSHACK
DATE PALM COUNTRY CLUB ADMINISTRATIVE OFFICE
DATE PALM COUNTRY CLUB GOLF STARTER
DEANZA PALM SPRINGS COUNTRY CLUB
36701 FLOOR STYLES
37005 SMART & FINAL
37100 IDENTIFICATION SERVICE CENTER
37111 BEST SHOE REPAIR
CATHEDRAL COMMUNICATIONS
GENEVA RODRIQUEZ
JOHNNIES BARBER SHOP
LENZ ROBERT RUBBER STAMPS
NARSCO NORTH AMERCAN RUBBER STAMP COMPANY

Target Street	Cross Street	Source
✓	-	Cole Information Services

E PALM CANYON DR 1999

68757	ELITE TIRE & AUTOMOTIVE
68783	ALCOHOLICS ANONYMOUS NUEVO AMANECER
	AURUM FINANCIAL SERVICES
	CONTINENTAL BARBER SHOP
	DESERT JEWELRY MART
	HURWITZ MICHAEL I ATTORNEYS
	MICHAEL HURWITZ
	R C CARS N THINGS
68784	HOUSE OF LAMB
	RED PEPPER RESTAURANT
	THE RED TOMATO AND ORIGINAL HOUSE OF LAMB
68796	ELEPHANTS TREASURE TRUNK THE
68798	GUY VITAMIN
68805	GOLDEN TRIANGLE
	TRIANGLES RESTAURANT
68823	ANGEL VIEW CRIPPLED CHILD FOUNDATION THRIFT MARTS DONAT
68830	PALM SPRINGS OIL COMPANY
68869	SHELL SWIFT SHOP
	WORLD OIL CORPORATION NO 71
68870	DEAS FUMASI FURNITURE
68885	PALM SPRINGS AUTO GLASS N TINT
	ROUTE SIXTY SIX RIDERS RENTALS
68887	CATHEDRAL CITY RINGSIDE
68904	DESERT CLOTHES DECOR & MORE
68950	CLUB JAVA
	FLOWER COMPANY THE
	JUDYS DONUTS
	RUSTIC DEMEXICO IMPORTS
	STYLES BY CHRIS BEAUTY SALON
	TIGERS BAR & GRILL
	TIGERS BAR & POOL
68961	SONORA RESTAURANT
68980	CARLS JR RESTAURANT CATHEDRAL CITY
69003	MERVIN OZMUN
69010	CATHEDRAL SHELL
69020	CAFE EDDIES CHINESE FOOD
69026	OCCUPANT UNKNOWN
	PIC & SAVE
69028	DESERT CANYON INTERIORS
	SHAW TRUST MARK CARPET & TILE
	TRUST MARK CARPET & TILE
69032	TACO SALSAS
69034	JOY LANE PRODUCTS
69036	CATHEDRAL NAILS

Target Street	Cross Street	Source
✓	-	Cole Information Services

DATE PALM DR 1995

35919	JERLYN COIN LAUNDRY
35931	OCCUPANT UNKNOWNN
35935	LUCKY FOOD CTR
	LUCKY STORE
35939	PARTY 4 LESS
35943	GREAT TAMALE MEXICAN FOOD
35947	CARTER, DENNIS E
	DENNIS E CARTER DC
35955	RED BIRD DINER
35959	H & R BLOCK INC
35963	DOMINOS PIZZA
35975	GRAYSON FREIGHT SVC
	KRITZER, B
	USA CREDIT CLEARING
36100	BROWER, VERNON
	CARPENTER, DAVID
	COUKART, FRED
	DE ANZA PALM SPRINGS OASIS
	FRADETTE, MARCEL
	HUDSON, HARRY
	JACKSON, ELSIE
	LAWSON, BILL
	MALKIN, L
	MANNING, DONALD
	PRICE, BUD
	SANCHEZ, SANCHEZ J
	SCHLIEP, MARVIN
	STROM, LEONARD S
	VANDYKE, MARTIN L
	VETTER, MAE E
	WALKER, ROLLIE
	WEST, E H
36200	DE ANZA PALM SPRINGS CNTRY CLB
	DE ANZA PALM SPRINGS GOLF SHOP
	HORTON, JOS
36701	FLOOR STYLES
37005	SMART & FINAL
37100	DATA PLUS BOOKKEEPING
37111	A HEAD START FOR HAIR
	JOHNNIES BARBER SHOP
	NARSCO

Target Street	Cross Street	Source
✓	-	Cole Information Services

E PALM CANYON DR 1995

68736	TRADING POST
68759	WINSTON TIRE CO
68762	ADAMS, JACK
	UNIVERSAL TAX GROUP
68783	ALCOHOLICS ANONYMOUS
	B & M CONCRETE INC
	DESERT JEWELRY MART
	FLICKINGER & HURWITZ
	MICHAEL I HURWITZ
	R C CARS N THINGS
68793	GANDHI, AMITA
	INLAND EMPIRE COMPUTERS
	PENDLETON GANDHI ACCOUNTING
68830	PALM SPRINGS OIL CO
68869	SHELL SWIFT SHOP
68870	RINGSIDE BOXING GYM
	SUNWORLD PATIO
68885	SERVICE AUTO PARTS
68900	BIG AS BAR BQ CATERING
	CATERING BY SHARON
68904	CLOTHES DECOR & MORE
68930	KFC
68950	99 CENT VIDEO CLUB INC
	DISCOUNT LIQUOR
	JUDYS DONUTS
	TIGERS BAR & POOL
68961	SONORA RESTAURANT
68977	PAOLIS PIZZERIA & PASTA HOUSE
68981	DADDY WARBUCKS
69010	CATHEDRAL SHELL
69020	ROCKYS PIZZA
69028	HOUSE OF FABRICS INC
69032	CAFE EDDIES CHINESE FAST FOOD

Target Street	Cross Street	Source
✓	-	Cole Information Services

DATE PALM DR 1992

35919	BEVERLY WLSHR LNDRY
35923	SUB STATION
35927	SWEET NOTHNGS FROZN
35931	OPTOMETRIC&HEARING
35935	LUCKY FOOD CTR
35939	GREAT TAMALE FOOD
	PARTY 4 LESS
35947	CARTER DENNIS E
	CARTER, DENNIS E
35950	POMONA FIRST FDRL
35955	NO FINER DINER
35959	BLOCK H&R
35963	DOMINOS PIZZA
35975	BOOKKEEPING EMPHSIS
	CAPITOL BANK OF CA
	GRAYSON FREIGHT SV
	IMPERL AUTO SLS&LSE
	KRITZER L ATTY
	MARQUIS MNG GRP INC
	U S A CRDT CLEARING
36100	ATTRIDGE, WILLIAM
	BLANCHARD, DON
	CARPENTER, DAVID
	DE ANZA GOLF SHOP
	DUCKETT, LESTER
	FRADETTE, MARCEL
	HUDSON, HARRY
	KAY, THOMAS
	LAWSON, BILL
	LOVELESS, CHARLES
	MALKIN, L
	MANNING, DONALD
	ODELL, WALTER
	PIFARI, RALPH
	RALSTON, WILLIAM J
	RINAUDO, JAMES
	SANCHEZ, JOSEPH
	SCHLIEP, MARVIN
	VETTER, MAE E
36200	BARRY, FRANCIS R
	CHAPMAN, ROBERT P
	CONROW, HARRY
	DE ANZA COUNTRY CLB
	EKHOFF, D
	EUSANIO, NORMAN
	GOOD, THOMAS
	HAASE, GERHARD E
	JONES, WILEY M
	LUSTIG, JULES
	MCCORD, JIM

Target Street	Cross Street	Source
✓	-	Cole Information Services

DATE PALM DR 1992 (Cont'd)

36200	NECHANICKY, MILO
	NELSON, R
	SHAW, THOMAS
	SLAMEN, L
	SOBIESKI, BILL
37005	SMART&FINAL
37100	HOUSE OF EARRINGS
37111	A HEAD START HAIR
	DRESSMAKING BY ANN
	JOHNNIES BARBER SHP
	PADILLA, ESTEBAN
	ROBERT LENZ STAMPS

Target Street	Cross Street	Source
✓	-	Cole Information Services

E PALM CANYON DR 1992

68736	TRADING POST
68762	ADAMS JACK EA
	UNIVRSL TAX GROUP
68783	C C REALTY
	DESERT JEWELRY MART
	ESPINOSA G ATTY LAW
	HIBISCUS SYSTEMS
	INOVATIVE REHAB
	IRONING BROADS
	PROFSNL ELTRNC SERV
	R C CARS N THINGS
68793	INLAND EMPIRE CMPTR
	PENDLETON&ASSOCTS
68805	SHAME ON MOON REST
68823	ANGEL VW THRIFT 3
68830	PALM SPG OIL CO
68864	STATUARY STORE
68869	ARCO SWIFT STOP
68870	SUN WORLD PATIO
68885	SERVICE AUTO PARTS
68904	CLOTHES DECOR&MORE
68906	POTTERY CENTER
68930	KENTUCKY FRIED CHKN
68950	99 CENT VIDEO CLUB
	DISCOUNT LIQUOR
	JUDYS DONUTS
	STYLES ARLENE SALON
	TONIS BKKPG&TAX SRV
	TOUCH OF CLSS FLRST
	URRUTIAS CONSTR CO
68961	SONORA RESTAURANT
68977	PAOLIS PIZZERIA
68981	DADDY WARBUCKS
69010	CATHDRL SHELL
69026	GIBSONS FLORAL DEPT
69030	SPROUSE REITZ STORE
69032	ALICE FAST FOODS
69034	KAUFMANNS BAKERY

Target Street	Cross Street	Source
✓	-	Haines Criss-Cross Directory

DATE PALM DR 1990



		GIBSON William H	00	4
	35975	★BOOKKEEPING EMPHSIS	324-1355	+0
6		★CAPITOL BANK OF CA	328-8864	4
4		★DOMBROWSKI C ATTY	321-6375	8
0		★G T I	321-6042	+0
4		★IMPERL AUTO SLS&LSE	321-0100	9
6		★IMPERL CELLULAR PH	321-0100	
8		★KRITZER L ATTY	321-6375	
8		★KRITZER&DOMBROWSKI	321-6375	8
8		★MERCURY PRPRTY MNG	324-7700	9
0		★U S A CRDT CLEARING	324-0626	9
6	36100	APARTMENTS		
7		BLESSING Howard	328-4953	9
0		BOUCHER Gave	328-1483	+0
4		★DE ANZA OASIS	328-4813	
		DISTERDICK Robt	321-9202	+0
		FRADETTE Marcel	321-4449	8
4		LAWSON Bill	328-5812	7
4		MALKIN Laurence	324-7570	6
5		MATETICH Wm	321-9948	+0
5		MCLAUGHLIN H	324-7321	+0
5		MICKEY Donald	321-1723	+0
4		MINTON Philip M	328-9886	6
0		★OASIS REC VEHCLE PK	328-4813	
4		PINTER Joe	321-7505	+0
0		PINTER Matilda	321-7505	+0
4		★RECREATION VCHL PK	328-4813	
5		RICKERT C W	328-0556	8
5		RICKS Charlie	324-2455	
7		RICKS Lea	324-2455	
0		SANCHEZ Jos	321-9921	+0
4		SEALY Stanly G	324-5310	8
0		WHEEL R E	324-6410	+0
0		WINCZURA Alfred	321-7442	+0
4		WRIGHT John H	00	+0
6	36100			
0	36180	SEABOURN Barney	00	+0
8	36200	PALM SPGS MBL CLB		
0		BARRY Francis R	328-7775	
4		BURGESS Bobby R	00	+0
0		CHAPMAN Robt D	328-7258	9
4		CONROW Harry	328-6424	
4		CONROW Vera	328-6424	
6		★DE ANZA MOBILE CLUB	328-6514	
0		★DE ANZA MOBILE CLUB	324-1444	+0
0		★DEANZA PM SPGS CLUB	328-1315	3
4		★DEANZA PM SPGS GOLF	324-7575	2
0		EKHOFF Clarence J	328-3482	
0	61	FIENMAN Ola	328-8272	
4	76	GOOD Thos	328-1784	
		HAASE Gerhard E	324-8772	7
4		HAKOS Alexander	328-2585	7
0		HAUSAMAN Robert C	00	+0
0		HERNESS Robt C	328-3785	9
5	36	HOCK A F	328-7355	
0		JONES Wiley M	328-5971	+0
4		KRIDER Harrison S	328-5058	+0
4		KUHL Ronald	328-2676	
5		LOPER Edw	328-5214	9
4		LUSTIG Jules	328-7978	
8	67	NECHANICKY Milo	328-7844	
0		NELSON R	324-1535	1
4		PULS Edith	328-8540	
		PULS J Harold	328-8540	
		SANCHEZ A J	328-7790	
0		SANCHEZ Lil	328-7790	
		SHAW Thos	328-3127	+0
6		SLAMEN Lorraine	324-0086	9
	38	SOBIESKI Bill	328-4844	
8	38	SOBIESKI Mary M	328-4844	
7	36200			
7	36913	XXXX	00	
6	37005	★SMART&FINAL IRIS	321-4805	8
8	37100	★EARRINGS HOUSE OF	324-9917	+0
0	37111	★A HEAD START HAIR	328-2893	5
8		★JANETS ALTERATIONS	321-6325	+0
7		★JOHNNIES BARBER SHP	324-4224	7
0		SALERNO John R	321-0748	+0
0	37250	XXXX	00	
0	★	178 BUS 253 IES	118 NEW	
6				
0				

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67600	XXXX	00	
67615	★STANDRD BRANDS PNT	321-2488	8
67625	BUILDING		
	★BOYER ARTURO E	00	5
	★CAT CLINIC	321-6434	+0
	★COCKCROFT R H DVM	321-6434	+0
	★CORTI RONALD	00	4
	★GENL TIRE	328-1144	
	★HIGH NOON BEER&BRGR	324-9079	4
	★LEONARDOS FURN FNSH	328-2505	
	★LUMPYS GLF&FSHN PLC	321-2437	9
	★MACDOWELL EDW A	328-2505	
	★MAPELLI MEAT CO	328-1200	5
	★MCDOWELL EDW A	328-2505	
	★MIDWAY AUTO BDY	324-3112	1
	★MIDWAY TIRE	328-1144	
2	★PALM SPG AUTO UPHL	328-9362	
	★VALLEY WD EQP RNTL	321-4300	6
	★WESSMAN CONSTR CO	328-3195	
	★WESSMAN JOHN	00	4
67625			
67711	KIMBERLING Sheila A	00	
67750	★TARGET STORES	321-7425	9
67751	DESERT HLS MBL PK		
	COOK Berneil	321-7396	9
	COOK Bradley	321-7641	9
	★DESERT HLS MBL PARK	328-2758	2
	DETSCH Bruce W	328-7933	
	DOCKTER Hope	00	4
	EBNER Gloria	324-6986	3
	GENTILE Frank	00	4
	GREER Elmer T	00	+0
	HORNER Glen	324-5144	4
	JOHNSON Evelyn L	00	4
	KELLOGG Jess	321-9991	+0
	KENDIS M	324-8578	6
	KIMBERLING Frank	328-6701	+0
	KIMBERLING Sheila	328-6701	+0
	KIRBY Alice M	328-9226	
68	KIRBY Claude H	328-9226	
	MACLIZ Carrie	321-7079	+0
	MIDDLETON Stephen P	321-6654	+0
	PORTER Gene	324-4953	
	ROBINSON David B	324-0964	7
	ROBINSON Jean M	324-0964	
	ROLFF Fred	328-5382	+0
	ROSS Al	00	4
	SCHMIDT Marie	321-6763	+0
	SHAPIRO Robt	321-0550	5
	WEINBERG A Brian	324-1425	
67751			
67770	★PALM DSRT NATL BANK	321-7770	7
67777	★CANYON MIRROR CNTR	328-8993	3
	★CROMWELL MENNE INS	324-1141	9
	★DEANS COMPUTER CNTR	324-2011	+0
	★DESERT SPECTRM GLSS	324-9313	+0
	★FURNITURE CNCPT INC	328-6615	+0
	★GORTZ JACK	328-8993	3
67780	★TRINITY ADOLESCENT	328-2747	+0
67788	XXXX	00	
67790	★THE WASH	321-9274	+0
	★WASH THE	321-9274	+0
67794	★DEL TACO RESTAURANT	328-1874	
67800	★SAV ON CARPETS	321-2595	7
67802	★CA PAC APPLNC INC	324-1622	9
67833	★NAUGLES DISTRICT	321-4859	+0
	★NAUGLES NO 467	321-1229	4
67853	★LOS PATIOS	324-8221	+0
67871	★MCDONALDS RSTRNTS	324-9004	2
67901	★ROCKS BAR	324-0688	7

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E PALM CANYON DR 1990



PALM CNYN DR E		92234 CONT..	
68700	XXXX	00	
68704	★SAUNDERS BERNRD DR	324-3340	
68706	XXXX	00	
68707	★CATHDRL CTY LIBRARY	328-4262	6
	★RIVRSD CO LIBRARY	328-4262	6
68716	★CATHDRL CTY GN STR	328-1816	8
	★LEVI STORE THE	328-1816	
68720	★SUSANS SEWIN CNTR	321-8877	9
68727	★CA ASCTN RTRD PRSNS	321-1548	
	★CATHDRL CTY SR CNTR	321-1548	
	★SENIOR CENTER	321-1548	+0
	★SENIOR CTZN NUTRITN	324-2477	8
68733	★CATHDRL CTY AUTO	328-8804	8
	HOLLANDER Julan W	00	7
	★N A P A AUTO PARTS	328-8804	
68736	★TRADING POST	328-9744	2
68759	★WINSTON TIRE CO	328-3417	
68762	★DESERT TAX SERVICE	324-5404	1
	KROLL John M	00	4
	★UNIVRSL TAX GROUP	324-0072	9
68783	★C C REALTY	324-9517	3
	★CATHDRL CTY C RLTY	324-9517	
	FAUX Art	324-3354	+0
	★INOVATIVE REHAB	321-0054	9
	★PROFSNL ELTRNC SERV	328-6738	6
	★R I X REAL EST SRVS	321-7376	+0
68791	XXXX	00	
68793	★INLAND EMPRE ACCTNG	328-6787	9
	★PENDLETON CHARLES	328-6787	
	★PENDLETON HUGH CPA	328-6787	9
68798	XXXX	00	
68805	★SHAME ON MOON REST	324-5515	8
68823	★ANGEL VW THRIFT 3	328-5306	
68830	★PALM SPG OIL CO	328-0885	
68864	HINDRICHS David G	00	4
	★STATUARY STORE	328-2873	3
68866	XXXX	00	
68869	★ARCO SWIFT STOP	328-3643	7
	CHO Hye J	00	7
68870	★SUN WORLD PATIO	324-0873	
68885	★CATHEDRAL FIRESTONE	324-0085	7
	★SERVICE AUTO PARTS	328-2183	5
68900	SAPPINGTON Gary	328-7133	5
68902	XXXX	00	
68904	XXXX	00	
68906	★POTTERY BARGAIN CTR	328-5623	9
68915	XXXX	00	
68930	★KENTUCKY FRIED CHKN	324-1055	4
68940	XXXX	00	
68950	★FOR YOU ONLY	328-9400	8
	★JUDYS DONUTS	328-9985	
	★STYLES ARLENE SALON	321-2226	8
	★TONIS BKXPG&TAX SRV	328-3899	+0
	★99 CENT VIDEO CLUB	324-3400	7
68961	★SONORA RESTAURANT	321-8546	+0
68977	PAOLI Cheryll A	00	7
	★PAOLIS PIZZERIA	324-3737	6
68981	★DADDY WARBUCKS	324-1022	4
69010	★CATHEDRAL SHELL	324-9931	9
69020	★VIDEO STOP	321-2571	4
69030	★SPROUSE REITZ STORE	328-7060	
69032	★FROSTYMANS YOGURT	328-7779	9
69034	★M T PASTRIES	328-8131	
	★MON TRESOR PASTRIES	328-8131	
69040	★ACCENTS HAIR SALON	324-9801	9
	★ARROW LOCK&KEY	328-1723	8
	★CHIEF AUTO PARTS	324-9579	3
	★HIGHLANDER LAUNDRY	324-9097	+0
	★ROSE CO THE	321-4320	9
	TEDDER John C	00	4
	★TRAVEL SHOPPE THE	328-2171	3
69048	★DUNN ROGER GOLF SHP	324-1160	6
	★ROGER DUNN GOLF	324-1160	6
69050	★DENNYS RESTAURANT	328-8787	6
69151	BORETA John A	00	7
	★LEXINGTON HTL SUITE	324-5939	6
69200	★PALM SPG FORD LNCLN	328-2102	
	★PALM SPG MOTORS INC	328-2102	

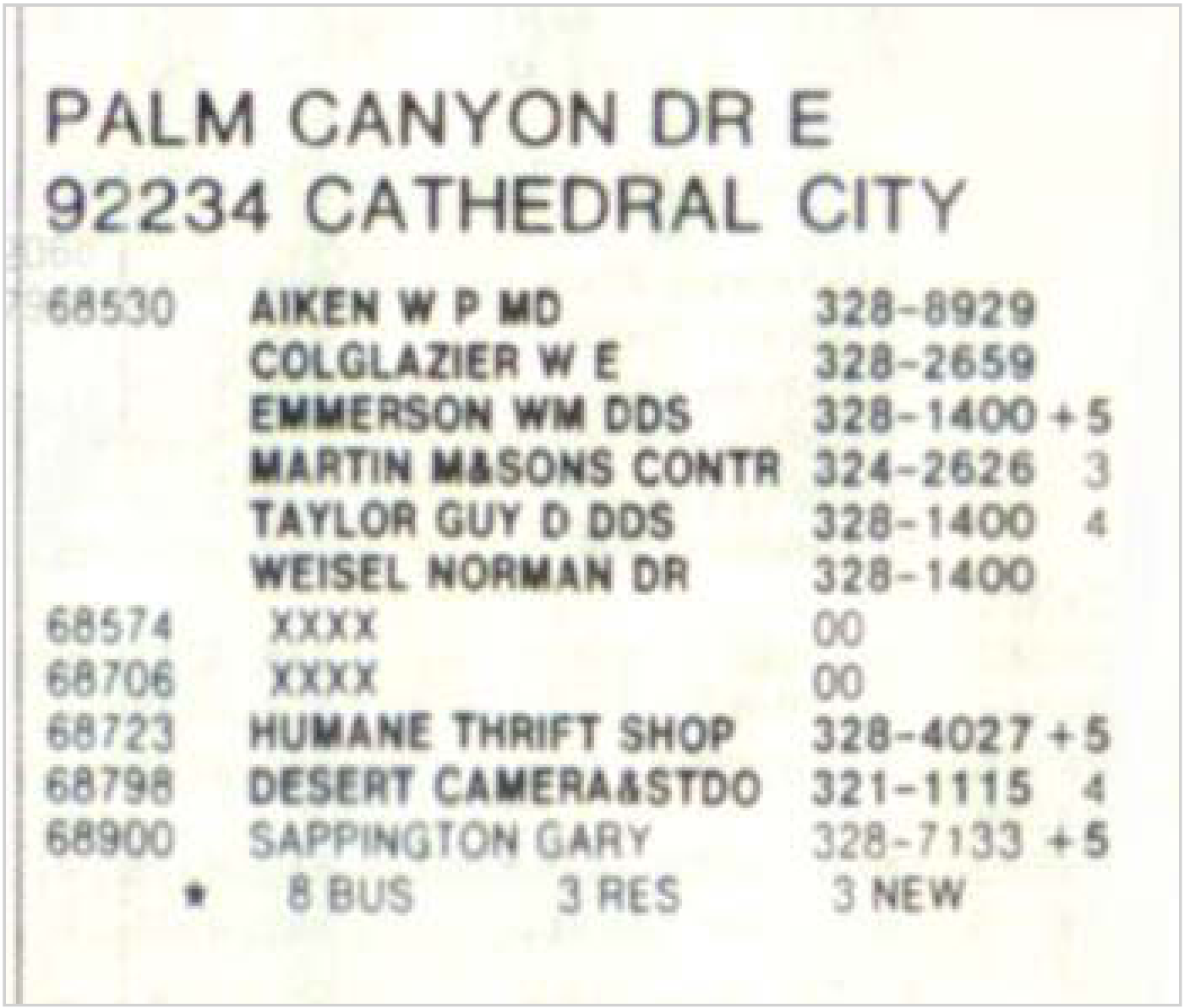
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35975	**COMMONWEALTH BANK**	**328-8864**	4
36100	APARTMENTS		
	AKE PARKER	328-4518	+5
	BACKUS JOS	324-6146	+5
	COOPER JOHN	321-1554	+5
	DEANZA PM SPG OASIS	**328-4813**	0
	EGGERT ORREN W	324-7321	3
	FITCH CHAS H	321-2490	+5
	HANNAN GORDON	321-1505	3
	HENRY WM R	324-1361	2
	HEPPNER PETER	321-1168	+5
	HICKS D B	324-3926	+5
	LECH NICHOLAS	321-1109	+5
	LEGER RICHARD	324-7432	+5
	MCKEONE WM R	324-7289	+5
	MILLHOLLIN MAX	321-2503	+5
	OASIS REC VEHCLE PK	**328-4813**	7
	RECREATION VCHL PK	**328-4813**	9
	RICKS CHARLIE	324-2455	4
	RYERSON GEO	328-1297	+5
	WIEGAND LEO	324-0341	3
	WINCZURA ALFRED	324-7945	+5
36100			
36200	PALM SPGS MBL CLB		
51	ABRUMS JOS H	328-3747	
	BALDWIN C H	328-4331	+5
	BARRY FRANCIS R	328-7775	7
10	BEARDSLEY WINTHROP	328-7364	8
	BRYAN ALLAN	324-6782	+5
24	COBURN ROBT W	328-5162	
	CONROW HARRY	328-6424	2
	COONEN HARRY S	328-6633	6
72	CURRY RICARD C	324-2552	9
	DEANZA PM CLB ADMIN	**328-6514**	9
	DEANZA PM SPGS CLUB	**328-1315**	3
	DEANZA PM SPGS GOLF	**324-7575**	2
	EKHOFF CLARENCE J	328-3482	8
61	FIENMAN OLA	328-8272	
76	GOOD THOS	328-1784	
33	GRAHN PAT	328-7206	7
32	GRAY AL	328-9358	6
36	HOCK A F	328-7355	
70	HORNKOHL CLAIRECE	328-2849	
	KUHL RONALD	328-2676	
	LEVINE JOS	328-6198	
31	LIKAS GENE	328-3785	
	LUSTIG JULES	328-7978	
	MACK NICKIE	321-1961	4
15	MANNING THEODORE	328-4821	7
07	MCCORD JIM	328-6725	
67	NECHANICKY MILO	328-7844	
	NELSON R	324-1535	1
	OWENS MARGUERITE	328-2849	
5	PETERSON B L	328-7643	
	PULS J HAROLD	328-8540	
91	SANCHEZ A J	328-7790	6
	SHAMEL BERT A	328-5214	2
38	SOBIESKI BILL	328-4844	
38	SOBIESKI MARY M	328-4844	
	STUTE HELEN	328-8547	2
	ULF FRANKLIN E JR	324-9129	3
70	WENCK A H	328-7258	7
36200			
36913	**FIRE DP CATHRDL CTY**	**328-3884**	8
	RIVRSD CO FIRE BUS	**328-3884**	2
37100	**LONNIES BARBR**	**324-4224**	1
37111	**A HEAD START HAIR**	**328-2893**	+5
	COTTAGE BARBER SHOP	**324-2264**	4
	PACK RAT THE	**324-3000**	+5
	SISTER MARIES READR	**324-9022**	4
37250	BOUGIE MARY	324-9187	4
	★ 101 BUS 263 RES	108 NEW	

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PALM CANYON DR E
92234 CATHEDRAL CITY

68530	AIKEN W P MD	328-8929	
	COLGLAZIER W E	328-2659	
	EMMERSON WM DDS	328-1400	+5
	MARTIN M&SONS CONTR	324-2626	3
	TAYLOR GUY D DDS	328-1400	4
	WEISEL NORMAN DR	328-1400	
68574	XXXX	00	
68706	XXXX	00	
68723	HUMANE THRIFT SHOP	328-4027	+5
68798	DESERT CAMERA&STDO	321-1115	4
68900	SAPPINGTON GARY	328-7133	+5

• 8 BUS 3 RES 3 NEW

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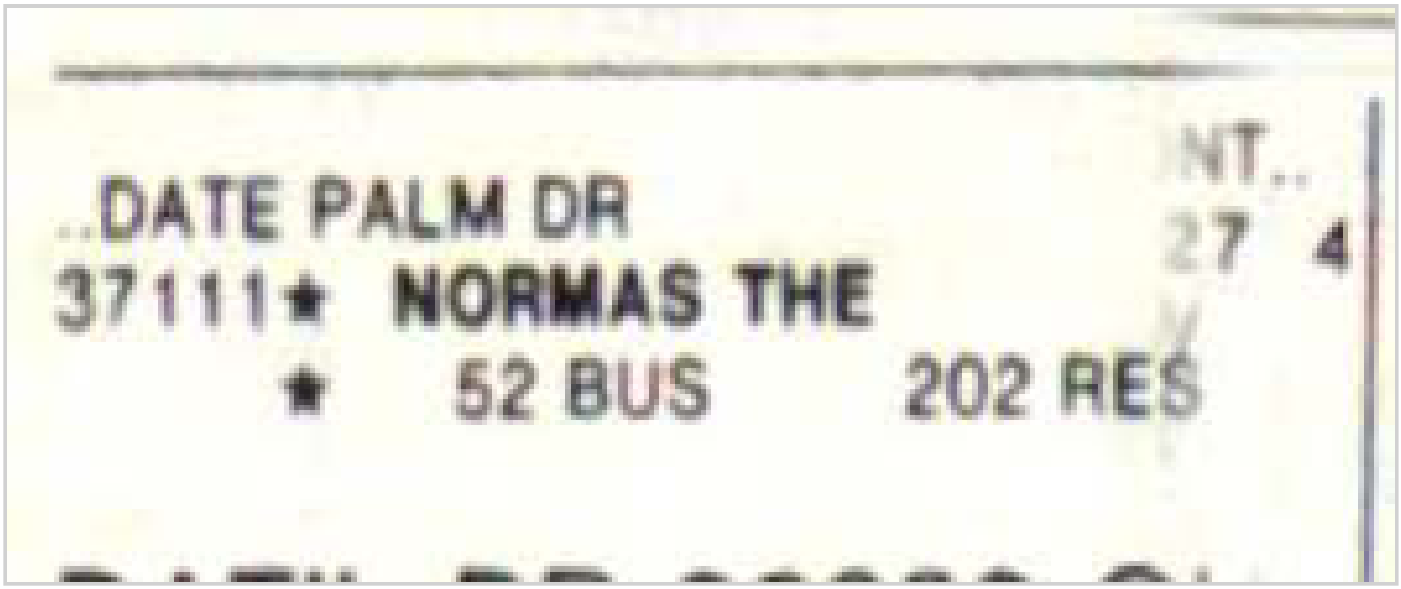
DATE PALM DR 1980



	35460	★ MAJESTIC HOMES	324-1661	+0
	35472	★ CIRCLE K FD ST 838	328-2545	5
	36100	CALNTE SNDS MBL CLB		
		BARBER RAYMOND E	328-6791	+0
	95	BEARD O L	328-7231	9
0		BECOT C DOREEN	328-4574	+0
0		BENSON JIM	324-4372	+0
	41	CARLSON CLARENCE J	324-2410	8
5		CRUDUP ED	324-1554	+0
	★	DEANZA PM SPS OASIS	328-4813	+0
9		FANCHER ROY	328-3556	+0
9		FEAGLE JACKIE E	328-9134	+0
0	42	GROVES L	328-7540	7
9		HALEY CHESTER	328-9838	+0
5		JACK ROBT	324-3653	+0
		JONES ROBT	324-3089	+0
0		LAYFAY ROLAND F	324-3597	+0
		MCCUNE ROGER	328-5647	+0
7	40	MEHUS NORMAN I	328-9816	7
	86	NELLES V R	324-2405	8
8	★	OASIS REC VEHCLE PK	328-4813	7
9	★	RECREATION VCHL PK	328-4813	9
		RUTECKI JOHN E	324-4255	+0
		SANDERSON ALAN	324-2904	+0
	23	SCHILLING ROBT H	328-0934	7
0	83	SMYTH R	324-2473	8
6		SNOW VERNON E	328-2790	9
0		SOSEBEE DWIGHT H	324-3831	+0
0	43	STEERS CY W	328-7381	
0	31	STUCKER JACK L	328-9804	7
0		STUCKER NORMAN	328-1032	+0
	111	WALLACE O W	328-8268	5
0	21	WATKINS CLAYTON K	328-3443	7
8	64	WEBSTER BILL	328-7914	9
8	37	WRIGHT LARRY	328-5887	6
5		ZACHARY JACK	328-4563	+0
8	36100			
4	36200	PALM SPGS MBL CLB		
9	51	ABRUMS JOS H	328-3747	4
6	126	ANDERSON IRENE H	328-2881	4
6	126	ANDERSON LAWRENCE	328-2881	4
0	116	BARRY FRANCIS R	328-7775	7
0	198	BEAN WM S	328-7686	
7	10	BEARDSLEY WINTHROP	328-7364	8
4	192	BECK KENNETH	328-5907	4
4	169	BICK RICHARD C	328-4645	
8	231	BOOKIN NATHAN	328-1628	4
5		BREWSTER FRANK W	328-2501	5
9	145	BUCKMASTER PAULA	328-6771	5
6	93	CLARK KEN C	328-4798	6
0	★	COACH ROOM RSTRNTS	324-3200	9
0	★	COACH ROOM RSTRNTS	324-3400	9
9	124	COBURN ROBT W	328-5162	4
8	1	CONROW HARRY	328-6424	9
0		COONEN HARRY S	328-6633	6
7	272	CURRY RICARD C	324-2552	9
8	90	DAVIDSON RAYMOND	328-3546	4
0	★	DEANZA PM CLB ADMIN	328-6514	9
9	★	DEANZA PM CLB GOLF	328-1315	9
5	★	DEANZA PM CLB PRO	324-4168	+0
8	185	DISTERDICK ROBT H	328-7645	
6	171	EKHOFF CLARENCE J	328-3482	8
8	161	FIENMAN OLA	328-8272	5
5	84	FINEMAN LOUIS	328-2783	4
0	237	FISHER B J	328-8547	5
0	98	GETTLEMAN M H	328-5378	4
7	118	GODAR EDW G	328-4025	
7	176	GOOD THOS	328-1784	4
4	233	GRAHN PAT	328-7206	7
4	132	GRAY AL	328-9358	6
4		HAINES ART	328-6636	+0
7	310	HENDERSON ROBT R	328-7823	8
4	116	HILLS GEO F	328-0021	6
7	136	HOCK A F	328-7355	5
9	170	HORNKOHL CLAIRECE	328-2849	4
8		HOUGH L E	328-7361	
9		KUHL RONALD	328-2676	4
0	247	LAMASA JOE	328-2347	6
0		LEVINE JOS	328-6198	4
9	131	LIKAS GENE	328-3785	
9	190	LININGER EARL E	328-6765	
0	84	LUSTIG JULES	328-7978	4
5	515	MANNING THEODORE	328-4821	7
5	107	MCCORD JIM	328-6725	4
6	277	MCCOY F R	324-3498	9
8	67	NECHANICKY MILO	328-7844	4
9		OWENS MARGUERITE	328-2849	4
6	5	PETERSON B L	328-7643	4
0	172	PINE ANN	328-3508	5
6	212	PROUT WM	328-7987	4
4	243	PULS J HAROLD	328-8540	5
7	191	SANCHEZ A J	328-7790	6
7	241	SEABECK LEONARD J	328-7996	5
5	38	SOBIESKI BILL	328-4844	5
8	38	SOBIESKI MARY M	328-4844	5
9	167	SUPPE W F MRS	328-5075	
9	156	TARR EVELYN	328-5777	5
8		TWYSEL ROBBERT	324-4709	+0
0	12	WEBB JOHN	328-7722	
8	70	WENCK A H	328-7258	7
9	125	WINSTON JAS R	328-3344	4
6	507	WINTERRINGER O K	328-8003	5
4	160	YOUNGBLOOD WM M	328-3501	5
8	36200			
7	36300	★ HOME SHOW BY ROBERT	328-8906	+0
0	★	ROBERTS R C&CO	324-3910	+0
6	36913	★ CO RVRSD FR CTHDRL	328-3884	+0
5	★	FIRE DP CTHDRL CTY	328-3884	8
0	37100	★ ACQUIRE REAL ESTATE	328-0833	7

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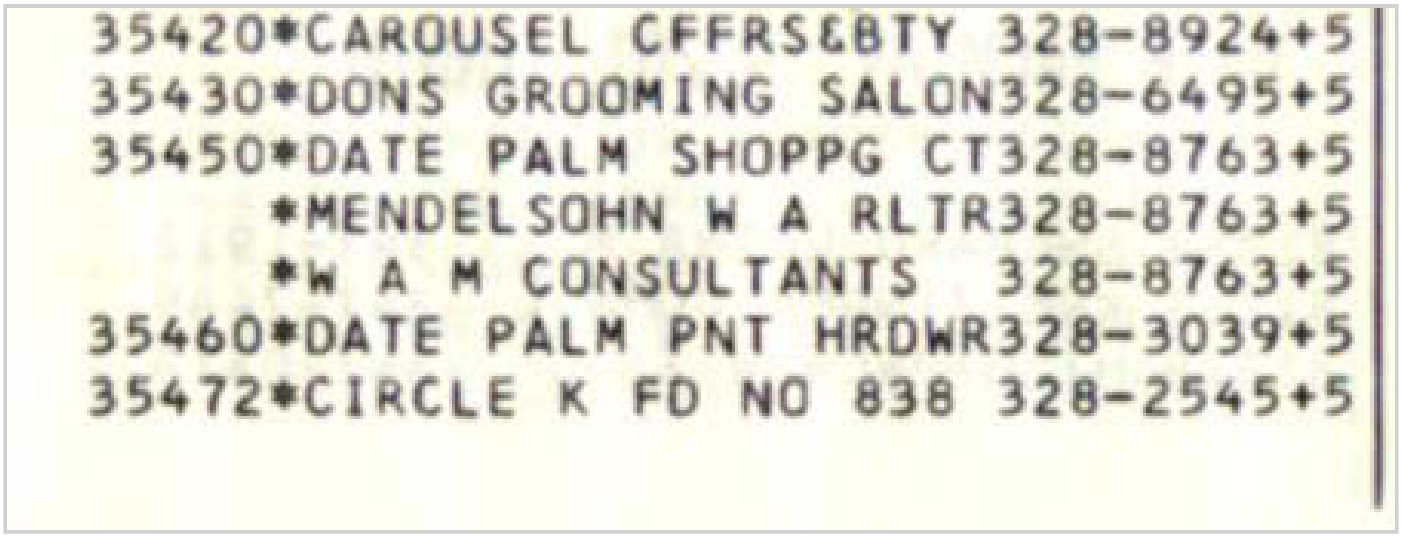
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68459★	SUN AIR PHARMACY	328-2115	4
68461★	SUNAIR LIQUOR SERV	328-4217	
68467	XXXX	00	
68469★	BEAUTE BY BEDFORD	328-3931	
68470★	A&M PATIO SHOP	328-4117	
68474	XXXX	00	
68477★	SUN AIRE DRESS SHOP	328-2541	
68479★	BILLS HAIRSTYLING	328-3938+0	
68480	XXXX	00	
68484	XXXX	00	
68615	XXXX	00	
68830	XXXX	00	9
69030★	SPROUSE REITZ STORE	328-7014	6
69040★	JOHNS BOOTERIE	328-6[illegible]	
★	124 BUS 107 RES	64 NEW	

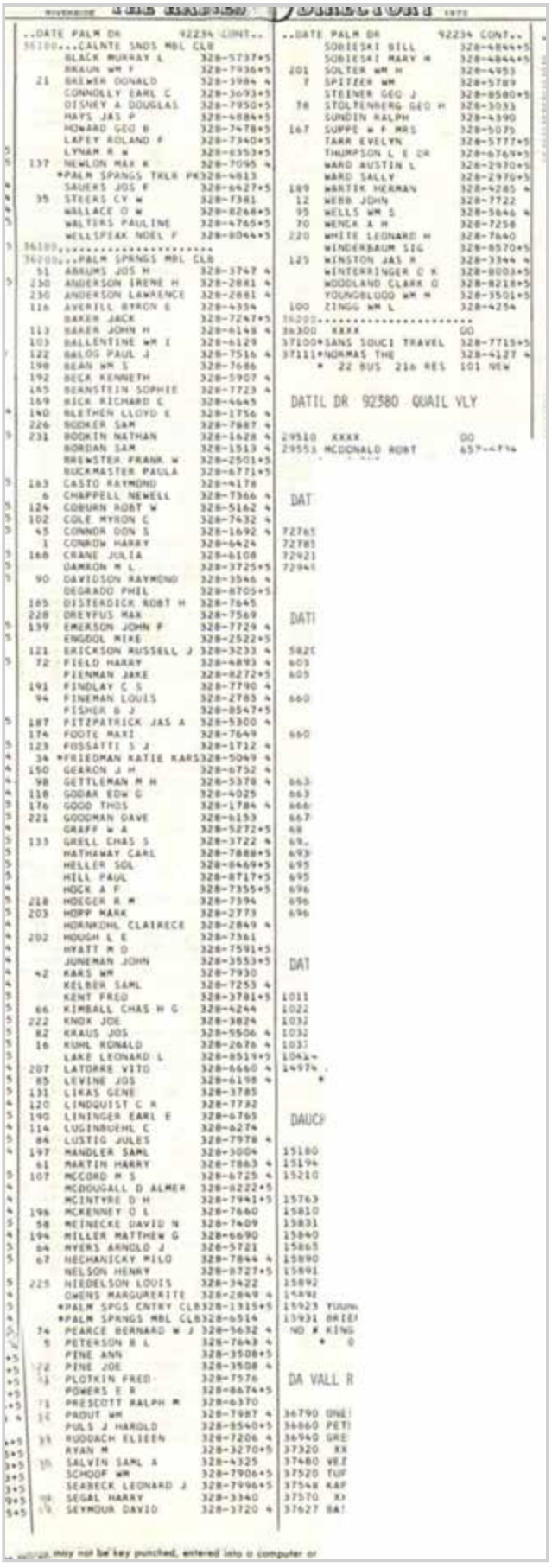
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..DATE PALM DR 92234 CONT..

56100...CALNTE SNDS MBL CLB
BLACK MURRAY L 328-5737+5
BRAUN WM F 328-7936+5
21 BREWER DONALD 328-3984 4
CONNOLLY EARL C 328-3693+5
DISNEY A DOUGLAS 328-7950+5
HAYS JAS P 328-4884+5
HOWARD GEO B 328-7478+5
LAFEY ROLAND F 328-7340+5
5 LYNAM R W 328-6353+5
5 137 NEWLON MAX K 328-7095 4
*PALM SPRNGS TRLR PK328-4813
4 SAUERS JOS F 328-6427+5
4 35 STEERS CY W 328-7381
WALLACE O W 328-8268+5
5 WALTERS PAULINE 328-4765+5
WELLSPEAK NOEL F 328-8044+5
5 36100,.....
36200...PALM SPRNGS MBL CLB
51 ABRAMS JOS H 328-3767 4
5 230 ANDERSON IRENE H 328-2881 4
230 ANDERSON LAWRENCE 328-2881 4
116 AVERILL BYRON E 328-4354
BAKER JACK 328-7247+5
113 BAKER JOHN H 328-6148 4
103 BALLENTINE WM I 328-6129
122 BALOG PAUL J 328-7516 4
198 BEAN WM S 328-7686
192 BECK KENNETH 328-5907 4
165 BERNSTEIN SOPHIE 328-7723 4
169 BICK RICHARD C 328-4645
4 140 BLETHEN LLOYD E 328-1756 4
226 BOOKER SAM 328-7887 4
5 231 BOOKIN NATHAN 328-1628 4
BORDAN SAM 328-1513 4
BREWSTER FRANK W 328-2501+5
BUCKMASTER PAULA 328-6771+5
5 163 CASTO RAYMOND 328-4178
6 CHAPPELL NEWELL 328-7366 4
5 124 COBURN ROBT W 328-5162 4
5 102 COLE MYRON C 328-7432 4
5 45 CONNOR DON S 328-1692 4
1 CONROW HARRY 328-6424
5 168 CRANE JULIA 328-6108
5 DAMRON M L 328-3725+5
5 90 DAVIDSON RAYMOND 328-3546 4
DEGRADO PHIL 328-8705+5
165 DISTERDICK ROBT H 328-7645
228 DREYFUS MAX 328-7569
5 139 EMERSON JOHN F 328-7729 4
5 ENGDOL MIKE 328-2522+5
121 ERICKSON RUSSELL J 328-3233 4
5 72 FIELD HARRY 328-4893 4
FIENMAN JAKE 328-8272+5
191 FINDLAY C S 328-7790 4
94 FINEMAN LOUIS 328-2783 4
FISHER B J 328-8547+5
5 187 FITZPATRICK JAS A 328-5300 4
174 FOOTE MAXI 328-7649
5 123 FOSSATTI S J 328-1712 4
4 34 *FRIEDMAN KATIE KARS328-5049 4
4 150 GEARON J H 328-6752 4
4 98 GETTLEMAN M H 328-5378 4
3 118 GODAR EDW G 328-4025
3 176 GOOD THOS 328-1784 4
5 221 GOODMAN DAVE 328-6153
4 GRAFF W A 328-5272+5
5 133 GRELL CHAS S 328-3722 4
5 HATHAWAY CARL 328-7888+5
5 HELLER SOL 328-8469+5
5 HILL PAUL 328-8717+5
4 HOCK A F 328-7355+5
5 218 HOEGER R M 328-7394
5 203 HOPP MARK 328-2773
4 HORNKOHL CLAIRECE 328-2849 4
4 202 HOUGH L E 328-7361
4 HYATT M D 328-7591+5
4 JUNEMAN JOHN 328-3553+5
4 42 KARS WM 328-7930
4 KELBER SAML 328-7253 4
5 KENT FRED 328-3781+5
5 66 KIMBALL CHAS H G 328-4244
5 222 KNOX JOE 328-3824
5 82 KRAUS JOS 328-5506 4
5 16 KUHL RONALD 328-2676 4
5 LAKE LEONARD L 328-8519+5
4 207 LATORRE VITO 328-6660 4
5 85 LEVINE JOS 328-6198 4
5 131 LIKAS GENE 328-3785
4 120 LINDQUIST C R 328-7732
5 190 LININGER EARL E 328-6765
4 114 LUGINBUEHL C 328-6274
5 84 LUSTIG JULES 328-7978 4
4 197 MANDLER SAML 328-3004
61 MARTIN HARRY 328-7863 4
5 107 MCCORD M S 328-6725 4
4 MCDOUGALL D ALMER 328-8222+5
4 MCINTYRE D H 328-7941+5
4 196 MCKENNEY O L 328-7660
5 58 MEINECKE DAVID N 328-7409
4 194 MILLER MATTHEW G 328-6690
5 64 MYERS ARNOLD J 328-5721
5 67 NECHANICKY MILO 328-7844 4
NELSON HENRY 328-8727+5
5 225 NIEDELSON LOUIS 328-3422
4 OWENS MARGUERITE 328-2849 4
5 *PALM SPGS CNTRY CLB328-1315+5
4 *PALM SPRNGS MBL CLB328-6514
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5 PETERSON B L 328-7643 4
PINE ANN 328-3508+5
+5 72 PINE JOE 328-3508 4
+5 PLOTKIN FRED 328-7576
+5 POWERS E R 328-8674+5
+5 PRESCOTT RALPH M 328-6370
4 PRDUT WM 328-7987 4
PULS J HAROLD 328-8540+5
+5 RUDDACH ELEEN 328-7206 4
5+5 RYAN M 328-3270+5
5+5 SALVIN SAML A 328-4325
3+5 SCHOOF WM 328-7906+5
3+5 SEABECK LEONARD J 328-7996+5
9+5 SEGAL HARRY 328-3340
5+5 SEYMOUR DAVID 328-3720 4

..DATE PALM DR 92234 CONT..
SOBIESKI BILL 328-4844+5
SOBIESKI MARY M 328-4844+5
201 SOLTER WM H 328-4953
7 SPITZER WM 328-5789
STEINER GEO J 328-8580+5
76 STOLTENBERG GEO H 328-3033
SUNDIN RALPH 328-4390
167 SUPPE W F MRS 328-5075
TARR EVELYN 328-5777+5
THUMPSON L E DR 328-6769+5
WARD AUSTIN L 328-2930+5
WARD SALLY 328-2970+5
189 WARTIK HERMAN 328-4285 4
12 WEBB JOHN 328-7722
95 WELLS WM S 328-5846 4
70 WENCK A H 328-7258
220 WHITE LEONARD H 328-7640
WINDERBAUM SIG 328-8570+5
125 WINSTON JAS R 328-3344 4
WINTERRINGER O K 328-8003+5
WOODLAND CLARK O 328-8218+5
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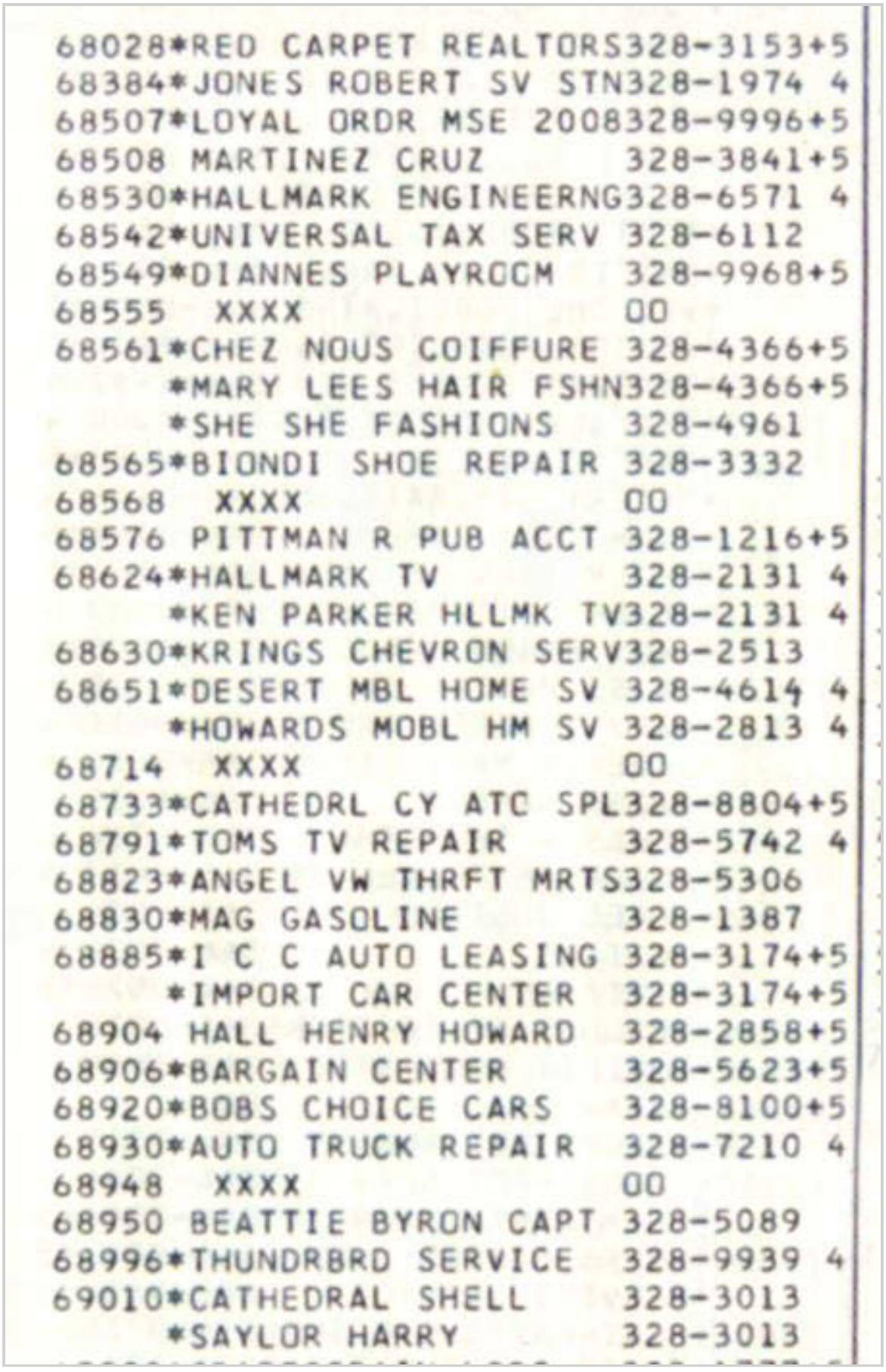
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36790 ONE
36860 PET
36940 GRE
37320 XX
37480 VEZ
37520 TUF
37548 KAF
37570 XX
37627 BA

may not be key punched, entered into a computer or

Target Street	Cross Street	Source
✓	-	Haines Criss-Cross Directory

E PALM CANYON DR 1975



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68028*RED CARPET REALTORS328-3153+5
68384*JONES ROBERT SV STN328-1974 4
68507*LOYAL ORDR MSE 2008328-9996+5
68508 MARTINEZ CRUZ       328-3841+5
68530*HALLMARK ENGINEERNG328-6571 4
68542*UNIVERSAL TAX SERV 328-6112
68549*DIANNES PLAYROOM   328-9968+5
68555  XXXX               OO
68561*CHEZ NOUS COIFFURE 328-4366+5
     *MARY LEES HAIR FSHN328-4366+5
     *SHE SHE FASHIONS   328-4961
68565*BIONDI SHOE REPAIR 328-3332
68568  XXXX               OO
68576 PITTMAN R PUB ACCT 328-1216+5
68624*HALLMARK TV         328-2131 4
     *KEN PARKER HLLMK TV328-2131 4
68630*KRINGS CHEVRON SERV328-2513
68651*DESERT MBL HOME SV 328-4614 4
     *HOWARDS MOBL HM SV 328-2813 4
68714  XXXX               OO
68733*CATHEDRL CY ATC SPL328-8804+5
68791*TOMS TV REPAIR      328-5742 4
68823*ANGEL VW THRFT MRTS328-5306
68830*MAG GASOLINE        328-1387
68885*I C C AUTO LEASING 328-3174+5
     *IMPORT CAR CENTER  328-3174+5
68904 HALL HENRY HOWARD  328-2858+5
68906*BARGAIN CENTER      328-5623+5
68920*BOBS CHOICE CARS    328-8100+5
68930*AUTO TRUCK REPAIR   328-7210 4
68948  XXXX               OO
68950 BEATTIE BYRON CAPT 328-5089
68996*THUNDRBRD SERVICE   328-9939 4
69010*CATHEDRAL SHELL     328-3013
     *SAYLOR HARRY       328-3013
```

Agua Caliente Band of Cahuilla Indian
NWC Highway 111 and Date Palm Drive
Cathedral City, CA 92234

Inquiry Number: 4977808.6
June 26, 2017

The EDR Property Tax Map Report

Environmental Data Resources Inc

6 Armstrong Road
Shelton, CT 06484
800.352.0050
www.edrnet.com

EDR Property Tax Map Report

Environmental Data Resources, Inc.'s EDR Property Tax Map Report is designed to assist environmental professionals in evaluating potential environmental conditions on a target property by understanding property boundaries and other characteristics. The report includes a search of available property tax maps, which include information on boundaries for the target property and neighboring properties, addresses, parcel identification numbers, as well as other data typically used in property location and identification.

NO COVERAGE

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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Agua Caliente Band of Cahuilla Indian
NWC Highway 111 and Date Palm Drive
Cathedral City, CA 92234

Inquiry Number: 4977808.7
June 27, 2017

EDR Environmental Lien and AUL Search

EDR® Environmental Data Resources Inc

6 Armstrong Road
Shelton, CT 06484
800.352.0050
www.edrnet.com

EDR Environmental Lien and AUL Search

The EDR Environmental Lien and AUL Search Report provides results from a search of available current land title records for environmental cleanup liens and other activity and use limitations, such as engineering controls and institutional controls.

A network of professional, trained researchers, following established procedures, uses client supplied address information to:

- search for parcel information and/or legal description;
- search for ownership information;
- research official land title documents recorded at jurisdictional agencies such as recorders' offices, registries of deeds, county clerks' offices, etc.;
- access a copy of the deed;
- search for environmental encumbering instrument(s) associated with the deed;
- provide a copy of any environmental encumbrance(s) based upon a review of key words in the instrument(s) (title, parties involved, and description); and
- provide a copy of the deed or cite documents reviewed.

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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EDR Environmental Lien and AUL Search

TARGET PROPERTY INFORMATION

ADDRESS

NWC Highway 111 and Date Palm Drive
Agua Caliente Band of Cahuilla Indian
Cathedral City, CA 92234

RESEARCH SOURCE

Source 1:

Riverside Recorder
Riverside, CA

PROPERTY INFORMATION

Deed 1:

Type of Deed:	deed
Title is vested in:	City Urban Revitalization Corp
Title received from:	City of Cathedral City
Deed Dated	4/22/2015
Deed Recorded:	5/1/2015
Book:	NA
Page:	na
Volume:	na
Instrument:	na
Docket:	NA
Land Record Comments:	
Miscellaneous Comments:	
Legal Description:	See Exhibit
Legal Current Owner:	City Urban Revitalization Corp
Parcel # / Property Identifier:	687-205-005
Comments:	See Exhibit

ENVIRONMENTAL LIEN

Environmental Lien: Found ☐ Not Found ☒

OTHER ACTIVITY AND USE LIMITATIONS (AULs)

AULs: Found ☐ Not Found ☒

Deed Exhibit 1

Recording Requested By
First American Title Company
National Commercial Services

DOC # 2015-0181172
05/01/2015 04:53 PM Fees: $61.00
Page 1 of 13 Doc T Tax Paid
Recorded in Official Records
County of Riverside
Peter Aldana
Assessor, County Clerk & Recorder

This document was electronically submitted to the County of Riverside for recording
Receipted by: TVERBA

WHEN RECORDED MAIL TO AND
MAIL TAX STATEMENTS TO:

City Urban Revitalization Corporation
68700 Avendia Lalo Guerrero
Cathedral City, CA 92234
Attn: Tami Scott

NCS - 708767
DTT $768.90

Space Above This Line for Recorder's Use

APN : as shown on Exhibit "A"
TRA: 019-038, 019-002

GRANT DEED

FOR VALUE RECEIVED, THE SUCCESSOR AGENCY TO THE REDEVELOPMENT AGENCY OF THE CITY OF CATHEDRAL CITY, a public body, corporate and politic, as ("Grantor") hereby grants to CITY URBAN REVITALIZATION CORPORATION, a California non-profit corporation ("Grantee") that certain real property (the "Property") situated in the City of Cathedral City, County of Riverside, State of California, described in Exhibit "A" hereto, incorporated herein by reference. **WHO ACQUIRED TITLE AS SHOWN ON EXHIBIT "B" ATTACHED HERETO

THE PROPERTY IS CONVEYED TO GRANTEE SUBJECT TO:

A. All liens, encumbrances, easements, covenants, conditions and restrictions of record; and

B. Liens for taxes on real property and liens for any general or special assessments of record against the Property.

C. The following covenants concerning non-discrimination:

1. Grantee agrees that the covenants set forth in this Paragraph C shall bind it, for itself and its successors and assigns, and all subsequent holders of any interest in the Property. The covenants set forth in this Paragraph C shall be covenants running with the Property.

2. There shall be no discrimination against or segregation of any person or group of persons on account of race, color, creed, religion, sex, marital status, sexual orientation, domestic arrangement, national origin or ancestry in the development, construction, sale, lease, sublease, transfer, use, occupancy, tenure or enjoyment of the Property, or any interest to be conveyed therein, nor shall Grantee or any grantees or any persons claiming under or through the Grantee establish or permit any such practice or practices of discrimination or segregation with reference to the selection, location, number, use or occupancy of tenants, lessees, subtenants, sublessees or vendees in the Property. This

covenant shall remain in effect in perpetuity.

3. All of the foregoing agreements and covenants shall run with the land, and shall inure to the benefit of and be enforceable by Grantor, and the City of Cathedral City, California ("City"), which is specifically made a third party beneficiary of these covenants, and their successors and assigns.

4. In the event of any breach of the covenants contained herein, Grantor and/or the City shall have the right to exercise all the rights and remedies available at law or in equity to enforce these covenants.

IN WITNESS WHEREOF, the undersigned Grantor has executed this Grant Deed as of April 22, , 2015.

SUCCESSOR AGENCY TO THE REDEVELOPMENT AGENCY OF CATHEDRAL CITY,
a public body, corporate and politic.
(Grantor)

By _____
City Manager
Charles P McClendon

Attest:

_____
Secretary of the Successor Agency

CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT **CIVIL CODE § 1189**

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California)
County of Riverside)

On 4/22/15 before me, Jim L. Sherman, Notary Public,
Date *Here Insert Name and Title of the Officer*

personally appeared Charles P. McClendon
Name(s) of Signer(s)

who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

JIM L. SHERMAN
Commission # 2054335
Notary Public - California
Riverside County
My Comm. Expires Feb 2, 2018

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature
Signature of Notary Public

Place Notary Seal Above

OPTIONAL

Though this section is optional, completing this information can deter alteration of the document or fraudulent reattachment of this form to an unintended document.

Description of Attached Document

Title or Type of Document: _____ Document Date: _____

Number of Pages: _____ Signer(s) Other Than Named Above: _____

Capacity(ies) Claimed by Signer(s)

Signer's Name:	Signer's Name:
☐ Corporate Officer — Title(s):	☐ Corporate Officer — Title(s):
☐ Partner — ☐ Limited ☐ General	☐ Partner — ☐ Limited ☐ General
☐ Individual ☐ Attorney in Fact	☐ Individual ☐ Attorney in Fact
☐ Trustee ☐ Guardian or Conservator	☐ Trustee ☐ Guardian or Conservator
☐ Other:	☐ Other:
Signer Is Representing:	Signer Is Representing:

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Exhibit "A"
LEGAL DESCRIPTION

Real property in the City of Cathedral City, County of Riverside, State of California, described as follows:

PARCEL 1: (PORTION 687-180-005)

THAT PORTION OF THE NORTHEAST ONE-QUARTER OF SECTION 33, TOWNSHIP 4 SOUTH, RANGE 5 EAST, IN THE COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, ACCORDING TO THE OFFICIAL PLAT THEREOF, DESCRIBED AS FOLLOWS:

BEGINNING AT THE NORTHEAST CORNER OF LOT "G" (ALSO KNOWN AS ALLEN AVENUE) AS SHOWN ON MAP OF CATHEDRAL CITY, AS PER MAP RECORDED IN BOOK 13, PAGES 24 TO 26 OF MAPS, RECORDS OF RIVESIDE COUNTY, CALIFORNIA;

THENCE SOUTH 89° 57' 26" WEST ALONG THE NORTH LINE OF SAID LOT "G", A DISTANCE OF 40.00 FEET TO THE NORTHEAST CORNER OF LOT "AA" (THIRD STREET) AS SHOWN ON SAID MAP OF CATHEDRAL CITY, SAID POINT BEING THE TRUE POINT OF BEGINNING; THENCE NORTH 0° 02' 34" WEST ALONG THE NORTHERLY PROLONGATION OF THE EAST LINE OF SAID LOT "AA" TO A POINT ON THE NORTH RIGHT OF WAY LINE OF CATHEDRAL CANYON CHANNEL; THENCE NORTH 69° 59' 21" WEST ALONG SAID NORTH LINE OF THE CHANNEL A DISTANCE OF 28.11 FEET; THENCE NORTH 89° 54' WEST A DISTANCE OF 261.89 FEET TO A POINT; THENCE NORTH 69° 49' 19" WEST A DISTANCE OF 353.16 FEET TO A POINT ON A LINE THAT IS THE NORTHERLY PROLONGATION OF THE EAST LINE OF VAN FLEET AVENUE; THENCE SOUTH 0° 06' WEST ALONG SAID EAST LINE OF VAN FLEET AVENUE TO THE NORTH LINE OF LOT "AA" (THIRD STREET); THENCE ALONG THE NORTH LINE OF LOT "AA" NORTH 89° 54' EAST 620 FEET, MORE OR LESS, TO THE TRUE POINT OF BEGINNING.

PARCEL 2: (PORTION OF 687-180-005)

LOTS 10, 11, 12, "AA", (THIRD STREET) AND THE WEST HALF OF "G" (ALLEN AVENUE) OF MAP OF CATHEDRAL CITY, IN THE COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 13, PAGES 24 TO 26 OF MAPS, RECORDS OF RIVERSIDE COUNTY, CALIFORNIA, AND AS VACATED BY RESOLUTION OF THE BOARD OF SUPERVISORS OF RIVERSIDE COUNTY, WITH RESOLUTIONS ARE RECORDED NOVEMBER 14, 1939, AS INSTRUMENT NO. 760 IN BOOK 438, PAGE 466 AND JULY 29, 1955, AS INSTRUMENT NO. 49723 IN BOOK 1774, PAGE 40, BOTH OF OFFICIAL RECORDS.

PARCEL 3: (687-201-001)

THE WEST 100 FEET OF LOT 44 OF CATHEDRAL CITY, AS PER MAP RECORDED IN BOOK 13, PAGES 24 TO 26 OF MAPS, RECORDS OF RIVERSIDE COUNTY, CALIFORNIA.

PARCEL 4: (687-201-002)

THE EAST 50 FEET OF THE WEST 150 FEET OF LOT 44 OF CATHEDRAL CITY, AS SHOWN BY MAP ON FILE IN BOOK 13, PAGES 24 TO 26 OF MAPS, RECORDS OF RIVERSIDE COUNTY, CALIFORNIA.

PARCEL 5: (687-201-003)

THE EAST 50 FEET OF LOT 44 OF THE SUBDIVISION OF CATHEDRAL CITY, AS SHOWN BY MAP ON FILE IN BOOK 13 PAGES 24 TO 26 OF MAPS, RECORDS OF RIVERSIDE COUNTY, CALIFORNIA.

PARCEL 6: (687-201-004)

THE WEST 100 FEET OF LOT 45 OF CATHEDRAL CITY, AS SHOWN BY MAP ON FILE IN BOOK 13, PAGES 24 TO 26 OF MAPS, RECORDS OF RIVERSIDE COUNTY, CALIFORNIA.

PARCEL 7: (687-201-005)

THE WEST 50 FEET OF THE EAST 100 FEET OF THE NORTH HALF OF LOT 45 OF CATHEDRAL CITY, AS SHOWN BY MAP ON FILE IN BOOK 13, PAGES 24 TO 26 OF MAPS, RECORDS OF RIVERSIDE COUNTY, CALIFORNIA.

PARCEL 8: (687-201-006)

THE EAST 50 FEET OF THE NORTH 87.5 FEET OF LOT 45 OF CATHEDRAL CITY, AS SHOWN BY MAP ON FILE IN BOOK 13, PAGES 24 TO 26 OF MAPS, RECORDS OF RIVERSIDE COUNTY, CALIFORNIA.

PARCEL 9: (687-201-007)

THE SOUTH 87.5 FEET OF THE EAST 100 FEET OF LOT 45 OF CATHEDRAL CITY, AS SHOWN BY MAP ON FILE IN BOOK 13, PAGES 24 TO 26 OF MAPS, RECORDS OF RIVERSIDE COUNTY, CALIFORNIA.

PARCEL 10: (687-201-008)

THE NORTH 87.5 FEET OF THE WEST 50 FEET OF LOT 46 OF CATHEDRAL CITY, AS SHOWN BY MAP ON FILE IN BOOK 13, PAGES 24 TO 26 OF MAPS, RECORDS OF RIVERSIDE COUNTY, CALIFORNIA.

PARCEL 11: (687-201-009)

THE EAST HALF OF THE NORTHWEST QUARTER OF LOT 46 OF CATHEDRAL CITY, AS SHOWN BY MAP ON FILE IN BOOK 13, PAGES 24 TO 26 OF MAPS, RECORDS OF RIVERSIDE COUNTY, CALIFORNIA.

PARCEL 12: (687-201-010)

THE SOUTHWEST QUARTER OF LOT 46 OF CATHEDRAL CITY, AS PER MAP RECORDED IN BOOK 13, PAGES 24 TO 26, OF MAPS, RECORDS OF RIVERSIDE COUNTY, CALIFORNIA.

PARCEL 13: (687-201-011)

THE EAST 100 FEET OF LOT 46 OF CATHEDRAL CITY, AS SHOWN BY MAP ON FILE IN BOOK 13, PAGES 24 TO 26 OF MAPS, RECORDS OF RIVERSIDE COUNTY, CALIFORNIA.

PARCEL 14: (687-202-001)

THE WESTERLY 85 FEET OF THE NORTHERLY RECTANGULAR HALF OF LOT 47 OF CATHEDRAL

CITY, AS SHOWN BY MAP ON FILE IN BOOK 13, PAGES 24 TO 26 OF MAPS, RECORDS OF RIVERSIDE COUNTY, CALIFORNIA.

PARCEL 15: (687-202-002)

THE WEST 85 FEET OF THE NORTH ONE-HALF OF THE SOUTH ONE-HALF OF LOT 47 OF CATHEDRAL CITY, AS PER MAP RECORDED IN BOOK 13, PAGES 24 TO 26 OF MAPS, RECORDS OF RIVERSIDE COUNTY, CALIFORNIA.

PARCEL 16: (687-202-003)

THE WESTERLY 85.00 FEET OF THE SOUTH HALF OF THE SOUTH ONE-HALF OF LOT 47 OF CATHEDRAL CITY, AS SHOWN BY MAP ON FILE IN BOOK 13, PAGES 24 TO 26 OF MAPS, RECORDS OF RIVERSIDE COUNTY, CALIFORNIA.

PARCEL 17: (687-202-004)

THE WESTERLY 55 FEET OF THE EASTERLY 115 FEET OF THE NORTHERLY ONE-HALF OF LOT 47 OF CATHEDRAL CITY, AS SHOWN BY MAP ON FILE IN BOOK 13, PAGES 24 TO 26 OF MAPS, RECORDS OF RIVERSIDE COUNTY, CALIFORNIA.

PARCEL 18: (687-202-005)

THE SOUTH HALF OF LOT 47 OF CATHEDRAL CITY, AS PER MAP RECORDED IN BOOK 13, PAGES 24 TO 26, OF MAPS, RECORDS OF RIVERSIDE COUNTY, CALIFORNIA.

EXCEPT THE WESTERLY 85 FEET THEREOF AND ALSO EXCEPT THE EASTERLY 50 FEET THEREOF.

PARCEL 19: (687-202-006)

THE EASTERLY 60 FEET OF THE NORTHERLY ½ OF LOT 47 OF CATHEDRAL CITY, AS SHOWN BY MAP ON FILE IN BOOK 13, PAGES 24 TO 26 OF MAPS, RECORDS OF RIVERSIDE COUNTY, CALIFORNIA.

PARCEL 20: (687-202-007)

THE EASTERLY 50 OF SOUTH ONE HALF OF LOT 47 OF CATHEDRAL CITY, AS SHOWN BY MAP ON FILE IN BOOK 13, PAGES 24 TO 26 OF MAPS, RECORDS OF RIVERSIDE COUNTY, CALIFORNIA.

PARCEL 21: (687-202-008)

THE WESTERLY 40 FEET OF THE NORTHERLY ½ OF LOT 48 OF CATHEDRAL CITY, AS SHOWN BY MAP ON FILE IN BOOK 13, PAGES 24 TO 26 OF MAPS, RECORDS OF RIVERSIDE COUNTY, CALIFORNIA.

PARCEL 22: (687-202-009)

THE WEST 50 FEET OF THE SOUTH 87.5 FEET OF THE WEST 100 FEET OF LOT 48 OF CATHEDRAL CITY, AS SHOWN BY MAP ON FILE IN BOOK 13, PAGES 24 TO 26 OF MAPS, RECORDS OF RIVERSIDE COUNTY, CALIFORNIA.

PARCEL 23: (PORTION 687-202-010)

THE EASTERLY 60 FEET OF THE WESTERLY 100 FEET OF THE NORTHERLY ONE-HALF OF LOT 48 OF CATHEDRAL CITY, AS SHOWN BY MAP ON FILE IN BOOK 13, PAGES 24, 25 TO 26 OF MAPS, RECORDS OF RIVERSIDE COUNTY, CALIFORNIA.

PARCEL 24: (PORTION 687-202-010)

THE NORTHERLY 8.5 FEET OF THE EASTERLY 50 FEET OF THE SOUTHERLY 87.5 FEET OF THE WESTERLY 100 FEET OF LOT 48 OF CATHEDRAL CITY, AS SHOWN BY MAP ON FILE IN BOOK 13, PAGES 24 TO 26 OF MAPS, RECORDS OF RIVERSIDE COUNTY, CALIFORNIA.

PARCEL 25: (687-202-011)

THE EASTERLY 50 FEET OF THE SOUTHERLY 79 FEET OF THE WESTERLY 100 FEET OF LOT 48 OF CATHEDRAL CITY, AS SHOWN BY MAP ON FILE IN BOOK 13, PAGES 24 TO 26 OF MAPS, RECORDS OF RIVERSIDE COUNTY, CALIFORNIA.

PARCEL 26: (687-202-012)

THE EASTERLY RECTANGULAR 100 FEET OF LOT 48 OF CATHEDRAL CITY, AS SHOWN BY MAP ON FILE IN BOOK 13, PAGES 24 TO 26 OF MAPS, RECORDS OF RIVERSIDE COUNTY, CALIFORNIA.

PARCEL 27: (687-203-008)

THE NORTH HALF OF LOT 66 OF CATHEDRAL CITY, AS SHOWN BY MAP ON FILE IN BOOK 13, PAGES 24 TO 26 OF MAPS, RECORDS OF RIVERSIDE COUNTY, CALIFORNIA.

PARCEL 28: (687-203-009)

THE SOUTH HALF OF LOT 66 OF CATHEDRAL CITY, AS SHOWN BY MAP ON FILE IN BOOK 13, PAGES 24 TO 26 OF MAPS, RECORDS OF RIVERSIDE COUNTY, CALIFORNIA.

PARCEL 29: (687-203-010)

LOT 65 OF CATHEDRAL CITY, AS SHOWN BY MAP ON FILE IN BOOK 13, PAGES 24 TO 26 OF MAPS, RECORDS OF RIVERSIDE COUNTY, CALIFORNIA.

PARCEL 30: (687-203-011)

LOT 64 OF CATHEDRAL CITY AS SHOWN BY MAP ON FILE IN BOOK 13, PAGES 24 TO 26 OF MAPS, RECORDS OF RIVERSIDE COUNTY, CALIFORNIA.

PARCEL 31: (687-203-012)

THE NORTH HALF OF LOT 63 OF CATHEDRAL CITY, AS SHOWN BY MAP ON FILE IN BOOK 13, PAGES 24 TO 26 OF MAPS, RECORDS OF RIVERSIDE COUNTY, CALIFORNIA.

PARCEL 31A:

AN EASEMENT OVER, ACROSS AND ALONG THE EASTERLY 2 FEET OF LOT 64 OF CATHEDRAL CITY, AS SHOWN BY MAP ON FILE IN BOOK 13, PAGES 24 TO 26 OF MAPS, RECORDS OF RIVERSIDE COUNTY CALIFORNIA.

PARCEL 32: (687-203-013)

THE SOUTH HALF OF LOT 63 OF CATHEDRAL CITY, AS SHOWN BY MAP ON FILE IN BOOK 13, PAGES 24 TO 26 OF MAPS, RECORDS OF RIVERSIDE COUNTY, CALIFORNIA.

PARCEL 33: (687-203-014)

LOT 62 CATHEDRAL CITY, AS SHOWN BY MAP ON FILE IN BOOK 13, PAGES 24 TO 26 OF MAPS, RECORDS OF RIVERSIDE COUNTY, CALIFORNIA.

PARCEL 34: (687-203-015)

THE NORTHERLY 65 FEET OF LOT 67 OF CATHEDRAL CITY, AS PER MAP RECORDED IN BOOK 13, PAGES 24 TO 26 OF MAPS, RECORDS OF RIVERSIDE COUNTY, CALIFORNIA.

PARCEL 35: (687-204-001)

LOT 61 OF CATHEDRAL CITY, AS PER MAP RECORDED IN BOOK 13, PAGES 24 TO 26 OF MAPS, RECORDS OF RIVERSIDE COUNTY, CALIFORNIA.

PARCEL 36: (687-204-002)

THE NORTH 85 FEET OF LOT 60 CATHEDRAL CITY, AS SHOWN BY MAP ON FILE IN BOOK 13, PAGES 24 TO 26 OF MAPS, RECORDS OF RIVERSIDE COUNTY, CALIFORNIA.

PARCEL 37: (687-204-003)

THE SOUTH 65 FEET OF LOT 60 OF CATHEDRAL CITY, AS SHOWN BY MAP ON FILE IN BOOK 13, PAGES 24 TO 26 OF MAPS, RECORDS OF RIVERSIDE COUNTY, CALIFORNIA.

PARCEL 38: (687-204-004)

THE NORTH ONE-HALF OF LOT 59 OF CATHEDRAL CITY, AS SHOWN BY MAP ON FILE IN BOOK 13, PAGES 24 TO 26 OF MAPS, RECORDS OF RIVERSIDE COUNTY, CALIFORNIA.

PARCEL 39: (687-204-005)

THE SOUTH ONE-HALF OF LOT 59, OF CATHEDRAL CITY, AS SHOWN BY MAP ON FILE IN BOOK 13, PAGES 24 TO 26 OF MAPS, RECORDS OF RIVERSIDE COUNTY, CALIFORNIA.

PARCEL 40: (687-204-006)

THE NORTH HALF OF LOT 58 OF CATHEDRAL CITY, AS SHOWN BY MAP ON FILE IN BOOK 13, PAGES 24 TO 26 OF MAPS, RECORDS OF RIVERSIDE COUNTY, CALIFORNIA.

PARCEL 41: (687-204-007)

THE SOUTH ONE HALF OF LOT 58 OF CATHEDRAL CITY, AS SHOWN BY MAP ON FILE IN BOOK 13, PAGES 24 TO 26 OF MAPS, RECORDS OF RIVERSIDE COUNTY, CALIFORNIA.

PARCEL 42: (687-204-008 AND 687-204-013)

THE NORTH HALF OF LOTS 56 AND 57 OF CATHEDRAL CITY, AS SHOWN BY MAP ON FILE IN BOOK 13, PAGES 24 TO 26 OF MAPS, RECORDS OF RIVERSIDE COUNTY, CALIFORNIA;

TOGETHER WITH THE WESTERLY HALF OF THE ALLEY ADJOINING SAID LOT 56 ON THE EAST AS VACATED AND CLOSED TO PUBLIC USE BY RESOLUTION NO. 80-367, RECORDED OCTOBER

23, 1980 AS INTRUMENT NO. 197351 OF OFFICIAL RECORDS OF RIVERSIDE COUNTY, CALIFORNIA.

PARCEL 43: (687-204-009 AND 687-204-014)

THE SOUTH HALF OF LOTS 56 AND 57 OF CATHEDRAL CITY, AS SHOWN BY MAP ON FILE IN BOOK 13, PAGES 24 TO 26 OF MAPS, RECORDS OF RIVERSIDE COUNTY, CALIFORNIA;

TOGETHER WITH THE WESTERLY HALF OF THE ALLEY ADJOINING SAID LOT 56 ON THE EAST AS VACATED AND CLOSED TO PUBLIC USE BY RESOLUTION NO. 80-367, RECORDED OCTOBER 23, 1980 AS INSTRUMENT NO. 197351 OF OFFICIAL RECORDS OF RIVERSIDE COUNTY, CALIFORNIA.

PARCEL 44: (687-204-016)

LOTS 50, 51, 52, 53, 54 AND 55 OF CATHEDRAL CITY, AS SHOWN BY MAP ON FILE IN BOOK 13, PAGES 24 TO 26 OF MAPS, RECORDS OF RIVERSIDE COUNTY, CALIFORNIA;

TOGETHER WITH THE EAST HALF OF THAT PORTION OF LOT H (ALLEY) ADJOINING SAID LOT 55 ON THE WEST, VACATED BY THE BOARD OF SUPERVISORS OF THE COUNTY OF RIVERSIDE, RESOLUTION NO. 80-367, RECORDED OCTOBER 23, 1980 AS INSTRUMENT NO. 197351 OF OFFICIAL RECORDS OF RIVERSIDE COUNTY, CALIFORNIA.

PARCEL 45: (687-205-005)

LOTS 78 AND 79 OF CATHEDRAL CITY AS SHOWN BY MAP ON FILE IN BOOK 13, PAGES 24 TO 26 OF MAPS, RECORDS OF RIVERSIDE COUNTY, CALIFORNIA.

EXCEPTING THEREFROM THAT PORTION CONDEMNED TO THE CITY OF CATHEDRAL CITY BY DOCUMENT RECORDED MARCH 24, 1999 AS INSTRUMENT NO. 121245 AND RECORDED MAY 17, 1999 AS INSTRUMENT NO. 212072 BOTH OF OFFICIAL RECORDS, DESCRIBED AS FOLLOWS:

BEGINNING AT THE SOUTHEAST CORNER OF SAID LOT 79; THENCE ALONG THE EAST LINE OF SAID LOT 79, NORTH 0° 04' 35" EAST, 6.42 FEET; THENCE NORTH 71° 34' 43" WEST, 158.18 FEET TO THE WEST LINE OF SAID LOT 78; THENCE ALONG THE WEST LINE OF SAID LOT 78, SOUTH 00° 01' 53" WEST, 6.42 FEET TO THE SOUTHWEST CORNER OF SAID LOT 78; THENCE ALONG THE SOUTH LINE OF SAID LOTS 78 AND 79, SOUTH 71° 34' 48" EAST, 158.18 FEET TO SAID SOUTHEAST CORNER AND THE POINT OF BEGINNING.

PARCEL 46: (687-205-006)

LOT 80, OF CATHEDRAL CITY, AS SHOWN BY MAP ON FILE IN BOOK 13, PAGES 24 TO 26 OF MAPS, RECORDS OF RIVERSIDE COUNTY, CALIFORNIA.

EXCEPTING THEREFROM THAT PORTION CONDEMNED TO THE CITY OF CATHEDRAL CITY BY DOCUMENT RECORDED MARCH 24, 1999 AS INSTRUMENT NO. 121245 AND RECORDED MAY 17, 1999 AS INSTRUMENT NO. 212072 BOTH OF OFFICIAL RECORDS, DESCRIBED AS FOLLOWS:

BEGINNING AT THE SOUTHEAST CORNER OF SAID LOT 80; THENCE ALONG THE EAST LINE OF SAID LOT 80, NORTH 0° 05' 30" EAST, 8.52 FEET; THENCE NORTH 71° 34' 43" WEST, 52.71 FEET TO THE WEST LINE OF SAID LOT 80; THENCE ALONG SAID WEST LINE, SOUTH 0° 04' 35" WEST, 8.52 FEET TO THE SOUTH LINE OF SAID LOT 80; THENCE ALONG THE SOUTH LINE OF SAID LOT 80, SOUTH 71° 34' 48" EAST, 52.71 FEET TO SAID SOUTHEAST CORNER AND THE

POINT OF BEGINNING.

PARCEL 47: (687-205-007)

LOT 81 OF CATHEDRAL CITY, AS SHOWN BY MAP ON FILE IN BOOK 13, PAGES 24 TO 26 OF MAPS, RECORDS OF RIVERSIDE COUNTY, CALIFORNIA.

EXCEPTING THEREFROM THE EAST 5 FEET AND 2 INCHES.

ALSO EXCEPTING THEREFROM THAT PORTION CONDEMNED TO THE CITY OF CATHEDRAL CITY BY DOCUMENT RECORDED MARCH 24, 1999 AS INSTRUMENT NO. 121245 AND RECORDED MAY 17, 1999 AS INSTRUMENT NO. 212072 BOTH OF OFFICIAL RECORDS, DESCRIBED AS FOLLOWS:

BEGINNING AT THE SOUTHWEST CORNER OF SAID LOT 81; THENCE ALONG THE WEST LINE OF SAID LOT 81, NORTH 0° 05' 30" EAST, 8.52 FEET; THENCE SOUTH 71° 34' 43" EAST, 47.24 FEET TO THE WEST LINE OF THE EASTERLY 5 FEET 2 INCHES OF SAID LOT 81; THENCE ALONG LAST SAID WEST LINE, SOUTH 0° 06' 25" WEST, 6.52 FEET TO THE SOUTH LINE OF SAID LOT 81; THENCE ALONG THE SOUTH LINE OF SAID LOT 81, NORTH 71° 34' 48" WEST, 47.24 FEET TO SAID SOUTHWEST CORNER AND THE POINT OF BEGINNING.

PARCEL 48: (687-205-008)

LOT 82 AND THE EAST 5 FEET 2 INCHES OF LOT 81 OF CATHEDRAL CITY, AS SHOWN BY MAP ON FILE IN BOOK 13, PAGES 24 TO 26 OF MAPS, RECORDS OF RIVERSIDE COUNTY, CALIFORNIA, SAID DISTANCE BEING MEASURED ON THE NORTHERLY LINE OF SAID LOT 81.

EXCEPTING THEREFROM THE FOLLOWING DESCRIBED LAND:

THAT CERTAIN PARCEL OF LAND IN THE CITY OF CATHEDRAL CITY, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, DESCRIBED AS FOLLOWS:

THOSE PORTIONS OF LOT 82 AND THE EAST 5 FEET 2 INCHES OF LOT 81 OF CATHEDRAL CITY, AS SHOWN BY MAP ON FILE IN BOOK 13, PAGES 24 TO 26 OF MAPS, RECORDS OF RIVERSIDE COUNTY, CALIFORNIA, SAID DISTANCES BEING MEASURED ON THE NORTHERLY LINE OF SAID LOT 81, DESCRIBED AS FOLLOWS:

BEGINNING AT THE NORTHEAST CORNER OF SAID LOT 82; THENCE ALONG THE NORTH LINE OF SAID LOT 82 NORTH 89° 53' 57" WEST, 4.00 FEET TO A LINE THAT IS PARALLEL WITH AND DISTANCE 4.00 FEET WESTERLY, MEASURED AT RIGHT ANGLES, FROM THE EASTERLY LINE OF SAID LOT; THENCE ALONG SAID PARALLEL LINE SOUTH 0° 7' 29" WEST, 137.59 FEET; THENCE SOUTH 63" 01' 46" WEST, 6.24 FEET; THENCE NORTH 71° 34' 43" EAST, 48.10 FEET TO THE WESTERLY LINE OF THE EASTERLY 5 FEET 2 INCHES OF SAID LOT 81; THENCE ALONG LAST SAID LINE SOUTH 0° 07' 01" WEST, 6.41 FEET TO THE SOUTHERLY LINE OF SAID LOT 81; THENCE ALONG THE SOUTHERLY LINE OF SAID LOT 81 SOUTH 71° 34' 48" EAST, 1.84 FEET TO AN ANGLE POINT IN THE NORTHERLY LINE OF EAST PALM CANYON DRIVE; THENCE ALONG THE SOUTHERLY LINE OF SAID LOT 81 AND 82 SOUTH 71° 36' 27" EAST, 56.31 FEET TO THE SOUTHEAST CORNER OF SAID LOT 82; THENCE ALONG THE EAST LINE OF SAID LOT 82, NORTH 0° 07' 29" EAST, 149.98 FEET TO THE POINT OF BEGINNING.

PARCEL 49: (687-206-001, 687-206-002 AND 687-206-003)

LOT 83, 84 AND 85 OF CATHEDRAL CITY, AS SHOWN BY MAP ON FILE IN BOOK 13 PAGES 24 TO 26 OF MAPS, RECORDS OF RIVERSIDE COUNTY, CALIFORNIA.

PARCEL 50: (687-206-004)

LOT 86 OF CATHEDRAL CITY AS SHOWN BY MAP ON FILE IN BOOK 13, PAGES 24 TO 26 OF MAPS, RECORDS OF RIVERSIDE COUNTY, CALIFORNIA.

PARCEL 51: (687-206-005)

THAT PORTION OF LOT 87 OF CATHEDRAL CITY, AS SHOWN BY MAP ON FILE IN BOOK 13, PAGES 24 TO 26 OF MAPS, RECORDS OF RIVERSIDE COUNTY, CALIFORNIA.

BEGINNING AT THE NORTHWEST CORNER OF SAID LOT 87; THENCE EAST ON THE NORTH LINE THEREOF 40 FEET; THENCE SOUTH 30 FEET; THENCE SOUTHWESTERLY ON A LINE TO A POINT 20 FEET EAST OF THE WEST LINE OF SAID LOT AND 40 FEET SOUTH OF THE NORTH LINE OF SAID LOT; THENCE SOUTH 10 FEET; THENCE WEST 20 FEET TO THE WEST LINE OF SAID LOT; THENCE NORTH ON THE WEST LINE OF SAID LOT 50 FEET TO THE POINT OF BEGINNING.

PARCEL 52: (687-206-006)

THAT PORTION OF LOTS 87 AND 88 OF CATHEDRAL CITY, AS SHOWN BY MAP ON FILE IN BOOK 13, PAGE 24 TO 26 OF MAPS, RECORDS OF RIVERSIDE COUNTY, CALIFORNIA, DESCRIBED AS FOLLOWS:

BEGINNING AT THE SOUTHWEST CORNER OF SAID LOT 87; THENCE NORTHERLY ON THE WESTERLY LINE OF SAID LOT, 50 FEET, MORE OR LESS, TO THE SOUTHWEST CORNER OF THAT CERTAIN PARCEL OF LAND CONVEYED TO OLIVER D. WENGER, ET UX, BY DEED RECORDED NOVEMBER 4, 1937 IN BOOK 353, PAGE 32 OF OFFICIAL RECORDS, RIVERSIDE COUNTY RECORDS; THENCE EASTERLY ON THE NORTHERLY LINE OF SAID PARCEL CONVEYED TO OLIVER D. WENGER, 20 FEET; THENCE NORTHERLY ON THE EASTERLY LINE OF SAID PARCEL 10 FEET; THENCE IN A NORTHEASTERLY DIRECTION 22 FEET, MORE OR LESS, TO A POINT IN THE MOST EASTERLY LINE OF SAID PARCEL CONVEYED TO OLIVER D. WENGER THAT IS 30 FEET SOUTHERLY FROM THE NORTHERLY LINE OF SAID LOT 87; SAID POINT BEING IN THE WESTERLY LINE OF THAT CERTAIN PARCEL OF LAND CONVEYED TO ERNEST NORTH SMITH, BY DEED RECORDED DECEMBER 9, 1947 IN BOOK 878, PAGE 217 OF OFFICIAL RECORDS, RIVERSIDE COUNTY RECORDS; THENCE SOUTHERLY ON THE WESTERLY LINE OF SAID PARCEL CONVEYED TO ERNEST NORTH SMITH, 8 FEET, MORE OR LESS, TO THE SOUTHWESTERLY CORNER THEREOF; THENCE EASTERLY ON THE SOUTHERLY LINE OF SAID PARCEL CONVEYED TO ERNEST NORTH SMITH, 20 FEET, MORE OR LESS, TO THE SOUTHEASTERLY CORNER THEREOF; SAID POINT BEING ON THE WESTERLY LINE OF THAT CERTAIN PARCEL OF LAND CONVEYED TO JOSEPH LAWRENCE, SR., ET UX, BY DEED RECORDED JANUARY 09, 1948 IN BOOK 877, PAGE 349 OF OFFICIAL RECORDS, RIVERSIDE COUNTY RECORDS; THENCE SOUTHERLY ON THE WESTERLY LINE OF SAID PARCEL CONVEYED TO JOSEPH LAWRENCE, SR., AND THE WESTERLY LINE OF THAT CERTAIN PARCEL OF LAND CONVEYED TO HAROLD A. SMITH A SINGLE MAN, BY DEED RECORDED NOVEMBER 10, 1947 IN BOOK 872, PAGE 386 OF OFFICIAL RECORDS, RIVERSIDE COUNTY RECORDS, 62 FEET, MORE OR LESS, TO A POINT ON THE SOUTHERLY LINE OF SAID LOT 88; THENCE WESTERLY ON THE SOUTHERLY LINE OF SAID LOTS 88 AND 87, 60 FEET, MORE OR LESS, TO THE POINT OF BEGINNING.

PARCEL 53: (687-206-007)

THOSE PORTIONS OF LOTS 87 AND 88 OF CATHEDRAL CITY, AS SHOWN BY MAP ON FILE IN BOOK 13 PAGES 24 TO 26 OF MAPS, RECORDS OF RIVERSIDE COUNTY CALIFORNIA, DESCRIBED AS FOLLOWS:

BEGINNING AT THE NORTHEAST CORNER OF LOT 87; THENCE WEST ON THE NORTH LINE OF LOT 87, 10 FEET; THENCE SOUTH 38 FEET, THENCE EAST 20 FEET; THENCE SOUTH 12 FEET; THENCE EAST 40 FEET TO THE EAST LINE OF LOT 88; THENCE NORTH 50 FEET TO THE NORTHEAST CORNER OF LOT 88; THENCE WEST ON THE NORTH LINE OF LOT 88, 50 FEET TO THE POINT OF BEGINNING.

PARCEL 54: (687-206-008)

THE EAST 40 FEET OF THE SOUTH 50 FEET OF LOT 88 OF CATHEDRAL CITY, AS SHOWN BY MAP ON FILE IN BOOK 13, PAGES 24 TO 26 OF MAPS, RECORDS OF RIVERSIDE COUNTY, CALIFORNIA.

PARCEL 55: (687-206-009 AND 687-206-010)

LOTS 89 AND 90 OF CATHEDRAL CITY, AS SHOWN BY MAP ON FILE IN BOOK 13 PAGES 24 TO 26 OF MAPS, RECORDS OF RIVERSIDE COUNTY, CALIFORNIA.

PARCEL 56: (687-206-011)

THE NORTHERLY 58 FEET OF LOT 91 OF CATHEDRAL CITY, AS SHOWN BY MAP ON FILE IN BOOK 13, PAGES 24 TO 26 OF MAPS, RECORDS OF RIVERSIDE COUNTY, CALIFORNIA.

PARCEL 57: (687-206-012)

THE SOUTHERLY 42 FEET OF LOT 91 OF CATHEDRAL CITY, AS SHOWN BY MAP ON FILE IN BOOK 13, PAGES 24 TO 26 OF MAPS, RECORDS OF RIVERSIDE COUNTY, CALIFORNIA.

PARCEL 58: (687-206-013)

LOT 92 OF CATHEDRAL CITY, AS SHOWN BY MAP ON FILE IN BOOK 13 PAGES 24 TO 26 OF MAPS, RECORDS OF RIVERSIDE COUNTY, CALIFORNIA.

PARCEL 59: (687-206-014)

THE NORTH 55 FEET OF LOT 93 OF CATHEDRAL CITY, AS SHOWN BY MAP ON FILE IN BOOK 13, PAGES 24 TO 26 OF MAPS, RECORDS OF RIVERSIDE COUNTY, CALIFORNIA.

PARCEL 60: (687-206-015)

SOUTH 45 FEET OF LOT 93 OF CATHEDRAL CITY AS SHOWN BY MAP ON FILE IN BOOK 13, PAGES 24 TO 26 OF MAPS, RECORDS OF RIVERSIDE COUNTY, CALIFORNIA.

PARCEL 61: (687-206-016)

LOT 94 OF CATHEDRAL CITY, AS SHOWN BY MAP ON FILE IN BOOK 13 PAGES 24 TO 26 OF MAPS, RECORDS OF RIVERSIDE COUNTY, CALIFORNIA.

Exhibit "B" – Grantor Interest Clarification

Title to said estate or interest at the date hereof was originally acquired as follows:

The Redevelopment Agency of the City of Cathedral City, as to Parcels 1 and 2;

Cathedral City Redevelopment Agency, a public body corporate and politic, as to Parcels 3, 9, 10, 12, 13, 15, 25, 29, 30, 31, 31A, 35, 36, 42, 43, 44, 45, 46, 47, 48, 49, 51, 52, 53 and 54;

Redevelopment Agency of the City of Cathedral City, as to Parcels 4, 7, 8, 32, 33, 37, 38, 41, 50 and 55;

Cathedral City Redevelopment Agency, as to Parcels 5, 6, 27, 28, 34, 56, 57, 58, 59, 60 and 61;

City of Cathedral City Redevelopment Agency,as to Parcels 11, 14, 17, 19, 21, 22, 23, 24, 39 and 40;

City of Cathedral City RDA, as to Parcels 16 and 20;

Cathedral City Redevelopment Agency, a California corporation, as to Parcels 18;

The Redevelopment Agency of the City of Cathedral City, a public body, as to Parcel 26

Agua Caliente Band of Cahuilla Indian
NWC Highway 111 and Date Palm Drive
Cathedral City, CA 92234

Inquiry Number: 4977808.8
June 26, 2017

EDR Building Permit Report

Target Property and Adjoining Properties

Environmental Data Resources Inc

6 Armstrong Road
Shelton, CT 06484
800.352.0050
www.edrnet.com

TABLE OF CONTENTS

SECTION

About This Report

Executive Summary

Findings

Glossary

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

Disclaimer - Copyright and Trademark Notice

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EDR BUILDING PERMIT REPORT

About This Report

The EDR Building Permit Report provides a practical and efficient method to search building department records for indications of environmental conditions. Generated via a search of municipal building permit records gathered from more than 1,600 cities nationwide, this report will assist you in meeting the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-13), or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

Building permit data can be used to identify current and/or former operations and structures/features of environmental concern. The data can provide information on a target property and adjoining properties such as the presence of underground storage tanks, pump islands, sumps, drywells, etc., as well as information regarding water, sewer, natural gas, electrical connection dates, and current/former septic tanks.

ASTM and EPA Requirements

ASTM E 1527-13 lists building department records as a "standard historical source," as detailed in § 8.3.4.7: "Building Department Records - The term building department records means those records of the local government in which the property is located indicating permission of the local government to construct, alter, or demolish improvements on the property." ASTM also states that "Uses in the area surrounding the property shall be identified in the report, but this task is required only to the extent that this information is revealed in the course of researching the property itself."

EPA's Standards and Practices for All Appropriate Inquires (AAI) states: "§312.24: Reviews of historical sources of information. (a) Historical documents and records must be reviewed for the purposes of achieving the objectives and performance factors of §312.20(e) and (f). Historical documents and records may include, but are not limited to, aerial photographs, fire insurance maps, building department records, chain of title documents, and land use records."

Methodology

EDR has developed the EDR Building Permit Report through our partnership with BuildFax, the nation's largest repository of building department records. BuildFax collects, updates, and manages building department records from local municipal governments. The database now includes 30 million permits, on more than 10 million properties across 1,600 cities in the United States.

The EDR Building Permit Report comprises local municipal building permit records, gathered directly from local jurisdictions, including both target property and adjoining properties. Years of coverage vary by municipality. Data reported includes (where available): date of permit, permit type, permit number, status, valuation, contractor company, contractor name, and description.

Incoming permit data is checked at seven stages in a regimented quality control process, from initial data source interview, to data preparation, through final auditing. To ensure the building department is accurate, each of the seven quality control stages contains, on average, 15 additional quality checks, resulting in a process of approximately 105 quality control "touch points."

For more information about the EDR Building Permit Report, please contact your EDR Account Executive at (800) 352-0050.

EDR® Environmental Data Resources Inc

BUILD FAX PROPERTY HISTORY

EXECUTIVE SUMMARY: SEARCH DOCUMENTATION

A search of building department records was conducted by Environmental Data Resources, Inc (EDR) on behalf of Petra Geotechnical Inc on Jun 26, 2017.

TARGET PROPERTY

NWC Highway 111 and Date Palm Drive
Cathedral City, CA 92234

SEARCH METHODS

EDR searches available lists for both the Target Property and Surrounding Properties.

RESEARCH SUMMARY

Building permits identified: **YES**

The following research sources were consulted in the preparation of this report. An "X" indicates where information was identified in the source and provided in this report.

Cathedral City

Year	*Source*	*TP*	*Adjoining*
2016	Cathedral City, Building and Safety		X
2015	Cathedral City, Building and Safety		X
2014	Cathedral City, Building and Safety		
2013	Cathedral City, Building and Safety		
2012	Cathedral City, Building and Safety		X
2011	Cathedral City, Building and Safety		X
2010	Cathedral City, Building and Safety		X
2009	Cathedral City, Building and Safety		X
2008	Cathedral City, Building and Safety		X
2007	Cathedral City, Building and Safety		X
2006	Cathedral City, Building and Safety		X
2005	Cathedral City, Building and Safety		X
2004	Cathedral City, Building and Safety		X
2003	Cathedral City, Building and Safety		X
2002	Cathedral City, Building and Safety		X
2001	Cathedral City, Building and Safety		X
2000	Cathedral City, Building and Safety		X
1999	Cathedral City, Building and Safety		X
1998	Cathedral City, Building and Safety		X
1997	Cathedral City, Building and Safety		X

Riverside County

Year	*Source*	*TP*	*Adjoining*
2017	Riverside County, Building and Safety		
2016	Riverside County, Building and Safety		
2015	Riverside County, Building and Safety		
2014	Riverside County, Building and Safety		
2013	Riverside County, Building and Safety		

EXECUTIVE SUMMARY: SEARCH DOCUMENTATION

Year	Source	TP	Adjoining
2012	Riverside County, Building and Safety		
2011	Riverside County, Building and Safety		
2010	Riverside County, Building and Safety		
2009	Riverside County, Building and Safety		
2008	Riverside County, Building and Safety		
2007	Riverside County, Building and Safety		
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1982	Riverside County, Building and Safety		
1981	Riverside County, Building and Safety		
1980	Riverside County, Building and Safety		
1979	Riverside County, Building and Safety		X
1978	Riverside County, Building and Safety		
1977	Riverside County, Building and Safety		
1976	Riverside County, Building and Safety		
1975	Riverside County, Building and Safety		
1974	Riverside County, Building and Safety		X
1973	Riverside County, Building and Safety		

BUILDING DEPARTMENT RECORDS SEARCHED

Name: Cathedral City
Years: 1997-2016
Source: Cathedral City, Building and Safety, CATHEDRAL CITY, CA
Phone: (760) 770-0340

Name: Riverside County
Years: 1973-2017
Source: Riverside County, Building and Safety, CATHEDRAL CITY, CA
Phone: (951) 955-6742

Name: Palm Springs
Years: 2001-2017
Source: City of Palm Springs, Community Development, Building and Safety, PALM SPRINGS, CA
Phone: (760) 323-8242

Name: San Bernardino County
Years: 2002-2017
Source: San Bernardino County, Land Use, Building & Safety, San Bernardino, CA
Phone: (909) 387-8311

TARGET PROPERTY FINDINGS

TARGET PROPERTY DETAIL

NWC Highway 111 and Date Palm Drive
Cathedral City, CA 92234

No Permits Found

ADJOINING PROPERTY FINDINGS

ADJOINING PROPERTY DETAIL

The following Adjoining Property addresses were researched for this report. Detailed findings are provided for each address.

1ST ST

68780 1ST ST

Date:	**3/21/2011**
Permit Type:	**MISC PERMIT**
Description:	**DEMO 2,850 SQ FT COMMERCIAL BUILDING INCLUDING REMOVAL OF SEPTIC SYSTEM AND CMU WALL. ASBESTOS REPORT ON FILE.**
Permit Description:	
Work Class:	Demolition
Proposed Use:	
Permit Number:	B11-0312
Status:	FINALED
Valuation:	$5,240.00
Contractor Company:	
Contractor Name:	THREE D SERVICE

Date:	**6/20/2000**
Permit Type:	**SIGN PERMIT**
Description:	**SIGN - INSTALL ONE ATTACHED 18 SQ FT SIGN, NONILLUMINATED**
Permit Description:	
Work Class:	
Proposed Use:	
Permit Number:	B00-01035
Status:	
Valuation:	$1,000.00
Contractor Company:	
Contractor Name:	IMPERIAL SIGN COMPANY, INC.

ADJOINING PROPERTY FINDINGS

Date:	**7/8/1997**
Permit Type:	**SIGN PERMIT**
Description:	**CONST ONE ATTACHED 24 SQ FT SIGN, PLASTIC WITH NEON**
Permit Description:	
Work Class:	
Proposed Use:	
Permit Number:	B97-00780
Status:	
Valuation:	$1,420.00
Contractor Company:	
Contractor Name:	RIOFINE NEON

68904 1ST ST

Date:	**3/13/2008**
Permit Type:	**MISC PERMIT**
Description:	**DEMO - DEMO EXISTING SINGLE FAMILY DWELLING AND CARPORT INCLUDING SEPTIC SYSTEM . FILED WITH AQMD, ASBESTOS SURVEY ATTACHED.**
Permit Description:	
Work Class:	Demolition
Proposed Use:	
Permit Number:	B08-0391
Status:	
Valuation:	$1,665.00
Contractor Company:	
Contractor Name:	THREE D SERVICE

ADJOINING PROPERTY FINDINGS

68935 1ST ST

Date:	**3/13/2008**
Permit Type:	**MISC PERMIT**
Description:	**DEMO - DEMO EXISTING SINGLE FAMILY DWELLING STRUCTURE , CARPORT AND PATIO COVER INCLUDING SEPTIC SYSTEM . FILED WITH AQMD, ASBESTOS SURVEY ATTACHED.**
Permit Description:	
Work Class:	Demolition
Proposed Use:	
Permit Number:	B08-0394
Status:	
Valuation:	$1,850.00
Contractor Company:	
Contractor Name:	THREE D SERVICE

Date:	**11/14/2000**
Permit Type:	**COMBINATION PERMIT**
Description:	**SFD ADD/ALT - REPLACE EXISTING CARPORT W/SAME. ENCLOSED ON TWO SIDES.**
Permit Description:	
Work Class:	Addition/Alteration Single Family
Proposed Use:	
Permit Number:	B00-01898
Status:	
Valuation:	$1,960.00
Contractor Company:	
Contractor Name:	OWNER/BUILDER

ADJOINING PROPERTY FINDINGS

ALLEN AVE

36968 ALLEN AVE

Date:	**1/30/2007**
Permit Type:	**MISC PERMIT**
Description:	**DEMO - SINGLE FAMILY DWELLING 1.000 SQ.FT. EXCLUDING SLAB, FOUNDATION CMU WALLS AND SEPTIC SYSTEM.**
Permit Description:	
Work Class:	Demolition
Proposed Use:	
Permit Number:	B07-0121
Status:	
Valuation:	$1,785.00
Contractor Company:	
Contractor Name:	G & M CONSTRUCTION

37029 ALLEN AVE

Date:	**1/3/2000**
Permit Type:	**PLUMBING PERMIT**
Description:	**PLUMBING - NEW GAS LINE TO 3 OUTLETS**
Permit Description:	
Work Class:	
Proposed Use:	
Permit Number:	B99-01896
Status:	
Valuation:	$0.00
Contractor Company:	
Contractor Name:	GOODMAN PLUMBING, INC.

ADJOINING PROPERTY FINDINGS

BUDDY ROGERS AVE

68821 BUDDY ROGERS AVE

Date:	**11/4/2008**
Permit Type:	**MISC PERMIT**
Description:	**DEMO - SINGLE FAMILY DWELLING (TWO) BEDROOM (1) BATHROOM INCLUDING REMOVAL OF SEPTIC SYSTEM AFTER LOCAL FIRE DEPARTMENTS COMPLETE THEIR FIRE & RESCUE TRAINING EXERCISES. (EXEMPT FEE PER REDEVELOPMENT).**
Permit Description:	
Work Class:	Demolition
Proposed Use:	
Permit Number:	B08-1355
Status:	
Valuation:	$1,450.00
Contractor Company:	
Contractor Name:	THREE D SERVICE

68835 BUDDY ROGERS AVE

Date:	**11/4/2008**
Permit Type:	**MISC PERMIT**
Description:	**DEMO - SINGLE FAMILY DWELLING (TWO) BEDROOM (1) BATHROOM INCLUDING REMOVAL OF SEPTIC SYSTEM AFTER LOCAL FIRE DEPARTMENTS COMPLETE THEIR FIRE & RESCUE TRAINING EXERCISES. (EXEMPT FEE PER REDEVELOPMENT)**
Permit Description:	
Work Class:	Demolition
Proposed Use:	
Permit Number:	B08-1356
Status:	
Valuation:	$1,750.00
Contractor Company:	
Contractor Name:	THREE D SERVICE

ADJOINING PROPERTY FINDINGS

DATE PALM DR

36900 DATE PALM DR

Date:	**7/27/2000**
Permit Type:	**SIGN PERMIT**
Description:	**ERECT 10'5" X 36' DOUBLE SIDED BILLBOARD (V-SHAPED) 29' OVERALL HEIGHT.**
Permit Description:	
Work Class:	
Proposed Use:	
Permit Number:	B00-01269
Status:	
Valuation:	$16,900.00
Contractor Company:	
Contractor Name:	

36913 DATE PALM DR

Date:	**12/7/2004**
Permit Type:	**MISC PERMIT**
Description:	**REROOF - REMOVE EXISTING AND REPLACE WITH 4-PLY BUILT UP ROOF SYSTEM. INSTALL 1 LAYER #28 LB BASESHEET, 2 LAYERS #11 PLY, HOT MOPPED WITH ASPHALT PER MFG SPEC. (INCLUDES STORAGE BLDG.)**
Permit Description:	
Work Class:	Roof
Proposed Use:	
Permit Number:	B04-1974
Status:	
Valuation:	$16,329.00
Contractor Company:	
Contractor Name:	CASTRO ROOFING

ADJOINING PROPERTY FINDINGS

Date:	**3/12/2001**
Permit Type:	**COMBINATION PERMIT**
Description:	**CITY PROJECT - INTERIOR REMODEL OF EXISTING FIRE STATION, REMOVE NONBEARING PARTITIONS, NEW WALLS FOR KITCHEN, BATHS, OFFICES. NO ADDED AREA, NO FEE PERMIT**
Permit Description:	
Work Class:	Addition/Alteration Commercial
Proposed Use:	
Permit Number:	B01-00378
Status:	
Valuation:	$50,000.00
Contractor Company:	
Contractor Name:	OWNER/BUILDER

Date:	
Permit Type:	
Description:	
Permit Description:	
Work Class:	
Proposed Use:	
Permit Number:	
Status:	
Valuation:	$0.00
Contractor Company:	
Contractor Name:	

ADJOINING PROPERTY FINDINGS

37055 DATE PALM DR

Date:	**11/9/2010**
Permit Type:	**MISC PERMIT**
Description:	**DEMO 12,000 SQ FT COMMERCIAL BUILDING INCLUDING REMOVAL OF SEPTIC SYSTEM. ASBESTOS REPORT ON FILE.**
Permit Description:	
Work Class:	Demolition
Proposed Use:	
Permit Number:	B10-1429
Status:	FINALED
Valuation:	$15,000.00
Contractor Company:	
Contractor Name:	THREE D SERVICE

Date:	**8/26/1999**
Permit Type:	**MECHANICAL PERMIT**
Description:	**change 2 a/c condensing units**
Permit Description:	
Work Class:	
Proposed Use:	
Permit Number:	B99-01244
Status:	
Valuation:	$0.00
Contractor Company:	
Contractor Name:	

ADJOINING PROPERTY FINDINGS

37100 DATE PALM DR

Date:	**7/19/2004**
Permit Type:	**MISC PERMIT**
Description:	**RE-ROOF - APP POLYURETHANE FOAM AND ACRYLIC COATING ROOFING SYSTEM. WILL NOT INCLUDE IDENTIFICATION, DETECTION, ABATEMENT, ENCAPSULATION OR REMOVAL OF ASBESTOS OR SIMILAR HAZARDOUS SUBSTANCES.**
Permit Description:	
Work Class:	Roof
Proposed Use:	
Permit Number:	B04-1099
Status:	
Valuation:	$54,950.00
Contractor Company:	
Contractor Name:	WESTERN PACIFIC ROOFING CORP.

Date:	**9/5/1979**
Permit Type:	
Description:	**INSTALL LAV AND MOBILE HOME**
Permit Description:	
Work Class:	
Proposed Use:	
Permit Number:	BZ375800
Status:	ISSUED
Valuation:	$0.00
Contractor Company:	
Contractor Name:	

ADJOINING PROPERTY FINDINGS

37111 DATE PALM DR

Date:	**10/29/2012**
Permit Type:	**MISC PERMIT**
Description:	**COMM DEMO - DEMOLITION OF ONE (1) 2-STORY COMMERCIAL BUILDING, AND TWO (2) 1-STORY BUILDINGS, INCLUDING SLABS, FOOTINGS, AND CONCRETE FLATWORK.**
Permit Description:	
Work Class:	Demolition
Proposed Use:	
Permit Number:	B12-1661
Status:	FINALED
Valuation:	$21,576.18
Contractor Company:	
Contractor Name:	DEMO UNLIMITED

Date:	**5/4/1999**
Permit Type:	**MISC PERMIT**
Description:	**REROOF - TEAR OFF EXISTING, REPLACE W/TORCH-DOWN ROOFING SYSTEM.**
Permit Description:	
Work Class:	Roof
Proposed Use:	
Permit Number:	B99-00541
Status:	
Valuation:	$2,600.00
Contractor Company:	
Contractor Name:	

ADJOINING PROPERTY FINDINGS

DAWES ST

68962 DAWES ST

Date:	**1/31/2001**
Permit Type:	**MISC PERMIT**
Description:	**REROOF - REMOVE EXISTING AND REPLACE WITH 1 LAYER 28# GLASSBASE, 2 LAYER GLAS PLY, AND 72# CAP**
Permit Description:	
Work Class:	Roof
Proposed Use:	
Permit Number:	B01-00180
Status:	
Valuation:	$1,900.00
Contractor Company:	
Contractor Name:	DEW ROOFING, INC.

Date:	**3/16/2000**
Permit Type:	**ELECTRICAL PERMIT**
Description:	**ELECTRIC - ELECTRIC SERVICE UPGRADE. ONE METER SERVING THREE UNITS.**
Permit Description:	
Work Class:	
Proposed Use:	
Permit Number:	B00-00376
Status:	
Valuation:	$0.00
Contractor Company:	
Contractor Name:	

ADJOINING PROPERTY FINDINGS

E PALM CANYON DR

68783 E PALM CANYON DR

Date:	**4/21/2011**
Permit Type:	**COMBINATION PERMIT**
Description:	**TEN IMP - INTERIOR REMODEL OF EXISTING SUITE, INCL CONST OF NON-BEARING/PARTITION WALLS AND NEW DOOR OPENINGS.**
Permit Description:	
Work Class:	Tenant Improvement
Proposed Use:	
Permit Number:	B11-0459
Status:	FINALED
Valuation:	$800.00
Contractor Company:	
Contractor Name:	J C DECIERDO CORP.

Date:	**1/1/2008**
Permit Type:	**COMBINATION PERMIT**
Description:	**FIRE DAMAGE - REPLACE DAMAGED FLOOR JOISTS, ELEC, DRYWALL, ENLARGE BATHROOM TO ADA STANDARDS. FIRE STARTED 1ST FLOOR BATHROOM AREA TO 2ND FLOOR (STE. 10)**
Permit Description:	
Work Class:	Addition/Alteration Commercial
Proposed Use:	
Permit Number:	B07-1578
Status:	
Valuation:	$7,800.00
Contractor Company:	
Contractor Name:	UNITED CONST & CONSULT

ADJOINING PROPERTY FINDINGS

68805 E PALM CANYON DR

Date:	**8/13/2015**
Permit Type:	**MISC PERMIT**
Description:	**DEMO EXISTING BUILDING, SLAB & FOOTINGS. CAP SEWER & STABILIZE LOT. AQMD & ASBESTOS REPORT ON FILE.**
Permit Description:	
Work Class:	Demolition
Proposed Use:	
Permit Number:	B15-1194
Status:	FINALED
Valuation:	$28,382.00
Contractor Company:	
Contractor Name:	DEMO UNLIMITED

Date:	**8/23/2012**
Permit Type:	**PLUMBING PERMIT**
Description:	**COMMERCIAL PLUMBING - CHANGE OUT 100 GALLON WATER HEATER. SHARE KITCHEN.**
Permit Description:	
Work Class:	
Proposed Use:	
Permit Number:	B12-1396
Status:	FINALED
Valuation:	$0.00
Contractor Company:	
Contractor Name:	OWNER/BUILDER

ADJOINING PROPERTY FINDINGS

Date:	**6/13/2012**
Permit Type:	**MISC PERMIT**
Description:	**OTHER - CONSTRUCT SINGLE BIN TRASH ENCLOSURE, NO TRELLIS TOP, PER CITY STD.**
Permit Description:	
Work Class:	Other
Proposed Use:	
Permit Number:	B12-0930
Status:	FINALED
Valuation:	$500.00
Contractor Company:	
Contractor Name:	OWNER/BUILDER

Date:	**3/3/2006**
Permit Type:	**SIGN PERMIT**
Description:	**SIGN - INSTALL TWO ATTACHED 34 SQ FT CABINET W/EXPOSED NEON WALL SIGNS**
Permit Description:	
Work Class:	
Proposed Use:	
Permit Number:	B06-0397
Status:	
Valuation:	$6,000.00
Contractor Company:	
Contractor Name:	SIGN A RAMA

Date:	**2/27/2006**
Permit Type:	**MISC PERMIT**
Description:	**BLOCKWALL - CONST APPROX 7 X 32 LF OF BLOCKWALL**
Permit Description:	
Work Class:	Wall
Proposed Use:	
Permit Number:	B06-0363
Status:	
Valuation:	$5,500.00
Contractor Company:	
Contractor Name:	OWNER/BUILDER

ADJOINING PROPERTY FINDINGS

Date:	**12/9/2005**
Permit Type:	**COMBINATION PERMIT**
Description:	**COMM ADD/ALT - INTERIOR REMODEL ONLY OF EXISTING RESTAURNAT. MOVE BAR AREA, MAKE RESTROOMS ACCESSIBLE, ELEC, MECH UPGRADES.**
Permit Description:	
Work Class:	Addition/Alteration Commercial
Proposed Use:	
Permit Number:	B05-2370
Status:	
Valuation:	$50,000.00
Contractor Company:	
Contractor Name:	OWNER/BUILDER

Date:	**11/3/2005**
Permit Type:	**COMBINATION PERMIT**
Description:	**COMM. DEMO- REMOVE EXISTING BAR FACILITIES INCLUDING PLMBG , ELECTRICAL, CONCRETE CUTTING , DEMO WALL AREA FOR WIDING OF (2) DOOR AREA (NO ABESTOS PRESENT PER REPORT).**
Permit Description:	
Work Class:	Addition/Alteration Commercial
Proposed Use:	
Permit Number:	B05-2155
Status:	
Valuation:	$2,400.00
Contractor Company:	
Contractor Name:	OWNER/BUILDER

ADJOINING PROPERTY FINDINGS

Date:	**2/28/2002**
Permit Type:	**PLUMBING PERMIT**
Description:	**Add gas line to existing 1 inch gas line.**
Permit Description:	
Work Class:	
Proposed Use:	
Permit Number:	B02-00366
Status:	
Valuation:	$0.00
Contractor Company:	
Contractor Name:	PALENCIA PLUMBING

Date:	**2/7/1997**
Permit Type:	**COMBINATION PERMIT**
Description:	**TENANT IMPROVEMENT - DEMOLITION OF NONBEARING PARTITION WALLS**
Permit Description:	
Work Class:	Addition/Alteration Commercial
Proposed Use:	
Permit Number:	B97-00080
Status:	
Valuation:	$500.00
Contractor Company:	
Contractor Name:	

Date:	**2/7/1997**
Permit Type:	**COMBINATION PERMIT**
Description:	**INTERIOR REMODEL FOR BAR, LOUNGE, RECEPTION AREA. NEW NON-BEARING PARTITIONS FOR 700 SQ FT RESTROOMS/STORAGE**
Permit Description:	
Work Class:	Tenant Improvement
Proposed Use:	
Permit Number:	B97-00082
Status:	
Valuation:	$30,000.00
Contractor Company:	
Contractor Name:	

ADJOINING PROPERTY FINDINGS

68823 E PALM CANYON DR

Date:	**2/16/2016**
Permit Type:	**MISC PERMIT**
Description:	**MISC: DEMO BUILDING INCLUDING SLAB AND FOOTINGS; REMOVE AND PUMP SEPTIC; REMOVE PARKING LOT, AND GLUE LOT.**
Permit Description:	
Work Class:	Demolition
Proposed Use:	
Permit Number:	B16-0197
Status:	FINALED
Valuation:	$81,167.00
Contractor Company:	
Contractor Name:	DEMO UNLIMITED

Date:	**12/11/2008**
Permit Type:	**ELECTRICAL PERMIT**
Description:	**ELEC- INSTALL NEW METER MAIN PANEL . (ON REAR OF PROPERTY.)**
Permit Description:	
Work Class:	
Proposed Use:	
Permit Number:	B08-1449
Status:	
Valuation:	$0.00
Contractor Company:	
Contractor Name:	PROTECH ELECTRIC

ADJOINING PROPERTY FINDINGS

Date:	**6/1/2006**
Permit Type:	**MECHANICAL PERMIT**
Description:	**MECHANICAL - REPLACE EXISTING ROOFTOP AIR CONDITIONING UNIT WITH NEW 13 SEER 5 TON UNIT.**
Permit Description:	
Work Class:	
Proposed Use:	
Permit Number:	B06-0888
Status:	
Valuation:	$0.00
Contractor Company:	
Contractor Name:	DESERT AIR CONDITIONING, INC.

Date:	**5/16/2006**
Permit Type:	**PLUMBING PERMIT**
Description:	**PLUMBING - INSTALL 1 1/4" GAS LINE TO THREE (3) A/C AND FURNACE UNITS ON THE ROOF.**
Permit Description:	
Work Class:	
Proposed Use:	
Permit Number:	B06-0784
Status:	
Valuation:	$0.00
Contractor Company:	
Contractor Name:	LIFETIME PLUMBING, INC.

Date:	**1/4/2006**
Permit Type:	**MISC PERMIT**
Description:	**REROOF - TEAR OFF EXISTING ROOF AND REPLACE WITH 30 YR. SHINGLES.**
Permit Description:	
Work Class:	Roof
Proposed Use:	
Permit Number:	B06-0014
Status:	
Valuation:	$4,607.00
Contractor Company:	
Contractor Name:	CASTRO ROOFING

ADJOINING PROPERTY FINDINGS

Date:	**4/7/2003**
Permit Type:	**MISC PERMIT**
Description:	**RE- ROOF - TEAR OFF EXISTING ROOF AND RE-ROOF WITH 4 PLY TAR & GRAVEL BUILT - UP .**
Permit Description:	
Work Class:	Roof
Proposed Use:	
Permit Number:	B03-00670
Status:	
Valuation:	$16,407.00
Contractor Company:	
Contractor Name:	CASTRO ROOFING

68830 E PALM CANYON DR

Date:	**10/18/2001**
Permit Type:	**COMBINATION PERMIT**
Description:	**TEMP. POLE FOR VAPOR EXTRACTION SYSTEM**
Permit Description:	
Work Class:	Addition/Alteration Commercial
Proposed Use:	
Permit Number:	B01-01690
Status:	
Valuation:	$0.00
Contractor Company:	
Contractor Name:	

ADJOINING PROPERTY FINDINGS

Date: **5/12/1999**
Permit Type: **MISC PERMIT**
Description: **DEMO GAS STATION -SINGLE STORY 450 SQ FT BLDG**

Permit Description:
Work Class: Demolition
Proposed Use:
Permit Number: B99-00648
Status:
Valuation: $8,500.00
Contractor Company:
Contractor Name:

68870 E PALM CANYON DR

Date: **3/1/1999**
Permit Type: **MISC PERMIT**
Description: **INSTALLATION OF 5 X 55 FT. FABRIC AWNING PER MFG SPEC.**

Permit Description:
Work Class: Addition/Alteration Commercial
Proposed Use:
Permit Number: B99-00226
Status:
Valuation: $2,500.00
Contractor Company:
Contractor Name:

ADJOINING PROPERTY FINDINGS

68930 E PALM CANYON DR

Date:	**3/30/1999**
Permit Type:	**SIGN PERMIT**
Description:	**SIGN - INSTALL TWO ATTACHED SIGNS, CHANNEL LETTERS, ILLUMINATED.**
Permit Description:	
Work Class:	
Proposed Use:	
Permit Number:	B99-00342
Status:	
Valuation:	$5,200.00
Contractor Company:	
Contractor Name:	IMPERIAL SIGN COMPANY, INC.

Date:	**1/26/1999**
Permit Type:	**ELECTRICAL PERMIT**
Description:	**ELECTRIC METER RESET FOR RESTAURANT**
Permit Description:	
Work Class:	
Proposed Use:	
Permit Number:	B99-00099
Status:	
Valuation:	$0.00
Contractor Company:	
Contractor Name:	

ADJOINING PROPERTY FINDINGS

68950 E PALM CANYON DR

Date:	**5/4/2015**
Permit Type:	**MISC PERMIT**
Description:	**COMM DEMOLITION - DEMO OF EXISTING 10,800 SQ. FT. COMMERCIAL BUILDING INCLUDING CONCRETE & FOOTINGS PER CITY STANDARDS. AQMD & ASBESTOS REPORTS IN FILE.**
Permit Description:	
Work Class:	Demolition
Proposed Use:	
Permit Number:	B15-0594
Status:	FINALED
Valuation:	$15,000.00
Contractor Company:	
Contractor Name:	JOHN WESSMAN DEVELOPMENT

Date:	**12/19/2006**
Permit Type:	**COMBINATION PERMIT**
Description:	**COMM ADD/ALT - TENANT IMPROVEMENT. INSTALL ELEC FIXTURES, PLMBG, AND CONST PARTITION WALLS FOR CONFERENCE ROOM AND OFFICE**
Permit Description:	
Work Class:	Addition/Alteration Commercial
Proposed Use:	
Permit Number:	B06-1776
Status:	
Valuation:	$2,000.00
Contractor Company:	
Contractor Name:	THE BROOKSHIRE GROUP

ADJOINING PROPERTY FINDINGS

Date: **8/23/2006**
Permit Type: **SIGN PERMIT**
Description: **SIGN - INSTALL ONE WALL SIGN @ 15 1/2 " X 99 ACROSS W/ CHANNEL LETTERS ILLUMINATED.**

Permit Description:
Work Class:
Proposed Use:
Permit Number: B06-1301
Status:
Valuation: $400.00
Contractor Company:
Contractor Name: BEST SIGNS, INC.

Date: **8/3/2006**
Permit Type: **ELECTRICAL PERMIT**
Description: **ELEC - NEW ELEC METER**

Permit Description:
Work Class:
Proposed Use:
Permit Number: B06-1203
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: THE BROOKSHIRE GROUP

Date: **5/29/1998**
Permit Type: **SIGN PERMIT**
Description: **INSTALL ONE ATTACHED 24 SQ FT, ILLUMINATED SIGN.**

Permit Description:
Work Class:
Proposed Use:
Permit Number: B98-00610
Status:
Valuation: $700.00
Contractor Company:
Contractor Name:

ADJOINING PROPERTY FINDINGS

Date:	**12/17/1997**
Permit Type:	**COMBINATION PERMIT**
Description:	**COMM ADD/ALT-CONSTRUCT 15 FT OF WALL IN EXISTING SHELL. RELOCATE RESTROOM DOOR.**
Permit Description:	
Work Class:	Addition/Alteration Commercial
Proposed Use:	
Permit Number:	B97-01448
Status:	
Valuation:	$800.00
Contractor Company:	
Contractor Name:	

Date:	**12/11/1997**
Permit Type:	**COMBINATION PERMIT**
Description:	**COMM ADD/ALT - CONST APPROX 44 FT OF NONBEARING DEMISING WALL TO PROVIDE SEPARATION BETWEEN UNITS.**
Permit Description:	
Work Class:	Addition/Alteration Commercial
Proposed Use:	
Permit Number:	B97-01404
Status:	
Valuation:	$1,500.00
Contractor Company:	
Contractor Name:	

ADJOINING PROPERTY FINDINGS

GROVE ST

68778 GROVE ST

Date:	**7/20/2009**
Permit Type:	**SIGN PERMIT**
Description:	**SIGN - INSTALL TWO ATTACHED WALL SIGNS, ALLUMALITE MATERIAL, NON-ILLUM FOR "FINE ART & ANTIQUES" AND "ANTIQUES COLLECTABLES VINTAGE"**
Permit Description:	
Work Class:	
Proposed Use:	
Permit Number:	B09-0629
Status:	
Valuation:	$300.00
Contractor Company:	
Contractor Name:	A NEON& SIGN CO.

Date:	**6/1/2009**
Permit Type:	**MISC PERMIT**
Description:	**PATIO - CONST APPROX 276 SQ FT ATTACHED ALUMA WOOD OPEN LATTICE PATIO COVER**
Permit Description:	
Work Class:	Deck/Patio
Proposed Use:	
Permit Number:	B09-0480
Status:	
Valuation:	$7,500.00
Contractor Company:	
Contractor Name:	DESERT GREEN BUILDER

ADJOINING PROPERTY FINDINGS

Date:
Permit Type:
Description:

Permit Description:
Work Class:
Proposed Use:
Permit Number:
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: SO CAL & ASSOCIATES PLUMBING INC.

68792 GROVE ST

Date: **6/1/2009**
Permit Type: **MISC PERMIT**
Description: **PATIO - CONST APPROX 330 SQ FT ATTACHED ALUMA WOOD OPEN LATTICE PATIO COVER**

Permit Description:
Work Class: Deck/Patio
Proposed Use:
Permit Number: B09-0482
Status:
Valuation: $7,500.00
Contractor Company:
Contractor Name: DESERT GREEN BUILDER

ADJOINING PROPERTY FINDINGS

Date: **2/24/1972**
Permit Type:
Description: **REPLACE SEEPAGE PIT**

Permit Description:
Work Class:
Proposed Use:
Permit Number: BZ204664
Status: FINAL
Valuation: $0.00
Contractor Company:
Contractor Name:

Date:
Permit Type:
Description:

Permit Description:
Work Class:
Proposed Use:
Permit Number:
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: SO CAL & ASSOCIATES PLUMBING INC.

68796 GROVE ST

Date:
Permit Type:
Description:

Permit Description:
Work Class:
Proposed Use:
Permit Number:
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: SO CAL & ASSOCIATES PLUMBING INC.

ADJOINING PROPERTY FINDINGS

68798 GROVE ST

Date:	**10/5/2010**
Permit Type:	**COMBINATION PERMIT**
Description:	**TENANT IMP - INTERIOR REMODEL OF EXISTING COMMERCIAL RETAIL BUILDING. DEMO ONE NON-BEARING PARTITION WALL (SUBJECT TO FIELD REVIEW), CONST NEW PARTITION WALLS, REPLACE AND ADD NEW LIGHT FIXTURES, AND ADD TWO EXHAUST FANS TO LAUNDRY AND BATH ROOMS. (ELEPHANT MASSAGE)**
Permit Description:	
Work Class:	Tenant Improvement
Proposed Use:	
Permit Number:	B10-1308
Status:	FINALED
Valuation:	$20,000.00
Contractor Company:	
Contractor Name:	GUILLERMO N CAIPO

Date:	**10/14/1999**
Permit Type:	**SIGN PERMIT**
Description:	**REVERSE CHANNEL NEON LETTERS ON STUCCO WALL**
Permit Description:	
Work Class:	
Proposed Use:	
Permit Number:	B99-01548
Status:	
Valuation:	$3,000.00
Contractor Company:	
Contractor Name:	IMPERIAL SIGN COMPANY, INC.

ADJOINING PROPERTY FINDINGS

Date: **11/6/1974**
Permit Type:
Description: **SPEC INSPECTION**

Permit Description:
Work Class:
Proposed Use:
Permit Number: BZ258142
Status: EXPIRED
Valuation: $0.00
Contractor Company:
Contractor Name:

68820 GROVE ST

Date: **8/3/2011**
Permit Type: **PLUMBING PERMIT**
Description: **PLUMBING - INSTALL 1200 GALLON GREASE INTERCEPTOR TO COMMERCIAL "EL GALLITO".**

Permit Description:
Work Class:
Proposed Use:
Permit Number: B11-0843
Status: FINALED
Valuation: $0.00
Contractor Company:
Contractor Name: SO CAL & ASSOCIATES PLUMBING INC.

ADJOINING PROPERTY FINDINGS

Date:	**8/25/2008**
Permit Type:	**COMBINATION PERMIT**
Description:	**MECHANICAL - REPLACE HOOD AND EXHAUST**
Permit Description:	
Work Class:	Addition/Alteration Commercial
Proposed Use:	
Permit Number:	B08-1125
Status:	
Valuation:	$14,000.00
Contractor Company:	
Contractor Name:	OWNER/BUILDER

Date:	**10/15/1998**
Permit Type:	**SIGN PERMIT**
Description:	**SIGN - CONST ONE ROOF MOUNTED 22.29 SQ FT SIGN, PLEX FACE, ILLUMINATED W/NEON.**
Permit Description:	
Work Class:	
Proposed Use:	
Permit Number:	B98-01291
Status:	
Valuation:	$1,500.00
Contractor Company:	
Contractor Name:	

Date:	**10/16/1979**
Permit Type:	
Description:	**ADD SEEPAGE AT & 750 GALLON GREASE TRAP**
Permit Description:	
Work Class:	
Proposed Use:	
Permit Number:	BZ376580
Status:	ISSUED
Valuation:	$0.00
Contractor Company:	
Contractor Name:	

ADJOINING PROPERTY FINDINGS

Date:
Permit Type:
Description:

Permit Description:
Work Class:
Proposed Use:
Permit Number:
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: SO CAL & ASSOCIATES PLUMBING INC.

68917 GROVE ST

Date: **10/21/2008**
Permit Type: **MISC PERMIT**
Description: **DEMOLITION OF SINGLE FAMILY DWELLING INCLUDING REMOVAL OF SEPTIC SYSTEM. ASBESTOS SURVEY ON FILE**

Permit Description:
Work Class: Demolition
Proposed Use:
Permit Number: B08-1310
Status:
Valuation: $2,450.00
Contractor Company:
Contractor Name: THREE D SERVICE

ADJOINING PROPERTY FINDINGS

Date:	**6/7/1999**
Permit Type:	**PLUMBING PERMIT**
Description:	**PLUMBING - WATER HEATER REPLACEMENT**
Permit Description:	
Work Class:	
Proposed Use:	
Permit Number:	B99-00765
Status:	
Valuation:	$0.00
Contractor Company:	
Contractor Name:	FLOS PLUMBING

68926 GROVE ST

Date:	**3/13/2008**
Permit Type:	**MISC PERMIT**
Description:	**DEMO - DEMO EXISTING OF TWO APARTMENT UNITS INCLUDING SEPTIC SYSTEM . FILED WITH AQMD, ASBESTOS SURVEY ATTACHED.**
Permit Description:	
Work Class:	Demolition
Proposed Use:	
Permit Number:	B08-0396
Status:	
Valuation:	$2,775.00
Contractor Company:	
Contractor Name:	THREE D SERVICE

ADJOINING PROPERTY FINDINGS

68937 GROVE ST

Date:	**6/23/2008**
Permit Type:	**MISC PERMIT**
Description:	**DEMO - EXISTING OF SINGLE FAMILY DWELLING INCLUDING REMOVAL OF SEPTIC SYSTEM . FILED WITH AQMD, ASBESTOS SURVEY ATTACHED.**
Permit Description:	
Work Class:	Demolition
Proposed Use:	
Permit Number:	B08-0005
Status:	
Valuation:	$1,400.00
Contractor Company:	
Contractor Name:	THREE D SERVICE

68947 GROVE ST

Date:	**3/13/2008**
Permit Type:	**MISC PERMIT**
Description:	**DEMO - DEMO EXISTING OF SEVEN APARTMENTS UNITS INCLUDING SEPTIC SYSTEM . FILED WITH AQMD, ASBESTOS SURVEY ATTACHED.**
Permit Description:	
Work Class:	Demolition
Proposed Use:	
Permit Number:	B08-0398
Status:	
Valuation:	$7,900.00
Contractor Company:	
Contractor Name:	THREE D SERVICE

ADJOINING PROPERTY FINDINGS

68963 GROVE ST

Date:	**6/13/2012**
Permit Type:	**MISC PERMIT**
Description:	**DEMO 2-UNIT, TWO-STORY APARTMENT COMPLEX (UNITS 4 & 5) INCLUDING REMOVAL OF SEPTIC SYSTEM. ASBESTOS REPORT ON FILE.**

Permit Description:	
Work Class:	Demolition
Proposed Use:	
Permit Number:	B12-0935
Status:	FINALED
Valuation:	$2,750.00
Contractor Company:	
Contractor Name:	THREE D SERVICE

GLOSSARY

General Building Department concepts

- **ICC:** The International Code Council. The governing body for the building/development codes used by all jurisdictions who've adopted the ICC guidelines. MOST of the US has done this. Canada, Mexico, and other countries use ICC codes books and guides as well. There are a few states who have added guidelines to the ICC codes to better fit their needs. For example, California has added seismic retrofit requirements for most commercial structures.
- **Building Department (Permitting Authority, Building Codes, Inspections Department, Building and Inspections):** This is the department in a jurisdiction where an owner or contractor goes to obtain permits and inspections for building, tearing down, remodeling, adding to, re-roofing, moving or otherwise making changes to any structure, Residential or Commercial.
- **Jurisdiction:** This is the geographic area representing the properties over which a Permitting Authority has responsibility.
- **GC:** General Contractor. Usually the primary contractor hired for any Residential or Commercial construction work.
- **Sub:** Subordinate contracting companies or subcontractors. Usually a "trades" contractor working for the GC. These contractors generally have an area of expertise in which they are licensed like Plumbing, Electrical, Heating and Air systems, Gas Systems, Pools etc. (called "trades").
- **Journeymen:** Sub contractors who have their own personal licenses in one or more trades and work for different contracting companies, wherever they are needed or there is work.
- **HVAC (Mechanical, Heating & Air companies):** HVAC = Heating, Ventilation, and Air Conditioning.
- **ELEC (Electrical, TempPole, TPole, TPower, Temporary Power, Panel, AMP Change, Power Release):** Electrical permits can be pulled for many reasons. The most common reason is to increase the AMPs of power in an electrical power panel. This requires a permit in almost every jurisdiction. Other commons reason for Electrical permits is to insert a temporary power pole at a new construction site. Construction requires electricity, and in a new development, power has yet to be run to the lot. The temporary power pole is usually the very first permit pulled for new development. The power is released to the home owner when construction is complete and this sometimes takes the form of a Power Release permit or inspection.
- **"Pull" a permit:** To obtain and pay for a building permit.
- **CBO:** Chief Building Official
- **Planning Department:** The department in the development process where the building /structural plans are reviewed for their completeness and compliance with building codes
- **Zoning Department:** The department in the development process where the site plans are reviewed for their compliance with the regulations associated with the zoning district in which they are situated.
- **Zoning District:** A pre-determined geographic boundary within a jurisdiction where certain types of structures are permitted / prohibited. Examples are Residential structure, Commercial/Retail structures, Industrial/Manufacturing structures etc. Each zoning district has regulations associated with it like the sizes of the lots, the density of the structures on the lots, the number of parking spaces required for certain types of structures on the lots etc.
- **PIN (TMS, GIS ID, Parcel#):** Property Identification Number and Tax Map System number.
- **State Card (Business license):** A license card issued to a contractor to conduct business.
- **Building Inspector (Inspector):** The inspector is a building department employee that inspects building construction for compliance to codes.
- **C.O.:** Certificate of Occupancy. This is the end of the construction process and designates that the owners now have permission to occupy a structure after its building is complete. Sometimes also referred to as a Certificate of Compliance.

GLOSSARY

Permit Content Definitions

- Permit Number: The alphanumerical designation assigned to a permit for tracking within the building department system. Sometimes the permit number gives clues to its role, e.g. a "PL" prefix may designate a plumbing permit.
- Description: A field on the permit form that allows the building department to give a brief description of the work being done. More often than not, this is the most important field for EP's to find clues to the prior use(s) of the property.
- Permit Type: Generally a brief designation of the type of job being done. For example BLDG-RES, BLDG-COM, ELEC, MECH etc.

Sample Building Permit Data

Date: Nov 09, 2000
Permit Type: Bldg -
New Permit Number: 101000000405
Status: Valuation: $1,000,000.00
Contractor Company: OWNER-BUILDER
Contractor Name:

Description: New one store retail (SAV-ON) with drive-thru pharmacy. Certificate of Occupancy.

Agua Caliente Band of Cahuilla Indian
NWC Highway 111 and Date Palm Drive
Cathedral City, CA 92234

Inquiry Number: 4977808.12
June 29, 2017

The EDR Aerial Photo Decade Package

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

EDR Aerial Photo Decade Package

06/29/17

Site Name:

Agua Caliente Band of Cahuilla
NWC Highway 111 and Date P
Cathedral City, CA 92234
EDR Inquiry # 4977808.12

Client Name:

Petra Geotechnical Inc
3198 Airport Loop Drive Suite A2
Costa Mesa, CA 92626-0000
Contact: Ed Lump

Environmental Data Resources, Inc. (EDR) Aerial Photo Decade Package is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's professional researchers provide digitally reproduced historical aerial photographs, and when available, provide one photo per decade.

Search Results:

Year	Scale	Details	Source
2012	1"=500'	Flight Year: 2012	USDA/NAIP
2010	1"=500'	Flight Year: 2010	USDA/NAIP
2009	1"=500'	Flight Year: 2009	USDA/NAIP
2005	1"=500'	Flight Year: 2005	USDA/NAIP
2002	1"=500'	Acquisition Date: June 01, 2002	USGS/DOQQ
1996	1"=500'	Acquisition Date: January 01, 1996	DOQQ
1984	1"=500'	Flight Date: August 24, 1984	USDA
1972	1"=500'	Flight Date: August 17, 1972	USDA
1966	1"=500'	Flight Date: January 01, 1966	USGS
1953	1"=500'	Flight Date: October 24, 1953	USDA

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INQUIRY #: 4977808.12
YEAR: 2012
= 500'
N
EDR


INQUIRY #: 4977808.12
YEAR: 2010
= 500'
N
EDR


INQUIRY #: 4977808.12
YEAR: 2009
= 500'
N
EDR


INQUIRY #: 4977808.12
YEAR: 2005
= 500'
N
EDR


INQUIRY #: 4977808.12
YEAR: 2002
= 500'
N
EDR


INQUIRY #: 4977808.12
YEAR: 1996
= 500'
N
EDR


INQUIRY #: 4977808.12
YEAR: 1984
= 500'
N
EDR


INQUIRY #: 4977808.12
YEAR: 1972
= 500'
N
EDR


INQUIRY #: 4977808.12
YEAR: 1966
= 500'
N
EDR


INQUIRY #: 4977808.12
YEAR: 1953
= 500'
N
EDR

Agua Caliente Band of Cahuilla Indian
NWC Highway 111 and Date Palm Drive
Cathedral City, CA 92234

Inquiry Number: 04977808.14r
June 26, 2017

EDR NEPASearch™ Map Report

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

TABLE OF CONTENTS

SECTION	PAGE
EDR NEPASearch Description	1
Map Findings Summary	2
Natural Areas	3
Historic Sites	66
Flood Plain	70
Wetlands	72
Wetlands Classification System	76
FCC & FAA Sites	80
Key Contacts and Government Records Searched	86

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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EDR NEPASearch DESCRIPTION

The National Environmental Policy Act of 1969 (NEPA) requires that Federal agencies include in their decision-making processes appropriate and careful consideration of all environmental effects and actions, analyze potential environmental effects of proposed actions and their alternatives for public understanding and scrutiny, avoid or minimize adverse effects of proposed actions, and restore and enhance environmental quality as much as possible.

The EDR NEPASearch Map Report provides information which may be used, in conjunction with additional research, to determine whether a proposed site or action will have significant environmental effect.

TARGET PROPERTY ADDRESS

AGUA CALIENTE BAND OF CAHUILLA INDIAN
NWC HIGHWAY 111 AND DATE PALM DRIVE
CATHEDRAL CITY, CA 92234

Inquiry #: 04977808.14r
Date: 6/26/17

TARGET PROPERTY COORDINATES

Latitude (North):	33.779514 - 33° 46' 46.3''
Longitude (West):	116.460091 - 116° 27' 36.3''
Universal Tranverse Mercator:	Zone 11
UTM X (Meters):	549989.6
UTM Y (Meters):	3737646.5

The report provides maps and data for the following items (where available). Search results are provided in the Map Findings Summary on page 2 of this report.

Section	Regulation
Natural Areas Map	
• Federal Lands Data:	
- Officially designated wilderness areas	47 CFR 1.1307(1)
- Officially designated wildlife preserves, sanctuaries and refuges	47 CFR 1.1307(2)
- Wild and scenic rivers	40 CFR 6.302(e)
- Fish and Wildlife	40 CFR 6.302
• Threatened or Endangered Species, Fish and Wildlife, Critical Habitat Data (where available)	47 CFR 1.1307(3); 40 CFR 6.302
Historic Sites Map	
• National Register of Historic Places	47 CFR 1.1307(4); 40 CFR 6.302
• State Historic Places (where available)	
• Indian Reservations	
Flood Plain Map	
• National Flood Plain Data (where available)	47 CFR 1.1307(6); 40 CFR 6.302
Wetlands Map	
• National Wetlands Inventory Data (where available)	47 CFR 1.1307(7); 40 CFR 6.302
FCC & FAA Map	
• FCC antenna/tower sites, FAA Markings and Obstructions, Airports, Topographic gradient	47 CFR 1.1307(8)

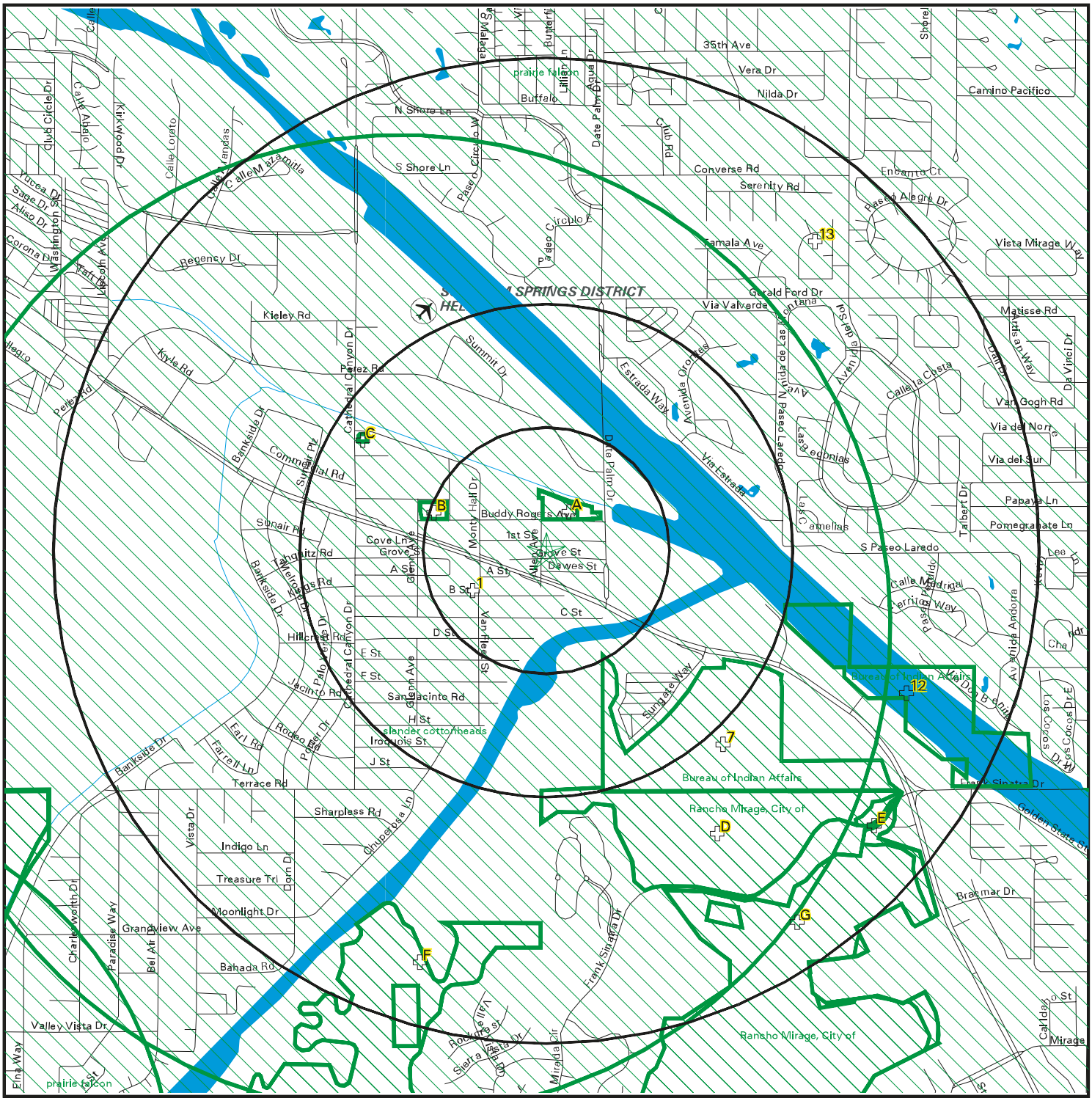
Key Contacts and Government Records Searched

MAP FINDINGS SUMMARY

The databases searched in this report are listed below. Database descriptions and other agency contact information is contained in the Key Contacts and Government Records Searched section on page 86 of this report.

Applicable Regulation from 47 CFR/FCC Checklist	Database	Search Distance (Miles)	Within Search	Within 1/8 Mile
NATURAL AREAS MAP				
1.1307a (1) Officially Designated Wilderness Area	US Federal Lands	1.00	NO	NO
	US Wilderness Preservation	1.00	NO	NO
1.1307a (2) Officially Designated Wildlife Preserve	US Federal Lands	1.00	NO	NO
	CA PCT Lands	1.00	NO	NO
	CA Conservation Easement	1.00	NO	NO
	CA Protected Areas	1.00	YES	YES
	CA ACEC	1.00	NO	NO
	US NCED	1.00	NO	NO
	US ACEC	1.00	NO	NO
	US Scenic River	1.00	NO	NO
	CA Land Ownership	1.00	YES	YES
	US Critical Water Habitat	1.00	NO	NO
	US Critical Land Habitat	1.00	NO	NO
1.1307a (3) Threatened or Endangered Species or Critical Habitat	US Endangered Species	County	YES	N/A
1.1307a (3) Threatened or Endangered Species or Critical Habitat	CA Endangered Species	1.00	YES	YES
HISTORIC SITES MAP				
1.1307a (4) Listed or eligible for National Register	CA Historic Landmarks	1.00	NO	NO
1.1307a (4) Listed or eligible for National Register	Natchez Trace National Scenic	1.00	NO	NO
1.1307a (4) Listed or eligible for National Register	Potomac Heritage National Scen	1.00	NO	NO
	Indian Reservations	1.00	YES	YES
1.1307a (4) Listed or eligible for National Register	US Trails	1.00	NO	NO
1.1307a (4) Listed or eligible for National Register	National Register of Hist. Pla	1.00	NO	NO
FLOODPLAIN MAP				
1.1307 (6) Located in a Flood Plain	FLOODPLAIN	1.00	YES	YES
WETLANDS MAP				
1.1307 (7) Change in surface features (wetland fill)	NWI	1.00	YES	NO
	CA COASTAL ZONE	20.00	NO	NO
FCC & FAA SITES MAP				
	Cellular	1.00	NO	NO
	Antenna Structure Registration	1.00	YES	NO
	AM Antenna	1.00	NO	NO
	FM Antenna	1.00	NO	NO
	FAA DOF	1.00	YES	NO
	Airports	1.00	YES	---
	Power Lines	1.00	YES	---

Natural Areas Map



- Target Property
- Roads
- County Boundary
- Waterways
- Water
- Airports
- Locations
- Federal Areas
- Federal Linear Features
- State Areas
- State Linear Features

SITE NAME:	Agua Caliente Band of Cahuilla Indian	CLIENT:	Petra Geotechnical Inc
ADDRESS:	NWC Highway 111 and Date Palm Drive Cathedral City CA 92234	CONTACT:	Ed Lump
		INQUIRY #:	04977808.14r
LAT/LONG:	33.779514 / 116.460087	DATE:	June 26, 2017

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Federal Endangered Species from the U.S. Fish and Wildlife for RIVERSIDE County

Group:Amphibians

Common Name: Desert slender salamander — Scientific Name: Batrachoseps aridus
Status: Endangered

Common Name: Mountain yellow-legged frog — Scientific Name: Rana muscosa
Status: Endangered

Common Name: California red-legged frog — Scientific Name: Rana draytonii
Status: Threatened

Common Name: Arroyo (=arroyo southwestern) toad — Scientific Name: Anaxyrus californicus
Status: Endangered

Group:Birds

Common Name: Western snowy plover — Scientific Name: Charadrius alexandrinus nivosus
Status: Threatened

Common Name: Least Bell's vireo — Scientific Name: Vireo bellii pusillus
Status: Endangered

Common Name: Southwestern willow flycatcher — Scientific Name: Empidonax traillii extimus
Status: Endangered

Common Name: Yuma clapper rail — Scientific Name: Rallus longirostris yumanensis
Status: Endangered

Common Name: Coastal California gnatcatcher — Scientific Name: Polioptila californica californica
Status: Threatened

Group:Crustaceans

Common Name: Riverside fairy shrimp — Scientific Name: Streptocephalus woottoni
Status: Endangered

Common Name: Vernal pool fairy shrimp — Scientific Name: Branchinecta lynchi
Status: Threatened

Group:Fishes

Common Name: Santa Ana sucker — Scientific Name: Catostomus santaanae
Status: Threatened

Common Name: Desert pupfish — Scientific Name: Cyprinodon macularius
Status: Endangered

Common Name: Razorback sucker — Scientific Name: Xyrauchen texanus
Status: Endangered

Group:Flowering Plants

Common Name: Nevin's barberry — Scientific Name: Berberis nevinii
Status: Endangered

Common Name: Thread-leaved brodiaea — Scientific Name: Brodiaea filifolia
Status: Threatened

Federal Endangered Species from the U.S. Fish and Wildlife for RIVERSIDE County (Continued...)

Common Name: Parish's daisy — Scientific Name: Erigeron parishii
Status: Threatened

Common Name: Gambel's watercress — Scientific Name: Rorippa gambellii
Status: Endangered

Common Name: Braunton's milk-vetch — Scientific Name: Astragalus brauntonii
Status: Endangered

Common Name: San Diego button-celery — Scientific Name: Eryngium aristulatum var. parishii
Status: Endangered

Common Name: Del Mar manzanita — Scientific Name: Arctostaphylos glandulosa ssp. crassifolia
Status: Endangered

Common Name: San Diego ambrosia — Scientific Name: Ambrosia pumila
Status: Endangered

Common Name: Hidden Lake bluecurls — Scientific Name: Trichostema austromontanum ssp. compactum
Status: Threatened

Common Name: San Jacinto Valley crownscale — Scientific Name: Atriplex coronata var. notatior
Status: Endangered

Common Name: Coachella Valley milk-vetch — Scientific Name: Astragalus lentiginosus var. coachellae
Status: Endangered

Common Name: Santa Ana River woolly-star — Scientific Name: Eriastrum densifolium ssp. sanctorum
Status: Endangered

Common Name: California Orcutt grass — Scientific Name: Orcuttia californica
Status: Endangered

Common Name: Spreading navarretia — Scientific Name: Navarretia fossalis
Status: Threatened

Common Name: Munz's onion — Scientific Name: Allium munzii
Status: Endangered

Common Name: Triple-ribbed milk-vetch — Scientific Name: Astragalus tricarinatus
Status: Endangered

Common Name: Vail Lake ceanothus — Scientific Name: Ceanothus ophiochilus
Status: Threatened

Common Name: Slender-horned spineflower — Scientific Name: Dodecahema leptoceras
Status: Endangered

Common Name: Santa Monica Mountains dudleyea — Scientific Name: Dudleya cymosa ssp. ovatifolia
Status: Threatened

Group:Insects

Common Name: Casey's June Beetle — Scientific Name: Dinacoma caseyi
Status: Endangered

Federal Endangered Species from the U.S. Fish and Wildlife for RIVERSIDE County (Continued...)

Common Name: Quino checkerspot butterfly — Scientific Name: Euphydryas editha quino (=E. e. wrighti)
Status: Endangered

Common Name: Delhi Sands flower-loving fly — Scientific Name: Rhaphiomidas terminatus abdominalis
Status: Endangered

Group:Mammals

Common Name: San Bernardino Merriam's kangaroo rat — Scientific Name: Dipodomys merriami parvus
Status: Endangered

Common Name: Peninsular bighorn sheep — Scientific Name: Ovis canadensis nelsoni
Status: Endangered

Common Name: Stephens' kangaroo rat — Scientific Name: Dipodomys stephensi (incl. D. cascus)
Status: Endangered

Group:Reptiles

Common Name: Coachella Valley fringe-toed lizard — Scientific Name: Uma inornata
Status: Threatened

Common Name: Desert tortoise — Scientific Name: Gopherus agassizii
Status: Threatened

Federal Endangered Species from the U.S. Fish and Wildlife for CA State

Group:Amphibians

Common Name: Western spadefoot — Scientific Name: Spea hammondii
Status: Under Review

Common Name: Channel Islands slender salamander — Scientific Name: Batrachoseps pacificus pacificus
Status: Species of Concern

Common Name: Limestone salamander — Scientific Name: Hydromantes brunus
Status: Under Review

Common Name: Large-blotched ensatina — Scientific Name: Ensatina eschscholtzii klauberi
Status: Species of Concern

Common Name: Oregon spotted frog — Scientific Name: Rana pretiosa
Status: Threatened

Common Name: Lowland leopard (=San Felipe leopard) frog — Scientific Name: Rana yavapaiensis
Status: Species of Concern

Common Name: Del Norte salamander — Scientific Name: Plethodon elongatus
Status: Species of Concern

Common Name: Owens Valley web-toes salamander — Scientific Name: Hydromantes sp.
Status: Species of Concern

Common Name: Mount Lyell salamander — Scientific Name: Hydromantes platycephalus
Status: Species of Concern

Federal Endangered Species from the U.S. Fish and Wildlife for CA State (Continued...)

Common Name: Foothill yellow-legged frog — Scientific Name: Rana boylii
Status: Under Review

Common Name: Breckenridge Mountain slender salamander — Scientific Name: Batrachoseps sp.
Status: Species of Concern

Common Name: California tiger Salamander — Scientific Name: Ambystoma californiense
Status: Endangered

Common Name: Kern Plateau salamander — Scientific Name: Batrachoseps robustus
Status: Under Review

Common Name: Lesser slender salamander — Scientific Name: Batrachoseps minor
Status: Under Review

Common Name: Yellow-blotched ensatina — Scientific Name: Ensatina eschscholtzii croceator
Status: Species of Concern

Common Name: Northern red-legged frog — Scientific Name: Rana aurora aurora
Status: Species of Concern

Common Name: Relictual slender salamander — Scientific Name: Batrachoseps relictus
Status: Under Review

Common Name: Cascades frog — Scientific Name: Rana cascadae
Status: Under Review

Common Name: Inyo Mountains slender salamander — Scientific Name: Batrachoseps campi
Status: Under Review

Common Name: Shasta salamander — Scientific Name: Hydromantes shastae
Status: Under Review

Common Name: Arizona toad — Scientific Name: Bufo microscaphus microscaphus
Status: Under Review

Common Name: Kern Canyon slender salamander — Scientific Name: Batrachoseps simatus
Status: Under Review

Common Name: Black toad — Scientific Name: Bufo exsul
Status: Species of Concern

Common Name: Tailed frog — Scientific Name: Ascaphus truei
Status: Species of Concern

Group:Arachnids

Common Name: Carlow’s Cave pseudoscorpion — Scientific Name: Aphrastochthonius similis
Status: Species of Concern

Common Name: Hom’s micro-blind harvestman — Scientific Name: Microcina homi
Status: Species of Concern

Common Name: Lum’s micro-blind harvestman — Scientific Name: Microcina lumi
Status: Species of Concern

Federal Endangered Species from the U.S. Fish and Wildlife for CA State (Continued...)

Common Name: Edgewood blind harvestman
Scientific Name: Calcina minor
Status: Species of Concern

Common Name: Lee's micro-blind harvestman
Scientific Name: Microcina leei
Status: Species of Concern

Common Name: Jung's micro-blind harvestman
Scientific Name: Microcina jungi
Status: Under Review

Common Name: Grubbs' cave pseudoscorpion
Scientific Name: Aphrastochthonius grubbsi
Status: Species of Concern

Common Name: Music Hall Cave pseudoscorpion
Scientific Name: Pseudogarypus orpheus
Status: Species of Concern

Common Name: Lacey's cave pseudoscorpion
Scientific Name: Larca laceyi
Status: Species of Concern

Common Name: Empire Cave pseudoscorpion
Scientific Name: Microcreagris imperialis
Status: Species of Concern

Common Name: Santa Cruz telemid spider
Scientific Name: Telema sp.
Status: Species of Concern

Common Name: Aalbu's cave pseudoscorpion
Scientific Name: Archeolarca aalbui
Status: Species of Concern

Common Name: Monterey Dunes scorpion
Scientific Name: Pauroctonus maritimus
Status: Species of Concern

Common Name: Tiburon micro-blind harvestman
Scientific Name: Microcina tiburona
Status: Species of Concern

Group:Birds

Common Name: Xantus'sMurrelet
Scientific Name: Synthliboramphus hypoleucus
Status: Candidate

Common Name: Spotted Towhee
Scientific Name: Pipilo maculatus clementae
Status: Species of Concern

Common Name: Cooper's hawk
Scientific Name: Accipiter cooperii
Status: Species of Concern

Common Name: Grasshopper sparrow
Scientific Name: Ammodramus savannarum ssp. perpallidus
Status: Species of Concern

Common Name: Black-backed woodpecker
Scientific Name: picoides arcticus
Status: Under Review

Common Name: Tufted Puffin
Scientific Name: Fratercula cirrhata
Status: Under Review

Common Name: Sharp shinned hawk
Scientific Name: Accipiter striatus
Status: Species of Concern

Federal Endangered Species from the U.S. Fish and Wildlife for CA State (Continued...)

Common Name: Common Yellowthroat
Scientific Name: Geothlypis trichas sinuosa
Status: Species of Concern

Common Name: Yuma clapper rail
Scientific Name: Rallus longirostris yumanensis
Status: Endangered

Common Name: Southwestern willow flycatcher
Scientific Name: Empidonax traillii extimus
Status: Endangered

Common Name: Southern California rufous-crowned sparrow
Scientific Name: Aimophila ruficeps canescens
Status: Species of Concern

Common Name: California spotted Owl
Scientific Name: Strix occidentalis occidentalis
Status: Under Review

Common Name: Tricolored blackbird
Scientific Name: Agelaius tricolor
Status: Under Review

Common Name: San Joaquin LeConte's thrasher
Scientific Name: Toxostoma lecontei macmillanorum
Status: Species of Concern

Common Name: Eagle Mountain scrub jay
Scientific Name: Aphelocoma coerulescens cana
Status: Species of Concern

Common Name: Elegant tern
Scientific Name: Sterna elegans
Status: Species of Concern

Common Name: Least bittern
Scientific Name: Ixobrychus exilis hesperis
Status: Species of Concern

Common Name: Song Sparrow
Scientific Name: Melospiza melodia pusillula
Status: Species of Concern

Common Name: Little willow flycatcher
Scientific Name: Empidonax traillii brewsteri
Status: Species of Concern

Common Name: Song Sparrow
Scientific Name: Melospiza melodia samuelis
Status: Species of Concern

Common Name: Large-billed savannah sparrow
Scientific Name: Passerculus sandwichensis rostratus
Status: Species of Concern

Common Name: Black tern
Scientific Name: Chlidonias niger
Status: Species of Concern

Common Name: Song Sparrow
Scientific Name: Melospiza melodia maxillaris
Status: Species of Concern

Common Name: Fulvous whistling duck
Scientific Name: Dendrocygna bicolor
Status: Species of Concern

Common Name: Belding's savannah sparrow
Scientific Name: Passerculus sandwichensis beldingi
Status: Species of Concern

Common Name: Bell's sage sparrow
Scientific Name: Amphispiza belli belli

Federal Endangered Species from the U.S. Fish and Wildlife for CA State (Continued...)

Status: Species of Concern

Group:Conifers and Cycads

Common Name: Monterey cypress — Scientific Name: Cupressus macrocarpa
Status: Species of Concern

Common Name: Torrey, Del Mar pine — Scientific Name: Pinus torreyana torreyana
Status: Species of Concern

Common Name: Tecate cypress — Scientific Name: Cupressus forbesii
Status: Species of Concern

Common Name: Bolander's beach pine — Scientific Name: Pinus contorta bolanderi
Status: Species of Concern

Common Name: Monterey pine — Scientific Name: Pinus radiata
Status: Species of Concern

Common Name: Torrey Island pine — Scientific Name: Pinus torreyana insularis
Status: Species of Concern

Common Name: Mendocino cypress — Scientific Name: Cupressus goveniana pigmaea
Status: Species of Concern

Common Name: Yellow cedar — Scientific Name: Calliptropsis nootkatensis
Status: Under Review

Group:Crustaceans

Common Name: [Unnamed] isopod — Scientific Name: Caecidotea tomalensis
Status: Species of Concern

Common Name: Vernal pool tadpole shrimp — Scientific Name: Lepidurus packardi
Status: Endangered

Common Name: Longhorn fairy shrimp — Scientific Name: Branchinecta longiantenna
Status: Endangered

Common Name: California freshwater shrimp — Scientific Name: Syncaris pacifica
Status: Endangered

Common Name: Mono Lake brine shrimp — Scientific Name: Artemia monica
Status: Species of Concern

Common Name: Conservancy fairy shrimp — Scientific Name: Branchinecta conservatio
Status: Endangered

Group:Ferns and Allies

Common Name: Crater Lake grap fern — Scientific Name: Botrychium pumicola nealleyi
Status: Species of Concern

Common Name: No common name — Scientific Name: Botrychium crenulatum
Status: Species of Concern

Federal Endangered Species from the U.S. Fish and Wildlife for CA State (Continued...)

Group:Fishes

Common Name: Rough sculpin
Status: Species of Concern
Scientific Name: Cottus asperrimus

Common Name: Kern River rainbow trout
Status: Species of Concern
Scientific Name: Oncorhynchus mykiss gilberti

Common Name: Steelhead
Status: Endangered
Scientific Name: Oncorhynchus (=Salmo) mykiss

Common Name: Goose Lake redband trout
Status: Species of Concern
Scientific Name: Oncorhynchus mykiss ssp.

Common Name: Eagle Lake rainbow Trout
Status: Under Review
Scientific Name: Oncorhynchus mykiss aquilarum

Common Name: Flannelmouth sucker
Status: Species of Concern
Scientific Name: Catostomus latipinnis

Common Name: Steelhead
Status: Under Review
Scientific Name: Oncorhynchus (=Salmo) mykiss

Common Name: longfin smelt
Status: Candidate
Scientific Name: Spirinchus thaleichthys

Common Name: Benton Valley speckled dace
Status: Species of Concern
Scientific Name: Rhinichthys osculus ssp.

Common Name: Jenny Creek sucker
Status: Species of Concern
Scientific Name: Catostomus rimiculus ssp.

Common Name: Arroyo chub
Status: Species of Concern
Scientific Name: Gila orcuttii

Common Name: Steelhead
Status: Threatened
Scientific Name: Oncorhynchus (=Salmo) mykiss

Common Name: Owens speckled dace
Status: Species of Concern
Scientific Name: Rhinichthys osculus ssp.

Common Name: Red Hills roach
Status: Species of Concern
Scientific Name: Lavinia symmetricus ssp.

Common Name: Santa Ana speckled dace
Status: Species of Concern
Scientific Name: Rhinichthys osculus ssp.

Common Name: Shoshone pupfish
Status: Species of Concern
Scientific Name: Cyprinodon nevadensis shoshone

Common Name: Long Valley speckled dace
Status: Species of Concern
Scientific Name: Rhinichthys osculus ssp.

Common Name: Klamath largescale sucker
Status: Species of Concern
Scientific Name: Catostomus snyderi

Federal Endangered Species from the U.S. Fish and Wildlife for CA State (Continued...)

Common Name: Goose Lake sucker — Scientific Name: Catostomus occidentalis lacusanserinus
Status: Species of Concern

Common Name: Sacramento perch — Scientific Name: Archoplites interruptus
Status: Species of Concern

Common Name: green sturgeon — Scientific Name: Acipenser medirostris
Status: Threatened

Common Name: Pit roach — Scientific Name: Lavinia symmetricus mitrulus
Status: Species of Concern

Common Name: Warner Valley redband trout — Scientific Name: Oncorhynchus mykiss ssp.
Status: Species of Concern

Common Name: Amargosa Canyon speckled dace — Scientific Name: Rhinichthys osculus ssp.
Status: Species of Concern

Common Name: Russian River tule perch — Scientific Name: Hysterocarpus traskii pomo
Status: Species of Concern

Common Name: Goose Lake lamprey — Scientific Name: Lampetra tridentata ssp.
Status: Species of Concern

Common Name: Gualala roach — Scientific Name: Lavinia symmetricus parvipinnis
Status: Species of Concern

Group:Flowering Plants

Common Name: Marin dwarf-flax — Scientific Name: Hesperolinon congestum
Status: Threatened

Common Name: Fleshy owl’s-clover — Scientific Name: Castilleja campestris ssp. succulenta
Status: Threatened

Common Name: Pine Hill ceanothus — Scientific Name: Ceanothus roderickii
Status: Endangered

Common Name: Hoover’s spurge — Scientific Name: Chamaesyce hooveri
Status: Threatened

Common Name: Suisun thistle — Scientific Name: Cirsium hydrophilum var. hydrophilum
Status: Endangered

Common Name: Vine Hill clarkia — Scientific Name: Clarkia imbricata
Status: Endangered

Common Name: Soft bird’s-beak — Scientific Name: Cordylanthus mollis ssp. mollis
Status: Endangered

Common Name: Baker’s larkspur — Scientific Name: Delphinium bakeri
Status: Endangered

Common Name: Yellow larkspur — Scientific Name: Delphinium luteum
Status: Endangered

Federal Endangered Species from the U.S. Fish and Wildlife for CA State (Continued...)

Common Name: Ione (incl. Irish Hill) buckwheat
Scientific Name: Eriogonum apricum (incl. var. prostratum)
Status: Endangered

Common Name: Pine Hill flannelbush
Scientific Name: Fremontodendron californicum ssp. decumbens
Status: Endangered

Common Name: El Dorado bedstraw
Scientific Name: Galium californicum ssp. sierrae
Status: Endangered

Common Name: Sebastopol meadowfoam
Scientific Name: Limnanthes vinculans
Status: Endangered

Common Name: San Joaquin Orcutt grass
Scientific Name: Orcuttia inaequalis
Status: Threatened

Common Name: Sacramento Orcutt grass
Scientific Name: Orcuttia viscida
Status: Endangered

Common Name: Pitkin Marsh lily
Scientific Name: Lilium pardalinum ssp. pitkinense
Status: Endangered

Common Name: Few-flowered navarretia
Scientific Name: Navarretia leucocephala ssp. pauciflora (=N. pauciflora)
Status: Endangered

Common Name: Many-flowered navarretia
Scientific Name: Navarretia leucocephala ssp. plieantha
Status: Endangered

Common Name: Colusa grass
Scientific Name: Neostapfia colusana
Status: Threatened

Common Name: Hairy Orcutt grass
Scientific Name: Orcuttia pilosa
Status: Endangered

Common Name: Lake County stonecrop
Scientific Name: Parvisedum leiocarpum
Status: Endangered

Common Name: Calistoga allocarya
Scientific Name: Plagiobothrys strictus
Status: Endangered

Common Name: Napa bluegrass
Scientific Name: Poa napensis
Status: Endangered

Common Name: Hartweg's golden sunburst
Scientific Name: Pseudobahia bahiifolia
Status: Endangered

Common Name: San Joaquin adobe sunburst
Scientific Name: Pseudobahia peirsonii
Status: Threatened

Common Name: Layne's butterweed
Scientific Name: Senecio layneae
Status: Threatened

Common Name: Keck's Checker-mallow
Scientific Name: Sidalcea keckii
Status: Endangered

Common Name: Kenwood Marsh checker-mallow
Scientific Name: Sidalcea oregana ssp. valida

Federal Endangered Species from the U.S. Fish and Wildlife for CA State (Continued...)

Status: Endangered

Common Name: Metcalf Canyon jewelflower
Scientific Name: Streptanthus albidus ssp. albidus
Status: Endangered

Common Name: Presidio Manzanita
Scientific Name: Arctostaphylos hookeri var. ravenii
Status: Endangered

Common Name: Sonoma sunshine
Scientific Name: Blennosperma bakeri
Status: Endangered

Common Name: Tiburon mariposa lily
Scientific Name: Calochortus tiburonensis
Status: Threatened

Common Name: Coyote ceanothus
Scientific Name: Ceanothus ferrisae
Status: Endangered

Common Name: Sonoma spineflower
Scientific Name: Chorizanthe valida
Status: Endangered

Common Name: Tiburon jewelflower
Scientific Name: Streptanthus niger
Status: Endangered

Common Name: Hidden Lake bluecurls
Scientific Name: Trichostema austromontanum ssp. compactum
Status: Threatened

Common Name: Fountain thistle
Scientific Name: Cirsium fontinale var. fontinale
Status: Endangered

Common Name: Presidio clarkia
Scientific Name: Clarkia franciscana
Status: Endangered

Common Name: Palmate-bracted bird’s beak
Scientific Name: Cordylanthus palmatus
Status: Endangered

Common Name: Tiburon paintbrush
Scientific Name: Castilleja affinis ssp. neglecta
Status: Endangered

Common Name: Sonoma alopecurus
Scientific Name: Alopecurus aequalis var. sonomensis
Status: Endangered

Common Name: Ione manzanita
Scientific Name: Arctostaphylos myrtifolia
Status: Threatened

Common Name: Pallid manzanita
Scientific Name: Arctostaphylos pallida
Status: Threatened

Common Name: Solano grass
Scientific Name: Tuctoria mucronata
Status: Endangered

Common Name: San Mateo thornmint
Scientific Name: Acanthomintha obovata ssp. duttonii
Status: Endangered

Common Name: Clara Hunt’s milk-vetch
Scientific Name: Astragalus clarianus
Status: Endangered

Federal Endangered Species from the U.S. Fish and Wildlife for CA State (Continued...)

Common Name: Chinese Camp brodiaea — Scientific Name: Brodiaea pallida
Status: Threatened

Common Name: Mariposa pussypaws — Scientific Name: Calyptridium pulchellum
Status: Threatened

Common Name: Stebbins' morning-glory — Scientific Name: Calystegia stebbinsii
Status: Endangered

Common Name: White sedge — Scientific Name: Carex albida
Status: Endangered

Common Name: Santa Clara Valley dudleya — Scientific Name: Dudleya setchellii
Status: Endangered

Common Name: Island tree poppy — Scientific Name: Dendromecon rigida rhamnoides
Status: Species of Concern

Common Name: Northcoast birds-beak — Scientific Name: Cordylanthus maritimus palustris
Status: Species of Concern

Common Name: Loch Lomond coyote thistle — Scientific Name: Eryngium constancei
Status: Endangered

Common Name: Red Hills vervain — Scientific Name: Verbena californica
Status: Threatened

Common Name: San Francisco lessingia — Scientific Name: Lessingia germanorum (=L.g. var. germanorum)
Status: Endangered

Common Name: Payson's jewelflower — Scientific Name: Caulanthus simulans
Status: Species of Concern

Common Name: Santa Barbara false-lupine — Scientific Name: Thermopsis macrophylla agnina
Status: Species of Concern

Common Name: Beaked clarkia — Scientific Name: Clarkia rostrata
Status: Species of Concern

Common Name: Boundary Peak rock-cress — Scientific Name: Boechera pinzliae
Status: Species of Concern

Common Name: Island jepsonia — Scientific Name: Jepsonia malvifolia
Status: Species of Concern

Common Name: Channel Island tree poppy — Scientific Name: Dendromecon rigida ssp. harfordii
Status: Species of Concern

Common Name: Springville clarkia — Scientific Name: Clarkia springvillensis
Status: Threatened

Common Name: Pennell's bird's-beak — Scientific Name: Cordylanthus tenuis ssp. capillaris
Status: Endangered

Common Name: Hollisteria — Scientific Name: Hollisteria lanata
Status: Species of Concern

Federal Endangered Species from the U.S. Fish and Wildlife for CA State (Continued...)

Common Name: Tuolumne fawn-lily
Scientific Name: Erythronium tuolumnense
Status: Species of Concern

Common Name: No common name
Scientific Name: Holocarpha virgata elongata
Status: Species of Concern

Common Name: Peirson's spring beauty
Scientific Name: Claytonia lanceolata peirsonii
Status: Species of Concern

Common Name: Hispid birds-beak
Scientific Name: Cordylanthus mollis hispidus
Status: Species of Concern

Common Name: Wart-stemmed ceanothus
Scientific Name: Ceanothus verrucosus
Status: Species of Concern

Common Name: Oso manzanita
Scientific Name: Arctostaphylos osoensis
Status: Species of Concern

Common Name: Dudley's lousewort
Scientific Name: Pedicularis dudleyi
Status: Species of Concern

Common Name: Pierpoint Springs liveforever
Scientific Name: Dudleya cymosa costifolia
Status: Species of Concern

Common Name: Mono milk-vetch
Scientific Name: Astragalus monoensis monoensis
Status: Species of Concern

Common Name: Kern mallow
Scientific Name: Eremalche kernensis
Status: Endangered

Common Name: San Mateo woolly sunflower
Scientific Name: Eriophyllum latilobum
Status: Endangered

Common Name: Long-petaled lewisia
Scientific Name: Lewisia longipetala
Status: Species of Concern

Common Name: Monterrey manzanita
Scientific Name: Arctostaphylos montereyensis
Status: Species of Concern

Common Name: [Unnamed] checkermallow
Scientific Name: Sidalcea malvaeflora patula
Status: Species of Concern

Common Name: Howe's hedgehog cactus
Scientific Name: Echinocereus engelmannii howei
Status: Species of Concern

Common Name: Tuolumne coyote-thistle
Scientific Name: Eryngium pinnatisectum
Status: Species of Concern

Common Name: No common name
Scientific Name: Lessingia micradenia micradenia
Status: Species of Concern

Common Name: Santa Catalina Island manzanita
Scientific Name: Arctostaphylos catalinae
Status: Species of Concern

Common Name: Cuyamaca raspberry
Scientific Name: Rubus glaucifolius ganderi
Status: Species of Concern

Federal Endangered Species from the U.S. Fish and Wildlife for CA State (Continued...)

Common Name: [Unnamed] milk-vetch
Scientific Name: Astragalus lentiformis
Status: Species of Concern

Common Name: Brandegee eriastrum
Scientific Name: Eriastrum brandegeeae
Status: Species of Concern

Common Name: San Clemente Island brodiaea
Scientific Name: Triteleia clementina
Status: Species of Concern

Common Name: Summer-holly
Scientific Name: Comarostaphylis diversifolia diversifolia
Status: Species of Concern

Common Name: Borrego Valley peppergrass
Scientific Name: Lepidium flavum felipense
Status: Species of Concern

Common Name: Ahart's dwarf rush
Scientific Name: Juncus leiospermus var. ahartii
Status: Species of Concern

Common Name: No common name
Scientific Name: Chorizanthe polygonoides longispina
Status: Species of Concern

Common Name: San Francisco wallflower
Scientific Name: Erysimum franciscanum
Status: Species of Concern

Common Name: Diablo rock-rose
Scientific Name: Helianthella castanea
Status: Species of Concern

Common Name: Carmel Valley malacothrix
Scientific Name: Malacothrix saxatilis arachnoidea
Status: Species of Concern

Common Name: Lupine, San Mateo tre
Scientific Name: Lupinus arboreus eximius
Status: Species of Concern

Common Name: No common name
Scientific Name: Dendrographa leucophaea
Status: Species of Concern

Common Name: Butte County meadowfoam
Scientific Name: Limnanthes floccosa ssp. californica
Status: Endangered

Common Name: Bakersfield cactus
Scientific Name: Opuntia treleasei
Status: Endangered

Common Name: Klamath manzanita
Scientific Name: Arctostaphylos klamathensis
Status: Species of Concern

Common Name: Laguna Mountains aster
Scientific Name: Machaeranthera asteroides lagunensis
Status: Species of Concern

Common Name: Heart-leaved pitcher-sage
Scientific Name: Lepechinia cardiophylla
Status: Species of Concern

Common Name: Caper-fruited tropidocarpum
Scientific Name: Tropidocarpum capparideum
Status: Species of Concern

Common Name: Santiago Peak phacelia
Scientific Name: Phacelia suaveolens keckii
Status: Species of Concern

Federal Endangered Species from the U.S. Fish and Wildlife for CA State (Continued...)

Common Name: Panamint daisy — Scientific Name: Enceliopsis covillei
Status: Species of Concern

Common Name: Shasta River mariposa lily — Scientific Name: Calochortus monanthus
Status: Species of Concern

Common Name: Jaeger's bush milk-vetch — Scientific Name: Astragalus pachypus jaegeri
Status: Species of Concern

Common Name: Mouse buckwheat — Scientific Name: Eriogonum nudum murinum
Status: Species of Concern

Common Name: Ashy phacelia — Scientific Name: Phacelia distans
Status: Species of Concern

Common Name: Little mousetail — Scientific Name: Myosurus minimus apus
Status: Species of Concern

Common Name: Orcutt's dudleya — Scientific Name: Dudleya attentuata orcuttii
Status: Species of Concern

Common Name: Star-fruited, small stonecrop — Scientific Name: Sedum radiatum depauperatum
Status: Species of Concern

Common Name: Bodie Hills draba — Scientific Name: Cusickiella quadricostata
Status: Species of Concern

Common Name: Pappose spikeweed — Scientific Name: Hemizonia parryi congdonii
Status: Species of Concern

Common Name: Hoover's rosinweed — Scientific Name: Calycadenia hooveri
Status: Species of Concern

Common Name: Glandular dwarf-flax — Scientific Name: Hesperolinon adenophyllum
Status: Species of Concern

Common Name: Otay lotus — Scientific Name: Lotus crassifolius otayensis
Status: Species of Concern

Common Name: Kingston Mountains cinquefoil — Scientific Name: Ivesia patellifera
Status: Species of Concern

Common Name: Bear Valley wooly-pod — Scientific Name: Astragalus leucolobus
Status: Species of Concern

Common Name: Bellinger's meadowfoam — Scientific Name: Limnanthes floccosa bellingeriana
Status: Species of Concern

Common Name: San Clemente Island milk-vetch — Scientific Name: Astragalus nevinii
Status: Species of Concern

Common Name: Bear Valley pyrrocoma — Scientific Name: Pyrrocoma uniflora gossypina
Status: Species of Concern

Common Name: Munz's mariposa lily — Scientific Name: Calochortus palmeri munzii
Status: Species of Concern

Federal Endangered Species from the U.S. Fish and Wildlife for CA State (Continued...)

Common Name: Orcutt's linanthus
Scientific Name: Linanthus orcuttii
Status: Species of Concern

Common Name: Tiburon tarweed
Scientific Name: Hemizonia multicaulis vernalis
Status: Species of Concern

Common Name: Warner Springs lessingia
Scientific Name: Lessingia glandulifera tomentosa
Status: Species of Concern

Common Name: Descanso milk-vetch
Scientific Name: Astragalus oocarpus
Status: Species of Concern

Common Name: Klamath gentian
Scientific Name: Gentiana plurisetosa
Status: Species of Concern

Common Name: Little San Bernardino Mountains gilia
Scientific Name: Gilia maculata
Status: Species of Concern

Common Name: Mono Lake lupine
Scientific Name: Lupinus duranii
Status: Species of Concern

Common Name: Suisun aster
Scientific Name: Aster chilensis lentus
Status: Species of Concern

Common Name: Kruckeberg's jewelflower
Scientific Name: Streptanthus morrisonii kruckebergii
Status: Species of Concern

Common Name: Ferris' milk-vetch
Scientific Name: Astragalus tener var. ferrisae
Status: Species of Concern

Common Name: Salinas Valley popcornflower
Scientific Name: Plagiobothrys uncinatus
Status: Species of Concern

Common Name: Twisselmann's nemacladus
Scientific Name: Nemacladus twisselmannii
Status: Species of Concern

Common Name: Orange lupine
Scientific Name: Lupinus citrinus
Status: Species of Concern

Common Name: Cuesta Pass sidalcea
Scientific Name: Sidalcea hickmanii anomala
Status: Species of Concern

Common Name: San Francisco popcornflower
Scientific Name: Plagiobothrys torreyi var. diffusus
Status: Species of Concern

Common Name: Catalina ironwood
Scientific Name: Lyonothamnus floribundus floribundus
Status: Species of Concern

Common Name: Orcutt's brodiaea
Scientific Name: Brodiaea orcuttii
Status: Species of Concern

Common Name: Parry's horkelia
Scientific Name: Horkelia parryi
Status: Species of Concern

Common Name: Panamint Mountains lupine
Scientific Name: Lupinus magnificus magnificus
Status: Species of Concern

Federal Endangered Species from the U.S. Fish and Wildlife for CA State (Continued...)

Common Name: Mono Hot Springs evening-primrose — Scientific Name: Camissonia sierrae alticola
Status: Species of Concern

Common Name: Forked fiddleneck — Scientific Name: Amsinckia vernicosa furcata
Status: Species of Concern

Common Name: Jaeger's caulostramina — Scientific Name: Caulostramina jaegeri
Status: Species of Concern

Common Name: San Bernardino butterweed — Scientific Name: Packera bernardina
Status: Species of Concern

Common Name: Island tree mallow — Scientific Name: Lavatera assurgentiflora
Status: Species of Concern

Common Name: Wedge-leaved horkelia — Scientific Name: Horkelia cuneata sericea
Status: Species of Concern

Common Name: Arroyo Seco bush-mallow — Scientific Name: Malacothamnus palmeri lucianus
Status: Species of Concern

Common Name: Sand mesa manzanita — Scientific Name: Arctostaphylos rudis
Status: Species of Concern

Common Name: Sonoma ceanothus — Scientific Name: Ceanothus sonomensis
Status: Species of Concern

Common Name: Santa Lucia manzanita — Scientific Name: Arctostaphylos luciana
Status: Species of Concern

Common Name: Refugio manzanita — Scientific Name: Arctostaphylos refugioensis
Status: Species of Concern

Common Name: Donner Pass buckwheat — Scientific Name: Eriogonum umbellatum torreyanum
Status: Species of Concern

Common Name: Orcutt's bird's-beak — Scientific Name: Cordylanthus orcuttianus
Status: Species of Concern

Common Name: Piute buckwheat — Scientific Name: Eriogonum breedlovei breedlovei
Status: Species of Concern

Common Name: San Bernardino Mountains dudleya — Scientific Name: Dudleya abramsii affinis
Status: Species of Concern

Common Name: Dwarf goldenstar — Scientific Name: Bloomeria humilis
Status: Species of Concern

Common Name: Ojai frtillary — Scientific Name: Fritillaria ojaiensis
Status: Species of Concern

Common Name: Humboldt Bay owl's clover — Scientific Name: Castilleja ambigua humboldtiensis
Status: Species of Concern

Common Name: Prostrate hosackia — Scientific Name: Lotus nuttallianus
Status: Species of Concern

Federal Endangered Species from the U.S. Fish and Wildlife for CA State (Continued...)

Common Name: San Luis Obispo monardella — Scientific Name: Monardella frutescens
Status: Species of Concern

Common Name: Closed-lip beardtongue — Scientific Name: Penstemon personatus
Status: Species of Concern

Common Name: Velvety false-lupine — Scientific Name: Thermopsis macrophylla semota
Status: Species of Concern

Common Name: Nuttall's scrub oak — Scientific Name: Quercus dumosa
Status: Species of Concern

Common Name: San Gabriel manzanita — Scientific Name: Arctostaphylos gabrielensis
Status: Species of Concern

Common Name: Hanaupah laphamia — Scientific Name: Perityle villosa
Status: Species of Concern

Common Name: Seaside, Coulter's daisy — Scientific Name: Lasthenia glabrata coulteri
Status: Species of Concern

Common Name: Sp. nov. ined. (chaparral) beargrass — Scientific Name: Nolina sp.
Status: Species of Concern

Common Name: Palmer's mariposa lily — Scientific Name: Calochortus palmeri palmeri
Status: Species of Concern

Common Name: No common name — Scientific Name: Ivesia longibracteata
Status: Species of Concern

Common Name: Ertter's milk-vetch — Scientific Name: Astragalus ertterae
Status: Species of Concern

Common Name: Heartscale — Scientific Name: Atriplex cordulata
Status: Species of Concern

Common Name: Mt. Eddy draba — Scientific Name: Draba carnosula
Status: Species of Concern

Common Name: Shirley Meadows mariposa lily — Scientific Name: Calochortus westonii
Status: Species of Concern

Common Name: Candleholder dudleya — Scientific Name: Dudleya candelabrum
Status: Species of Concern

Common Name: Santa Cruz gooseberry — Scientific Name: Ribes thacherianum
Status: Species of Concern

Common Name: Munz cholla — Scientific Name: Opuntia munzii
Status: Species of Concern

Common Name: Lakeside ceanothus — Scientific Name: Ceanothus cyaneus
Status: Species of Concern

Common Name: Point Reyes meadowfoam — Scientific Name: Limnanthes douglasii sulphurea
Status: Species of Concern

Federal Endangered Species from the U.S. Fish and Wildlife for CA State (Continued...)

Common Name: Los Angeles sunflower — Scientific Name: Helianthus nuttallii parishii
Status: Species of Concern

Common Name: Howell's lewisia — Scientific Name: Lewisia cotyledon howellii
Status: Species of Concern

Common Name: Santa Barbara Island cream cups — Scientific Name: Platystemon californicus ciliatus
Status: Species of Concern

Common Name: Island snapdragon — Scientific Name: Gambelia speciosa
Status: Species of Concern

Common Name: Adobe sanicle — Scientific Name: Sanicula maritima
Status: Species of Concern

Common Name: Nissenan manzanita — Scientific Name: Arctostaphylos nissenana
Status: Species of Concern

Common Name: Parish's rock-cress — Scientific Name: Arabis parishii
Status: Species of Concern

Common Name: Tiehm's rock-cress — Scientific Name: Arabis tiehmii
Status: Species of Concern

Common Name: Yosemite wooly-sunflower — Scientific Name: Eriophyllum nubigenum
Status: Species of Concern

Common Name: Jones layia — Scientific Name: Layia jonesii
Status: Species of Concern

Common Name: White bear desert-poppy — Scientific Name: Arctomecon merriamii
Status: Species of Concern

Common Name: Panamint dudleya — Scientific Name: Dudleya saxosa saxosa
Status: Species of Concern

Common Name: Dunn's mariposa lily — Scientific Name: Calochortus dunnii
Status: Species of Concern

Common Name: California dissanthelium — Scientific Name: Dissanthelium californicum
Status: Species of Concern

Common Name: Temblor buckwheat — Scientific Name: Eriogonum temblorense
Status: Species of Concern

Common Name: Shaw's agave — Scientific Name: Agave shawii
Status: Species of Concern

Common Name: Pickering ivesia — Scientific Name: Ivesia pickeringii
Status: Species of Concern

Common Name: Forked buckwheat — Scientific Name: Eriogonum bifurcatum
Status: Species of Concern

Common Name: San Bernardino rock-cress — Scientific Name: Arabis breweri pecuniaria
Status: Species of Concern

Federal Endangered Species from the U.S. Fish and Wildlife for CA State (Continued...)

Common Name: Butterworth's buckwheat — Scientific Name: Eriogonum butterworthianum
Status: Species of Concern

Common Name: Borrego aster — Scientific Name: Xylorhiza orcuttii
Status: Species of Concern

Common Name: The Lassics lupine — Scientific Name: Lupinus constancei
Status: Species of Concern

Common Name: Giant spanishneedle — Scientific Name: Palafoxia arida gigantea
Status: Species of Concern

Common Name: San Clemente island bedstraw — Scientific Name: Galium catalinense acrispum
Status: Species of Concern

Common Name: Pecho manzanita — Scientific Name: Arctostaphylos pechoensis
Status: Species of Concern

Common Name: Lavin's milk-vetch — Scientific Name: Astragalus oophorus lavinii
Status: Species of Concern

Common Name: Tahquitz ivesia — Scientific Name: Ivesia callida
Status: Species of Concern

Common Name: Adder's-mouth — Scientific Name: Malaxis brachypoda
Status: Species of Concern

Common Name: Black-flowered figwort — Scientific Name: Scrophularia atrata
Status: Species of Concern

Common Name: Indian Valley brodiaea — Scientific Name: Brodiaea coronaria rosea
Status: Species of Concern

Common Name: Alkali mariposa lily — Scientific Name: Calochortus striatus
Status: Species of Concern

Common Name: Franciscan manzanita — Scientific Name: Arctostaphylos franciscana
Status: Endangered

Common Name: Coast lily — Scientific Name: Lilium maritimum
Status: Species of Concern

Common Name: Mt. Gleason paintbrush — Scientific Name: Castilleja gleasonii
Status: Species of Concern

Common Name: Gander's pitcher-sage — Scientific Name: Lepechinia ganderi
Status: Species of Concern

Common Name: Mt. Tamalpais thistle — Scientific Name: Cirsium hydrophilum vaseyi
Status: Species of Concern

Common Name: Greene's mariposa lily — Scientific Name: Calochortus greenei
Status: Species of Concern

Common Name: Yellow-tubered toothwort — Scientific Name: Cardamine nuttallii
Status: Species of Concern

Federal Endangered Species from the U.S. Fish and Wildlife for CA State (Continued...)

Common Name: Mendocino bush-mallow — Scientific Name: Malacothamnus mendocinensis
Status: Species of Concern

Common Name: Mono phacelia — Scientific Name: Phacelia monoensis
Status: Species of Concern

Common Name: Butte County catchfly — Scientific Name: Silene occidentalis longistipitata
Status: Species of Concern

Common Name: Barton Flats horkelia — Scientific Name: Horkelia wilderae
Status: Species of Concern

Common Name: No common name — Scientific Name: Ivesia jaegeri
Status: Species of Concern

Common Name: Rusby’s desert-mallow — Scientific Name: Sphaeralcea rusbyi eremicola
Status: Species of Concern

Common Name: Oregon fireweed — Scientific Name: Epilobium oreganum
Status: Species of Concern

Common Name: Pallid birds-beak — Scientific Name: Cordylanthus tenuis pallescens
Status: Species of Concern

Common Name: San Clemente Island evening-primrose — Scientific Name: Camissonia guadalupensis clementina
Status: Species of Concern

Common Name: Carmel Valley bush-mallow — Scientific Name: Malacothamnus palmeri involucratus
Status: Species of Concern

Common Name: Coast wallflower — Scientific Name: Erysimum ammophilum
Status: Species of Concern

Common Name: Hutchinson’s delphinium — Scientific Name: Delphinium hutchinsonae
Status: Species of Concern

Common Name: Otay manzanita — Scientific Name: Arctostaphylos otayensis
Status: Species of Concern

Common Name: Jacumba milk-vetch — Scientific Name: Astragalus douglasii perstrictus
Status: Species of Concern

Common Name: Santa Susana tarweed — Scientific Name: Hemizonia minthornii
Status: Species of Concern

Common Name: Santa Lucia pogogyne — Scientific Name: Pogogyne clareana
Status: Species of Concern

Common Name: Moreno currant — Scientific Name: Ribes canthariforme
Status: Species of Concern

Common Name: Pine City stonecrop — Scientific Name: Sedum pinetorum
Status: Species of Concern

Common Name: [Unnamed] milk-vetch — Scientific Name: Astragalus tegetarioides
Status: Species of Concern

Federal Endangered Species from the U.S. Fish and Wildlife for CA State (Continued...)

Common Name: Cienega Seca oxytheca — Scientific Name: Oxytheca parishii ciengensis
Status: Species of Concern

Common Name: Tracy's sanicle — Scientific Name: Sanicula tracyi
Status: Species of Concern

Common Name: Tulare horkelia — Scientific Name: Horkelia tularensis
Status: Species of Concern

Common Name: Palmer's haplopappus — Scientific Name: Haplopappus palmeri palmeri
Status: Species of Concern

Common Name: Northcoast semaphore grass — Scientific Name: Pleuropogon hooverianus
Status: Species of Concern

Common Name: Mt. Hamilton jewelflower — Scientific Name: Streptanthus callistus
Status: Species of Concern

Common Name: Recurved larkspur — Scientific Name: Delphinium recurvatum
Status: Species of Concern

Common Name: Hospital Canyon larkspur — Scientific Name: Delphinium californicum interius
Status: Species of Concern

Common Name: Island wallflower — Scientific Name: Erysimum insulare insulare
Status: Species of Concern

Common Name: Talus fritillary — Scientific Name: Fritillaria falcata
Status: Species of Concern

Common Name: Mendocino gentian — Scientific Name: Gentiana setigera
Status: Species of Concern

Common Name: Lost Hills saltbush — Scientific Name: Atriplex vallicola
Status: Species of Concern

Common Name: Vine Hill manzanita — Scientific Name: Arctostaphylos densiflora
Status: Species of Concern

Common Name: Bolander's horkelia — Scientific Name: Horkelia bolanderi
Status: Species of Concern

Common Name: Howell's montia — Scientific Name: Montia howellii
Status: Species of Concern

Common Name: July gold — Scientific Name: Dedeckera eurekensis
Status: Species of Concern

Common Name: Santa Catalina figwort — Scientific Name: Scrophularia villosa
Status: Species of Concern

Common Name: Ahart's whitlow-wort — Scientific Name: Paronychia ahartii
Status: Species of Concern

Common Name: Fern-leaved ironwood — Scientific Name: Lyonothamnus floribundus asplenifolius
Status: Species of Concern

Federal Endangered Species from the U.S. Fish and Wildlife for CA State (Continued...)

Common Name: The Lassics sandwort — Scientific Name: Minuartia decumbens
Status: Species of Concern

Common Name: Fremont's rosinweed — Scientific Name: Calycadenia fremontii
Status: Species of Concern

Common Name: Valley spearscale — Scientific Name: Atriplex joaquiniana
Status: Species of Concern

Common Name: Secund jewelflower — Scientific Name: Streptanthus glandulosus hoffmanii
Status: Species of Concern

Common Name: Plumas ivesia — Scientific Name: Ivesia sericoleuca
Status: Species of Concern

Common Name: Arid northern clarkia — Scientific Name: Clarkia borealis arida
Status: Species of Concern

Common Name: Bonny Doon manzanita — Scientific Name: Arctostaphylos silvicola
Status: Species of Concern

Common Name: Santa Catalina monkey-flower — Scientific Name: Mimulus traskiae
Status: Species of Concern

Common Name: No common name — Scientific Name: Eschscholzia multiflora twisselmannii
Status: Species of Concern

Common Name: Barstow wooly-sunflower — Scientific Name: Eriophyllum mohavense
Status: Species of Concern

Common Name: Pitkin Marsh paintbrush — Scientific Name: Castilleja uliginosa
Status: Species of Concern

Common Name: Pleasant Valley mariposa lily — Scientific Name: Calochortus clavatus avius
Status: Species of Concern

Common Name: Short-jointed beavertail cactus — Scientific Name: Opuntia basilaris brachyclada
Status: Species of Concern

Common Name: San Bernardino Mountains monkey-flower — Scientific Name: Mimulus exiguus
Status: Species of Concern

Common Name: Scott Valley phacelia — Scientific Name: Phacelia greenei
Status: Species of Concern

Common Name: San Luis serpentine dudleya — Scientific Name: Dudleya abramsii bettinae
Status: Species of Concern

Common Name: Marble Mountain catchfly — Scientific Name: Silene marmorensis
Status: Species of Concern

Common Name: Parrish's brittlescale — Scientific Name: Atriplex parishii
Status: Species of Concern

Common Name: Flax-like monardella — Scientific Name: Monardella linoides oblonga
Status: Species of Concern

Federal Endangered Species from the U.S. Fish and Wildlife for CA State (Continued...)

Common Name: Western bog violet
Scientific Name: Viola primulifolia occidentalis
Status: Species of Concern

Common Name: Johnston's buckwheat
Scientific Name: Eriogonum microthecum johnstonii
Status: Species of Concern

Common Name: Whipple's monkey-flower
Scientific Name: Mimulus whipplei
Status: Species of Concern

Common Name: Drymaria dwarf-flax
Scientific Name: Hesperolinon drymarioides
Status: Species of Concern

Common Name: Jared's peppergrass
Scientific Name: Lepidium jaredii jaredii
Status: Species of Concern

Common Name: Crisp monardella
Scientific Name: Monardella crispa
Status: Species of Concern

Common Name: Humboldt Bay gumplant
Scientific Name: Grindelia stricta blakei
Status: Species of Concern

Common Name: Jointed buckwheat
Scientific Name: Eriogonum intrafractum
Status: Species of Concern

Common Name: Charlotte's phacelia
Scientific Name: Phacelia nashiana
Status: Species of Concern

Common Name: Heckner's lewisia
Scientific Name: Lewisia cotyledon heckneri
Status: Species of Concern

Common Name: Munz's hedgehog cactus
Scientific Name: Echinocereus engelmannii munzii
Status: Species of Concern

Common Name: Goldenbush
Scientific Name: Isocoma arguta
Status: Species of Concern

Common Name: Bodie Hills rock-cress
Scientific Name: Arabis bodiensis
Status: Species of Concern

Common Name: No common name
Scientific Name: Stylocline masonii
Status: Species of Concern

Common Name: Compact cobweb thistle
Scientific Name: Cirsium occidentale compactum
Status: Species of Concern

Common Name: No common name
Scientific Name: Teloschistes villosus
Status: Species of Concern

Common Name: Peirson's morning-glory
Scientific Name: Calystegia peirsonii
Status: Species of Concern

Common Name: The Cedars globe-lily
Scientific Name: Calochortus raichei
Status: Species of Concern

Common Name: No common name
Scientific Name: Lessingia arachnoidea
Status: Species of Concern

Federal Endangered Species from the U.S. Fish and Wildlife for CA State (Continued...)

Common Name: Sierra Valley ivesia — Scientific Name: Ivesia aperta aperta
Status: Species of Concern

Common Name: Ballona cinquefoil — Scientific Name: Potentilla multijuga
Status: Species of Concern

Common Name: Silver-haired ivesia — Scientific Name: Ivesia argyrocoma
Status: Species of Concern

Common Name: No common name — Scientific Name: Heterodermia erinacea
Status: Species of Concern

Common Name: San Benito spineflower — Scientific Name: Chorizanthe biloba immemora
Status: Species of Concern

Common Name: Cedar Crest allocarya — Scientific Name: Plagiobothrys glyptocarpus modestus
Status: Species of Concern

Common Name: Trinity phacelia — Scientific Name: Phacelia dalesiana
Status: Species of Concern

Common Name: Kingston bedstraw — Scientific Name: Galium hilendiae kingstonense
Status: Species of Concern

Common Name: Short-leaved dudleya — Scientific Name: Dudleya blochmaniae blochmaniae
Status: Species of Concern

Common Name: [Unnamed] linanthus — Scientific Name: Linanthus concinnus
Status: Species of Concern

Common Name: Point Reyes stickyseed — Scientific Name: Blennosperma nanum robustum
Status: Species of Concern

Common Name: Mason’s lilaeopsis — Scientific Name: Lilaeopsis masonii
Status: Species of Concern

Common Name: Mojave tarweed — Scientific Name: Hemizonia mohavensis
Status: Species of Concern

Common Name: Island hazardia — Scientific Name: Hazardia cana
Status: Species of Concern

Common Name: Parish’s gooseberry — Scientific Name: Ribes divaricatum parishii
Status: Species of Concern

Common Name: Mt. Hamilton thistle — Scientific Name: Cirsium fontinale campylon
Status: Species of Concern

Common Name: Conejo buckwheat — Scientific Name: Eriogonum crocatum
Status: Species of Concern

Common Name: Masonic Mountain jewelflower — Scientific Name: Streptanthus oliganthus
Status: Species of Concern

Common Name: Panamint Mountains buckwheat — Scientific Name: Eriogonum microthecum panamintense
Status: Species of Concern

Federal Endangered Species from the U.S. Fish and Wildlife for CA State (Continued...)

Common Name: Egg Lake monkey-flower
Scientific Name: Mimulus pygmaeus
Status: Species of Concern

Common Name: Black wooly-pod
Scientific Name: Astragalus funereus
Status: Species of Concern

Common Name: Cuyamaca larkspur
Scientific Name: Delphinium hesperium cuyamacae
Status: Species of Concern

Common Name: Cooke's phacelia
Scientific Name: Phacelia cookei
Status: Species of Concern

Common Name: Marin checkermallow
Scientific Name: Sidalcea hickmanii viridis
Status: Species of Concern

Common Name: Henderson's bentgrass
Scientific Name: Agrostis hendersonii
Status: Species of Concern

Common Name: Nine Mile Canyon phacelia
Scientific Name: Phacelia novenmillensis
Status: Species of Concern

Common Name: Curve-podded Mojave milk-vetch
Scientific Name: Astragalus mohavensis hemigyrus
Status: Species of Concern

Common Name: Freed's jewelflower
Scientific Name: Streptanthus brachiatus hoffmanii
Status: Species of Concern

Common Name: Snake cholla
Scientific Name: Opuntia parryi serpentina
Status: Species of Concern

Common Name: Wolf's evening-primrose
Scientific Name: Oenothera wolfii
Status: Species of Concern

Common Name: Stephens' beardtongue
Scientific Name: Penstemon stephensii
Status: Species of Concern

Common Name: Parish's phacelia
Scientific Name: Phacelia parishii
Status: Species of Concern

Common Name: Blasdale's bentgrass
Scientific Name: Agrostis blasdalei blasdalei
Status: Species of Concern

Common Name: [Unnamed] scurf-pea
Scientific Name: Pediomelum castoreum
Status: Species of Concern

Common Name: Shaggy-hair lupine
Scientific Name: Lupinus spectabilis
Status: Species of Concern

Common Name: Short-lobed broomrape
Scientific Name: Orobanche parishii brachyloba
Status: Species of Concern

Common Name: San Nicolas Island lomatium
Scientific Name: Lomatium insulare
Status: Species of Concern

Common Name: Tecopa bird's-beak
Scientific Name: Cordylanthus tecopensis
Status: Species of Concern

Federal Endangered Species from the U.S. Fish and Wildlife for CA State (Continued...)

Common Name: Many-stemmed liveforever
Scientific Name: Dudleya multicaulis
Status: Species of Concern

Common Name: Hearst's ceanothus
Scientific Name: Ceanothus hearstiorum
Status: Species of Concern

Common Name: Variegated dudleya
Scientific Name: Dudleya variegata
Status: Species of Concern

Common Name: Sandmat manzanita
Scientific Name: Arctostaphylos pumila
Status: Species of Concern

Common Name: Northern California black walnut
Scientific Name: Juglans californica hindsii
Status: Species of Concern

Common Name: Delta tule-pea
Scientific Name: Lathyrus jepsonii jepsonii
Status: Species of Concern

Common Name: Stebbins lewisia
Scientific Name: Lewisia stebbinsii
Status: Species of Concern

Common Name: Wilkin's harebell
Scientific Name: Campanula wilkinsiana
Status: Species of Concern

Common Name: Cup Lake draba
Scientific Name: Draba asterophora macrocarpa
Status: Species of Concern

Common Name: Mecca aster
Scientific Name: Xylorhiza cognata
Status: Species of Concern

Common Name: Small-leaved rose
Scientific Name: Rosa minutifolia
Status: Species of Concern

Common Name: Cambria morning-glory
Scientific Name: Calystegia subacaulis episcopalis
Status: Species of Concern

Common Name: San Benito thornmint
Scientific Name: Acanthomintha obovata obovata
Status: Species of Concern

Common Name: Bear Valley phlox
Scientific Name: Phlox dolichantha
Status: Species of Concern

Common Name: Owens Peak lomatium
Scientific Name: Lomatium shevockii
Status: Species of Concern

Common Name: Wild Rose Canyon buckwheat
Scientific Name: Eriogonum eremicola
Status: Species of Concern

Common Name: Mt. Saint Helena morning-glory
Scientific Name: Calystegia collina oxyphylla
Status: Species of Concern

Common Name: Large red buckwheat
Scientific Name: Eriogonum grande rubescens
Status: Species of Concern

Common Name: Dog Valley ivesia
Scientific Name: Ivesia aperta canina
Status: Species of Concern

Federal Endangered Species from the U.S. Fish and Wildlife for CA State (Continued...)

Common Name: Del Norte manzanita — Scientific Name: Arctostaphylos nortensis
Status: Species of Concern

Common Name: [Unnamed] milk-vetch — Scientific Name: Astragalus gilmanii
Status: Species of Concern

Common Name: Seaside birds-beak — Scientific Name: Cordylanthus rigidus littoralis
Status: Species of Concern

Common Name: Sp. nov. ined. (Del Norte) rock-cress — Scientific Name: Arabis sp.
Status: Species of Concern

Common Name: California marina — Scientific Name: Marina orcuttii orcuttii
Status: Species of Concern

Common Name: San Felipe monardella — Scientific Name: Monardella nana leptosiphon
Status: Species of Concern

Common Name: San Francisco owl's-clover — Scientific Name: Triphysaria floribunda
Status: Species of Concern

Common Name: San Benito fritillary — Scientific Name: Fritillaria viridea
Status: Species of Concern

Common Name: Red-flowered lotus — Scientific Name: Lotus rubriflorus
Status: Species of Concern

Common Name: Palmer's grapplinghook — Scientific Name: Harpagonella palmeri palmeri
Status: Species of Concern

Common Name: No common name — Scientific Name: Stylocline citroleum
Status: Species of Concern

Common Name: Humboldt lily — Scientific Name: Lilium humboldtii ocellatum
Status: Species of Concern

Common Name: Death Valley sandpaperplant — Scientific Name: Petalonyx thurberi gilmanii
Status: Species of Concern

Common Name: San Diego marsh elder — Scientific Name: Iva hayesiana
Status: Species of Concern

Common Name: Merced phacelia — Scientific Name: Phacelia ciliata opaca
Status: Species of Concern

Common Name: Tomales clarkia — Scientific Name: Clarkia concinna raichei
Status: Species of Concern

Common Name: Spinysepaled eryngo — Scientific Name: Eryngium spinosepalum
Status: Species of Concern

Common Name: Bakersfield saltbush — Scientific Name: Atriplex tularensis
Status: Species of Concern

Common Name: Dorr's Cabin jewelflower — Scientific Name: Streptanthus morrisonii hirtiflorus
Status: Species of Concern

Federal Endangered Species from the U.S. Fish and Wildlife for CA State (Continued...)

Common Name: No common name — Scientific Name: Malacothrix crispifolia
Status: Species of Concern

Common Name: Mt. Tedoc linanthus — Scientific Name: Linanthus nuttallii howellii
Status: Species of Concern

Common Name: Smooth tarplant — Scientific Name: Hemizonia pungens laevis
Status: Species of Concern

Common Name: Pajaroensis manzanita — Scientific Name: Arctostaphylos pajaroensis
Status: Species of Concern

Common Name: Rock sanicle — Scientific Name: Sanicula saxatilis
Status: Species of Concern

Common Name: Kernville poppy — Scientific Name: Eschscholzia procera
Status: Species of Concern

Common Name: Mt. Hamilton coreopsis — Scientific Name: Coreopsis hamiltonii
Status: Species of Concern

Common Name: No common name — Scientific Name: Lessingia micradenia glabrata
Status: Species of Concern

Common Name: Aphanisma — Scientific Name: Aphanisma blitoides
Status: Species of Concern

Common Name: Mosquin’s clarkia — Scientific Name: Clarkia mosquinii mosquinii
Status: Species of Concern

Common Name: East Bay clarkia — Scientific Name: Clarkia concinna automixa
Status: Species of Concern

Common Name: Silky cryptantha — Scientific Name: Cryptantha crinita
Status: Species of Concern

Common Name: Bensoniella — Scientific Name: Bensoniella oregona
Status: Species of Concern

Common Name: Santa Margarita manzanita — Scientific Name: Arctostaphylos pilosula pilosula
Status: Species of Concern

Common Name: Robison’s monardella — Scientific Name: Monardella robisonii
Status: Species of Concern

Common Name: Brewer’s dwarf-flax — Scientific Name: Hesperolinon breweri
Status: Species of Concern

Common Name: Howell’s alkali grass — Scientific Name: Puccinellia howellii
Status: Species of Concern

Common Name: Maritime california-lilac — Scientific Name: Ceanothus maritimus
Status: Species of Concern

Common Name: No common name — Scientific Name: Collinsia antonina
Status: Species of Concern

Federal Endangered Species from the U.S. Fish and Wildlife for CA State (Continued...)

Common Name: Schreiber's manzanita — Scientific Name: Arctostaphylos glutinosa
Status: Species of Concern

Common Name: Pale-yellow layia — Scientific Name: Layia heterotricha
Status: Species of Concern

Common Name: Hardham's evening-primrose — Scientific Name: Camissonia hardhamiae
Status: Species of Concern

Common Name: Comanche layia — Scientific Name: Layia leucopappa
Status: Species of Concern

Common Name: Southern tarplant — Scientific Name: Hemizonia parryi australis
Status: Species of Concern

Common Name: Howell's tauschia — Scientific Name: Tauschia howellii
Status: Species of Concern

Common Name: Lake County dwarf-flax — Scientific Name: Hesperolinon didymocarpum
Status: Species of Concern

Common Name: Morrison's jewelflower — Scientific Name: Streptanthus morrisonii morrisonii
Status: Species of Concern

Common Name: Rincon ceanothus — Scientific Name: Ceanothus confusus
Status: Species of Concern

Common Name: Little Sur manzanita — Scientific Name: Arctostaphylos edmundsii
Status: Species of Concern

Common Name: Valley sagittaria — Scientific Name: Sagittaria sanfordii
Status: Species of Concern

Common Name: Rock lady — Scientific Name: Holmgrenanthe petrophila
Status: Species of Concern

Common Name: Cone Peak bedstraw — Scientific Name: Galium californicum luciense
Status: Species of Concern

Common Name: Butte County sidalcea — Scientific Name: Sidalcea robusta
Status: Species of Concern

Common Name: San Nicolas Island buckwheat — Scientific Name: Eriogonum grande timorum
Status: Species of Concern

Common Name: No common name — Scientific Name: Malacothrix intermedia
Status: Species of Concern

Common Name: Dune larkspur — Scientific Name: Delphinium parryi blochmaniae
Status: Species of Concern

Common Name: Amargosa penstemon — Scientific Name: Penstemon fruticiformis amargosae
Status: Species of Concern

Common Name: Preston Peak rock-cress — Scientific Name: Arabis mcdonaldiana
Status: Species of Concern

Federal Endangered Species from the U.S. Fish and Wildlife for CA State (Continued...)

Common Name: Thread-leaved penstemon — Scientific Name: Penstemon filiformis
Status: Species of Concern

Common Name: Blair's munzothamnus — Scientific Name: Stephanomeria blairii
Status: Species of Concern

Common Name: Stebbins' madia — Scientific Name: Madia stebbinsii
Status: Species of Concern

Common Name: Mission Canyon bluecup — Scientific Name: Githopsis diffusa filicaulis
Status: Species of Concern

Common Name: Saw-toothed lewisia — Scientific Name: Lewisia serrata
Status: Species of Concern

Common Name: White-margined penstemon — Scientific Name: Penstemon albomarginatus
Status: Species of Concern

Common Name: Contact Mine streptanthus — Scientific Name: Streptanthus brachiatus brachiatus
Status: Species of Concern

Common Name: Coast barrel cactus — Scientific Name: Ferocactus viridescens
Status: Species of Concern

Common Name: Santa Cruz manzanita — Scientific Name: Arctostaphylos andersonii
Status: Species of Concern

Common Name: San Jacinto bedstraw — Scientific Name: Galium californicum primum
Status: Species of Concern

Common Name: Mt. Vision ceanothus — Scientific Name: Ceanothus gloriosus porrectus
Status: Species of Concern

Common Name: Rock Creek broomrape — Scientific Name: Orobanche valida valida
Status: Species of Concern

Common Name: Raiches manzanita — Scientific Name: Arctostaphylos stanfordiana raichei
Status: Species of Concern

Common Name: Sandfood — Scientific Name: Pholisma sonorae
Status: Species of Concern

Common Name: Spanish needle onion — Scientific Name: Allium shevockii
Status: Species of Concern

Common Name: Petaluma popcornflower — Scientific Name: Plagiobothrys mollis vestitus
Status: Species of Concern

Common Name: Montara manzanita — Scientific Name: Arctostaphylos montaraensis
Status: Species of Concern

Common Name: [Unnamed] adobe-lily — Scientific Name: Fritillaria pluriflora
Status: Species of Concern

Common Name: Snow Mountain buckwheat — Scientific Name: Eriogonum nervulosum
Status: Species of Concern

Federal Endangered Species from the U.S. Fish and Wildlife for CA State (Continued...)

Common Name: Supple daisy — Scientific Name: Erigeron supplex
Status: Species of Concern

Common Name: Hoover's button-celery — Scientific Name: Eryngium aristulatum hooveri
Status: Species of Concern

Common Name: San Luis lupine — Scientific Name: Lupinus ludovicianus
Status: Species of Concern

Common Name: Legenere — Scientific Name: Legenere limosa
Status: Species of Concern

Common Name: Pink sand-verbena — Scientific Name: Abronia umbellata breviflora
Status: Species of Concern

Common Name: Prostrate buckwheat — Scientific Name: Eriogonum prociduum
Status: Species of Concern

Common Name: Butte County morning-glory — Scientific Name: Calystegia atriplicifolia buttensis
Status: Species of Concern

Common Name: San Bernardino Mountains orthocarpus — Scientific Name: Castilleja lasiorhyncha
Status: Species of Concern

Common Name: Parry's tetracoccus — Scientific Name: Tetracoccus dioicus
Status: Species of Concern

Common Name: Red Rock tarweed — Scientific Name: Hemizonia arida
Status: Species of Concern

Common Name: Trinity buckwheat — Scientific Name: Eriogonum alpinum
Status: Species of Concern

Common Name: Applegate stonecrop — Scientific Name: Sedum oblanceolatum
Status: Species of Concern

Common Name: Twisselmann's buckwheat — Scientific Name: Eriogonum twisselmannii
Status: Species of Concern

Common Name: San Clemente Island buckwheat — Scientific Name: Eriogonum giganteum formosum
Status: Species of Concern

Common Name: Algodones Dunes sunflower — Scientific Name: Helianthus niveus tephrodes
Status: Species of Concern

Common Name: Plummer's mariposa lily — Scientific Name: Calochortus plummerae
Status: Species of Concern

Common Name: Point Reyes horkelia — Scientific Name: Horkelia marinensis
Status: Species of Concern

Common Name: Davidson's bush-mallow — Scientific Name: Malacothamnus davidsonii
Status: Species of Concern

Common Name: Bristlecone catseye — Scientific Name: Cryptantha roosiorum
Status: Species of Concern

Federal Endangered Species from the U.S. Fish and Wildlife for CA State (Continued...)

Common Name: Vine Hill ceanothus
Scientific Name: Ceanothus foliosus vineatus
Status: Species of Concern

Common Name: Marin knotweed
Scientific Name: Polygonum marinense
Status: Species of Concern

Common Name: Hardy Creek barberry
Scientific Name: Berberis nervosa mendocinensis
Status: Species of Concern

Common Name: Parasol clover
Scientific Name: Trifolium bolanderi
Status: Species of Concern

Common Name: Fragrant fritillary
Scientific Name: Fritillaria liliacea
Status: Species of Concern

Common Name: Ziegler's layia
Scientific Name: Layia platyglossa
Status: Species of Concern

Common Name: Seaside tarweed
Scientific Name: Hemizonia multicaulis multicaulis
Status: Species of Concern

Common Name: Foothill mariposa lily
Scientific Name: Calochortus weedii intermedius
Status: Species of Concern

Common Name: Mendocino coast paintbrush
Scientific Name: Castilleja mendocinensis
Status: Species of Concern

Common Name: Slough thistle
Scientific Name: Cirsium crassicaule
Status: Species of Concern

Common Name: South Coast Range morning-glory
Scientific Name: Calystegia collina venusta
Status: Species of Concern

Common Name: Cache Peak buckwheat
Scientific Name: Eriogonum kennedyi pinicola
Status: Species of Concern

Common Name: California beaked-rush
Scientific Name: Rhynchospora californica
Status: Species of Concern

Common Name: Pringle monardella
Scientific Name: Monardella pringlei
Status: Species of Concern

Common Name: Southern island phacelia
Scientific Name: Phacelia floribunda
Status: Species of Concern

Common Name: Humboldt milk-vetch
Scientific Name: Astragalus agnicidus
Status: Species of Concern

Common Name: Trask's milk-vetch
Scientific Name: Astragalus traskiae
Status: Species of Concern

Common Name: Veiny monardella
Scientific Name: Monardella douglasii venosa
Status: Species of Concern

Common Name: Tecate tarweed
Scientific Name: Hemizonia floribunda
Status: Species of Concern

Federal Endangered Species from the U.S. Fish and Wildlife for CA State (Continued...)

Common Name: South coast saltbush — Scientific Name: Atriplex pacifica
Status: Species of Concern

Common Name: Arroyo de la Cruz manzanita — Scientific Name: Arctostaphylos cruzensis
Status: Species of Concern

Common Name: Santa Cruz Island monkey-flower — Scientific Name: Mimulus brandegeei
Status: Species of Concern

Common Name: Northcoast phacelia — Scientific Name: Phacelia insularis continentis
Status: Species of Concern

Common Name: Sand dune phacelia — Scientific Name: Phacelia argentea
Status: Under Review

Common Name: Inyo mariposa lily — Scientific Name: Calochortus excavatus
Status: Species of Concern

Common Name: Webber’s milk-vetch — Scientific Name: Astragalus webberi
Status: Species of Concern

Common Name: Delta coyote-thistle — Scientific Name: Eryngium racemosum
Status: Species of Concern

Common Name: Hall’s madia — Scientific Name: Madia hallii
Status: Species of Concern

Common Name: Red Hills soaproot — Scientific Name: Chlorogalum grandiflorum
Status: Species of Concern

Common Name: No common name — Scientific Name: Ceanothus arboreus glaber
Status: Species of Concern

Common Name: Guadalupe Island lupine — Scientific Name: Lupinus guadalupensis
Status: Species of Concern

Common Name: Sequoia gooseberry — Scientific Name: Ribes tularensis
Status: Species of Concern

Common Name: Swamp harebell — Scientific Name: Campanula californica
Status: Species of Concern

Common Name: Parry’s spineflower — Scientific Name: Chorizanthe parryi parryi
Status: Species of Concern

Common Name: Parish’s bush-mallow — Scientific Name: Malacothamnus parishii
Status: Species of Concern

Common Name: Tamalpais manzanita — Scientific Name: Arctostaphylos hookeri montana
Status: Species of Concern

Common Name: San Clemente Island brodiaea — Scientific Name: Brodiaea kinkiensis
Status: Species of Concern

Common Name: Tamalpais jewelflower — Scientific Name: Streptanthus batrachopus
Status: Species of Concern

Federal Endangered Species from the U.S. Fish and Wildlife for CA State (Continued...)

Common Name: Panoche peppergrass
Scientific Name: Lepidium jaredii album
Status: Species of Concern

Common Name: Dacite manzanita
Scientific Name: Arctostaphylos tomentosa daciticola
Status: Species of Concern

Common Name: Fresno County bird's-beak
Scientific Name: Cordylanthus tenuis barbatus
Status: Species of Concern

Common Name: Bolinas ceanothus
Scientific Name: Ceanothus masonii
Status: Species of Concern

Common Name: No common name
Scientific Name: Astragalus lentiginosus antonius
Status: Species of Concern

Common Name: San Diego goldenstar
Scientific Name: Muilla clevelandii
Status: Species of Concern

Common Name: Hearsts' manzanita
Scientific Name: Arctostaphylos hookeri hearstiorum
Status: Species of Concern

Common Name: Orocopia sage
Scientific Name: Salvia greatai
Status: Species of Concern

Common Name: Abbott's bush-mallow
Scientific Name: Malacothamnus abbottii
Status: Species of Concern

Common Name: Merced monardella
Scientific Name: Monardella leucocephala
Status: Species of Concern

Common Name: Alverson's foxtail cactus
Scientific Name: Coryphantha vivipara alversonii
Status: Species of Concern

Common Name: San Gabriel River dudleya
Scientific Name: Dudleya cymosa crebrifolia
Status: Species of Concern

Common Name: Kern River daisy
Scientific Name: Erigeron multiceps
Status: Species of Concern

Common Name: Jepson's onion
Scientific Name: Allium jepsonii
Status: Species of Concern

Common Name: Auburua Ranch jewelflower
Scientific Name: Streptanthus insignis lyonii
Status: Species of Concern

Common Name: Saline Valley phacelia
Scientific Name: Phacelia amabilis
Status: Species of Concern

Common Name: Nevada oryctes
Scientific Name: Oryctes nevadensis
Status: Species of Concern

Common Name: Kaweah brodiaea
Scientific Name: Brodiaea insignis
Status: Species of Concern

Common Name: Baldwin Lake linanthus
Scientific Name: Linanthus killipii
Status: Species of Concern

Federal Endangered Species from the U.S. Fish and Wildlife for CA State (Continued...)

Common Name: Mt. Diablo jewelflower — Scientific Name: Streptanthus hispidus
Status: Species of Concern

Common Name: Thorne's buckwheat — Scientific Name: Eriogonum ericifolium thornei
Status: Species of Concern

Common Name: Diamond-petaled poppy — Scientific Name: Eschscholzia rhombipetala
Status: Species of Concern

Common Name: Showy raillardella — Scientific Name: Raillardella pringlei
Status: Species of Concern

Common Name: Scadden Flat checkerbloom — Scientific Name: Sidalcea stipularis
Status: Species of Concern

Common Name: Slender mariposa lily — Scientific Name: Calochortus clavatus gracilis
Status: Species of Concern

Common Name: Mojave monkey-flower — Scientific Name: Mimulus mohavensis
Status: Species of Concern

Common Name: Anthony Peak lupine — Scientific Name: Lupinus antoninus
Status: Species of Concern

Common Name: No common name — Scientific Name: Arnica lonchophylla
Status: Species of Concern

Common Name: Poison Canyon stickseed — Scientific Name: Hackelia brevicula
Status: Species of Concern

Common Name: Borrego bedstraw — Scientific Name: Galium angustifolium borregoense
Status: Species of Concern

Common Name: Hickman's onion — Scientific Name: Allium hickmanii
Status: Species of Concern

Common Name: One-awned spineflower — Scientific Name: Chorizanthe rectispina
Status: Species of Concern

Common Name: Inyo laphamia — Scientific Name: Perityle inyoensis
Status: Species of Concern

Common Name: DeDecker's lupine — Scientific Name: Lupinus padre-crowleyi
Status: Species of Concern

Common Name: Thurber's reedgrass — Scientific Name: Calamagrostis crassiglumis
Status: Species of Concern

Common Name: Stebbins' lomatium — Scientific Name: Lomatium stebbinsii
Status: Species of Concern

Common Name: Sp. nov. ined. (Pit River) jewelflower — Scientific Name: Streptanthus sp.
Status: Species of Concern

Common Name: Mountains Springs bush lupine — Scientific Name: Lupinus excubitus medius
Status: Species of Concern

Federal Endangered Species from the U.S. Fish and Wildlife for CA State (Continued...)

Common Name: Gander butterweed
Scientific Name: Packera ganderi
Status: Species of Concern

Common Name: Forest Camp sandwort
Scientific Name: Arenaria macradenia kuschei
Status: Species of Concern

Common Name: Monterey ceanothus
Scientific Name: Ceanothus cuneatus rigidus
Status: Species of Concern

Common Name: Most beautiful jewelflower
Scientific Name: Streptanthus albidus peramoenus
Status: Species of Concern

Common Name: San Francisco gumplant
Scientific Name: Grindelia hirsuta maritima
Status: Species of Concern

Common Name: Mt. Hamilton harebell
Scientific Name: Campanula sharsmithiae
Status: Species of Concern

Common Name: Congdon’s lomatium
Scientific Name: Lomatium congdonii
Status: Species of Concern

Common Name: Plaskett Meadows linanthus
Scientific Name: Linanthus harknessii condensatus
Status: Species of Concern

Common Name: Lemon colored fawn-lily
Scientific Name: Erythronium citrinum rodrickii
Status: Species of Concern

Common Name: Raven’s milk-vetch
Scientific Name: Astragalus monoensis ravenii
Status: Species of Concern

Common Name: Nevin’s wooly-sunflower
Scientific Name: Eriophyllum nevinii
Status: Species of Concern

Common Name: California ditaxis
Scientific Name: Ditaxis serrata
Status: Species of Concern

Common Name: Tehama dwarf-flax
Scientific Name: Hesperolinon tehamense
Status: Species of Concern

Common Name: Piute Mountains jewelflower
Scientific Name: Streptanthus cordatus piutensis
Status: Species of Concern

Common Name: No common name
Scientific Name: Calochortus weedii vestus
Status: Species of Concern

Common Name: Slender pentachaeta
Scientific Name: Pentachaeta exilis aeolica
Status: Species of Concern

Common Name: Purple monkey-flower
Scientific Name: Mimulus purpureus purpureus
Status: Species of Concern

Common Name: Calistoga ceanothus
Scientific Name: Ceanothus divergens
Status: Species of Concern

Common Name: Butte fritillary
Scientific Name: Fritillaria eastwoodiae
Status: Species of Concern

Federal Endangered Species from the U.S. Fish and Wildlife for CA State (Continued...)

Common Name: Pale yellow lupine — Scientific Name: Lupinus luteolus
Status: Species of Concern

Common Name: Arroyo de la Cruz mariposa lily — Scientific Name: Calochortus clavatus recurvifolius
Status: Species of Concern

Common Name: Umpqua green-gentian — Scientific Name: Frasera fastigiata
Status: Species of Concern

Common Name: Canyon Creek stonecrop — Scientific Name: Sedum paradisum
Status: Species of Concern

Common Name: Ash Creek ivesia — Scientific Name: Ivesia paniculata
Status: Species of Concern

Common Name: Cliff spurge — Scientific Name: euphorbia misera
Status: Species of Concern

Common Name: Small-flowered morning-glory — Scientific Name: Convolvulus equitans
Status: Species of Concern

Common Name: Beautiful Hulsea — Scientific Name: Hulsea vestita ssp. callicarpha
Status: Species of Concern

Common Name: Cleveland's bush monkeyflower — Scientific Name: Diplacus clevelandii
Status: Species of Concern

Common Name: Fish's milkwort — Scientific Name: Polygala cornuta var. fishiae
Status: Species of Concern

Common Name: Mt. Diablo phacelia — Scientific Name: Phacelia phacelioides
Status: Species of Concern

Common Name: Gairdner's yampah — Scientific Name: Perideridia gairdneri gairdneri
Status: Species of Concern

Common Name: Santa Catalina Island desert-thorn — Scientific Name: Lycium hassei
Status: Species of Concern

Common Name: No common name — Scientific Name: Lecanora xanthosora
Status: Species of Concern

Common Name: Stebbins' phacelia — Scientific Name: Phacelia stebbinsii
Status: Species of Concern

Common Name: Silver, Santa Cruz Island hosackia — Scientific Name: Lotus argophyllus niveus
Status: Species of Concern

Common Name: Smooth pungent forsellesia — Scientific Name: Glossopetalon pungens glabra
Status: Species of Concern

Common Name: Eastwood's goldenweed — Scientific Name: Ericameria fasciculata
Status: Species of Concern

Common Name: Rayless layia — Scientific Name: Layia discoidea
Status: Species of Concern

Federal Endangered Species from the U.S. Fish and Wildlife for CA State (Continued...)

Common Name: San Gabriel bedstraw — Scientific Name: Galium grande
Status: Species of Concern

Common Name: Island morning-glory — Scientific Name: Calystegia macrostegia amplissima
Status: Species of Concern

Common Name: Santa Barbara Island buckwheat — Scientific Name: Eriogonum giganteum compactum
Status: Species of Concern

Common Name: The Geysers panic grass — Scientific Name: Dichanthelium acuminatum acuminatum
Status: Species of Concern

Common Name: Flat-seeded spurge — Scientific Name: Chamaesyce platysperma
Status: Species of Concern

Common Name: Narrow-leaved nightshade — Scientific Name: Solanum tenuilobatum
Status: Species of Concern

Common Name: Green liveforever — Scientific Name: Dudleya virens
Status: Species of Concern

Common Name: Three Peaks jewelflower — Scientific Name: Streptanthus morrisonii elatus
Status: Species of Concern

Common Name: Big Bear milk-vetch — Scientific Name: Astragalus lentiginosus sierrae
Status: Species of Concern

Common Name: Deane’s milk-vetch — Scientific Name: Astragalus deanei
Status: Species of Concern

Common Name: Ft. Tejon wooly-sunflower — Scientific Name: Eriophyllum lanatum hallii
Status: Species of Concern

Common Name: El Dorado mule-ears — Scientific Name: Wyethia reticulata
Status: Species of Concern

Common Name: Siskiyou onion — Scientific Name: Allium tribracteatum
Status: Species of Concern

Common Name: Enterprise clarkia — Scientific Name: Clarkia mosquinii xerophila
Status: Species of Concern

Common Name: San Francisco Bay spineflower — Scientific Name: Chorizanthe cuspidata cuspidata
Status: Species of Concern

Common Name: Santa Cruz silverpuffs — Scientific Name: Stebbinsoseris decipiens
Status: Species of Concern

Common Name: Hetch Hetchy monkey-flower — Scientific Name: Mimulus filicaulis
Status: Species of Concern

Common Name: Caliente clarkia — Scientific Name: Clarkia tembloriensis ssp. calientensis
Status: Species of Concern

Common Name: Lemon lily — Scientific Name: Lilium parryi
Status: Species of Concern

Federal Endangered Species from the U.S. Fish and Wildlife for CA State (Continued...)

Common Name: Two carpeled dwarf-flax
Scientific Name: Hesperolinon bicarpellatum
Status: Species of Concern

Common Name: Baker's meadowfoam
Scientific Name: Limnanthes bakeri
Status: Species of Concern

Group:Insects

Common Name: Denning's cryptic caddisfly
Scientific Name: Cryptochia denningi
Status: Species of Concern

Common Name: Shirttail Creek stonefly
Scientific Name: Megaleuctra sierra
Status: Species of Concern

Common Name: Sonoma arctic skipper
Scientific Name: Carterocephalus palaemon ssp.
Status: Species of Concern

Common Name: Globose dune beetle
Scientific Name: Coelus globosus
Status: Species of Concern

Common Name: Sierra pygmy grasshopper
Scientific Name: Tetrix sierrana
Status: Species of Concern

Common Name: Bumblebee scarab
Scientific Name: Lichnanthe ursina
Status: Species of Concern

Common Name: Franklin's bumblebee
Scientific Name: Bombus franklini
Status: Under Review

Common Name: Gold rush hanging fly
Scientific Name: Orbittacus obscurus
Status: Species of Concern

Common Name: Brownish dubiraphian riffle beetle
Scientific Name: Dubiraphia brunnescens
Status: Species of Concern

Common Name: Coachella Valley jerusalem cricket
Scientific Name: Stenopelmatus cahuilaensis
Status: Species of Concern

Common Name: Desert monkey grasshopper
Scientific Name: Psychomastix deserticola
Status: Species of Concern

Common Name: Point Conception jerusalem cricket
Scientific Name: Ammopelmatus muwu
Status: Species of Concern

Common Name: Sacramento anthicid
Scientific Name: Anthicus sacramento
Status: Species of Concern

Common Name: Wawona riffle beetle
Scientific Name: Atractelmis wawona
Status: Species of Concern

Common Name: San Joaquin tiger beetle
Scientific Name: Cicindela tranquebarica ssp.
Status: Species of Concern

Common Name: Sagehen Creek goeracean caddisfly
Scientific Name: Goeracea oregona
Status: Species of Concern

Federal Endangered Species from the U.S. Fish and Wildlife for CA State (Continued...)

Common Name: Hopping's blister beetle — Scientific Name: Lytta hoppingi
Status: Species of Concern

Common Name: Kelso Dune glaresis scarab — Scientific Name: Glaresis arenata
Status: Species of Concern

Common Name: Wilbur Springs shore fly — Scientific Name: Paracoenia calida
Status: Species of Concern

Common Name: Antioch andrenid bee — Scientific Name: Perdita scitula antiochensis
Status: Species of Concern

Common Name: Point Reyes blue — Scientific Name: Icaricia icariodes ssp.
Status: Species of Concern

Common Name: Simple hydroporus diving beetle — Scientific Name: Hydroporus simplex
Status: Species of Concern

Common Name: Antioch cophuran robberfly — Scientific Name: Cophura hurdi
Status: Species of Concern

Common Name: MacNeill sooty wing skipper — Scientific Name: Hesperopsis gracielae
Status: Species of Concern

Common Name: King's Creek ecclisomyian caddisfly — Scientific Name: Ecclisomyia bilera
Status: Species of Concern

Common Name: King's Creek parapsyche caddisfly — Scientific Name: Parapsyche extensa
Status: Species of Concern

Common Name: Kings Canyon cryptochian caddisfly — Scientific Name: Cryptochia excella
Status: Species of Concern

Common Name: San Clemente Island coenonycha beetle — Scientific Name: Coenonycha clementina
Status: Species of Concern

Common Name: Spiny rhyacophilan caddisfly — Scientific Name: Rhyacophila spinata
Status: Species of Concern

Common Name: Delta june beetle — Scientific Name: Polyphylla stellata
Status: Species of Concern

Common Name: Trinity Alps ground beetle — Scientific Name: Nebria sahlbergii triad
Status: Species of Concern

Common Name: San Francisco lacewing — Scientific Name: Nothochrysa californica
Status: Species of Concern

Common Name: San Gabriel Mountains blue — Scientific Name: Plejebus saepiolus ssp.
Status: Species of Concern

Common Name: White Mountains copper — Scientific Name: Lycaena rubicus ssp.
Status: Species of Concern

Common Name: Oso Flaco patch butterfly — Scientific Name: Chlosyne leanira osoflaco
Status: Species of Concern

Federal Endangered Species from the U.S. Fish and Wildlife for CA State (Continued...)

Common Name: Golden-horned caddisfly
Scientific Name: Neothremma genella
Status: Species of Concern

Common Name: Rude's long-horned beetle
Scientific Name: Necydalis rudei
Status: Species of Concern

Common Name: Busck's gall moth
Scientific Name: Carolella busckana
Status: Species of Concern

Common Name: Andrew's marble butterfly
Scientific Name: Euchloe hyantis andrewsi
Status: Species of Concern

Common Name: [Unnamed] ground beetle
Scientific Name: Scaphinotus behrensi
Status: Species of Concern

Common Name: White Mountains saepiolus blue
Scientific Name: Plejebus saepiolus ssp.
Status: Species of Concern

Common Name: White Mountains sandhill skipper
Scientific Name: Polites sabuleti albomontana
Status: Species of Concern

Common Name: Greenest tiger beetle
Scientific Name: Cicindela tranquebarica viridissima
Status: Species of Concern

Common Name: Siskiyou caddisfly
Scientific Name: Neothremma siskiyou
Status: Species of Concern

Common Name: Casey's June Beetle
Scientific Name: Dinacoma caseyi
Status: Endangered

Common Name: Channel Islands dune beetle
Scientific Name: Coelus pacificus
Status: Species of Concern

Common Name: Hurd's metapogon robberfly
Scientific Name: Metapogon hurdi
Status: Species of Concern

Common Name: Molestan blister beetle
Scientific Name: Lytta molesta
Status: Species of Concern

Common Name: Nelson's miloderes weevil
Scientific Name: Miloderes nelsoni
Status: Species of Concern

Common Name: Lake Tahoe benthic stonefly
Scientific Name: Capnia lacustra
Status: Species of Concern

Common Name: Bilobed rhyacophilan caddisfly
Scientific Name: Rhyacophila mosana
Status: Species of Concern

Common Name: Santa Cruz Island shore weevil
Scientific Name: Trigonoscuta stantoni
Status: Species of Concern

Common Name: Ancient ant
Scientific Name: Smithistruma reliquia
Status: Species of Concern

Common Name: Pinnacles shield-back katydid
Scientific Name: Idiostatus kathleenae
Status: Species of Concern

Federal Endangered Species from the U.S. Fish and Wildlife for CA State (Continued...)

Common Name: Oso Flaco robber fly — Scientific Name: Ablautus schlingeri
Status: Species of Concern

Common Name: Morro Bay blue butterfly — Scientific Name: Icaricia icarioides moroensis
Status: Species of Concern

Common Name: Valley mydas fly — Scientific Name: Rhaphiomidas trochilus
Status: Under Review

Common Name: Giuliani's dubiraphian riffle beetle — Scientific Name: Dubiraphia giulianii
Status: Species of Concern

Common Name: Amphibious caddisfly — Scientific Name: Desmona bethula
Status: Species of Concern

Common Name: Cheese-weed moth lacewing — Scientific Name: Oliarces clara
Status: Species of Concern

Common Name: Monarch buttefly — Scientific Name: Danaus plexippus plexippus
Status: Under Review

Common Name: Humboldt ground beetle — Scientific Name: Scaphinotus longiceps
Status: Species of Concern

Common Name: Curved-foot hygrotus diving beetle — Scientific Name: Hygrotus curvipes
Status: Species of Concern

Common Name: Mono checkerspot — Scientific Name: Euphydryas editha monoensis
Status: Species of Concern

Common Name: White Mountains icarioides blue — Scientific Name: Plejebus icarioides ssp.
Status: Species of Concern

Common Name: Pinnacles optioservus riffle beetle — Scientific Name: Optioservus canus
Status: Species of Concern

Common Name: Long-tailed caddisfly — Scientific Name: Farula sp.
Status: Species of Concern

Common Name: Santa Monica shieldback katydid — Scientific Name: Neduba longipennis
Status: Species of Concern

Common Name: Mission blue butterfly — Scientific Name: Icaricia icarioides missionensis
Status: Endangered

Common Name: Myrtle's silverspot butterfly — Scientific Name: Speyeria zerene myrtleae
Status: Endangered

Common Name: San Bruno elfin butterfly — Scientific Name: Callophrys mossii bayensis
Status: Endangered

Common Name: Callippe silverspot butterfly — Scientific Name: Speyeria callippe callippe
Status: Endangered

Common Name: Delhi Sands flower-loving fly — Scientific Name: Rhaphiomidas terminatus abdominalis
Status: Endangered

Federal Endangered Species from the U.S. Fish and Wildlife for CA State (Continued...)

Common Name: California diplectronan caddisfly
Scientific Name: Diplectrona californica
Status: Species of Concern

Common Name: Wandering skipper
Scientific Name: Panoquina errans
Status: Species of Concern

Common Name: [Unnamed] riffle beetle
Scientific Name: Microcylleopus similis
Status: Species of Concern

Common Name: Spring Mountains icarioides blue
Scientific Name: Plejebus icarioides ssp.
Status: Species of Concern

Common Name: Lange's El Segundo Dune weevil
Scientific Name: Onychobaris langei
Status: Species of Concern

Common Name: Sandy beach tiger beetle
Scientific Name: Cicindela hirticollis gravida
Status: Species of Concern

Common Name: Yellow-banded andrenid bee
Scientific Name: Perdita hirticeps luteocincta
Status: Species of Concern

Common Name: Leech's chaetarthrian water scavenger beetle
Scientific Name: Chaetarthria leechi
Status: Species of Concern

Common Name: San Gabriel Mountains elfin
Scientific Name: Incisalia mossii ssp.
Status: Species of Concern

Common Name: Wooly hydroporus diving beetle
Scientific Name: Hydroporus hirsutus
Status: Species of Concern

Common Name: Fort Dick limnephilus caddisfly
Scientific Name: Limnephilus atercus
Status: Species of Concern

Common Name: Ciervo aegialian scarab
Scientific Name: Aegialia concinna
Status: Species of Concern

Common Name: Cold Spring caddisfly
Scientific Name: Lepidostoma ermanae
Status: Species of Concern

Common Name: White Mountains skipper
Scientific Name: Hesperia mirimae ssp.
Status: Species of Concern

Common Name: Doyen's trigonoscuta dune weevil
Scientific Name: Trigonoscuta sp.
Status: Species of Concern

Common Name: Siskiyou ground beetle
Scientific Name: Nebria gebleri siskiyouensis
Status: Species of Concern

Common Name: Antioch mutillid wasp
Scientific Name: Myrmosula pacifica
Status: Species of Concern

Common Name: Hermes copper butterfly
Scientific Name: Lycaena hermes
Status: Candidate

Common Name: Confusion caddisfly
Scientific Name: Cryptochia shasta

Federal Endangered Species from the U.S. Fish and Wildlife for CA State (Continued...)

Status: Species of Concern

Common Name: Death Valley june beetle — Scientific Name: Polyphylla erratica
Status: Species of Concern

Common Name: Ford's sand dune moth — Scientific Name: Psammobotys fordi
Status: Species of Concern

Common Name: Dorothy's El Segundo Dune weevil — Scientific Name: Trigonoscuta dorothea dorothea
Status: Species of Concern

Common Name: Santa Catalina Island trigonscuta weevil — Scientific Name: Trigonoscuta catalina
Status: Species of Concern

Common Name: Saratoga Springs belostoman bug — Scientific Name: Belostoma saratogae
Status: Species of Concern

Common Name: Antioch Dunes anthicid — Scientific Name: Anthicus antiochensis
Status: Species of Concern

Common Name: Wing-shoulder minute moss beetle — Scientific Name: Ochthebius crassalus
Status: Species of Concern

Common Name: Antioch sphecid wasp — Scientific Name: Philanthus nasalis
Status: Species of Concern

Common Name: Dohrn's elegant eucnemid beetle — Scientific Name: Paleoxenus dohrni
Status: Species of Concern

Common Name: Redheaded sphecid wasp — Scientific Name: Eucerceris ruficeps
Status: Species of Concern

Common Name: [Unnamed] riffle beetle — Scientific Name: Microcylleopus fomicoideus
Status: Species of Concern

Common Name: Boharts' blue — Scientific Name: Philotiella speciosa bohartorum
Status: Species of Concern

Common Name: Castle Crags rhyacophilan caddisfly — Scientific Name: Rhyacophila lineata
Status: Species of Concern

Common Name: Middlekauf's shieldback katydid — Scientific Name: Idiostatus middlekaufi
Status: Species of Concern

Common Name: Atascodero june beetle — Scientific Name: Polyphylla nubila
Status: Species of Concern

Common Name: Travertine band-thigh diving beetle — Scientific Name: Hygrotus fontinalis
Status: Species of Concern

Common Name: Leech's skyline diving beetle — Scientific Name: Hydroporus leechi
Status: Species of Concern

Common Name: South Forks ground beetle — Scientific Name: Nebria darlingtoni
Status: Species of Concern

Federal Endangered Species from the U.S. Fish and Wildlife for CA State (Continued...)

Common Name: Morrison's blister beetle — Scientific Name: Lytta morrisoni
Status: Species of Concern

Common Name: Marin elfin — Scientific Name: Incisalia mossii ssp.
Status: Species of Concern

Common Name: Saline Valley snow-front june beetle — Scientific Name: Polyphylla anteronivea
Status: Species of Concern

Common Name: Wilbur Springs minute moss beetle — Scientific Name: Ochthebius reticulus
Status: Species of Concern

Common Name: Tehachapi Mountain silverspot — Scientific Name: Speyeria egleis tehachapina
Status: Species of Concern

Common Name: Valley oak ant — Scientific Name: Proceratium californicum
Status: Under Review

Common Name: Coachella giant sand treader cricket — Scientific Name: Macrobaenetes valgum
Status: Species of Concern

Common Name: Ricksecker's water scavenger beetle — Scientific Name: Hydrochara rickseckeri
Status: Species of Concern

Common Name: Brown-tassel trigonoscuta weevil — Scientific Name: Trigonoscuta brunneotesselata
Status: Species of Concern

Common Name: Henne's eucosman moth — Scientific Name: Eucosma hennei
Status: Species of Concern

Common Name: Samwell Cave cricket — Scientific Name: Pristoceuthophilus sp.
Status: Species of Concern

Common Name: Kelso jerusalem cricket — Scientific Name: Ammopelmatus kelsoensis
Status: Species of Concern

Common Name: White sand bear scarab — Scientific Name: Lichnanthe albopilosa
Status: Species of Concern

Common Name: Dry Creek cliff strider bug — Scientific Name: Oravelia pege
Status: Species of Concern

Common Name: Antioch efferian robberfly — Scientific Name: Efferia antiochi
Status: Species of Concern

Common Name: San Emigdio blue — Scientific Name: Plebulina emigdionis
Status: Species of Concern

Common Name: Blaisdell trigonoscuta weevil — Scientific Name: Trigonoscuta blaisdelli
Status: Species of Concern

Common Name: Mojave Desert blister beetle — Scientific Name: Lytta inseparata
Status: Species of Concern

Common Name: Oso Flaco flightless moth — Scientific Name: Areniscythris brachypteris
Status: Species of Concern

Federal Endangered Species from the U.S. Fish and Wildlife for CA State (Continued...)

Common Name: Kelso giant sand treader cricket — Scientific Name: Macrobaenetes kelsoensis
Status: Species of Concern

Common Name: Oblivious tiger beetle — Scientific Name: Cicindela latesignata obliviosa
Status: Species of Concern

Common Name: Moestan blister beetle — Scientific Name: Lytta moesta
Status: Species of Concern

Group:Lichens

Common Name: [Unnamed] lichen — Scientific Name: Texosporium sancti-jacobi
Status: Species of Concern

Common Name: Splitting yarn lichen — Scientific Name: Sulcaria isidiisera
Status: Species of Concern

Group:Mammals

Common Name: Tipton kangaroo rat — Scientific Name: Dipodomys nitratoides nitratoides
Status: Endangered

Common Name: White-footed vole — Scientific Name: Arborimus albipes
Status: Species of Concern

Common Name: Buena Vista Lake ornate Shrew — Scientific Name: Sorex ornatus relictus
Status: Endangered

Common Name: Riparian woodrat (=San Joaquin Valley) — Scientific Name: Neotoma fuscipes riparia
Status: Endangered

Common Name: White-eared pocket mouse — Scientific Name: Perognathus alticola alticola
Status: Species of Concern

Common Name: San Nicolas Island fox — Scientific Name: Urocyon littoralis dickeyi
Status: Species of Concern

Common Name: Mountain beaver — Scientific Name: Aplodontia rufa californica
Status: Species of Concern

Common Name: Owens Valley California vole — Scientific Name: Microtus californicus vallicola
Status: Species of Concern

Common Name: Allen’s big-eared bat — Scientific Name: Idionycteris phyllotis
Status: Species of Concern

Common Name: California red tree vole — Scientific Name: Arborimus pomo
Status: Species of Concern

Common Name: Salt marsh ornate shrew — Scientific Name: Sorex ornatus salicornicus
Status: Species of Concern

Common Name: Yuma hispid cotton rat — Scientific Name: Sigmodon hispidus eremicus
Status: Species of Concern

Common Name: Berkeley kangaroo rat — Scientific Name: Dipodomys heermanni berkleyensis

Federal Endangered Species from the U.S. Fish and Wildlife for CA State (Continued...)

Status: Species of Concern

Common Name: Point Reyes jumping mouse
Scientific Name: Zapus trinotatus orarius
Status: Species of Concern

Common Name: Pacific Townsend's big-eared bat
Scientific Name: Plecotus townsendii townsendii
Status: Species of Concern

Common Name: Greater western mastiff-bat
Scientific Name: Eumops perotis californicus
Status: Species of Concern

Common Name: Pallid San Diego pocket mouse
Scientific Name: Perognathus fallax pallidus
Status: Species of Concern

Common Name: Earthquake Merriam's kangaroo rat
Scientific Name: Dipodomys merriami collinus
Status: Species of Concern

Common Name: Los Angeles little pocket mouse
Scientific Name: Perognathus longimembris brevinasus
Status: Species of Concern

Common Name: Lodgepole chipmunk
Scientific Name: Tamias speciosus speciosus
Status: Species of Concern

Common Name: Short-nosed kangaroo rat
Scientific Name: Dipodomys nitratoides brevinasus
Status: Species of Concern

Common Name: Tulare grasshopper mouse
Scientific Name: Onychomys torridus tularensis
Status: Species of Concern

Common Name: Mojave river vole
Scientific Name: Microtus californicus mohavensis
Status: Species of Concern

Common Name: San Francisco dusky-footed woodrat
Scientific Name: Neotoma fuscipes annectens
Status: Species of Concern

Common Name: San Diego black-tailed jackrabbit
Scientific Name: Lepus californicus bennettii
Status: Species of Concern

Common Name: Guadalupe fur seal
Scientific Name: Arctocephalus townsendi
Status: Threatened

Common Name: Dulzura California pocket mouse
Scientific Name: Perognathus californicus femoralis
Status: Species of Concern

Common Name: Stephens' California vole
Scientific Name: Microtus californicus stephensi
Status: Species of Concern

Common Name: Salt marsh vagrant shrew
Scientific Name: Sorex vagrans halicoetes
Status: Species of Concern

Common Name: San Diego desert woodrat
Scientific Name: Neotoma lepida intermedia
Status: Species of Concern

Common Name: Palm Springs little pocket mouse
Scientific Name: Perognathus longimembris bangsi
Status: Species of Concern

Federal Endangered Species from the U.S. Fish and Wildlife for CA State (Continued...)

Common Name: Pale Townsend's big-eared bat — Scientific Name: Plecotus townsendii pallescens
Status: Species of Concern

Common Name: Occult little brown bat — Scientific Name: Myotis lucifugus occultus
Status: Species of Concern

Common Name: California wolverine — Scientific Name: Gulo gulo luteus
Status: Species of Concern

Common Name: San Bernardino northern flying squirrel — Scientific Name: Glaucomys sabrinus californicus
Status: Under Review

Common Name: Tehachapi white-eared pocket mouse — Scientific Name: Perognathus alticola inexpectatus
Status: Species of Concern

Common Name: Colorado River cotton rat — Scientific Name: Sigmodon arizonae plenus
Status: Species of Concern

Common Name: Suisun ornate shrew — Scientific Name: Sorex ornatus sinuosus
Status: Species of Concern

Common Name: Salinas pocket mouse — Scientific Name: Perognathus inornatus psammophilus
Status: Species of Concern

Common Name: Southern grasshopper mouse — Scientific Name: Onychomys torridus ramona
Status: Species of Concern

Common Name: Channel Islands spotted skunk — Scientific Name: Spilogale putorius amphiala
Status: Species of Concern

Common Name: Yuma puma — Scientific Name: Felis concolor browni
Status: Species of Concern

Common Name: Island fox — Scientific Name: Urocyon littoralis
Status: Status Undefined

Common Name: Jacumba little pocket mouse — Scientific Name: Perognathus longimembris internationalis
Status: Species of Concern

Common Name: Spotted bat — Scientific Name: Euderma maculatum
Status: Species of Concern

Common Name: Point Reyes mountain beaver — Scientific Name: Aplodontia rufa phaea
Status: Species of Concern

Common Name: Monterey ornate shrew — Scientific Name: Sorex ornatus salarius
Status: Species of Concern

Common Name: San Joaquin pocket mouse — Scientific Name: Perognathus inornatus
Status: Species of Concern

Common Name: Northwestern San Diego pocket mouse — Scientific Name: Perognathus fallax fallax
Status: Species of Concern

Common Name: Cave myotis — Scientific Name: Myotis velifer
Status: Species of Concern

Federal Endangered Species from the U.S. Fish and Wildlife for CA State (Continued...)

Common Name: California leaf-nosed bat — Scientific Name: Macrotus californicus
Status: Species of Concern

Common Name: Sierra Nevada snowshoe hare — Scientific Name: Lepus americanus tahoensis
Status: Species of Concern

Common Name: San Clemente deer mouse — Scientific Name: Peromyscus maniculatus clementis
Status: Species of Concern

Common Name: Marysville California kangaroo rat — Scientific Name: Dipodomys californicus eximius
Status: Species of Concern

Common Name: San Clemente Island fox — Scientific Name: Urocyon littoralis clementae
Status: Species of Concern

Common Name: Merced kangaroo rat — Scientific Name: Dipodomys heermanni dixoni
Status: Species of Concern

Common Name: Nelson’s antelope ground squirrel — Scientific Name: Ammospermophilus nelsoni
Status: Species of Concern

Common Name: Mexican long-tongued bat — Scientific Name: Choeronycteris mexicana
Status: Species of Concern

Common Name: Alameda Island mole — Scientific Name: Scapanus latimanus parvus
Status: Species of Concern

Common Name: Monterey dusky-footed woodrat — Scientific Name: Neotoma fuscipes luciana
Status: Species of Concern

Common Name: Santa Catalina ornate shrew — Scientific Name: Sorex ornatus willetti
Status: Species of Concern

Common Name: Riparian brush rabbit — Scientific Name: Sylvilagus bachmani riparius
Status: Endangered

Group:Reptiles

Common Name: San Diego ringneck snake — Scientific Name: Diadophis punctatus similis
Status: Species of Concern

Common Name: California horned lizard — Scientific Name: Phrynosoma coronatum frontale
Status: Species of Concern

Common Name: Coronado skink — Scientific Name: Eumeces skiltonianus interparietalis
Status: Species of Concern

Common Name: Rosy boa — Scientific Name: Charina trivirgata
Status: Species of Concern

Common Name: San Diego banded gecko — Scientific Name: Coleonyx variegatus abbotti
Status: Species of Concern

Common Name: San Bernardino ringneck snake — Scientific Name: Diadophis punctatus modestus
Status: Species of Concern

Federal Endangered Species from the U.S. Fish and Wildlife for CA State (Continued...)

Common Name: Banded gila monster — Scientific Name: Heloderma suspectum cinctum
Status: Species of Concern

Common Name: San Diego Mountain king snake — Scientific Name: Lampropeltis zonata pulchra
Status: Species of Concern

Common Name: Panamint alligator lizard — Scientific Name: Elgaria panamintina
Status: Under Review

Common Name: Two-striped garter snake — Scientific Name: Thamnophis hammondii
Status: Species of Concern

Common Name: Santa Cruz Island gopher snake — Scientific Name: Pituophis melanoleucus pumilis
Status: Species of Concern

Common Name: South coast garter snake — Scientific Name: Thamnophis sirtalis ssp.
Status: Species of Concern

Common Name: Southwestern pond turtle — Scientific Name: Actinemys marmorata pallida
Status: Species of Concern

Common Name: Northern red diamond rattlesnake — Scientific Name: Crotalus ruber ruber
Status: Species of Concern

Common Name: Silvery legless lizard — Scientific Name: Anniella pulchra pulchra
Status: Species of Concern

Common Name: Southern rubber boa — Scientific Name: Charina bottae umbratica
Status: Under Review

Common Name: Chuckwalla — Scientific Name: Sauromalus ater
Status: Species of Concern

Common Name: San Bernardino mountain king snake — Scientific Name: Lampropeltis zonata parvirubra
Status: Species of Concern

Common Name: Coastal rosy boa — Scientific Name: Charina trivirgata roseofusca
Status: Species of Concern

Common Name: Sierra night lizard — Scientific Name: Xantusia vigilis sierrae
Status: Species of Concern

Common Name: Coastal western whiptail — Scientific Name: Cnemidophorus tigris multiscutatus
Status: Species of Concern

Common Name: Orange-throated whiptail — Scientific Name: Cnemidophorus hyperythrus
Status: Species of Concern

Common Name: San Diego horned lizard — Scientific Name: Phrynosoma coronatum blainvillii
Status: Species of Concern

Common Name: Coast patch-nosed snake — Scientific Name: Salvadora hexalepis virgultea
Status: Species of Concern

Common Name: San Joaquin whipsnake — Scientific Name: Masticophis flagellum ruddocki
Status: Species of Concern

Federal Endangered Species from the U.S. Fish and Wildlife for CA State (Continued...)

Common Name: Mojave fringe-toed Lizard
Scientific Name: Uma scoparia
Status: Status Undefined

Common Name: Barefoot gecko
Scientific Name: Coleonyx switaki
Status: Species of Concern

Group:Snails

Common Name: Peninsula Coast Range shoulderband
Scientific Name: Helminthoglypta nickliniana awania
Status: Species of Concern

Common Name: White desertsnail
Scientific Name: Eremarionta immaculata
Status: Species of Concern

Common Name: Newcomb's littorine snail
Scientific Name: Algamorda newcombiana
Status: Species of Concern

Common Name: Owens springsnail
Scientific Name: Pyrgulopsis owensensis
Status: Species of Concern

Common Name: [Unnamed] snail
Scientific Name: Valvata virens
Status: Species of Concern

Common Name: Cockerell's striate disc
Scientific Name: Discus shemeki cockerelli
Status: Species of Concern

Common Name: Yates' tight coin
Scientific Name: Ammonitella yatesii
Status: Species of Concern

Common Name: San Clemente islandsnail
Scientific Name: Micrarionta gabbii
Status: Species of Concern

Common Name: Aardhals springsnail
Scientific Name: Pyrgulopsis aardahli
Status: Species of Concern

Common Name: Morongo desertsnail
Scientific Name: Eremarionta morongoana
Status: Species of Concern

Common Name: Wongs springsnail
Scientific Name: Pyrgulopsis wongi
Status: Species of Concern

Common Name: Pomo bronze shoulderband
Scientific Name: Helminthoglypta arrosa pomoensis
Status: Species of Concern

Common Name: Grapevine Springs squat tryonia
Scientific Name: Tryonia rowlandsi
Status: Species of Concern

Common Name: Victorville shoulderband
Scientific Name: Helminthoglypta mohaveana
Status: Species of Concern

Common Name: Bridges' Coast Range shoulderband
Scientific Name: Helminthoglypta nickliniana bridgesi
Status: Species of Concern

Common Name: Kern shoulderband
Scientific Name: Helminthoglypta callistoderma
Status: Species of Concern

Federal Endangered Species from the U.S. Fish and Wildlife for CA State (Continued...)

Common Name: [Unnamed] islandsnail
Scientific Name: Micrarionta rowelli bakerensis
Status: Species of Concern

Common Name: California McCoy snail islandsnail
Scientific Name: Micrarionta rowelli mccoiana
Status: Species of Concern

Common Name: Badwater snail
Scientific Name: Assiminea infima
Status: Species of Concern

Common Name: Mimic tryonia
Scientific Name: Tryonia imitator
Status: Species of Concern

Common Name: Williams' bronze shoulderband
Scientific Name: Helminthoglypta arrosa williamsi
Status: Species of Concern

Common Name: Santa Barbara islandsnail
Scientific Name: Micrarionta facta
Status: Species of Concern

Common Name: Hirsute sierra sideband
Scientific Name: Monadenia mormonum hirsuta
Status: Species of Concern

Common Name: Yosemite mariposa sideband
Scientific Name: Monadenia hillebrandi yosemitensis
Status: Species of Concern

Common Name: Thousand Palms desertsnail
Scientific Name: Eremarionta millepalmarum
Status: Species of Concern

Common Name: Button's Sierra sideband
Scientific Name: Monadenia mormonum buttoni
Status: Species of Concern

Common Name: White Abalone
Scientific Name: Haliotis sorenseni
Status: Endangered

Common Name: Grapevine Springs elongate tryonia
Scientific Name: Tryonia margae
Status: Species of Concern

Common Name: Redwood shoulderband
Scientific Name: Helminthoglypta sequoicola consors
Status: Species of Concern

Common Name: Merced Canyon shoulderband
Scientific Name: Helminthoglypta allynsmithi
Status: Species of Concern

Common Name: Wintu sideband
Scientific Name: Monadenia troglodytes ssp. wintu
Status: Under Review

Common Name: Globular pebblesnail
Scientific Name: Fluminicola sph
Status: Under Review

Common Name: Fish Slough springsnail
Scientific Name: Pyrgulopsis perturbata
Status: Species of Concern

Common Name: Santa Barbara shelled slug
Scientific Name: Binneya notabilis
Status: Species of Concern

Common Name: Shasta sideband
Scientific Name: Monadenia troglodytes troglodytes
Status: Under Review

Federal Endangered Species from the U.S. Fish and Wildlife for CA State (Continued...)

Common Name: Robust tryonia
Scientific Name: Tryonia robusta
Status: Species of Concern

Common Name: Peninsular Range shoulderband
Scientific Name: Helminthoglypta traski coelata
Status: Species of Concern

Common Name: Catalina mountainsnail
Scientific Name: Radiocentrum avalonense
Status: Species of Concern

Common Name: Keeled sideband
Scientific Name: Monadenia circumcarinata
Status: Species of Concern

Common Name: San Nicolas islandsnail
Scientific Name: Micrarionta feralis
Status: Species of Concern

Common Name: Pricklypear islandsnail
Scientific Name: Micrarionta opuntia
Status: Species of Concern

Map ID Direction Distance Distance (ft.)		EDR ID Database
1 North 0-1/8 mi 0		CAESP00184457 CA Endangered Species

Common Name: slender cottonheads
Scientific Name: Nemacaulis denudata var. gracilis
Global Rank: G3G4T3?
State Rank: S2
CA Rare Plant Rank: Plants rare, threatened, or endangered in CA, but more common elsewhere; fairly threatened in CA
Federal Listing Status: None
State Listing Status: None
Element Type: Plant
Element Occurrence #: 14

Common Name: prairie falcon
Scientific Name: Falco mexicanus
Global Rank: G5
State Rank: S3
CA Rare Plant Rank: Not Applicable
Federal Listing Status: None
State Listing Status: None
Element Type: Animal
Element Occurrence #: 430

Common Name: prairie falcon
Scientific Name: Falco mexicanus
Global Rank: G5

State Rank:	S3
CA Rare Plant Rank:	Not Applicable
Federal Listing Status:	None
State Listing Status:	None
Element Type:	Animal
Element Occurrence #:	407

Common Name:	chaparral sand-verbena
Scientific Name:	Abronia villosa var. aurita
Global Rank:	G5T3T4
State Rank:	S2
CA Rare Plant Rank:	Plants rare, threatened, or endangered in CA and elsewhere; seriously threatened in CA
Federal Listing Status:	None
State Listing Status:	None
Element Type:	Plant
Element Occurrence #:	66

A2
North
0-1/8 mi
335

CAGO00000042032
CA Land Ownership

Agency:	Cathedral City, City of
Group:	Local Government
Level:	City

A3
North
0-1/8 mi
335

CANAPA000082928
CA Protected Areas

Holding ID:	22657
Unit Name:	Second Street Park
Alternate Site Name:	Not Reported
Owning Agency:	Cathedral City, City of
Agency Jurisdiction:	City
Agency Type:	City Agency
Public Access:	Open Access
Special Use:	Not Reported
Year Acquired:	0
GAP Designation:	Not Reported
Local Designation:	Not Reported
URL:	Not Reported

A4
NE
0-1/8 mi
472

CANAPA000082932
CA Protected Areas

Holding ID:	87007
Unit Name:	Second Street Park
Alternate Site Name:	Not Reported
Owning Agency:	Cathedral City, City of
Agency Jurisdiction:	City
Agency Type:	City Agency
Public Access:	Open Access
Special Use:	Not Reported
Year Acquired:	0
GAP Designation:	Not Reported
Local Designation:	Not Reported
URL:	Not Reported

B5
WNW
1/8-1/4 mi
1118

CANAPA000082942
CA Protected Areas

Holding ID:	22658
Unit Name:	Town Square Park
Alternate Site Name:	Not Reported
Owning Agency:	Cathedral City, City of
Agency Jurisdiction:	City
Agency Type:	City Agency
Public Access:	Open Access
Special Use:	Not Reported
Year Acquired:	0
GAP Designation:	Not Reported
Local Designation:	Not Reported
URL:	Not Reported

B6
WNW
1/8-1/4 mi
1118

CAGO00000042038
CA Land Ownership

Agency:	Cathedral City, City of
Group:	Local Government
Level:	City

7
SSE
1/8-1/4 mi
1270

CAGO00000042081
CA Land Ownership

Agency:	Bureau of Indian Affairs

Group:	Bureau of Indian Affairs
Level:	Federal

C8
WNW
1/4-1/2 mi
2250

CANAPA000082901
CA Protected Areas

Holding ID:	87004
Unit Name:	Memorial Park
Alternate Site Name:	Not Reported
Owning Agency:	Cathedral City, City of
Agency Jurisdiction:	City
Agency Type:	City Agency
Public Access:	Open Access
Special Use:	Not Reported
Year Acquired:	0
GAP Designation:	Not Reported
Local Designation:	Not Reported
URL:	Not Reported

C9
WNW
1/4-1/2 mi
2250

CAGO00000042021
CA Land Ownership

Agency:	Cathedral City, City of
Group:	Local Government
Level:	City

D10
South
1/4-1/2 mi
2563

CAGO00000042132
CA Land Ownership

Agency:	Rancho Mirage, City of
Group:	Local Government
Level:	City

D11
South
1/4-1/2 mi
2564

CANAPA000083102
CA Protected Areas

NATURAL AREAS MAP FINDINGS

Holding ID:	22319
Unit Name:	Santa Rosa and San Jacinto Mountains National Monument
Alternate Site Name:	Not Reported
Owning Agency:	Rancho Mirage, City of
Agency Jurisdiction:	City
Agency Type:	City Agency
Public Access:	Open Access
Special Use:	Not Reported
Year Acquired:	0
GAP Designation:	Not Reported
Local Designation:	City Park
URL:	Not Reported

12
ESE
1/4-1/2 mi
2624

CAGO00000042064
CA Land Ownership

Agency:	Bureau of Indian Affairs
Group:	Bureau of Indian Affairs
Level:	Federal

13
ENE
1/2-1 mi
3495

CAESP00183687
CA Endangered Species

Common Name:	prairie falcon
Scientific Name:	Falco mexicanus
Global Rank:	G5
State Rank:	S3
CA Rare Plant Rank:	Not Applicable
Federal Listing Status:	None
State Listing Status:	None
Element Type:	Animal
Element Occurrence #:	430

Common Name:	prairie falcon
Scientific Name:	Falco mexicanus
Global Rank:	G5
State Rank:	S3
CA Rare Plant Rank:	Not Applicable
Federal Listing Status:	None
State Listing Status:	None
Element Type:	Animal
Element Occurrence #:	407

NATURAL AREAS MAP FINDINGS

G14
SSE
1/2-1 mi
3850

CANAPA000083171
CA Protected Areas

Holding ID:	22315
Unit Name:	Santa Rosa and San Jacinto Mountains National Monument
Alternate Site Name:	Not Reported
Owning Agency:	Rancho Mirage, City of
Agency Jurisdiction:	City
Agency Type:	City Agency
Public Access:	Open Access
Special Use:	Not Reported
Year Acquired:	0
GAP Designation:	Not Reported
Local Designation:	City Park
URL:	Not Reported

G15
SSE
1/2-1 mi
3850

CAGO00000042142
CA Land Ownership

Agency:	Rancho Mirage, City of
Group:	Local Government
Level:	City

F16
South
1/2-1 mi
3991

CANAPA000083220
CA Protected Areas

Holding ID:	22320
Unit Name:	Santa Rosa and San Jacinto Mountains National Monument
Alternate Site Name:	Not Reported
Owning Agency:	Rancho Mirage, City of
Agency Jurisdiction:	City
Agency Type:	City Agency
Public Access:	Open Access
Special Use:	Not Reported
Year Acquired:	0
GAP Designation:	Not Reported
Local Designation:	City Park
URL:	Not Reported

F17
South
1/2-1 mi
3991

CAGO00000042177
CA Land Ownership

Agency:	Rancho Mirage, City of
Group:	Local Government
Level:	City

E18
SE
1/2-1 mi
4392

CANAPA000083110
CA Protected Areas

Holding ID:	22235
Unit Name:	Santa Rosa and San Jacinto Mountains National Monument
Alternate Site Name:	Not Reported
Owning Agency:	Rancho Mirage, City of
Agency Jurisdiction:	City
Agency Type:	City Agency
Public Access:	Open Access
Special Use:	Not Reported
Year Acquired:	0
GAP Designation:	Not Reported
Local Designation:	Not Reported
URL:	Not Reported

E19
SE
1/2-1 mi
4538

CANAPA000083129
CA Protected Areas

Holding ID:	22306
Unit Name:	Santa Rosa and San Jacinto Mountains National Monument
Alternate Site Name:	Not Reported
Owning Agency:	Rancho Mirage, City of
Agency Jurisdiction:	City
Agency Type:	City Agency
Public Access:	Open Access
Special Use:	Not Reported
Year Acquired:	0
GAP Designation:	Not Reported
Local Designation:	Not Reported
URL:	Not Reported

Endangered Species Codes

Global Imperilment Rank Codes - GRANK: Priority rank (1-5) based on number of occurrences through element's range.

G1 - Critically imperiled globally because of extreme rarity (5 or fewer occurrences or very few remaining individuals or acres) or because of some factor(s) making it especially vulnerable to extinction.

G2 - Imperiled globally because of rarity (6-20 occurrences or few remaining individuals or acres) or because of some factor(s) making it especially vulnerable to extinction.

G3 - Vulnerable. Either very rare and local throughout its range or found locally (even abundantly at some of its locations) in a restricted range. (e.g., a single western state, a physiographic region in the East) or because of other factors making it vulnerable to extinction throughout its range; in terms of occurrences, in the range of 21 - 100.

G4 - Apparently secure globally, though it may be quite rare in parts of its range, especially at the periphery.

G5 - Demonstrably secure globally, though it may be quite rare in parts of its range, especially at the periphery.

GH - Possibly extinct or eliminated. Of historical occurrence throughout its range, i.e., formerly part of the established biota, with the expectation that it may be rediscovered (e.g., Bachman's Warbler). For historic and ecological communities, no likelihood for rediscovery, but possibility of restoration (e.g., American Chestnut Forest).

GNA - Not applicable to the element at a global level. Includes Hybrids, Invasive species, species of Domestic Origin, Cultural communities, and communities that have been managed.

GNR - Rank not assigned.

GU - Unrankable. Possibly in peril range-wide but status uncertain; more information is needed.

GX - Believed to be extinct throughout range (e.g., Passenger Pigeon) with virtually no likelihood that it will be rediscovered. For an ecological community, no restoration potential.

G#G# - Rank with a range. Used to show the range of uncertainty, will not skip more than 1 rank.

T-RANKS - T subranks are given to global ranks when a subspecies, variety, or race is considered at the state level. The subrank is made up of a "T" plus a number or letter (1, 2, 3, 4, 5, H, U, X) with the same ranking rules as a full species.

State Rank Codes - SRANK: Priority rank (1-5) based on number of occurrences through element's range.

S1 - Critically imperiled, Extremely rare. Typically 5 or fewer estimated occurrences in the state, or only a few remaining individuals, may be especially vulnerable to extirpation.

S2 - Imperiled, very rare. Typically between 5 and 20 estimated occurrences or with many individuals in fewer occurrences, often susceptible to becoming extirpated.

S3 - Vulnerable, rare to uncommon. Typically between 21 and 100 estimated occurrences, may have fewer occurrences but with large number of individuals in some populations, may be susceptible to large-scale disturbances.

S4 - Common, apparently secure under present conditions. Typically 100 or more estimated occurrences, but may be fewer with many large populations, may be restricted to only a portion of the state, usually not susceptible to immediate threats.

S5 - Demonstrably widespread, common, and secure in the state and essentially ineradicable under present conditions.

SA - Accidental.

SH - Historically known from the state, but not verified for an extended period, usually 15 years.

SU - Unrankable, not assessed. Possibly in peril in the state, but status uncertain, more information is needed. When possible, the most likely rank is assigned and a question mark is added to show uncertainty.

SX - Apparently extirpated from state.

SNR - Unranked. The state rank not yet assessed.

SRF - Reported falsely in the state.

SE - Exotic for local area.

SZ - Birds that migrate through the state but have no identifiable location.

S#S# - State level of G#G#.

Endangered Species Codes, (Continued...)

General Ranking Notes

Q - A "Q" in the global rank indicates the element’s taxonomic classification as a species is a matter of conjecture among scientists.

A - Accidental - far outside usual range

C - Captive or Cultivated only

HYB - Element represents an interspecific hybrid, not a species

R - Reported but not confirmed

Z - Zero Occurrences

Breeding Status Qualifiers (animals only)

B - Breeding population of the element

N - Nonbreeding population of the element

M - Migrant population

Historic Sites Map



SITE NAME:	Agua Caliente Band of Cahuilla Indian	CLIENT:	Petra Geotechnical Inc
ADDRESS:	NWC Highway 111 and Date Palm Drive Cathedral City CA 92234	CONTACT:	Ed Lump
LAT/LONG:	33.779514 / 116.460087	INQUIRY #:	04977808.14r
		DATE:	June 26, 2017

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HISTORIC SITES MAP FINDINGS

Map ID Direction Distance Distance (ft.)			EDR ID Database
1 **East** **0-1/8 mi** **566**	Feature: Name: Agency:	Indian Reservation Agua Caliente Indian Reservation BIA	**CIND200714** **Indian Reservations**
2 **North** **1/2-1 mi** **2733**	Feature: Name: Agency:	Indian Reservation Agua Caliente Indian Reservation BIA	**CIND200704** **Indian Reservations**
3 **West** **1/2-1 mi** **4668**	Feature: Name: Agency:	Indian Reservation Agua Caliente Indian Reservation BIA	**CIND200704** **Indian Reservations**

UNMAPPABLE HISTORIC SITES

Due to poor or inadequate address information, the following sites were not mapped:

Status
EDR ID
Database

Andreas Canyon
Address Restricted
Palm Springs, CA

Unmappable
73000422
National Register of Hist. Places

Ref #:	73000422
Multiple Property Name:	Not Reported
County:	Riverside
Restricted:	X
Certification:	LISTED IN THE NATIONAL REGISTER
Certification Date:	19730108
Type:	District
# of Contrib Bldgs:	0
# of Contrib Sites:	1
# of Contrib Objects:	0
# of Contrib Structs:	14
Documents:	https://npgallery.nps.gov/AssetDetail/NRIS/73000422

El Mirador Hotel and Tower
1150 N. Indian Ave.
Palm Springs, CA

Unmappable
82005149
National Register of Hist. Places

Ref #:	82005149
Multiple Property Name:	Not Reported
County:	Riverside
Restricted:	Not Reported
Certification:	DATE RECEIVED/PENDING NOMINATION
Certification Date:	19820112
Type:	Building
# of Contrib Bldgs:	0
# of Contrib Sites:	0
# of Contrib Objects:	0
# of Contrib Structs:	0
Documents:	https://npgallery.nps.gov/AssetDetail/NRIS/82005149

Tahquitz Canyon
Address Restricted
Palm Springs, CA

Unmappable
72000246
National Register of Hist. Places

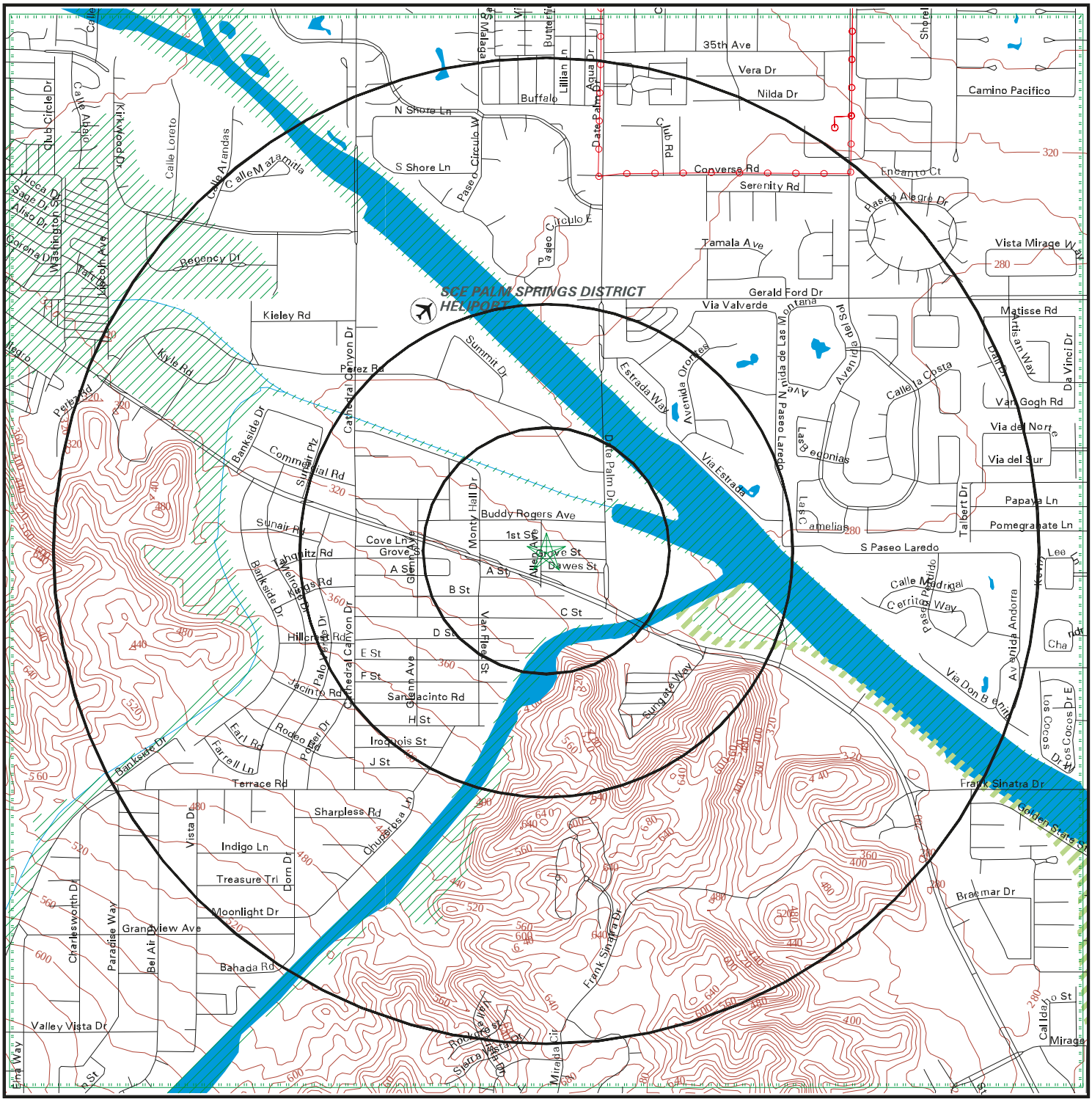
Ref #:	72000246
Multiple Property Name:	Not Reported
County:	Riverside
Restricted:	X
Certification:	LISTED IN THE NATIONAL REGISTER
Certification Date:	19721031

UNMAPPABLE HISTORIC SITES

Due to poor or inadequate address information, the following sites were not mapped: **Status**
EDR ID
Database

Type:	Site
# of Contrib Bldgs:	0
# of Contrib Sites:	2
# of Contrib Objects:	0
# of Contrib Structs:	1
Documents:	https://npgallery.nps.gov/AssetDetail/NRIS/72000246

Flood Plain Map



0 1/4 1/2 1 Miles

- Major Roads
- Contour Lines
- Waterways
- County Boundary
- Airports
- Power Lines
- Pipe Lines
- Fault Lines
- Water
- 100-year flood zone
- 500-year flood zone
- Electronic FEMA data available
- Electronic FEMA data not available

SITE NAME:	Agua Caliente Band of Cahuilla Indian	CLIENT:	Petra Geotechnical Inc
ADDRESS:	NWC Highway 111 and Date Palm Drive Cathedral City CA 92234	CONTACT:	Ed Lump
LAT/LONG:	33.779514 / 116.460087	INQUIRY #:	04977808.14r
		DATE:	June 26, 2017

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FLOOD PLAIN MAP FINDINGS

Source: FEMA FIRM Flood Data, FEMA Q3 Flood Data

Flood Panel Number	FEMA Source Type

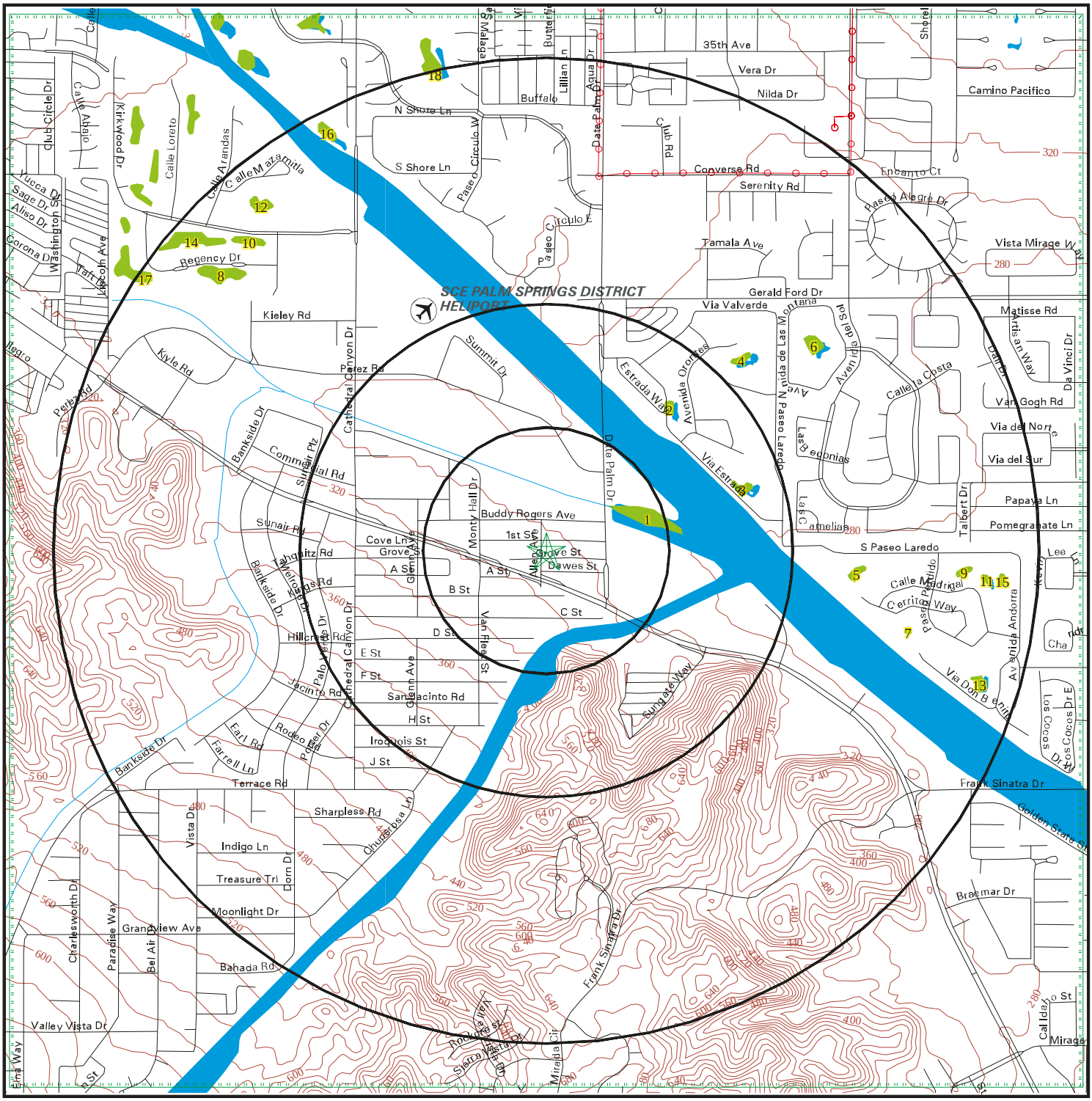
Flood Plain panel at target property:

06065C1589G	(FEMA FIRM Flood data)

Additional Flood Plain panel(s) in search area:

06065C1586G	(FEMA FIRM Flood data)
06065C1587G	(FEMA FIRM Flood data)
06065C1588G	(FEMA FIRM Flood data)

National Wetlands Inventory Map



- Major Roads
- Contour Lines
- Waterways
- County Boundary
- Airports
- Power Lines
- Fault Lines
- Water
- National Wetlands Inventory
- State Wetlands
- Electronic NWI data available
- Electronic NWI data not available

SITE NAME:	Agua Caliente Band of Cahuilla Indian	CLIENT:	Petra Geotechnical Inc
ADDRESS:	NWC Highway 111 and Date Palm Drive Cathedral City CA 92234	CONTACT:	Ed Lump
LAT/LONG:	33.779514 / 116.460087	INQUIRY #:	04977808.14r
		DATE:	June 26, 2017

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WETLANDS MAP FINDINGS

Source: Fish and Wildlife Service NWI data

NWI hardcopy map at target property: Cathedral City
Additional NWI hardcopy map(s) in search area:
Not reported in source data

Map ID Direction Distance Distance (ft.)	Code and Description*	Database
1 NE 1/8-1/4 mi 809	PEMA [P] Palustrine [EM] Emergent [A] Temporarily Flooded Lat/Lon: 33.780846 / -116.457939	NWI
2 NE 1/4-1/2 mi 1944	PUBHx [P] Palustrine [UB] Unconsolidated Bottom [H] Permanently Flooded [x] Excavated Lat/Lon: 33.783554 / -116.455894	NWI
3 ENE 1/4-1/2 mi 2107	PUBHx [P] Palustrine [UB] Unconsolidated Bottom [H] Permanently Flooded [x] Excavated Lat/Lon: 33.781429 / -116.453537	NWI
4 NE 1/2-1 mi 2814	PUBHx [P] Palustrine [UB] Unconsolidated Bottom [H] Permanently Flooded [x] Excavated Lat/Lon: 33.785007 / -116.453560	NWI
5 East 1/2-1 mi 3236	PUBHx [P] Palustrine [UB] Unconsolidated Bottom [H] Permanently Flooded [x] Excavated Lat/Lon: 33.778778 / -116.449463	NWI
6 NE 1/2-1 mi 3537	PUBHx [P] Palustrine [UB] Unconsolidated Bottom [H] Permanently Flooded [x] Excavated Lat/Lon: 33.785255 / -116.450691	NWI
7 ESE 1/2-1 mi 3926	PUBHx [P] Palustrine [UB] Unconsolidated Bottom [H] Permanently Flooded [x] Excavated Lat/Lon: 33.777164 / -116.447464	NWI
8 NW 1/2-1 mi 4364	PUBHx [P] Palustrine [UB] Unconsolidated Bottom [H] Permanently Flooded [x] Excavated Lat/Lon: 33.787643 / -116.470642	NWI

*See Wetland Classification System for additional information.

WETLANDS MAP FINDINGS

Map ID Direction Distance Distance (ft.)	Code and Description*	Database
9 East 1/2-1 mi 4393	PUBHx [P] Palustrine [UB] Unconsolidated Bottom [H] Permanently Flooded [x] Excavated Lat/Lon: 33.778790 / -116.445641	NWI
10 NW 1/2-1 mi 4446	PUBHx [P] Palustrine [UB] Unconsolidated Bottom [H] Permanently Flooded [x] Excavated Lat/Lon: 33.788467 / -116.470039	NWI
11 East 1/2-1 mi 4664	PUBHx [P] Palustrine [UB] Unconsolidated Bottom [H] Permanently Flooded [x] Excavated Lat/Lon: 33.778763 / -116.444763	NWI
12 NW 1/2-1 mi 4699	PUBHx [P] Palustrine [UB] Unconsolidated Bottom [H] Permanently Flooded [x] Excavated Lat/Lon: 33.789616 / -116.469719	NWI
13 ESE 1/2-1 mi 4740	PUBHx [P] Palustrine [UB] Unconsolidated Bottom [H] Permanently Flooded [x] Excavated Lat/Lon: 33.775795 / -116.445122	NWI
14 NW 1/2-1 mi 4761	PUBHx [P] Palustrine [UB] Unconsolidated Bottom [H] Permanently Flooded [x] Excavated Lat/Lon: 33.788544 / -116.471413	NWI
15 East 1/2-1 mi 4853	PUBHx [P] Palustrine [UB] Unconsolidated Bottom [H] Permanently Flooded [x] Excavated Lat/Lon: 33.778664 / -116.444130	NWI
16 NNW 1/2-1 mi 4931	PUBHx [P] Palustrine [UB] Unconsolidated Bottom [H] Permanently Flooded [x] Excavated Lat/Lon: 33.791531 / -116.467598	NWI
17 NW 1/2-1 mi 5115	PUBHx [P] Palustrine [UB] Unconsolidated Bottom [H] Permanently Flooded [x] Excavated Lat/Lon: 33.787449 / -116.473991	NWI

*See Wetland Classification System for additional information.

WETLANDS MAP FINDINGS

Map ID Direction Distance Distance (ft.)	Code and Description*	Database
18 NNW 1/2-1 mi 5244	PUBHx [P] Palustrine [UB] Unconsolidated Bottom [H] Permanently Flooded [x] Excavated Lat/Lon: 33.793549 / -116.464027	NWI

*See Wetland Classification System for additional information.

WETLANDS CLASSIFICATION SYSTEM

National Wetland Inventory Maps are produced by the U.S. Fish and Wildlife Service, a sub-department of the U.S. Department of the Interior. In 1974, the U.S. Fish and Wildlife Service developed a criteria for wetland classification with four long range objectives:

- to describe ecological units that have certain homogeneous natural attributes,
- to arrange these units in a system that will aid decisions about resource management,
- to furnish units for inventory and mapping, and
- to provide uniformity in concepts and terminology throughout the U.S.

High altitude infrared photographs, soil maps, topographic maps and site visits are the methods used to gather data for the productions of these maps. In the infrared photos, wetlands appear as different colors and these wetlands are then classified by type. Using a hierarchical classification, the maps identify wetland and deepwater habitats according to:

- system
- subsystem
- class
- subclass
- modifiers

(as defined by Cowardin, et al. U.S. Fish and Wildlife Service FWS/OBS 79/31. 1979.)

The classification system consists of five systems:

1. marine
2. estuarine
3. riverine
4. lacustrine
5. palustrine

The marine system consists of deep water tidal habitats and adjacent tidal wetlands. The riverine system consists of all wetlands contained within a channel. The lacustrine systems includes all nontidal wetlands related to swamps, bogs & marshes. The estuarine system consists of deepwater tidal habitats and where ocean water is diluted by fresh water. The palustrine system includes nontidal wetlands dominated by trees and shrubs and where salinity is below .5% in tidal areas. All of these systems are divided in subsystems and then further divided into class.

National Wetland Inventory Maps are produced by transferring gathered data on a standard 7.5 minute U.S.G.S. topographic map. Approximately 52 square miles are covered on a National Wetland Inventory map at a scale of 1:24,000. Electronic data is compiled by digitizing these National Wetland Inventory Maps.

SYSTEM **MARINE**

SUBSYSTEM **1 - SUBTIDAL** **2 - INTERTIDAL**

CLASS	RB-ROCK BOTTOM	UB-UNCONSOLIDATED BOTTOM	AB-AQUATIC BED	RF-REEF	OW-OPEN WATER / Unknown Bottom	AB-AQUATIC BED	RF-REEF	RS-ROCKY SHORE	US-UNCONSOLIDATED SHORE
Subclass	1 Bedrock 2 Rubble	1 Cobble-Gravel 2 Sand 3 Mud 4 Organic	1 Algal 3 Rooted Vascular 5 Unknown Submergent	1 Coral 3 Worm		1 Algal 3 Rooted Vascular 5 Unknown Submergent	1 Coral 3 Worm	1 Bedrock 2 Rubble	1 Cobble-Gravel 2 Sand 3 Mud 4 Organic

SYSTEM **E - ESTUARINE**

SUBSYSTEM **1 - SUBTIDAL**

CLASS	RB-ROCK BOTTOM	UB-UNCONSOLIDATED BOTTOM	AB-AQUATIC BED	RF-REEF	OW-OPEN WATER / Unknown Bottom
Subclass	1 Bedrock 2 Rubble	1 Cobble-Gravel 2 Sand 3 Mud 4 Organic	1 Algal 3 Rooted Vascular 4 Floating Vascular 5 Unknown Submergent 6 Unknown Surface	2 Mollusk 3 Worm	

SUBSYSTEM **2 - INTERTIDAL**

CLASS	AB-AQUATIC BED	RF-REEF	SB - STREAMBED	RS-ROCKY SHORE	US-UNCONSOLIDATED SHORE	EM-EMERGENT	SS-SCRUB SHRUB	FO-FORESTED
Subclass	1 Algal 3 Rooted Vascular 4 Floating Vascular 5 Unknown Submergent 6 Unknown Surface	2 Mollusk 3 Worm	1 Cobble- Gravel 2 Sand 3 Mud 4 Organic	1 Bedrock 2 Rubble	1 Cobble- Gravel 2 Sand 3 Mud 4 Organic	1 Persistent 2 Nonpersistent	1 Broad-Leaved Deciduous 2 Needle-Leaved Deciduous 3 Broad-Leaved Evergreen 4 Needle-Leaved Evergreen 5 Dead 6 Deciduous 7 Evergreen	1 Broad-Leaved Deciduous 2 Needle-Leaved Deciduous 3 Broad-Leaved Evergreen 4 Needle-Leaved Evergreen 5 Dead 6 Deciduous 7 Evergreen

SYSTEM — **R - RIVERINE**

SUBSYSTEM	**1 - TIDAL**	**2 - LOWER PERENNIAL**	**3 - UPPER PERENNIAL**	**4 - INTERMITTENT**	**5 - UNKNOWN PERENNIAL**
CLASS	RB-ROCK BOTTOM UB-UNCONSOLIDATED BOTTOM *SB-STREAMBED AB-AQUATIC BED RS-ROCKY SHORE US-UNCONSOLIDATED SHORE **EM-EMERGENT OW-OPEN WATER/ Unknown Bottom				
Subclass	1 Bedrock 2 Rubble	1 Cobble-Gravel 2 Sand 3 Mud 4 Organic	1 Bedrock 2 Rubble 3 Cobble-Gravel 4 Sand 5 Mud 6 Organic 7 Vegetated	1 Algal 2 Aquatic Moss 3 Rooted Vascular 4 Floating Vascular 5 Unknown Submergent 6 Unknown Surface	1 Bedrock 2 Rubble	1 Cobble-Gravel 2 Sand 3 Mud 4 Organic 5 Vegetated	2 Nonpersistent

* STREAMBED is limited to TIDAL and INTERMITTENT SUBSYSTEMS, and comprises the only CLASS in the INTERMITTENT SUBSYSTEM.
**EMERGENT is limited to TIDAL and LOWER PERENNIAL SUBSYSTEMS.

SYSTEM — **L - LACUSTRINE**

SUBSYSTEM — **1 - LIMNETIC**

CLASS	RB-ROCK BOTTOM	UB-UNCONSOLIDATED BOTTOM	AB-AQUATIC BED	OW-OPEN WATER/ Unknown Bottom
Subclass	1 Bedrock 2 Rubble	1 Cobble-Gravel 2 Sand 3 Mud 4 Organic	1 Algal 2 Aquatic Moss 3 Rooted Vascular 4 Floating Vascular 5 Unknown Submergent 6 Unknown Surface	

SUBSYSTEM — **2 - LITTORAL**

CLASS	RB-ROCK BOTTOM	UB-UNCONSOLIDATED BOTTOM	AB-AQUATIC BED	RS-ROCKY SHORE	US-UNCONSOLIDATED SHORE	EM-EMERGENT	OW-OPEN WATER/ Unknown Bottom
Subclass	1 Bedrock 2 Rubble	1 Cobble-Gravel 2 Sand 3 Mud 4 Organic	1 Algal 2 Aquatic Moss 3 Rooted Vascular 4 Floating Vascular 5 Unknown Submergent 6 Unknown Surface	1 Bedrock 2 Rubble	1 Cobble-Gravel 2 Sand 3 Mud 4 Organic 5 Vegetated	2 Nonpersistent	

SUBSYSTEM — **P - PALUSTRINE**

CLASS	RB--ROCK BOTTOM	UB--UNCONSOLIDATED BOTTOM	AB-AQUATIC BED	US--UNCONSOLIDATED SHORE	ML--MOSS-LICHEN	EM--EMERGENT	SS--SCRUB-SHRUB	FO--FORESTED	OW-OPEN WATER/ Unknown
Bottom									
Subclass	1 Bedrock 2 Rubble 3 Mud 4 Organic	1 Cobble-Gravel 2 Sand	1 Algal 2 Aquatic Moss 3 Rooted Vascular 4 Floating Vascular 5 Unknown Submergent 6 Unknown Surface	1 Cobble-Gravel 2 Sand 3 Mud 4 Organic 5 Vegetated	1 Moss 2 Lichen	1 Persistent 2 Nonpersistent	1 Broad-Leaved Deciduous 2 Needle-Leaved Deciduous 3 Broad-Leaved Evergreen 4 Needle-Leaved Evergreen 5 Dead 6 Deciduous 7 Evergreen	1 Broad-Leaved Deciduous 2 Needle-Leaved Deciduous 3 Broad-Leaved Evergreen 4 Needle-Leaved Evergreen 5 Dead 6Deciduous 7 Evergreen	

MODIFIERS

In order to more adequately describe wetland and deepwater habitats one or more of the water regime, water chemistry, soil, or special modifiers may be applied at the class or lower level in the hierarchy. The farmed modifier may also be applied to the ecological system.

WATER REGIME

Non-Tidal

A Temporarily Flooded
B Saturated
C Seasonally Flooded
D Seasonally Flooded/ Well Drained
E Seasonally Flooded/ Saturated
F Semipermanently Flooded
G Intermittently Exposed

Tidal

H Permanently Flooded
J Intermittently Flooded
K Artificially Flooded
W Intermittently Flooded/Temporary
Y Saturated/Semipermanent/ Seasonal
Z Intermittently Exposed/Permanent
U Unknown

Coastal Salinity Modifiers for Inland Salinity pH Modifiers for all Fresh Water

K Artificially Flooded
L Subtidal
M Irregularly Exposed
N Regularly Flooded
P Irregularly Flooded

*S Temporary-Tidal
*R Seasonal-Tidal
*T Semipermanent -Tidal
V Permanent -Tidal
U Unknown

*These water regimes are only used in tidally influenced, freshwater systems.

WATER CHEMISTRY

1 Hyperhaline
2 Euhaline
3 Mixohaline (Brackish)
4 Polyhaline
5 Mesohaline
6 Oligohaline
0 Fresh

7 Hypersaline
8 Eusaline
9 Mixosaline
0 Fresh

a Acid
t Circumneutral
i Alkaline

SOIL

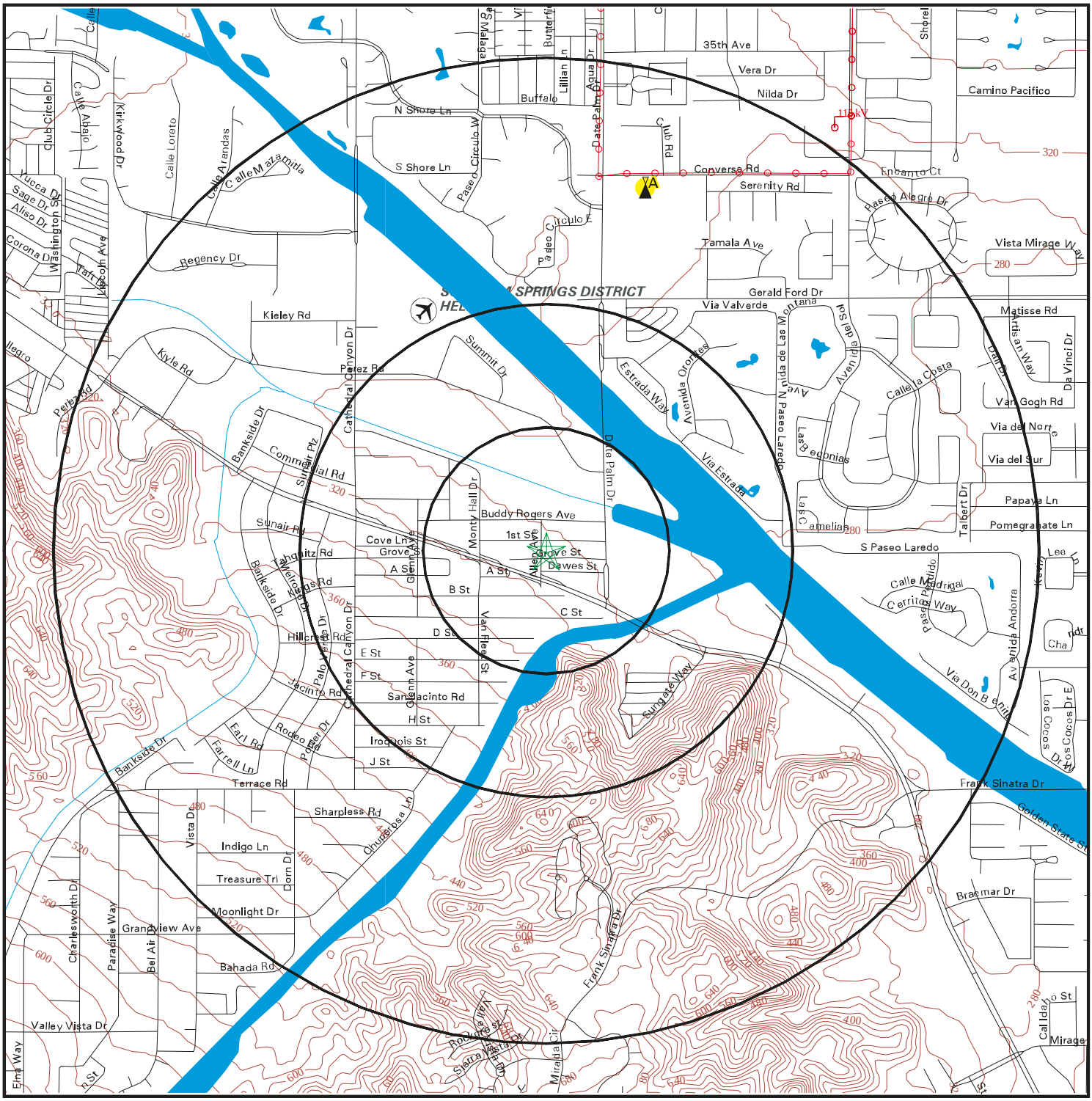
g Organic
n Mineral

SPECIAL MODIFIERS

b Beaver
d Partially Drained/Ditched
f Farmed
h Diked/Impounded
r Artificial Substrate
s Spoil
x Excavated

Source: U.S. Department of the Interior
Fish and Wildlife Service
National Wetlands Inventory

FCC & FAA Sites Map


35th Ave
Vera Dr
Nilda Dr
Camino Pacifico
Buffalo
N Shore Ln
S Shore Ln
Converse Rd
Serenity Rd
Encanto Ct
Paseo Alegre Dr
Vista Mirage Way
Tamala Ave
Gerald Ford Dr
Via Valverde
Matisse Rd
Da Vinci Dr
Van Gogh Rd
Via del Norte
Via del Sur
Papaya Ln
Pomegranate Ln
S Paseo Laredo
Lee Ln
Calle Madrigal
Cerrito Way
Paseo Redondo
Avenida Andorra
Via Don Benito
Los Cocos Dr E
Los Cocos Dr W
Frank Sinatra Dr
Golden State St
Braemar Dr
Cal Idaho St
Mirage
Regency Dr
Kieley Rd
Kyle Rd
Perez Rd
Cathedral Canyon Dr
Sunrise Plz
Sunair Rd
Tahquitz Rd
Bankside Dr
Hillcrest Rd
Palo Verde Dr
Jacinto Rd
San Jacinto Rd
Earl Rd
Farrell Ln
Rodeo Dr
Terrace Rd
Sharpless Rd
Indigo Ln
Treasure Trl
Moonlight Dr
Grandview Ave
Bahada Rd
Valley Vista Dr
Charlesworth Dr
Paradise Way
Bel Air
Vista Dr
Dorn Dr
Ohuna Rd
Iroquois St
Sunset Way
Sierra Vista Dr
Mirada Cir
Frank Sinatra Dr
Summit Dr
Monty Hall Dr
Glenn Ave
Van Fleet St
Buddy Rogers Ave
1st St
Grove St
Dawes St
Cove Ln
A St
B St
C St
D St
E St
F St
H St
J St
Date Palm Dr
Club Rd
Paseo Circulo W
Paseo Circulo E
Paseo Circulo
Estrada Way
Avenida Orofino
Avenida Las Palmas
Avenida Las Montanas
Via Estrada
Las Palmas
Las Camelias
Talbert Dr
Calle Arandas
Calle Mazamita
Calle Loreto
Kirkwood Dr
Calle Alejo
Club Circle Dr
Yucca Dr
Sage Dr
Aliso Dr
Washington St
Lincoln Ave
Taft Dr
Corona Dr
Buttercup Ln
Lillian Ln
Agua Dr
Date Palm Dr
Shorel
Calle Vista Grande
Calle Vista Norte
Calle Vista Sur
Calle Vista Oeste
Calle Vista Este
Calle Vista Hermosa
Calle Vista Bonita
Calle Vista Linda
Calle Vista Alegre
Calle Vista Del Sol
Calle Vista Del Mar
Calle Vista Del Monte
Calle Vista Del Valle
Calle Vista Del Cielo
Calle Vista Del Rio
Calle Vista Del Lago
Calle Vista Del Bosque
Calle Vista Del Campo
Calle Vista Del Prado
Calle Vista Del Rancho

FCC & FAA SITES MAP FINDINGS
TOWERS

Map ID
Direction
Distance
Distance (ft.)

EDR ID
Database

A1
NNE
1/2-1 mi
4028

ANT130000116062
ANTREG

Registration #:	1275470
File #:	A0762298
Issue Date:	4/20/2012
Entity:	SBA Monarch Towers II, LLC
Height:	15.2
Address:	35780 Date Palm Dr
FAA Study:	2010-AWP-5006-OE
FAA Circular:	Not Reported
License ID:	L01702851
Contact Name:	Edward G. Roach
Contact Address:	5900 Broken Sound Pkwy NW
Contact City:	Boca Raton
Contact State:	FL
Contact Zip:	33487
ASR Search:	http://wireless2.fcc.gov/UlsApp/AsrSearch/asrRegistrationSearch.jsp

This record is for a license, and it may or may not indicate a site which has been built.

A2
NNE
1/2-1 mi
4032

DOF161200026549
FAA DOF

Obstacle #:	06-021183
Obstacle Type:	TOWER
Quantity:	1
Ft Above Ground:	55
Ft Above Sea Level:	361
Verification Status:	Verified
Lighting:	None
Horizontal Accuracy:	+/- 20 ft
Vertical Accuracy:	+/- 3 ft
Markings:	None
Action:	Add
Action Date:	2010355

FCC & FAA SITES MAP FINDINGS
AIRPORTS

EDR ID
Database

ARPT001007
AIRPORTS

Landing Facility Name:	SCE PALM SPRINGS DISTRICT
Type:	HELIPORT
Owner Name:	SOUTHERN CALIFORNIA EDISON CO
Owner Address:	36-100 CATHEDRAL CANYON DR CATHEDRAL CITY, CA 92234
Manager Name:	DAVE GUERRERO C/O SCE AIR OPS
Manager Address:	2161 EAST AVION ST ONTARIO, CA 91761
Manager Phone:	909-974-4691
Elevation (ft):	300
Aeronautical Chart:	LOS ANGELES

FCC & FAA SITES MAP FINDINGS
POWERLINES

EDR ID
Database

135439
POWERLINES

Voltage:	115
Range:	Not Reported
Hi voltage:	0
Volt cat:	70-138 kV
Type:	Alternating current
Status:	Active
Corridor:	Single line
Owner:	Edison International
Owner id:	EDISONIN
Num owners:	Single Owner
Operator:	Southern California Edison
Operator id:	SCE
Last owner:	Not Reported
Last own id:	Not Reported
Last oper:	Not Reported
Last oper id:	Not Reported
Mileage:	3.72104239

136770
POWERLINES

Voltage:	115
Range:	Not Reported
Hi voltage:	0
Volt cat:	70-138 kV
Type:	Alternating current
Status:	Active
Corridor:	Multiple lines
Owner:	Edison International
Owner id:	EDISONIN
Num owners:	Single Owner
Operator:	Southern California Edison
Operator id:	SCE
Last owner:	Not Reported
Last own id:	Not Reported
Last oper:	Not Reported
Last oper id:	Not Reported
Mileage:	.056720630000000001

136923
POWERLINES

Voltage:	115
Range:	Not Reported
Hi voltage:	0
Volt cat:	70-138 kV
Type:	Alternating current

FCC & FAA SITES MAP FINDINGS
POWERLINES

EDR ID
Database

Status:	Active
Corridor:	Single line
Owner:	Edison International
Owner id:	EDISONIN
Num owners:	Single Owner
Operator:	Southern California Edison
Operator id:	SCE
Last owner:	Not Reported
Last own id:	Not Reported
Last oper:	Not Reported
Last oper id:	Not Reported
Mileage:	1.1852557800000001

135867
POWERLINES

Voltage:	115
Range:	Not Reported
Hi voltage:	0
Volt cat:	70-138 kV
Type:	Alternating current
Status:	Active
Corridor:	Multiple lines
Owner:	Edison International
Owner id:	EDISONIN
Num owners:	Single Owner
Operator:	Southern California Edison
Operator id:	SCE
Last owner:	Not Reported
Last own id:	Not Reported
Last oper:	Not Reported
Last oper id:	Not Reported
Mileage:	.056720630000000001

134456
POWERLINES

Voltage:	115
Range:	Not Reported
Hi voltage:	0
Volt cat:	70-138 kV
Type:	Alternating current
Status:	Active
Corridor:	Single line
Owner:	Edison International
Owner id:	EDISONIN
Num owners:	Single Owner
Operator:	Southern California Edison
Operator id:	SCE

Last owner:	Not Reported
Last own id:	Not Reported
Last oper:	Not Reported
Last oper id:	Not Reported
Mileage:	1.1285351400000001

KEY CONTACTS & GOVERNMENT RECORDS SEARCHED

Various Federal laws and executive orders address specific environmental concerns. NEPA requires the responsible offices to integrate to the greatest practical extent the applicable procedures required by these laws and executive orders. EDR provides key contacts at agencies charged with implementing these laws and executive orders to supplement the information contained in this report.

NATURAL AREAS
Wilderness Areas
Government Records Searched in This Report

FED_LAND: Federal Lands
Source: USGS
Telephone: 703-648-5094
Federal data from Bureau of Land Management, National Park Service, Forest Service, and Fish and Wildlife Service.
- National Parks
- Forests
- Monuments
- Wildlife Sanctuaries, Preserves, Refuges
- Federal Wilderness Areas.

Date of Government Version: 12/31/2005

US NWP: National Wilderness Preservation System
This map layer consists of National Wilderness Preservation System areas of 320 acres or more, in the United States, Puerto Rico, and the U.S. Virgin Islands. Some established wilderness areas which are larger than 320 acres are not included in this map layer because their boundaries were not available from the owning or administering agency.
Source: U.S. Geological Survey.
Telephone: 888-275-8747

Federal Contacts for Additional Information

National Park Service, Pacific West Region
600 Harrison Street, Suite 600
San Francisco, CA 94107
415-427-1300

USDA Forest Service, Pacific Southwest
630 Sansome Street
San Francisco, CA 94111
415-705-2557

BLM - California State Office
2800 Cottage Way, Room W-1834
Sacramento, CA 95825-1886
916-978-4400

Fish & Wildlife Service, Fish & Wildlife Region 8
2800 Cottage Way W-2606
Sacramento, CA 95825
916-414-6464

KEY CONTACTS & GOVERNMENT RECORDS SEARCHED

Wildlife Preserves, Sanctuaries and Refuges
Government Records Searched in This Report

FED_LAND: Federal Lands
Source: USGS
Telephone: 703-648-5094
Federal data from Bureau of Land Management, National Park Service, Forest Service, and Fish and Wildlife Service.
- National Parks
- Forests
- Monuments
- Wildlife Sanctuaries, Preserves, Refuges
- Federal Wilderness Areas.

Date of Government Version: 12/31/2005

CA Conservation Easement: Conservation Easement Database
The California Conservation Easement Database (CCED) contains GIS data for conservation and open space easements for public and private property.
Source: GreenInfo Network.
Telephone: 510-350-8700

CA Land Ownership: CA Land Ownership
Statewide GIS layer of land ownership, compiled from multiple data sources and snapped to county parcels.
Source: Cal Fire.
Telephone: 916-653-5123

CA PCT Lands: CA Public, Conservation and Trust Lands
A 1:100,000 polygon features class representing public, conservation and trust land ownership in the state of California Developed for the California Resources Agency Legacy Project, this dataset depicts ownership features as submitted by major public, trust, and non-profit groups in the state.
Source: California Resources Agency.
Telephone: 510-653-1369

CA ACEC: Areas of Critical Environmental Concern
BLM Areas of Critical Environmental Concern in California
Source: Bureau of Land Management.
Telephone: 916-978-4400

CA Protected Areas: Protected Areas Database
The California Protected Areas Database (CPAD) contains GIS data about lands that are owned in fee and protected for open space purposes by over 1,000 public agencies or non-profit organizations.
Source: GreenInfo Network.
Telephone: 510-350-8700

US Critical Water Habitat: US Critical Water Habitat
When a species is proposed for listing as endangered or threatened under the Endangered Species Act, the U.S. Fish and Wildlife Service must consider whether there are areas of habitat believed to be essential the species conservation. Those areas may be proposed for designation as critical habitat. Critical habitat is a term defined and used in the Act.
Source: US Fish & Wildlife Services.
Telephone: 970-226-9468

US Critical Land Habitat: US Critical Land Habitat
When a species is proposed for listing as endangered or threatened under the Endangered Species Act, the U.S. Fish and Wildlife Service must consider whether there are areas of habitat believed to be essential the species conservation. Those areas may be proposed for designation as critical habitat. Critical habitat is a term defined and used in the Act.
Source: US Fish & Wildlife Services.
Telephone: 970-226-9468

KEY CONTACTS & GOVERNMENT RECORDS SEARCHED

US ACEC: Areas of Critical Environmental Concern Designated Polygons
The designated ACECs are "areas within the public lands where special management attention is required to protect and prevent irreparable damage to important historic, cultural, or scenic values, fish and wildlife resources or other natural systems of processes, or to protect life and safety from natural hazards
Source: Bureau of Land Management.
Telephone: 202-912-7352

US Scenic River: National Wild and Scenic River System
National Wild and Scenic Rivers System
Source: USGS National Atlas and the Interagency Wild and Scenic River Coordinating Council.
Telephone: 509-546-8333

US NCED: National Conservation Easement Database
NCED shows a comprehensive picture of privately owned conservation easement lands in the U.S. The NCED will allow better strategic planning for conservation and development by merging data on land protection with biodiversity and resources, improving ecological and economic plans and investments.
Source: U.S Endowment for Forestry and Communities.
Telephone: 202-621-1647

Federal Contacts for Additional Information

Fish & Wildlife Service, Fish & Wildlife Region 8
2800 Cottage Way W-2606
Sacramento, CA 95825
916-414-6464

State Contacts for Additional Information

Department of Fish & Game 916-653-7667

Wild and scenic rivers

Government Records Searched in This Report

FED_LAND: Federal Lands
Source: USGS
Telephone: 703-648-5094
Federal data from Bureau of Land Management, National Park Service, Forest Service, and Fish and Wildlife Service.
- National Parks
- Forests
- Monuments
- Wildlife Sanctuaries, Preserves, Refuges
- Federal Wilderness Areas.

Date of Government Version: 12/31/2005

Federal Contacts for Additional Information

Fish & Wildlife Service, Fish & Wildlife Region 8
2800 Cottage Way W-2606
Sacramento, CA 95825
916-414-6464

Endangered Species

Government Records Searched in This Report

KEY CONTACTS & GOVERNMENT RECORDS SEARCHED

CA Endangered Species: California Natural Diversity Database
The California Natural Diversity Database (CNDDB) provides location and status information for the California most imperiled species.
Source: Department of Fish and Wildlife.
Telephone: 916-322-2493

Federal Endangered Species by County: Threatened and Endangered Species Listing
Endangered, Threatened, Emergency Listing (Endangered), Emergency Listing (Threatened), Experimental Population (Essential), Experimental Population (Non-Essential), Similarity of Appearance (Endangered), Similarity of Appearance (Threatened).
Source: US Fish and Wildlife Services.
Telephone: 800-344-9453

Federal Contacts for Additional Information

Fish & Wildlife Service, Fish & Wildlife Region 8
2800 Cottage Way W-2606
Sacramento, CA 95825
916-414-6464

State Contacts for Additional Information

Natural Heritage Program, Dept. of Fish & Game 916-322-2493

LANDMARKS, HISTORICAL, AND ARCHEOLOGICAL SITES
Historic Places

Government Records Searched in This Report

National Register of Historic Places:
The National Register of Historic Places is the official federal list of districts, sites, buildings, structures, and objects significant in American history, architecture, archeology, engineering, and culture. These contribute to an understanding of the historical and cultural foundations of the nation.
The National Register includes:
- All prehistoric and historic units of the National Park System;
- National Historic Landmarks, which are properties recognized by the Secretary of the Interior as possessing national significance; and
- Properties significant in American, state, or local prehistory and history that have been nominated by State Historic Preservation Officers, federal agencies, and others, and have been approved for listing by the National Park Service.

Date of Government Version: 07/19/2015

CA Historic Landmarks: CA Historical Landmarks
Historical Landmarks are sites, buildings, features or events that are of statewide significance and have anthropological, cultural, military, political, architectural, economic, scientific or technical, religious, experimental, or other value
Source: Office of Historic Preservation.
Telephone: 916-653-6624

US Trails: US Trails
This dataset contains a baseline inventory and condition assessment of all non-motorized trails on U.S. Fish and Wildlife Service lands as part of the National Trails Inventory Program conducted by the US Dept. of Transportation, Federal Highway Administration, Federal Lands Highway Division.
Source: U.S. Fish and Wildlife.
Telephone: 703-358-2205

Potomac Heritage National Scenic Trail: Potomac Heritage National Scenic Trail
Source: Potomac Heritage NST Office.
Telephone: 304-535-4014

Indian Reservations: Indian Reservations
This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.
Source: USGS.
Telephone: 202-208-3710

Natchez Trace National Scenic Trail: Natchez Trace National Scenic Trail
Source: Natchez Trace Parkway.
Telephone: 800-305-7417

Federal Contacts for Additional Information

Park Service; Advisory Council on Historic Preservation
1849 C Street NW
Washington, DC 20240
Phone: (202) 208-6843

State Contacts for Additional Information

Office of Historic Preservation, Ept. Of Parks & Recreation 916-653-6624

Indian Religious Sites

Government Records Searched in This Report

Indian Reservations:
This map layer portrays Indian administrated lands of the United States that have any area equal to or greater than 640 acres.
Source: USGS
Phone: 888-275-8747
Date of Government Version: 12/31/2005

Federal Contacts for Additional Information

Department of the Interior- Bureau of Indian Affairs
Office of Public Affairs
1849 C Street, NW
Washington, DC 20240-0001
Office: 202-208-3711
Fax: 202-501-1516

National Association of Tribal Historic Preservation Officers
1411 K Street NW, Suite 700
Washington, DC 20005
Phone: 202-628-8476
Fax: 202-628-2241

State Contacts for Additional Information

A listing of local Tribal Leaders and Bureau of Indian Affairs Representatives can be found at:
http://www.doi.gov/bia/areas/agency.html

Phoenix Area Office, Bureau of Indian Affairs
One North First Street P.O. Box 10
Phoenix, AZ 85001
602-379-6600

Sacramento Area Office, Bureau of Indian Affairs
2800 Cottage Way
Sacramento, CA 95825
916-979-2600

Cultural Division, Yuork Tribe
1034 6th Street
Eureka, CA 95501

Scenic Trails

State Contacts for Additional Information
Pacific Crest Trail Association
5325 Elkhorn Boulevard, #256
Sacramento, California 95842
916-349-2109

FLOOD PLAIN, WETLANDS AND COASTAL ZONE

Flood Plain Management
Government Records Searched in This Report
Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.
Source: FEMA
Phone: 877-336-2627
Date of Government Version: 2003, 2015

Federal Contacts for Additional Information
Federal Emergency Management Agency 877-3362-627

State Contacts for Additional Information
Office of Emergency Services 916-262-1843

Wetlands Protection
Government Records Searched in This Report
NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005, 2010, and 2015 from the U.S. Fish and Wildlife Service.
Source: U.S. Fish and Wildlife Service.
Phone: 608-238-9333
Date of Government Version: 05/28/2015

State Wetlands Data: Wetland Inventory
Source: Department of Fish & Game
Telephone: 916-445-0411

Federal Contacts for Additional Information
Fish & Wildlife Service 813-570-5412

State Contacts for Additional Information
Department of Fish & Game 916-653-7667

KEY CONTACTS & GOVERNMENT RECORDS SEARCHED

Coastal Zone Management

Government Records Searched in This Report

CAMA Management Areas
Dept. of Env., Health & Natural Resources
919-733-2293

Federal Contacts for Additional Information

Office of Ocean and Coastal Resource Management
N/ORM, SSMC4
1305 East-West Highway
Silver Spring, Maryland 20910
301-713-3102

State Contacts for Additional Information

California Coastal Commission 415-904-5200

Government Records Searched in This Report

CA Coastline Information
Department of Fish and Game
831-649-7143

FCC & FAA SITES MAP

For NEPA actions that come under the authority of the FCC, the FCC requires evaluation of Antenna towers and/or supporting structures that are to be equipped with high intensity white lights which are to be located in residential neighborhoods, as defined by the applicable zoning law.

Government Records Searched in This Report

Cellular

Federal Communications Commission
445 12th Street, SW
Washington, DC 20554
888-225-5322

Antenna Structure Registration

Federal Communications Commission
445 12th Street, SW
Washington, DC 20554
888-225-5322

AM Antenna

Federal Communications Commission
445 12th Street, SW
Washington, DC 20554
888-225-5322

FM Antenna

Federal Communications Commission
445 12th Street, SW
Washington, DC 20554
888-225-5322

FAA Digital Obstacle File

Federal Aviation Administration (FAA)
1305 East-West Highway, Station 5631
Silver Sprinng, MD 20910-3281
Telephone: 301-713-2817
Describes known obstacles of interest to aviation users in the US. Used by the Federal Aviation Administration (FAA) and the National Oceanic and Atmospheric Administration to manage the National Airspace System.

KEY CONTACTS & GOVERNMENT RECORDS SEARCHED

Airport Landing Facilities
Federal Aviation Administration
Telephone (800) 457-6656
Private and public use landing facilities.

Electric Power Transmission Line Data
PennWell Corporation
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Excessive Radio Frequency Emission
For NEPA actions that come under the authority of the FCC, Commission actions granting construction permits, licenses to transmit or renewals thereof, equipment authorizations or modifications in existing facilities, require the determination of whether the particular facility, operation or transmitter would cause human exposure to levels of radio frequency in excess of certain limits.

Federal Contacts for Additional Information
Office of Engineering and Technology
Federal Communications Commission
445 12th Street SW
Washington, DC 20554
Phone: 202-418-2470

OTHER CONTACT SOURCES

NEPA Single Point of Contact
State Contacts for Additional Information
Grants Coordination
State Clearinghouse
P.O. Box 3044
Room 222
Sacramento, CA 95812-3044
916-445-0613

STREET AND ADDRESS INFORMATION

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Agua Caliente Band of Cahuilla Indians
NWC Highway 111 and Date Palm Drive
Cathedral City, CA 92234

Inquiry Number: 4981575.1
July 03, 2017

EDR Environmental Lien and AUL Search

EDR® Environmental Data Resources Inc

6 Armstrong Road
Shelton, CT 06484
800.352.0050
www.edrnet.com

EDR Environmental Lien and AUL Search

The EDR Environmental Lien and AUL Search Report provides results from a search of available current land title records for environmental cleanup liens and other activity and use limitations, such as engineering controls and institutional controls.

A network of professional, trained researchers, following established procedures, uses client supplied address information to:

- search for parcel information and/or legal description;
- search for ownership information;
- research official land title documents recorded at jurisdictional agencies such as recorders' offices, registries of deeds, county clerks' offices, etc.;
- access a copy of the deed;
- search for environmental encumbering instrument(s) associated with the deed;
- provide a copy of any environmental encumbrance(s) based upon a review of key words in the instrument(s) (title, parties involved, and description); and
- provide a copy of the deed or cite documents reviewed.

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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EDR Environmental Lien and AUL Search

TARGET PROPERTY INFORMATION

ADDRESS

NWC Highway 111 and Date Palm Drive
Agua Caliente Band of Cahuilla Indians
Cathedral City, CA 92234

RESEARCH SOURCE

Source 1:

Riverside Recorder
Riverside, CA

PROPERTY INFORMATION

Deed 1:

Type of Deed:	deed
Title is vested in:	City Urban Revitalization Corp
Title received from:	Wessman Holdings LLC
Deed Dated	3/29/2016
Deed Recorded:	4/8/2016
Book:	NA
Page:	na
Volume:	na
Instrument:	na
Docket:	NA
Land Record Comments:	
Miscellaneous Comments:	
Legal Description:	See Exhibit
Legal Current Owner:	City Urban Revitalization Corp
Parcel # / Property Identifier:	687-208-015, 687-208-022
Comments:	See Exhibit

Deed 2:

Type of Deed:	deed
Title is vested in:	Agua Caliente Band of Chuilla Indians
Title received from:	Meridian Realty Investors LLC
Deed Dated	12/16/2016
Deed Recorded:	1/3/2017
Book:	NA
Page:	na
Volume:	na
Instrument:	na
Docket:	NA
Land Record Comments:	

EDR Environmental Lien and AUL Search

Miscellaneous Comments:

Legal Description: See Exhibit

Legal Current Owner: Agua Caliente Band of Chuilla Indians

Parcel # / Property Identifier: 687-208-023, 687-208-024, 687-208-026

Comments: See Exhibit

ENVIRONMENTAL LIEN

Environmental Lien: Found ☐ Not Found ☒

OTHER ACTIVITY AND USE LIMITATIONS (AULs)

AULs: Found ☐ Not Found ☒

Deed Exhibit 1

Recording Requested By
First American Title Company
National Commercial Services

DOC # 2016-0138952
04/08/2016 12:57 PM Fees: $49.00
Page 1 of 9
Recorded in Official Records
County of Riverside
Peter Aldana
Assessor-County Clerk-Recorder

This document was electronically submitted to the County of Riverside for recording
Receipted by: MARY #420

Reviewed & Approved by Mindy #209

RECORDING REQUESTED BY AND WHEN RECORDED MAIL TO:

First American Title Company
74770 Highway 111, #101,
Indian Wells, California 92210

MAIL TAX STATEMENTS TO:

City Urban Revitalization Corporation
Attn: Tami Scott
68-700 Avenida Lalo Guerrero
Cathedral City, CA 92234

NCS-779469

APN(s): 687-204-001, -002, -003, -004, -005, -006, -007, -008, -009, -013, -014, -016; 687-206-001, -002, -003, -004, -005, -006, -007, -008, -009, -010, -011, -012, -013, -014, -015, -016; 687-208-015, -022 *(SPACE ABOVE THIS LINE FOR RECORDER'S USE)*

TRA: 019-038

THE UNDERSIGNED GRANTOR DECLARES DOCUMENTARY TRANSFER TAX is $5,321.80

(X) Computed on full value of property conveyed, or
computed on full value less value of liens or encumbrances remaining at time of sale,
or exempt from tax for the following reason:

GRANT DEED

FOR VALUABLE CONSIDERATION, receipt of which is hereby acknowledged,

WESSMAN HOLDINGS, LLC, a California limited liability company ("Grantor"),

hereby GRANTS to

CITY URBAN REVITALIZATION CORPORATION, a California non-profit corporation ("Grantee"),

that certain real property located in the City of Cathedral City, County of Riverside, State of California, described on Exhibit "A" attached hereto and incorporated herein by reference (the "Land").

This Grant Deed is and made and delivered, and title to the aforesaid property is conveyed (i) subject to all non-delinquent real property taxes and all unpaid general and special taxes, bonds and assessments, (ii) subject to all covenants, conditions, restrictions, rights, rights of way, easements, encumbrances and other matters of record, or of which a survey or inspection of such property would give notice, as of the date hereof, and (iii) except as otherwise stated

herein, without warranty or covenants of any kind whatsoever, whether express or implied, contractual or statutory.

Executed as of this 29th day of March, 2016.

Effective Date: March 29, 2016

"GRANTOR"

WESSMAN HOLDINGS, LLC, a California limited liability company

By: _____

Name: Michael BRAUN - Manager

This Notary Acknowledgement is attached to a document entitled ***Grant Deed***

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document

STATE OF CALIFORNIA)

COUNTY OF RIVERSIDE)

On March 29, 2016 before me, Jeanette L. Sanborn, Notary Public,
(insert name and title of the officer)

personally appeared Michael Braun,
who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/~~are~~ subscribed to the within instrument and acknowledged to me that he/~~she/they~~ executed the same in his/~~her/their~~ authorized capacity(~~ies~~), and that by his/~~her/their~~ signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature Jeanette L Sanborn **(Seal)**

JEANETTE L. SANBORN
Commission # 2037158
Notary Public - California
Riverside County
My Comm. Expires Aug 16, 2017

EXHIBIT "A"

LEGAL DESCRIPTION OF THE LAND

Real property in the City of Cathedral City, County of Riverside, State of California, described as follows:

PARCEL 1: (687-204-001)

LOT 61 OF CATHEDRAL CITY, AS SHOWN BY MAP ON FILE IN BOOK 13, PAGES 24 TO 26 OF MAPS, RECORDS OF RIVERSIDE COUNTY, CALIFORNIA.

PARCEL 2: (687-204-002)

THE NORTH 85 FEET OF LOT 60 CATHEDRAL CITY, AS SHOWN BY MAP ON FILE IN BOOK 13, PAGES 24 TO 26 OF MAPS, RECORDS OF RIVERSIDE COUNTY, CALIFORNIA.

PARCEL 3: (687-204-003)

THE SOUTH 65 FEET OF LOT 60 OF CATHEDRAL CITY, AS SHOWN BY MAP ON FILE IN BOOK 13, PAGES 24 TO 26 OF MAPS, RECORDS OF RIVERSIDE COUNTY, CALIFORNIA.

PARCEL 4: (687-204-004)

THE NORTH ONE-HALF OF LOT 59 OF CATHEDRAL CITY, AS SHOWN BY MAP ON FILE IN BOOK 13, PAGES 24 TO 26 OF MAPS, RECORDS OF RIVERSIDE COUNTY, CALIFORNIA.

PARCEL 5: (687-204-005)

THE SOUTH ONE-HALF OF LOT 59 OF CATHEDRAL CITY, AS SHOWN BY MAP ON FILE IN BOOK 13, PAGES 24 TO 26 OF MAPS, RECORDS OF RIVERSIDE COUNTY, CALIFORNIA.

PARCEL 6: (687-204-006)

THE NORTH HALF OF LOT 58 OF CATHEDRAL CITY, AS SHOWN BY MAP ON FILE IN BOOK 13, PAGES 24 TO 26 OF MAPS, RECORDS OF RIVERSIDE COUNTY, CALIFORNIA.

PARCEL 7: (687-204-007)

THE SOUTH ONE HALF OF LOT 58 OF CATHEDRAL CITY, AS SHOWN BY MAP ON FILE IN BOOK 13, PAGES 24 TO 26 OF MAPS, RECORDS OF RIVERSIDE COUNTY, CALIFORNIA.

PARCEL 8: (687-204-008 AND 687-204-013)

THE NORTH HALF OF LOTS 56 AND 57 OF CATHEDRAL CITY, AS SHOWN BY MAP ON FILE IN BOOK 13, PAGES 24 TO 26 OF MAPS, RECORDS OF RIVERSIDE COUNTY, CALIFORNIA;

TOGETHER WITH THE WESTERLY HALF OF THE ALLEY ADJOINING SAID LOT 56 ON THE EAST AS VACATED AND CLOSED TO PUBLIC USE BY RESOLUTION NO. 80-367, RECORDED OCTOBER 23, 1980 AS INSTRUMENT NO. 197351 OF OFFICIAL RECORDS OF RIVERSIDE COUNTY, CALIFORNIA.

PARCEL 9: (687-204-009 AND 687-204-014)

THE SOUTH HALF OF LOTS 56 AND 57 OF CATHEDRAL CITY, AS SHOWN BY MAP ON FILE IN BOOK 13, PAGES 24 TO 26 OF MAPS, RECORDS OF RIVERSIDE COUNTY, CALIFORNIA;

TOGETHER WITH THE WESTERLY HALF OF THE ALLEY ADJOINING SAID LOT 56 ON THE EAST AS VACATED AND CLOSED TO PUBLIC USE BY RESOLUTION NO. 80-367, RECORDED OCTOBER 23, 1980 AS INSTRUMENT NO. 197351 OF OFFICIAL RECORDS OF RIVERSIDE COUNTY, CALIFORNIA.

PARCEL 10: (687-204-016)

LOTS 50, 51, 52, 53, 54 AND 55 OF CATHEDRAL CITY, AS SHOWN BY MAP ON FILE IN BOOK 13, PAGES 24 TO 26 OF MAPS, RECORDS OF RIVERSIDE COUNTY, CALIFORNIA;

TOGETHER WITH THE EAST HALF OF THAT PORTION OF LOT H (ALLEY) ADJOINING SAID LOT 55 ON THE WEST, VACATED BY THE BOARD OF SUPERVISORS OF THE COUNTY OF RIVERSIDE, RESOLUTION NO. 80-367, RECORDED OCTOBER 23, 1980 AS INSTRUMENT NO. 197351 OF OFFICIAL RECORDS OF RIVERSIDE COUNTY, CALIFORNIA.

PARCEL 11: (687-206-001, 687-206-002 AND 687-206-003)

LOT 83, 84 AND 85 OF CATHEDRAL CITY, AS SHOWN BY MAP ON FILE IN BOOK 13, PAGES 24 TO 26 OF MAPS, RECORDS OF RIVERSIDE COUNTY, CALIFORNIA.

PARCEL 12: (687-206-004)

LOT 86 OF CATHEDRAL CITY, AS SHOWN BY MAP ON FILE IN BOOK 13, PAGES 24 TO 26 OF MAPS, RECORDS OF RIVERSIDE COUNTY, CALIFORNIA.

PARCEL 13: (687-206-005)

THAT PORTION OF LOT 87 OF CATHEDRAL CITY, AS SHOWN BY MAP ON FILE IN BOOK 13, PAGES 24 TO 26 OF MAPS, RECORDS OF RIVERSIDE COUNTY, CALIFORNIA, DESCRIBED AS FOLLOWS:

BEGINNING AT THE NORTHWEST CORNER OF SAID LOT 87;

THENCE EAST ON THE NORTH LINE THEREOF 40 FEET;

THENCE SOUTH 30 FEET;

THENCE SOUTHWESTERLY ON A LINE TO A POINT 20 FEET EAST OF THE WEST LINE OF SAID LOT AND 40 FEET SOUTH OF THE NORTH LINE OF SAID LOT;

THENCE SOUTH 10 FEET;

THENCE WEST 20 FEET TO THE WEST LINE OF SAID LOT;

THENCE NORTH ON THE WEST LINE OF SAID LOT 50 FEET TO THE POINT OF BEGINNING.

PARCEL 14: (687-206-006)

THAT PORTION OF LOTS 87 AND 88 OF CATHEDRAL CITY, AS SHOWN BY MAP ON FILE IN BOOK 13, PAGE 24 OF MAPS, RECORDS OF RIVERSIDE COUNTY, CALIFORNIA, DESCRIBED AS FOLLOWS:

BEGINNING AT THE SOUTHWEST CORNER OF SAID LOT 87;

THENCE NORTHERLY ON THE WESTERLY LINE OF SAID LOT, 50 FEET, MORE OR LESS, TO THE SOUTHWEST CORNER OF THAT CERTAIN PARCEL OF LAND CONVEYED TO OLIVER D. WENGER, ET UX, BY DEED RECORDED NOVEMBER 04, 1937 IN BOOK 353, PAGE 32 OF OFFICIAL RECORDS, RIVERSIDE COUNTY RECORDS;

THENCE EASTERLY ON THE NORTHERLY LINE OF SAID PARCEL CONVEYED TO OLIVER D. WENGER, 20 FEET;

THENCE NORTHERLY ON THE EASTERLY LINE OF SAID PARCEL 10 FEET;

THENCE IN A NORTHEASTERLY DIRECTION 22 FEET, MORE OR LESS, TO A POINT IN THE MOST EASTERLY LINE OF SAID PARCEL CONVEYED TO OLIVER D. WENGER THAT IS 30 FEET SOUTHERLY FROM THE NORTHERLY LINE OF SAID LOT 87; SAID POINT BEING IN THE WESTERLY LINE OF THAT CERTAIN PARCEL OF LAND CONVEYED TO ERNEST N. SMITH, BY DEED RECORDED DECEMBER 09, 1947 IN BOOK 878, PAGE 217 OF OFFICIAL RECORDS, RIVERSIDE COUNTY RECORDS;

THENCE SOUTHERLY ON THE WESTERLY LINE OF SAID PARCEL CONVEYED TO ERNEST N. SMITH, 8 FEET, MORE OR LESS, TO THE SOUTHWESTERLY CORNER THEREOF;

THENCE EASTERLY ON THE SOUTHERLY LINE OF SAID PARCEL CONVEYED TO ERNEST N. SMITH, 20 FEET, MORE OR LESS, TO THE SOUTHEASTERLY CORNER THEREOF; SAID POINT BEING ON THE WESTERLY LINE OF THAT CERTAIN PARCEL OF LAND CONVEYED TO GEORGE JOSEPH LAWRENCE, SR., ET UX, BY DEED RECORDED JANUARY 9, 1948 IN BOOK 877, PAGE 549 OF OFFICIAL RECORDS, RIVERSIDE COUNTY RECORDS;

THENCE SOUTHERLY ON THE WESTERLY LINE OF SAID PARCEL CONVEYED TO JOSEPH LAWRENCE, SR., AND THE WESTERLY LINE OF THAT CERTAIN PARCEL OF LAND CONVEYED TO HAROLD A. SMITH A SINGLE MAN, BY DEED RECORDED NOVEMBER 10, 1947 IN BOOK 872, PAGE 386 OF OFFICIAL RECORDS, RIVERSIDE COUNTY RECORDS, 62 FEET, MORE OR LESS, TO A POINT ON THE SOUTHERLY LINE OF SAID LOT 88;

THENCE WESTERLY ON THE SOUTHERLY LINE OF SAID LOTS 88 AND 87, 60 FEET, MORE OR LESS, TO THE POINT OF BEGINNING.

PARCEL 15: (687-206-007)

THOSE PORTIONS OF LOTS 87 AND 88 OF CATHEDRAL CITY, AS SHOWN BY MAP ON FILE IN BOOK 13, PAGES 24 TO 26 OF MAPS, RECORDS OF RIVERSIDE COUNTY, CALIFORNIA, DESCRIBED AS FOLLOWS:

BEGINNING AT THE NORTHEAST CORNER OF LOT 87;

THENCE WEST ON THE NORTH LINE OF LOT 87, 10 FEET;

THENCE SOUTH 38 FEET;

THENCE EAST 20 FEET;

THENCE SOUTH 12 FEET;

THENCE EAST 40 FEET TO THE EAST LINE OF LOT 88;

THENCE NORTH 50 FEET TO THE NORTHEAST CORNER OF LOT 88;

THENCE WEST ON THE NORTH LINE OF LOT 88, 50 FEET TO THE POINT OF BEGINNING.

PARCEL 16: (687-206-008)

THE EAST 40 FEET OF THE SOUTH 50 FEET OF LOT 88 OF CATHEDRAL CITY, AS SHOWN BY MAP ON FILE IN BOOK 13, PAGES 24 TO 26 OF MAPS, RECORDS OF RIVERSIDE COUNTY, CALIFORNIA.

PARCEL 17: (687-206-009 AND 687-206-010)

LOTS 89 AND 90 OF CATHEDRAL CITY, AS SHOWN BY MAP ON FILE IN BOOK 13, PAGE 24 TO 26 OF MAPS, RECORDS OF RIVERSIDE COUNTY, CALIFORNIA.

PARCEL 18: (687-206-011)

THE NORTHERLY 58 FEET OF LOT 91 OF CATHEDRAL CITY, AS SHOWN BY MAP ON FILE IN BOOK 13, PAGES 24 TO 26 OF MAPS, RECORDS OF RIVERSIDE COUNTY, CALIFORNIA.

PARCEL 19: (687-206-012)

THE SOUTHERLY 42 FEET OF LOT 91 OF CATHEDRAL CITY, AS SHOWN BY MAP ON FILE IN BOOK 13, PAGES 24 TO 26 OF MAPS, RECORDS OF RIVERSIDE COUNTY, CALIFORNIA.

PARCEL 20: (687-206-013)

LOT 92 OF CATHEDRAL CITY, AS SHOWN BY MAP ON FILE IN BOOK 13, PAGES 24 TO 26 OF MAPS, RECORDS OF RIVERSIDE COUNTY, CALIFORNIA.

PARCEL 21: (687-206-014)

THE NORTH 55 FEET OF LOT 93 OF CATHEDRAL CITY, AS SHOWN BY MAP ON FILE IN BOOK 13, PAGES 24 TO 26 OF MAPS, RECORDS OF RIVERSIDE COUNTY, CALIFORNIA.

PARCEL 22: (687-206-015)

SOUTH 45 FEET OF LOT 93 OF CATHEDRAL CITY, AS SHOWN BY MAP ON FILE IN BOOK 13, PAGES 24 TO 26 OF MAPS, RECORDS OF RIVERSIDE COUNTY, CALIFORNIA.

PARCEL 23: (687-206-016)

LOT 94 OF CATHEDRAL CITY, AS SHOWN BY MAP ON FILE IN BOOK 13, PAGES 24 TO 26 OF MAPS, RECORDS OF RIVERSIDE COUNTY, CALIFORNIA.

Real property in the City of Cathedral City, County of Riverside, State of California, described as follows:

LOTS 95, 96, 97, 98, 99 AND 100 OF CATHEDRAL CITY, AS SHOWN BY MAP ON FILE IN BOOK 13, PAGES 24 THROUGH 26 OF MAPS, RECORDS OF RIVERSIDE COUNTY, CALIFORNIA, TOGETHER WITH THE EASTERLY HALF OF LOT H LYING BETWEEN THE SOUTHERLY LINE OF DAWES STREET AND (40 FOOT WIDE) AND THE NORTHERLY LINE OF BROADWAY (80 FOOT WIDE), NOW STATE HIGHWAY 111 AS SHOWN ON THE MAP OF CATHEDRAL CITY, RECORDED IN BOOK 13, PAGES 24 THROUGH 26 OF MAPS, RECORDS OF RIVERSIDE COUNTY, CALIFORNIA, AS VACATED AND CLOSED TO PUBLIC USE BY RESOLUTION NO. 79-346, RECORDED NOVEMBER 21, 1979 AS INSTRUMENT NO. 248832 OF OFFICIAL RECORDS OF RIVERSIDE COUNTY, CALIFORNIA;

EXCEPTING THEREFROM LOT 95 CONVEYED TO THE COUNTY OF RIVERSIDE BY DEED RECORDED MAY 18, 1977 AS INSTRUMENT NO. 89251 OF OFFICIAL RECORDS OF RIVERSIDE COUNTY, CALIFORNIA;

ALSO EXCEPTING THEREFROM THAT PORTION CONVEYED TO THE CITY OF CATHEDRAL CITY RECORDED OCTOBER 30, 1997 AS INSTRUMENT NO. 395119 OF OFFICIAL RECORDS OF RIVERSIDE COUNTY, CALIFORNIA.

APN: 687-208-015-5 and 687-208-022-1

Deed Exhibit 2

PLEASE COMPLETE THIS INFORMATION
RECORDING REQUESTED BY:

Agua Caliente Band of Cahuilla Indians

AND WHEN RECORDED MAIL TO:

Agua Caliente Band of Cahuilla Indians
5401Dinah Shore Drive
Palm Springs, California 92264

2017-0001506
01/03/2017 03:32 PM Fee: $ 40.00
Page 1 of 6
Recorded in Official Records
County of Riverside
Peter Aldana
Assessor-County Clerk-Recorder

41.50

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QUITCLAIM DEED

Title of Document

TRA: _____

DTT: 0

THIS PAGE ADDED TO PROVIDE ADEQUATE SPACE FOR RECORDING INFORMATION
($3.00 Additional Recording Fee Applies)

RECORDING REQUESTED BY AND WHEN RECORDED MAIL TO:

Agua Caliente Band of Cahuilla Indians
5401 Dinah Shore Drive
Palm Springs, California 92264
Attention: Tom Davis

APN: 687-208-023, 024, 025, 026

SPACE ABOVE THIS LINE FOR RECORDER'S USE

QUITCLAIM DEED

FOR VALUABLE CONSIDERATION, the receipt of which is hereby acknowledged, MERIDIAN REALTY INVESTORS, LLC, a Delaware limited liability company (**"Grantor"**), hereby quitclaims to AGUA CALIENTE BAND OF CAHUILLA INDIANS, a federally recognized Indian tribe (**"Grantee"**), that certain real property situated in the City of Cathedral City, County of Riverside, State of California, more particularly described in **EXHIBIT A**, which is attached hereto and incorporated herein by this reference (the **"Property"**).

IN WITNESS WHEREOF, Grantor has caused its duly authorized representative to execute this instrument as of the date hereinafter written.

Dated: 12/16/2016

GRANTOR:

MERIDIAN REALTY INVESTORS, LLC, a Delaware limited liability company

By: MRI Property Management, Inc., a Delaware corporation, Its Manager,

By: _____
Shahram ~~Moalemzadeh~~ (Shawn Molem),
President

ACKNOWLEDGMENT

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California
County of LOS ANGELES)

On DEC. 16, 2016, before me, EVA JEN, Notary Public, personally appeared **Shahram Moalemzadeh**, who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature of Notary

EVA JEN
Commission # 2052730
Notary Public - California
Los Angeles County
My Comm. Expires Jan 17, 2018

EXHIBIT A

LEGAL DESCRIPTION OF THE PROPERTY

THE LAND REFERRED TO HEREIN BELOW IS SITUATED IN THE CITY OF CATHEDRAL CITY, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, AND IS DESCRIBED AS FOLLOWS:

PARCEL 1: (APN: 687-208-023-2)

LOTS 101 AND 102 OF CATHEDRAL CITY, AS SHOWN BY MAP ON FILE IN BOOK 13 PAGE(S) 24 THROUGH 26 OF MAPS, RECORDS OF RIVERSIDE COUNTY, CALIFORNIA, TOGETHER WITH THE WESTERLY HALF OF LOT H LYING BETWEEN THE SOUTHERLY LINE OF DAWES STREET (40 FOOT WIDE) AND THE NORTHERLY LINE OF BROADWAY (80 FOOT WIDE), NO STATE HIGHWAY 111 AS SHOWN ON THE MAP OF CATHEDRAL CITY, ON FILE IN BOOK 13 PAGES 24 THROUGH 26 OF MAPS, RECORDS OF RIVERSIDE COUNTY, CALIFORNIA, AS VACATED AND CLOSED TO PUBLIC USE BY RESOLUTION NO. 79-346, RECORDED NOVEMBER 21, 1979 AS INSTRUMENT NO. 248832 OF OFFICIAL RECORDS OF RIVERSIDE COUNTY, CALIFORNIA;

EXCEPT THEREFROM THAT PORTION CONVEYED TO THE CITY OF CATHEDRAL CITY, BY DEED RECORDED MAY 12, 1982 AS INSTRUMENT NO. 81733 OF OFFICIAL RECORDS OF RIVERSIDE COUNTY, CALIFORNIA;

ALSO EXCEPT THEREFROM THAT PORTION CONVEYED TO THE CITY OF CATHEDRAL CITY, BY DEEDS RECORDED AUGUST 31, 1982 AS INSTRUMENT NO. 150864 AND RECORDED JANUARY 25, 1983 AS INSTRUMENT NO. 15185 BOTH OF OFFICIAL RECORDS OF RIVERSIDE COUNTY, CALIFORNIA;

ALSO EXCEPT THEREFROM THAT PORTION CONVEYED TO THE CITY OF CATHEDRAL CITY BY DEED RECORDED NOVEMBER 13, 1997 AS INSTRUMENT NO. 416611 OF OFFICIAL RECORDS OF RIVERSIDE COUNTY, CALIFORNIA.

PARCEL 1A:

AN EASEMENT FOR BUILDING ENCROACHMENT ONTO THE FOLLOWING DESCRIBED PROPERTY: THOSE PORTIONS OF LOTS 101 AND 102 OF CATHEDRAL CITY AS SHOWN BY MAP ON FILE IN BOOK 13, PAGES 24, 25 AND 26 OF MAPS, RECORDS OF RIVERSIDE COUNTY, CALIFORNIA, TOGETHER WITH THE WESTERLY HALF OF LOT H LYING BETWEEN THE SOUTHERLY LINE OF DAWES STREET (40 FOOT WIDE) AND THE NORTHERLY LINE OF BROADWAY (80 FOOT WIDE), NOW STATE HIGHWAY 111 AS SHOWN ON THE MAP OF CATHEDRAL CITY, RECORDED IN BOOK 13 PAGES 24 THROUGH 26 OF MAPS, RECORDS OF RIVERSIDE COUNTY, CALIFORNIA, AS VACATED AND CLOSED TO PUBLIC USE BY RESOLUTION NO. 79-346, RECORDED NOVEMBER 21, 1979 AS INSTRUMENT NO. 248832 OF OFFICIAL RECORDS OF RIVERSIDE COUNTY, CALIFORNIA DESCRIBED AS FOLLOWS:

COMMENCING AT A POINT OF INTERSECTION ON THE EASTERLY LINE OF SAID LOT H WITH A LINE THAT IS PARALLEL WITH AND DISTANT NORTHEASTERLY 15.00 FEET, MEASURED AT RIGHT ANGLES FROM THE SOUTHWESTERLY LINE OF SAID LOT 101 AND ITS SOUTHERLY PROLONGATION;

THENCE ALONG SAID PARALLEL LINE NORTH 71° 34' 04" WEST, 56.92 FEET TO THE TRUE POINT OF BEGINNING;
THENCE NORTH 71° 34' 04" WEST, 4.78 FEET;
THENCE NORTH 67° 22' 24" WEST 14.57 FEET;

EXHIBIT A
(Continued)

THENCE SOUTH 00° 23' 39" WEST, 5.29 FEET;
THENCE SOUTH 89° 36' 20" EAST, 6.90 FEET;
THENCE SOUTH 00° 23' 40" WEST, 1.70 FEET;
THENCE SOUTH 89° 36' 20" EAST 11.13 FEET TO THE TRUE POINT OF BEGINNING.

PARCEL 2: (APN: 687-208-024-3)

LOT 103 OF CATHEDRAL CITY, AS SHOWN BY MAP ON FILE IN BOOK 13 PAGE(S) 24, 25 AND 26 OF MAPS, RECORDS OF RIVERSIDE COUNTY, CALIFORNIA;

EXCEPT THEREFROM THE NORTHERLY 5 FEET AND THE SOUTHERLY 15 FEET AS CONVEYED TO THE CITY OF CATHEDRAL CITY BY DEEDS RECORDED MAY 12, 1982 AS INSTRUMENT NO. 81733 AND AUGUST 31, 1982 AS INSTRUMENT NO. 150864 OF OFFICIAL RECORDS OF RIVERSIDE COUNTY, CALIFORNIA;

ALSO EXCEPT THEREFROM THAT PORTION CONVEYED TO THE CITY OF CATHEDRAL CITY BY DEED RECORDED NOVEMBER 13, 1997 AS INSTRUMENT NO. 416611 OF OFFICIAL RECORDS OF RIVERSIDE COUNTY, CALIFORNIA.

PARCEL 3: (APN: 687-203-025-4)

LOT 104 OF CATHEDRAL CITY AS SHOWN BY MAP ON FILE IN BOOK 13 PAGE(S) 24, 25 AND 26 OF MAPS, RECORDS OF RIVERSIDE COUNTY, CALIFORNIA;

EXCEPT THEREFROM THE FOLLOWING DESCRIBED PARCEL OF LAND:

BEGINNING AT THE SOUTHWEST CORNER OF SAID LOT 104;
THENCE ALONG THE WEST LINE OF SAID LOT NORTH 0° 05' 29" EAST, 29.76 FEET TO THE NORTHWEST CORNER THEREOF;
THENCE ALONG THE NORTH LINE OF SAID LOT SOUTH 89° 53' 55" EAST, 30.01 FEET;
THENCE SOUTH 0° 05' 32" WEST, 11.21 FEET;
THENCE SOUTH 71° 34' 43" EAST, 52.68 FEET TO THE WEST LINE OF THE EAST 50.00 FEET OF SAID LOT;
THENCE ALONG LAST SAID WEST LINE SOUTH 0° 05' 37" WEST, 28.51 FEET TO THE SOUTHERLY LINE OF SAID LOT;
THENCE ALONG SAID SOUTHERLY LINE NORTH 71° 34' 04" WEST, 84.30 FEET TO THE SOUTHWEST CORNER OF SAID LOT 104 AND THE POINT OF BEGINNING;

ALSO EXCEPT THEREFROM THE EASTERLY 50.00 FEET OF SAID LOT 104.

PARCEL 4: (APN: 687-208-026-5)

THE EASTERLY 50.00 FEET OF LOT 104 OF CATHEDRAL CITY AS SHOWN BY MAP ON FILE IN BOOK 13 PAGE(S) 24, 25 AND 26 OF MAPS, RECORDS OF RIVERSIDE COUNTY, CALIFORNIA;

EXCEPT THEREFROM THE FOLLOWING DESCRIBED PARCEL OF LAND:

BEGINNING AT THE SOUTHEAST CORNER OF SAID LOT 104;
THENCE ALONG THE EAST LINE OF SAID LOT NORTH 0° 5' 42" EAST, 27.78 FEET TO A NONTANGENT CURVE CONCAVE SOUTHWESTERLY AND HAVING A RADIUS OF 235.84 FEET, A RADIAL LINE OF SAID CURVE THROUGH SAID POINT BEARS NORTH 22° 26' 25" EAST; THENCE NORTHWESTERLY

EXHIBIT A
(Continued)

ALONG SAID CURVE, THROUGH A CENTRAL ANGLE OF 3° 14' 22", AN ARC DISTANCE OF 13.33 FEET TO THE BEGINNING OF A COMPOUND CURVE CONCAVE SOUTHWESTERLY AND HAVING A RADIUS OF 1494.89 FEET;

THENCE NORTHWESTERLY ALONG SAID CURVE, THROUGH A CENTRAL ANGLE OF 0° 46' 46", AN ARC DISTANCE OF 20.33 FEET;
THENCE NORTH 71° 34' 43" WEST, 19.26 FEET TO THE WEST LINE OF THE EASTERLY 50.00 FEET OF SAID LOT 104;
THENCE ALONG LAST SAID WEST LINE SOUTH 0° 05' 37" WEST, 28.51 FEET TO THE SOUTHERLY LINE OF SAID LOT;
THENCE ALONG SAID SOUTHERLY LINE SOUTH 71° 34' 04" EAST, 52.69 FEET TO THE SOUTHEAST CORNER OF SAID LOT 104 AND THE POINT OF BEGINNING.

APN: 687-208-023-2, 687-208-024-3, 687-208-025-4 AND 687-208-026-5

APPENDIX D

INTERVIEWS

PETRA

PETRA GEOSCIENCES, INC.
40880 County Center Dr., Suite R, Temecula, CA * (951) 600-9271 * (951) 719-1499

PHASE I USER/CLIENT QUESTIONNAIRE

The purpose of this questionnaire is to obtain information from the client regarding the Property.

Date Sent to Client June 27, 2017 Date Received from Client 6/28/17

A. SITE INFORMATION

1. Property Name/APN: Riverside County Assessor Parcel Numbers (APNs) 687-201-005 to -011; 687-202-001 to -012 and -015; 687-203-008 to 015; 687-204-001 to 009, -013, -014 and -016; 687-205-005 to-008; 687-206-001 to -0161 and, 687-208-015 and -022.

2. Location (If a map is available, please include it): 12.6 acres of land at the NWC of Highway 111 and Date Palm Drive, Cathedral City, CA 92234

3. Why is the Phase I required? (Development as a residential parcel, protection from CERCLA liability, etc?): NEPA Compliance

4. Is there an Interview Contact for this job? (A current owner/operator, or someone with knowledge of the history and/or processes occurring at the site). ☑ Yes ☐ No

   If yes, please provide the following information:
   Person to be interviewed: Tami Scott
   Title/Company: Administrative Services Director, City of Cathedral City
   Phone number and/or email address:
   (760) 770-0354 TScott@cathedralcity.gov

5. Do you have any reports for this job (such as previous Phase I's, biology reports, cultural resource reports, geotechnical reports, etc.) ☑ Yes* ☐ No
   * Seller only provided monitoring well abandonment letter and ~~lease~~ license underlying agreement
   If yes, please provide them for Petra to review. *Date Received from Client*

6. As part of our assessment, Petra contacts local agencies to obtain miscellaneous information about the project site such as previous investigations, zoning, and flood zone. Do you have any current restrictions regarding Petra contacting these agencies?
   ☐ Yes ☑ No

   If yes, please contact us to discuss further.

B. SITE ACESS

1. Does Petra have access to the property at this time? ☑ Yes ☐ No

2. Are there any access restrictions such as a locked gate or required insurance forms? Per correspondence w/ Ed Lump, Carl's Jr. access is restricted to public area only.

3. Is there a site manager that Petra needs to contact prior to visiting the site? N/A

C. LANDOWNER LIABILITY PROTECTIONS

In order to qualify for one of the Landowner Liability Protections offered by the Small Business liability Relief and Brownfields Revitalization of 2001 (the "Brownfields Amendments"), the client must provide the following information (if available) to the environmental professional. Failure to provide this information could result in a determination that "all appropriate inquiry" is not complete.

1. Are you aware of any environmental clean-up liens against the property that are filed or recorded under federal, tribal, state, or local law? (40 CFR 312.25) ☐ Yes ☑ No

   If no, have you or will you conduct a search for any environmental cleanup liens against the property that are filed or recorded in a registry? ☑ Yes ☐ No

   If yes, please provide Petra with this information. _____

   _____

   _____

   If no, do you require Petra to complete this task? ☐ Yes ☐ No
   TBD - Jeff Vatter to notify Ed Lumsp upon decision

2. Are you aware of any activity and land use limitations (AULs), such as engineering controls, land use restrictions, or institutional controls that are in place on or for the site and/or have been filed or that environmental cleanup liens against the property that are filed or recorded under federal, tribal, state, or local law? (40 CFR 312.25) ☐ Yes ☑ No

   If no, have you or will you conduct a search for any AULs against the property that are filed or recorded in a registry? ☐ Yes ☑ No

   If yes, please provide Petra with this information. _____

   _____

   _____

   If no, do you require Petra to complete this task? ☐ Yes ☐ No Jeff Vatter to notify
   TBD - Ed Lumsp upon decision

3. As the user of this Environmental Site Assessment, do you have any specialized knowledge or experience related to the property or nearby properties? For example, are you involved in the same line of business as the current or former occupants of the property or an adjoining property so that you would have specialized knowledge of the potential chemicals and processes used by this type of business?
   ☐ Yes ☑ No

   If yes, please provide Petra with this information. _____

   _____

   _____

PETRA GEOSCIENCES, INC.
40880 County Center Dr., Suite R, Temecula, CA * (951) 600-9271 * (951) 719-1499

4. Does the purchase price being paid for this property reasonably reflect the fair market value of the property? ☑ Yes ☐ No

If you conclude that there is a difference, have you considered whether the lower purchase price is because of any environmental concerns are known or believed to be present at the property?
☐ Yes ☐ No

If yes, please provide Petra with that information. _____

5. Are you aware of commonly known or reasonably ascertainable information about the property that would help the environmental professional to identify conditions indicative of hazardous materials/chemical releases or threatened releases? For example,

A. Do you know the past uses of the property? ☑ Yes ☐ No

If yes, please provide Petra with the information. A portion of the property was previously a residential subdivision. Additionally Goody's cafe was located on site, prior to being demolished in May 2017.

B. Do you know of specific chemicals that are present or once were present at the property?
☐ Yes ☑ No

If yes, please provide Petra with the information. _____

C. Do you know of spills or other chemical releases that have taken place at the property?
☐ Yes ☑ No

If yes, please provide Petra with the information. _____

D. Do you know of any environmental cleanups that have taken place at the property or adjacent properties? ☐ Yes ☑ No

If yes, please provide Petra with the information. _____

6. As the user of this ESA, based on your knowledge and experience related to the property, are there any obvious indicators that point to the presence or likely presence of contamination at the property?
☐ Yes ☑ No

If yes, please provide Petra with the information. _____

User/Client Representative: Jeff Vatter Date: 6/29/17
(sign and print name)
Senior Project Manager, Economic Development
Agua Caliente Band of Cahuilla Indians

Ed Lump

From: WB-RB7-PRA <RB7-PRA@Waterboards.ca.gov>
Sent: Friday, July 07, 2017 9:44 AM
To: elump@petra-inc.com
Subject: RE: Request for records review; Cathedral City Fire Station, 36913 Date Palm Dr., Cathedral City, CA 92234

Dear Mr. Lump,

Currently the Regional Board has no files or electronic documents for this address.

Thank you,

Soni Wells
Associate Governmental Program Analyst
SWRCB-Colorado River Basin Region-7
73-720 Fred Waring Drive
Suite 100
Palm Desert, CA 92260
Soni.Wells@waterboards.ca.gov
(760) 346-7491

From: Ed Lump [mailto:elump@petra-inc.com]
Sent: Wednesday, July 5, 2017 3:54 PM
To: WB-RB7-PRA <RB7-PRA@Waterboards.ca.gov>
Subject: Request for records review; Cathedral City Fire Station, 36913 Date Palm Dr., Cathedral City, CA 92234
Importance: High

I am conducting a Phase I ESA for a property in Cathedral City.
In my research, I came across a State Water Resources Control Board Hazardous Substance Storage Container Information sheet regarding the Cathedral City Fire Station #34, located at 36913 Date Palm Dr., Cathedral City, CA 92234.
The State Board Assigned Container ID number is 00000057339001.
The Sheet, dated 6/01/1988 indicated there was a 1,000 gallon diesel UST on the property. No information is available on Geotracker.

Please let me know if you have any records on this site to review.

Please do not hesitate to contact me if you have any questions or require additional information.

Thank you,

Ed Lump
Associate Geologist
Petra Geosciences, Inc.
40880 County Center Dr., Suite R
Temecula, CA 92591

Office: (951) 253-4452
Cell: (951) 235-4008

Ed Lump

From: Heather Marcks <Heather@dwa.org>
Sent: Tuesday, July 11, 2017 9:09 AM
To: elump@petra-inc.com
Cc: David Tate; Beth Amheiser; Jose Govea
Subject: RE: Request for information on two monitoring wells at Cathedral City fire Station, 36913 Date Palm Dr

Ed,

Beth informed me that Well 19 is no longer active and we do not take samples from it we only use it for monitoring depth to water. The next nearest Well is approximately 1-2 miles to the NW. The last samples for EPA 524.2 were taken September 7, 2016 and all VOCs were non detected.

Thank you,
Heather Marcks
Senior Engineering Technician

DESERT WATER
P.O. Box 1710
1200 S. Gene Autry Trail
Palm Springs, CA 92263
www.DWA.org
Phone: 760-323-4971 Ext. 145
Fax: 760-325-6505

From: Heather Marcks
Sent: Tuesday, July 11, 2017 8:53 AM
To: 'elump@petra-inc.com' <elump@petra-inc.com>
Cc: David Tate <David@dwa.org>; Beth Amheiser <Beth@dwa.org>; Jose Govea <JGovea@dwa.org>
Subject: RE: Request for information on two monitoring wells at Cathedral City fire Station, 36913 Date Palm Dr

Ed,

The monitoring wells you mentioned were used several years back to track the affects septic systems were having on water quality in the area. We had stopped using them for monitoring a while ago and they went dry and are slated to be abandoned soon. SO I have no relevant data on them.

The closest active well we have to that area is Well 19 approximately ½-1 mile to the NW with an average depth to water around 170'. I will have our Lab Director, Beth Amheiser work with you on getting you our latest state reported results for the constituents your requested in that area. Please let myself or Beth know if you have any further questions.

Thank you,
Heather Marcks
Senior Engineering Technician

DESERT WATER
P.O. Box 1710
1200 S. Gene Autry Trail
Palm Springs, CA 92263
www.DWA.org
Phone: 760-323-4971 Ext. 145
Fax: 760-325-6505

From: Ed Lump [mailto:elump@petra-inc.com]
Sent: Monday, July 10, 2017 3:28 PM
To: Heather Marcks <Heather@dwa.org>

Subject: Request for information on two monitoring wells at Cathedral City fire Station, 36913 Date Palm Dr
Importance: High

Heather,
Thank you for taking the time to talk with me this afternoon.
I am doing a Ph. I ESA on the property at the NWC of Palm Canyon Drive & Date Palm Dr., Cathedral City, CA.
Ms. Tami Scott at the City indicated to me that Desert Water Authority has 2 monitoring wells behind the fire station at 36913 Date Palm Dr. (APN 687-202-15). The parcel is located at the southwest corner of Date Palm & Buddy Rogers.

I am interested in historical water depth information, as well as chemical analysis data (related to petroleum hydrocarbon-based chemicals & VOCs) that may be available.

Please let me know if you have any questions or require additional information.
Thank you,

Ed Lump
Associate Geologist
Petra Geosciences, Inc.
40880 County Center Dr., Suite R
Temecula, CA 92591
Office: (951) 253-4452
Cell: (951) 235-4008

PETRA GEOSCIENCES, INC.
40880 County Center Dr., Suite R, Temecula, CA * (951) 600-9271 * (951) 719-1499

PHASE I PROPERTY OWNER INTERVIEW QUESTIONNAIRE

The purpose of this questionnaire is to obtain information from knowledgeable individuals regarding the Subject Site. This questionnaire will become part of the assessment report.

A. SITE INFORMATION

Project Number: 17-246

Property Location: 12.6 Acres of vacant land at the NWC of Highway 111 and Date Palm Drive, Cathedral City, CA 92234

B. INTERVIEW INFORMATION

Date/Time: 7/3/17
Interviewer: ED Lump
Person Interviewed: Tami Scott
Title/Company: City URBAN Revitalization Corp

☐ In Person
☒ By Telephone, Number: 951- 253-4452
☐ By ~~Facsimile~~ Email, Number:
☒ Email: TSCOTT@ CATHEDRALCITY.GOV

1. What is your relationship to the property? CFO for the City URBAN Revitalization Corporation

Tami Phone number - 760-770-0354

2. Do you have a good knowledge regarding the uses and physical characteristics of the property?
☐Yes
☒No If not, who does? UNKNOWN - No Longer employed Phone Number:

3. Do you have a good knowledge regarding the activities/processes conducted at the property?
☒Yes
☐No If not, who does? Phone Number:

C. PROPERTY INFORMATION

1. To the best of your knowledge, what are the current and past uses of the property? Please describe with approximate dates.

PAST Combination of Commercial, Retail & Residential uses

Current. A portion Houses Cathedral City Fire Station

A portion of site has a Caltrans Operations on site

2. To your knowledge, are there:

Hazardous substances present on the site? ☐Yes ☒No
Petroleum products present on the site? — only Diesel @ Fire Station ☒Yes ☐No

If the preceding items are present, are there indications of any of the following:

An existing release? ☐Yes ☒No
A past release? ☐Yes ☒No
A threat of their release? ☐Yes ☒No

If yes to any of the above, please describe: _____

3. Are you aware of the presence of any of the following either currently or previously on the property or any nearby properties:

Potential Recognized Environmental Conditions	Site		Adjacent	
Hazardous substances? Asbestos —	☒ Yes	☐ No	☐ Yes	☒ No
Petroleum products? Diesel Fuel @ Fire Station	☒ Yes	☐ No	☐ Yes	☒ No
Chemicals?	☐ Yes	☒ No	☐ Yes	☒ No
Asbestos or asbestos-containing materials? Removed	☒ Yes	☐ No	☐ Yes	☒ No
Lead-based paints? Removed	☒ Yes	☐ No	☐ Yes	☒ No
Underground storage tanks?	☐ Yes	☒ No	☐ Yes	☒ No
Above-ground storage tanks? (1) Above Ground Storage for Diesel Generator	☒ Yes	☐ No	☐ Yes	☒ No
Oil Wells?	☐ Yes	☒ No	☐ Yes	☒ No
Sumps?	☐ Yes	☒ No	☐ Yes	☒ No

Removed Before Demo Permit

Unknown

If yes to any of the above, please describe: Homes & Businesses that previously occupied the now vacant land had some asbestos in the Building, which is now all removed as all the Buildings have been demolished

4. Are you aware of any current or previous uses of the property or nearby properties that would suggest the presence of the foregoing items, substances, or materials? ☒Yes ☐No

If yes to any of the above, please describe: Same Answer as Above

5. To your knowledge, are there any utility corridors on the property? ☒Yes ☐No

If yes to any of the above, please describe: Southern California Edison - Also see ALTA Survey Provided to ACBCI

6. To your knowledge, are you aware of any of the following on the property:

Water Wells?	☒Yes ☐No	Disposal Wells?	☐Yes ☒No
Clarifiers?	☐Yes ☒No	Underground Irrigation Systems?	☐Yes ☐No UNKNOWN

If yes to any of the above, please describe: DWA has two monitoring wells that are on the site & in the process of being ABANDONED

7. Are there any occupants on the property? ☒Yes ☐No

If yes to any of the above, please describe: Cafe for Business & Cathedral City Fire Station. Rest of the property is VACANT LAND

8. Do you have good knowledge regarding the identity of any existing documents relating to the property?
☒Yes - to some documents - Demo permits & septic tank removals
☐No If not, who does? UNKNOWN Phone Number: _____

9. To your knowledge, do any of the following documents exist with respect to the subject property? If yes, please name the document and comment upon whether it is available for review.

Document	Yes	No	Name/Availability
Environmental site assessment reports?		✓	
Environmental audit reports?		✓	
Environmental permits?		✓	
Storage tank registration?		✓	
Material safety data sheets (MSDS)?		✓	
Community right-to-know plans?		✓	
Safety plans?		✓	
Spill Prevention, Countermeasure, & Control Plans?		✓	
Illness and Injury Prevention Plans?		✓	
Reports regarding hydrogeologic conditions on the property or surrounding area?		✓	
Hazardous waste generator notices or reports?		✓	
Geotechnical studies?		✓	

10. To your knowledge, do any of the following exist with respect to the subject property?

a. Notices or other correspondence from any government agency relating to past or current violations of environmental laws? ☐Yes ☒No

If yes to any of the above, please describe: _____

b. Notices or other correspondence from any government agency relating to environmental liens encumbering the property? ☐Yes ☒No

If yes to any of the above, please describe: _____

c. Pending, threatened, or past litigation or administrative proceedings relevant to hazardous substances, or petroleum products in, on, or from the property? ☐Yes ☒No

If yes to any of the above, please describe: _____

d. Notices from any government al entity regarding any possible violation of environmental laws or possible liability relating to hazardous substances or petroleum products? ☐Yes ☒No

If yes to any of the above, please describe: _____

11. Please provide any additional information relative to this project.

_____

Owner/Representative: Tami E. Scott (sign and print name) Date: 7/3/17

Summary Document

APN	Address	Septic/Removed--YES Permit Copy Enclosed
		NO Permit Copy - Abanonded per City Code
687-201-005	38821 2nd (or allen)	PUMPED, CRUSHED, FILLED PER CITY CODE
687-201-006	Parcel not on file	PUMPED, CRUSHED, FILLED PER CITY CODE
687-201-007	68822 First	PUMPED, CRUSHED, FILLED PER CITY CODE
687-201-008	68845 Buddy	PUMPED, CRUSHED, FILLED PER CITY CODE
687-201-009	68853 Buddy	PUMPED, CRUSHED, FILLED PER CITY CODE
687-201-010	68854 !st	PUMPED, CRUSHED, FILLED PER CITY CODE
687-201-011	68824 1st	SEPTIC REMOVAL PERMIT COPY ENCLOSED
687-202-001	68885 2nd st	PUMPED, CRUSHED, FILLED PER CITY CODE
687-202-002	36968 ALLEN	PUMPED, CRUSHED, FILLED PER CITY CODE
687-202-003	68884 1ST (Fire Burn Hse)	PUMPED, CRUSHED, FILLED PER CITY CODE
687-202-004	68903 Buddy	PUMPED, CRUSHED, FILLED PER CITY CODE
687-202-005	68904 1ST	SEPTIC REMOVAL PERMIT COPY ENCLOSED
687-202-006	68911 BUDDY	PUMPED, CRUSHED, FILLED PER CITY CODE
687-202-007	68916 1ST	PUMPED, CRUSHED, FILLED PER CITY CODE
687-202-008	?	PUMPED, CRUSHED, FILLED PER CITY CODE
687-202-009	68926 1ST	PUMPED, CRUSHED, FILLED PER CITY CODE
687-202-010	68933 1ST	SEPTIC REMOVAL PERMIT COPY ENCLOSED
687-202-011	68930 1ST	SEPTIC REMOVAL PERMIT COPY ENCLOSED
687-202-012	68941 2ND	PUMPED, CRUSHED, FILLED PER CITY CODE
687-202-015	36913 DATE PALM	PUMPED, CRUSHED, FILLED PER CITY CODE
687-203-008	68831 1ST	SEPTIC REMOVAL PERMIT COPY ENCLOSED
687-203-009	68926 1ST	PUMPED, CRUSHED, FILLED PER CITY CODE
687-203-010	68842 GROVE	PUMPED, CRUSHED, FILLED PER CITY CODE
687-203-011	68852 GROVE	PUMPED, CRUSHED, FILLED PER CITY CODE
687-203-012	68863 1ST	SEPTIC REMOVAL PERMIT COPY ENCLOSED
687-203-013	68854 GROVE	SEPTIC REMOVAL PERMIT COPY ENCLOSED
687-203-014	37029 ALLEN	NO - Cesspool Abandoned
687-203-015	68821 1st	PUMPED, CRUSHED, FILLED PER CITY CODE
687-204-001	68880 Grove	PUMPED, CRUSHED, FILLED PER CITY CODE
687-204-002	68899 1ST	SEPTIC REMOVAL PERMIT COPY ENCLOSED
687-204-003	68896 GROVE	PUMPED, CRUSHED, FILLED PER CITY CODE
687-204-004	68913 1ST	PUMPED, CRUSHED, FILLED PER CITY CODE
687-204-005	68906 GROVE	PUMPED, CRUSHED, FILLED PER CITY CODE
687-204-006	68915 1ST	PUMPED, CRUSHED, FILLED PER CITY CODE
687-204-007	68920 GROVE	PUMPED, CRUSHED, FILLED PER CITY CODE
687-204-008	68925 1ST	PUMPED, CRUSHED, FILLED PER CITY CODE
687-204-009	68936 GROVE	SEPTIC REMOVAL PERMIT COPY ENCLOSED
687-204-013	68935 1ST	SEPTIC REMOVAL PERMIT COPY ENCLOSED
687-204-014	68936 GROVE	SEPTIC REMOVAL PERMIT COPY ENCLOSED
687-204-016	37055 DATE PALM	PUMPED, CRUSHED, FILLED PER CITY CODE
687-205-005	68887 GROVE	PUMPED, CRUSHED, FILLED PER CITY CODE
687-205-006	68850 E. PALM CYN	PUMPED, CRUSHED, FILLED PER CITY CODE
687-205-007	68824 E. PALM CYN	PUMPED, CRUSHED, FILLED PER CITY CODE
687-205-008	68866 E. PALM CYN	SEPTIC REMOVAL PERMIT COPY ENCLOSED
687-206-001	68877 GROVE	PUMPED, CRUSHED, FILLED PER CITY CODE
687-206-002	68901 GROVE	PUMPED, CRUSHED, FILLED PER CITY CODE
687-206-003	68908 GROVE	PUMPED, CRUSHED, FILLED PER CITY CODE
687-206-004	68917 GROVE	SEPTIC REMOVAL PERMIT COPY ENCLOSED
687-206-005	68921 GROVE	PUMPED, CRUSHED, FILLED PER CITY CODE
687-206-006	68918 DAWES	SEPTIC REMOVAL PERMIT COPY ENCLOSED
687-206-007	68937 GROVE	SEPTIC REMOVAL PERMIT COPY ENCLOSED
687-206-008	68930 DAWES	SEPTIC REMOVAL PERMIT COPY ENCLOSED
687-206-009	68962 DAWES	SEPTIC REMOVAL PERMIT COPY ENCLOSED
687-206-010	68957 GROVE	PUMPED, CRUSHED, FILLED PER CITY CODE
687-206-011	68963 1ST	SEPTIC REMOVAL PERMIT COPY ENCLOSED
687-206-012	68958 DAWES	SEPTIC REMOVAL PERMIT COPY ENCLOSED
687-206-013	68980 DAWES	SEPTIC REMOVAL PERMIT COPY ENCLOSED

MISC PERMIT

PERMIT #: *B08-0006*
STATUS: ISSUED
DATE ISSUED: 01/02/2008

SITE ADDRESS: *68866 EAST PALM CANYON DR CATH*
TRACT: CATHEDRAL CITY
LOT: 82
PARCEL #: 687-205-008

SITE #58

APPLICANT: THREE D SERVICE
909-469-2600
OWNER:

CONTRACTOR: THREE D SERVICE
STATE LICENSE #: 252618
1551 E. MISSION BLVD

POMONA, CA 91766
(909) 469-2600
BUSINESS LIC #: 5404 **EXP DATE:** 02/05/2008

JOB DESCRIPTION:
DEMO - EXISTING OF COMMERICAL BUILDING INCLUDING REMOVAL OF SEPTIC SYSTEM . FILED WITH AQMD, ASBESTOS SURVEY ATTACHED.

VALUATION: $12,500.00 **BLDG TYPE:** **OCC GROUP:** **SQFT TOTAL:** 0
SQFT BLDG: 0 **SQFT GARAGE:** 0 **SQFT PATIO:** 0

PLAN CHECK FEE:	$0.00	MICROFILM FEE:	$11.00	POLICE/FIRE/SIGNAL:	$0.00
BLDG PERMIT FEE:	$135.00	OTHER INSP:	$0.00	MASTER UNDERGROUND:	$0.00
ISSUANCE FEE:	$30.00	LIZARD FEE:	$0.00	TRANSIT DEVELOPMENT:	$0.00
SMI FEE:	$0.00	TUMF FEE:	$0.00		
DOUBLE FEE:	$0.00	PARK FEE:	$0.00		
				TOTAL PERMIT FEES:	$176.00
				PLAN CHECK DEPOSIT:	$0.00
				TOTAL DUE:	$176.00

PERMIT CONDITIONS:

OWNER-BUILDER DECLARATION

I hereby affirm that I am exempt from the Contractor's License Law for the following reason (Sec. 7031.5, California Business and Professions Code: Any City which requires a permit to construct, alter, improve, demolish or reparir any structure, prior to its issuance, also requires the applicant for such permit to file a signed statement that he is a licensed contractor pursuant to the provisions of the Contractor's License Law (Ch. 9 (Commencing with Sec. 7000) of Div. 3 of the B. & P.C.) or that he is exempt therefrom and the basis for the alleged exemption. Any violations of Sec 7031.5 by any applicant for a permit subjects the applicant to a civil penalty of not more than five hundred dollars($500.00).):

___I, as owner of the property, or my employees with wages as their sole compensation, will do the work, and the structure is not inteded or offered for sale (Sec 7044, b & P.C.: The Contractor's License Law does not apply to an owner of property who builds or improves theron, and who does such work himself or through his own employees, provided that such improvements are not intended or offered for sale. If, however, the building or improvement is sold within one year of completion, the owner - builder will have the burden of proving that he did not build or improve for the purpose of sale.).

___ I, as owner of the property, am exclusively contracting with licensed contractors to construct the project (Sec. 7044, B. & P.C.: The Contractor's License Law does not apply to an owner of contracts for such projects with a contractor(s) licensed pursuant to the Contractor's License Law.).

___I am exempt under Sec._____ ,B. & P.C. for this reason:_____

Date_____Owner_____

LICENSED CONTRACTOR'S DECLARATION

I hereby affirm that I am licensed under provisions of Chapter 9 commencing with Section 7000)s of Deivision 3 of the Business and Professions Code, and my license is in full force and effect.
License Class C-21 License No 252618
Date 1/7/08 Contractor Three D Service Company

CERTIFICATE OF EXEMPTION FROM WORKER'S COMPENSATION INSURANCE

I certify that in the performance of the work for which this permit is issued, I shall not employ any person in any manner so as to become subject to the Worker's Compensation Laws of California.
Date_____ Applicant_____

NOTICE TO APPLICANT: If, after making this Certificate of Exemption,- you should become subject to the Work's Comp. provisions of the Labor Code, You must forthwith comply with such provisions or this permit shall be deemed revoked.

I certify that I have read this application and state that the above information is correct. I agree to comply with all City, and State laws relating to the building construction , and hereby authorize representatives of this City to enter upon the above-mentioned property for inspection purposes.

1/7/08
Signature of Owner or Contractor ONLY Date

-IMPORTANT-
Application is hereby made to the Director of Building and Safety for a permit subject to the condtions and restrictions set forth.

1. Each person upon whose behalf this apllication is made and each person at whose request and for whose benefit work is performed under or pursuant to any permit issued as a result of this application agrees to, and shall indemnify and hold harmless the City of Cathedral City, it's officers, agents and employees.
2. Any permits issued as a result of this application becomes null and void if work is not commenced within ONE HUNDRED EIGHTY (180) DAYS from the date of issuance of such permit.

1/9/08 Barry Cox / Jim Cleary
FINAL DATE INSPECTOR

CHECK # 12454
RECEIPT # 133686

POSTED

MISC PERMIT

PERMIT #: *B12-0935*
P/C #:
STATUS: ISSUED
DATE ISSUED: 06/13/2012

SITE ADDRESS: *68963 GROVE ST CATH*
TRACT: CATHEDRAL CITY
LOT: 91
PARCEL #: 687-206-011

APPLICANT: SUCCESSOR AGENGY TO THE
(760)770-0389
OWNER: SUCCESSOR AGENGY TO THE
CATHEDRAL CITY REDEVELOPMENT AGENCY
68700 AVENIDA LALO GUERRERO
CATHEDRAL CITY, CA
92234
(760)770-0389

CONTRACTOR: THREE D SERVICE
STATE LICENSE #: 252618
1551 E. MISSION DR

POMONA, CA 91766
(909)469-2600
BUSINESS LIC #: 5404 **EXP DATE:** 02/05/2013

JOB DESCRIPTION:
DEMO 2-UNIT, TWO-STORY APARTMENT COMPLEX (UNITS 4 & 5) INCLUDING REMOVAL OF SEPTIC SYSTEM. ASBESTOS REPORT ON FILE.

VALUATION: $2,750.00 **BLDG TYPE:** **OCC GROUP:** **SQFT TOTAL:** 0
SQFT BLDG: 0 **SQFT GARAGE:** 0 **SQFT PATIO:** 0

PLAN CHECK FEE:	$0.00	DOC IMAGING FEE:	$11.00	POLICE/FIRE/SIGNAL:	$0.00
BLDG PERMIT FEE:	$45.00	OTHER INSP:	$0.00	MASTER UNDERGROUND:	$0.00
ISSUANCE FEE:	$30.00	MSHCP FEE:	$0.00	TRANSIT DEVELOPMENT:	$0.00
SMI FEE:	$0.00	TUMF FEE:	$0.00	BSA STATE FUND:	$1.00
DOUBLE FEE:	$0.00	PARK FEE:	$0.00	GENERAL PLAN MAINT:	$1.50
PUBLIC ART FEE:	$0.00				
				TOTAL PERMIT FEES:	$88.50
				PLAN CHECK DEPOSIT:	$0.00
				TOTAL DUE:	$88.50

PERMIT CONDITIONS:

OWNER-BUILDER DECLARATION

I hereby affirm that I am exempt from the Contractor's License Law for the following reason (Sec. 7031.5, California Business and Professions Code: Any City which requires a permit to construct, alter, improve, demolish or reparir any structure, prior to its issuance, also requires the applicant for such permit to file a signed statement that he is a licensed contractor pursuant to the provisions of the Contractor's License Law (Ch. 9 (Commencing with Sec. 7000) of Div. 3 of the B. & P.C.) or that he is exempt therefrom and the basis for the alleged exemption. Any violations of Sec 7031.5 by any applicant for a permit subjects the applicant to a civil penalty of not more than five hundred dollars($500.00).):

___I, as owner of the property, or my employees with wages as their sole compensation, will do the work, and the structure is not inteded or offered for sale (Sec 7044, b & P.C.: The Contractor's License Law does not apply to an owner of property who builds or improves theron, and who does such work himself or through his own employees, provided that such improvements are not intended or offered for sale. If, however, the building or improvement is sold within one year of completion, the owner - builder will have the burden of proving that he did not build or improve for the purpose of sale.).

___I, as owner of the property, am exclusively contracting with licensed contractors to construct the project (Sec. 7044, B. & P.C.: The Contractor's License Law does not apply to an owner of contracts for such projects with a contractor(s) licensed pursuant to the Contractor's License Law.).

___I am exempt under Sec._____,B. & P.C. for this reason:_____

Date_____Owner_____

LICENSED CONTRACTOR'S DECLARATION

I hereby affirm that I am licensed under provisions of Chapter 9 commencing with Section 7000)s of Deivision 3 of the Business and Professions Code, and my license is in full force and effect. License Class C21 License No. 252618

X Date 6/14/2012 Contractor Charlie L. Clark, President

CERTIFICATE OF EXEMPTION FROM WORKER'S COMPENSATION INSURANCE

I certify that in the performance of the work for which this permit is issued, I shall not employ any person in any manner so as to become subject to the Worker's Compensation Laws of California.
Date_____ Applicant_____

NOTICE TO APPLICANT: If, after making this Certificate of Exemption, you should become subject to the Work's Comp. provisions of the Labor Code, You must forthwith comply with such provisions or this permit shall be deemed revoked.

I certify that I have read this application and state that the above information is correct. I agree to comply with all City, and State laws relating to the building construction , and hereby authorize representatives of this City to enter upon the above-mentioned property for inspection purposes.

X 6/14/2012
Signature of Owner or Contractor ONLY Charlie L. Clark, President

-IMPORTANT-

Application is hereby made to the Director of Building and Safety for a permit subject to the conditions and restrictions set forth.

1. Each person upon whose behalf this application is made and each person at whose request and for whose benefit work is performed under or pursuant to any permit issued as a result of this application agrees to, and shall indemnify and hold harmless the City of Cathedral City, it's officers, agents and employees.
2. Any permits issued as a result of this application becomes null and void if work is not commenced within ONE HUNDRED EIGHTY (180) DAYS from the date of issuance of such permit.

6.21.12 FINAL DATE

J.C. / B.Cox INSPECTOR

CHECK # 9787

RECEIPT # 192261

POSTED

MISC PERMIT

PERMIT #: *B08-0398*
STATUS: ISSUED
DATE ISSUED: 03/13/2008

SITE ADDRESS: *68947 GROVE ST CATH*
TRACT: CATHEDRAL CITY
LOT: 89
PARCEL #: 687-206-009

#'s 67 & 68

APPLICANT: CATHEDRAL CITY FIRE DEPARTMENT
770-8200
OWNER: REDEVELOPMENT AGENCY CITY OF CATHEDRAL CITY
68700 AVE LALO GUERRERO
CATHEDRAL CY CA

92234

CONTRACTOR: THREE D SERVICE
STATE LICENSE #: 252618
1551 E. MISSION BLVD

POMONA, CA 91766
(909) 469-2600
BUSINESS LIC #: 5404 **EXP DATE:** 02/05/2008

JOB DESCRIPTION:
DEMO - DEMO EXISTING OF SEVEN APARTMENTS UNITS INCLUDING SEPTIC SYSTEM FILED WITH AQMD, ASBESTOS SURVEY ATTACHED.

VALUATION: $7,900.00 **BLDG TYPE:** **OCC GROUP:** **SQFT TOTAL:** 4,200
SQFT BLDG: 4,200 **SQFT GARAGE:** 0 **SQFT PATIO:** 0

PLAN CHECK FEE:	$0.00	MICROFILM FEE:	$11.00	POLICE/FIRE/SIGNAL:	$0.00
BLDG PERMIT FEE:	$90.00	OTHER INSP:	$0.00	MASTER UNDERGROUND:	$0.00
ISSUANCE FEE:	$30.00	LIZARD FEE:	$0.00	TRANSIT DEVELOPMENT:	$0.00
SMI FEE:	$0.00	TUMF FEE:	$0.00		
DOUBLE FEE:	$0.00	PARK FEE:	$0.00		
				TOTAL PERMIT FEES:	$131.00
				PLAN CHECK DEPOSIT:	$0.00
				TOTAL DUE:	$131.00

PERMIT CONDITIONS:

OWNER-BUILDER DECLARATION

I hereby affirm that I am exempt from the Contractor's License Law for the following reason (Sec. 7031.5, California Business and Professions Code: Any City which requires a permit to construct, alter, improve, demolish or reparir any structure, prior to its issuance, also requires the applicant for such permit to file a signed statement that he is a licensed contractor pursuant to the provisions of the Contractor's License Law (Ch. 9 (Commencing with Sec. 7000) of Div. 3 of the B. & P.C.) or that he is exempt therefrom and the basis for the alleged exemption. Any violations of Sec 7031.5 by any applicant for a permit subjects the applicant to a civil penalty of not more than five hundred dollars($500.00).):

___I, as owner of the property, or my employees with wages as their sole compensation, will do the work, and the structure is not inteded or offered for sale (Sec 7044, b & P.C.: The Contractor's License Law does not apply to an owner of property who builds or improves theron, and who does such work himself or through his own employees, provided that such improvements are not intended or offered for sale. If, however, the building or improvement is sold within one year of completion, the owner - builder will have the burden of proving that he did not build or improve for the purpose of sale.).

___ I, as owner of the property, am exclusively contracting with licensed contractors to construct the project (Sec. 7044, B. & P.C.: The Contractor's License Law does not apply to an owner of contracts for such projects with a contractor(s) licensed pursuant to the Contractor's License Law.).

___I am exempt under Sec._____ ,B. & P.C. for this reason:_____

Date_____Owner_____

LICENSED CONTRACTOR'S DECLARATION

I hereby affirm that I am licensed under provisions of Chapter 9 commencing with Section 7000)s of Deivision 3 of the Business and Professions Code, and my license is in full force and effect.
License Class C-21 License No. 252618
Date 3/28/08 Contractor Three D Service Company, Inc.

CERTIFICATE OF EXEMPTION FROM WORKER'S COMPENSATION INSURANCE

I certify that in the performance of the work for which this permit is issued, I shall not employ any person in any manner so as to become subject to the Worker's Compensation Laws of California.
Date_____ Applicant_____

NOTICE TO APPLICANT: If, after making this Certificate of Exemption,- you should become subject to the Work's Comp. provisions of the Labor Code, You must forthwith comply with such provisions or this permit shall be deemed revoked.

I certify that I have read this application and state that the above information is correct. I agree to comply with all City, and State laws relating to the building construction , and hereby authorize representatives of this City to enter upon the above-mentioned property for inspection purposes.

Signature of Owner or Contractor ONLY — Date 3/28/08

-IMPORTANT-
Application is hereby made to the Director of Building and Safety for a permit subject to the condtions and restrictions set forth.

1. Each person upon whose behalf this apllication is made and each person at whose request and for whose benefit work is performed under or pursuant to any permit issued as a result of this application agrees to, and shall indemnify and hold harmless the City of Cathedral City, it's officers, agents and employees.
2. Any permit issued as a result of this application becomes null and void if work is not commenced within ONE HUNDRED EIGHTY (180) DAYS from the date of issuance of such permit.

4/4/08 — FINAL DATE
Bonny Cox / Jim Closey — INSPECTOR
CHECK # 12828
RECEIPT # 135639
POSTED

MISC PERMIT

PERMIT #: *B08-0005*

STATUS: ISSUED
DATE ISSUED: 01/02/2008

SITE ADDRESS: *68937 GROVE ST CATH*
TRACT: CATHEDRAL CITY
LOT: 87
PARCEL #: 687-206-007

APPLICANT: THREE D SERVICE
909-469-2600
OWNER: CATHEDRAL CITY REDEVELOPMENT AGENCY
68-700 AVENIDA LALO GUERRERO
CATHEDRAL CITY, CALIF.

92234
770-0389

CONTRACTOR: THREE D SERVICE
STATE LICENSE #: 252618
1551 E. MISSION BLVD

POMONA, CA 91766
(909) 469-2600
BUSINESS LIC #: 5404 **EXP DATE:** 02/05/2008

JOB DESCRIPTION:
DEMO - EXISTING OF SINGLE FAMILY DWELLING INCLUDING REMOVAL OF SEPTIC SYSTEM. FILED WITH AQMD, ASBESTOS SURVEY ATTACHED.

VALUATION: $1,400.00
SQFT BLDG: 0
BLDG TYPE:
SQFT GARAGE: 0
OCC GROUP:
SQFT TOTAL: 0
SQFT PATIO: 0

PLAN CHECK FEE:	$0.00	MICROFILM FEE:	$11.00	POLICE/FIRE/SIGNAL:	$0.00
BLDG PERMIT FEE:	$31.00	OTHER INSP:	$0.00	MASTER UNDERGROUND:	$0.00
ISSUANCE FEE:	$30.00	LIZARD FEE:	$0.00	TRANSIT DEVELOPMENT:	$0.00
SMI FEE:	$0.00	TUMF FEE:	$0.00		
DOUBLE FEE:	$0.00	PARK FEE:	$0.00		
				TOTAL PERMIT FEES:	$72.00
				PLAN CHECK DEPOSIT:	$0.00
				TOTAL DUE:	$72.00

PERMIT CONDITIONS:

OWNER-BUILDER DECLARATION

I hereby affirm that I am exempt from the Contractor's License Law for the following reason (Sec. 7031.5, California Business and Professions Code: Any City which requires a permit to construct, alter, improve, demolish or reparir any structure, prior to its issuance, also requires the applicant for such permit to file a signed statement that he is a licensed contractor pursuant to the provisions of the Contractor's License Law (Ch. 9 (Commencing with Sec. 7000) of Div. 3 of the B. & P.C.) or that he is exempt therefrom and the basis for the alleged exemption. Any violations of Sec 7031.5 by any applicant for a permit subjects the applicant to a civil penalty of not more than five hundred dollars($500.00).):

___I, as owner of the property, or my employees with wages as their sole compensation, will do the work, and the structure is not inteded or offered for sale (Sec 7044, b & P.C.: The Contractor's License Law does not apply to an owner of property who builds or improves theron, and who does such work himself or through his own employees, provided that such improvements are not intended or offered for sale. If, however, the building or improvement is sold within one year of completion, the owner - builder will have the burden of proving that he did not build or improve for the purpose of sale.).

___ I, as owner of the property, am exclusively contracting with licensed contractors to construct the project (Sec. 7044, B. & P.C.: The Contractor's License Law does not apply to an owner of contracts for such projects with a contractor(s) licensed pursuant to the Contractor's License Law.).

___I am exempt under Sec._____ ,B. & P.C. for this reason:_____

Date_____Owner_____

LICENSED CONTRACTOR'S DECLARATION

I hereby affirm that I am licensed under provisions of Chapter 9 commencing with Section 7000)s of Deivision 3 of the Business and Professions Code, and my license is in full force and effect.
License Class C-21 License No. 252618

Date 1/7/08 Contractor Three D Service Company

CERTIFICATE OF EXEMPTION FROM WORKER'S COMPENSATION INSURANCE

I certify that in the performance of the work for which this permit is issued, I shall not employ any person in any manner so as to become subject to the Worker's Compensation Laws of California.
Date_____ Applicant_____

NOTICE TO APPLICANT: If, after making this Certificate of Exemption,- you should become subject to the Work's Comp. provisions of the Labor Code, You must forthwith comply with such provisions or this permit shall be deemed revoked.

I certify that I have read this application and state that the above information is correct. I agree to comply with all City, and State laws relating to the building construction , and hereby authorize representatives of this City to enter upon the above-mentioned property for inspection purposes.

Signature of Owner or Contractor ONLY — Date 1/7/08

-IMPORTANT-
Application is hereby made to the Director of Building and Safety for a permit subject to the conditions and restrictions set forth.

1. Each person upon whose behalf this application is made and each person at whose request and for whose benefit work is performed under or pursuant to any permit issued as a result of this application agrees to, and shall indemnify and hold harmless the City of Cathedral City, its officers, agents and employees.
2. Any permits issued as a result of this application becomes null and void if work is not commenced within ONE HUNDRED EIGHTY (180) DAYS from the date of issuance of such permit.

4-4-08
FINAL DATE

Barry G / Jim Cleary
INSPECTOR

CHECK # 12454
RECEIPT # 133686

POSTED

MISC ~~PERMIT~~

PERMIT #: *B08-0397*
STATUS: ISSUED
DATE ISSUED: 03/13/2008

SITE ADDRESS: *68936 GROVE ST CATH*
TRACT: CATHEDRAL CITY
LOT: H
PARCEL #: 687-204-014

APPLICANT: CATHEDRAL CITY FIRE DEPARTMENT
770-8200
OWNER: CATHEDRAL CITY REDEVELOPMENT AGENCY (C#53)
68-700 AVE. AVE LALO GUERRERO
CATHEDRAL CITY, CALIF

92234
770-8200

CONTRACTOR: THREE D SERVICE
STATE LICENSE #: 252618
1551 E. MISSION BLVD

POMONA, CA 91766
(909) 469-2600
BUSINESS LIC #: 5404 **EXP DATE:** 02/05/2008

JOB DESCRIPTION: Single-Family Dwelling
DEMO - DEMO EXISTING OF ~~TWO APARTMENT UNITS~~ INCLUDING SEPTIC SYSTEM . FILED WITH AQMD, ASBESTOS SURVEY ATTACHED.

VALUATION: $1,400.00 **BLDG TYPE:** **OCC GROUP:** **SQFT TOTAL:** 725
SQFT BLDG: 725 **SQFT GARAGE:** 0 **SQFT PATIO:** 0

PLAN CHECK FEE:	$0.00	MICROFILM FEE:	$11.00	POLICE/FIRE/SIGNAL:	$0.00
BLDG PERMIT FEE:	$31.00	OTHER INSP:	$0.00	MASTER UNDERGROUND:	$0.00
ISSUANCE FEE:	$30.00	LIZARD FEE:	$0.00	TRANSIT DEVELOPMENT:	$0.00
SMI FEE:	$0.00	TUMF FEE:	$0.00		
DOUBLE FEE:	$0.00	PARK FEE:	$0.00		
				TOTAL PERMIT FEES:	$72.00
				PLAN CHECK DEPOSIT:	$0.00
				TOTAL DUE:	$72.00

PERMIT CONDITIONS:

OWNER-BUILDER DECLARATION

I hereby affirm that I am exempt from the Contractor's License Law for the following reason (Sec. 7031.5, California Business and Professions Code: Any City which requires a permit to construct, alter, improve, demolish or reparir any structure, prior to its issuance, also requires the applicant for such permit to file a signed statement that he is a licensed contractor pursuant to the provisions of the Contractor's License Law (Ch. 9 (Commencing with Sec. 7000) of Div. 3 of the B. & P.C.) or that he is exempt therefrom and the basis for the alleged exemption. Any violations of Sec 7031.5 by any applicant for a permit subjects the applicant to a civil penalty of not more than five hundred dollars($500.00).):

___I, as owner of the property, or my employees with wages as their sole compensation, will do the work, and the structure is not inteded or offered for sale (Sec 7044, b & P.C.: The Contractor's License Law does not apply to an owner of property who builds or improves theron, and who does such work himself or through his own employees, provided that such improvements are not intended or offered for sale. If, however, the building or improvement is sold within one year of completion, the owner builder will have the burden of proving that he did not build or improve for the purpose of sale.).

___ I, as owner of the property, am exclusively contracting with licensed contractors to construct the project (Sec. 7044, B. & P.C.: The Contractor's License Law does not apply to an owner of contracts for such projects with a contractor(s) licensed pursuant to the Contractor's License Law.).

___I am exempt under Sec._____ ,B. & P.C. for this reason:_____

Date_____Owner_____

LICENSED CONTRACTOR'S DECLARATION

I hereby affirm that I am licensed under provisions of Chapter 9 commencing with Section 7000)s of Deivision 3 of the Business and Professions Code, and my license is in full force and effect.
License Class C-21 License No. 252618
Date 3/28/08 Contractor Three D Service Company, Inc.

CERTIFICATE OF EXEMPTION FROM WORKER'S COMPENSATION INSURANCE

I certify that in the performance of the work for which this permit is issued, I shall not employ any person in any manner so as to become subject to the Worker's Compensation Laws of California.
Date_____ Applicant _____

NOTICE TO APPLICANT: If, after making this Certificate of Exemption,- you should become subject to the Work's Comp. provisions of the Labor Code, You must forthwith comply with such provisions or this permit shall be deemed revoked.

I certify that I have read this application and state that the above information is correct. I agree to comply with all City, and State laws relating to the building construction , and hereby authorize representatives of this City to enter upon the above-mentioned property for inspection purposes.

Signature of Owner or Contractor ONLY 3/28/08 Date

-IMPORTANT-
Application is hereby made to the Director of Building and Safety for a permit subject to the condtions and restrictions set forth.

1. Each person upon whose behalf this apllication is made and each person at whose request and for whose benefit work is performed under or pursuant to any permit issued as a result of this application agrees to, and shall indemnify and hold harmless the City of Cathedral City, it's officers, agents and employees.
2. Any permits issued as a result of this application becomes null and void if work is not commenced within ONE HUNDRED EIGHTY (180) DAYS from the date of issuance of such permit.

4-7-08 FINAL DATE

BC/F.C. INSPECTOR

CHECK # 12828

RECEIPT # 135639

POSTED

MISC PERMIT

PERMIT #: *B08-0396*
STATUS: ISSUED
DATE ISSUED: 03/13/2008

SITE ADDRESS: *68926 GROVE ST CATH*
TRACT:
LOT:
PARCEL #:

(Unit #52)

APPLICANT: CATHEDRAL CITY FIRE DEPARTMENT
770-8200
OWNER: REDEVELOPMENT AGENCY CITY OF CATHEDRAL CITY
68700 AVE LALO GUERRERO
CATHEDRAL CY CA

92234

CONTRACTOR: THREE D SERVICE
STATE LICENSE #: 252618
1551 E. MISSION BLVD

POMONA, CA 91766
(909) 469-2600
BUSINESS LIC #: 5404 **EXP DATE:** 02/05/2008

JOB DESCRIPTION:
DEMO - DEMO EXISTING OF TWO APARTMENT UNITS INCLUDING SEPTIC SYSTEM FILED WITH AQMD, ASBESTOS SURVEY ATTACHED.

VALUATION: $2,775.00 **BLDG TYPE:** **OCC GROUP:** **SQFT TOTAL:** 1,475
SQFT BLDG: 1,475 **SQFT GARAGE:** 0 **SQFT PATIO:** 0

PLAN CHECK FEE:	$0.00	MICROFILM FEE:	$11.00	POLICE/FIRE/SIGNAL:	$0.00
BLDG PERMIT FEE:	$45.00	OTHER INSP:	$0.00	MASTER UNDERGROUND:	$0.00
ISSUANCE FEE:	$30.00	LIZARD FEE:	$0.00	TRANSIT DEVELOPMENT:	$0.00
SMI FEE:	$0.00	TUMF FEE:	$0.00		
DOUBLE FEE:	$0.00	PARK FEE:	$0.00		
				TOTAL PERMIT FEES:	$86.00
				PLAN CHECK DEPOSIT:	$0.00
				TOTAL DUE:	$86.00

PERMIT CONDITIONS:

OWNER-BUILDER DECLARATION

I hereby affirm that I am exempt from the Contractor's License Law for the following reason (Sec. 7031.5, California Business and Professions Code: Any City which requires a permit to construct, alter, improve, demolish or reparir any structure, prior to its issuance, also requires the applicant for such permit to file a signed statement that he is a licensed contractor pursuant to the provisions of the Contractor's License Law (Ch. 9 (Commencing with Sec. 7000) of Div. 3 of the B. & P.C.) or that he is exempt therefrom and the basis for the alleged exemption. Any violations of Sec 7031.5 by any applicant for a permit subjects the applicant to a civil penalty of not more than five hundred dollars($500.00).):

___I, as owner of the property, or my employees with wages as their sole compensation, will do the work, and the structure is not intended or offered for sale (Sec 7044, b & P.C.: The Contractor's License Law does not apply to an owner of property who builds or improves theron, and who does such work himself or through his own employees, provided that such improvements are not intended or offered for sale. If, however, the building or improvement is sold within one year of completion, the owner - builder will have the burden of proving that he did not build or improve for the purpose of sale.).

___ I, as owner of the property, am exclusively contracting with licensed contractors to construct the project (Sec. 7044, B. & P.C.: The Contractor's License Law does not apply to an owner of contracts for such projects with a contractor(s) licensed pursuant to the Contractor's License Law.).

___I am exempt under Sec._____ ,B. & P.C. for this reason:_____

Date_____Owner_____

LICENSED CONTRACTOR'S DECLARATION

I hereby affirm that I am licensed under provisions of Chapter 9 commencing with Section 7000)s of Deivision 3 of the Business and Professions Code, and my license is in full force and effect.
License Class C-21 License No. 252618
Date 3/28/08 Contractor Three D Service Company, Inc.

CERTIFICATE OF EXEMPTION FROM WORKER'S COMPENSATION INSURANCE

I certify that in the performance of the work for which this permit is issued, I shall not employ any person in any manner so as to become subject to the Worker's Compensation Laws of California.
Date_____ Applicant_____

NOTICE TO APPLICANT: If, after making this Certificate of Exemption,- you should become subject to the Work's Comp. provisions of the Labor Code, You must forthwith comply with such provisions or this permit shall be deemed revoked.

I certify that I have read this application and state that the above information is correct. I agree to comply with all City, and State laws relating to the building construction , and hereby authorize representatives of this City to enter upon the above-mentioned property for inspection purposes.

Signature of Owner or Contractor ONLY 3/28/08 Date

-IMPORTANT-
Application is hereby made to the Director of Building and Safety for a permit subject to the condtions and restrictions set forth.

1. Each person upon whose behalf this apllication is made and each person at whose request and for whose benefit work is performed under or pursuant to any permit issued as a result of this application agrees to, and shall indemnify and hold harmless the City of Cathedral City, it's officers, agents and employees.
2. Any permits issued as a result of this application becomes null and void if work is not commenced within ONE HUNDRED EIGHTY (180) DAYS from the date of issuance of such permit.

4-08-08 Barry Cox / Jim Clenny CHECK # 12828
FINAL DATE INSPECTOR RECEIPT # 135639

POSTED

MISC PERMIT

PERMIT #: *B08-1310*
STATUS: ISSUED
DATE ISSUED: 10/21/2008

SITE ADDRESS: *68917 GROVE ST CATH*
TRACT: CATHEDRAL CITY
LOT: 86
PARCEL #: 687-206-004

APPLICANT: REDEVELOPMENT AGENCY CITY OF CATHEDRAL CY
770-0389
OWNER: REDEVELOPMENT AGENCY CITY OF CATHEDRAL CY
68700 AVD LALO GUERRERO
CATHEDRAL CITY CA

92234
770-0389

CONTRACTOR: THREE D SERVICE
STATE LICENSE #: 252618
1551 E. MISSION BLVD

POMONA, CA 91766
(909) 469-2600
BUSINESS LIC #: 5404 **EXP DATE:** 02/05/2009

JOB DESCRIPTION:
DEMOLITION OF SINGLE FAMILY DWELLING INCLUDING REMOVAL OF SEPTIC SYSTEM. ASBESTOS SURVEY ON FILE

VALUATION:	$2,450.00	**BLDG TYPE:**		**OCC GROUP:**	**SQFT TOTAL:** 0
SQFT BLDG:	0	**SQFT GARAGE:**	0		**SQFT PATIO:** 0

PLAN CHECK FEE:	$0.00	**MICROFILM FEE:**	$11.00	**POLICE/FIRE/SIGNAL:**	$0.00
BLDG PERMIT FEE:	$45.00	**OTHER INSP:**	$0.00	**MASTER UNDERGROUND:**	$0.00
ISSUANCE FEE:	$30.00	**LIZARD FEE:**	$0.00	**TRANSIT DEVELOPMENT:**	$0.00
SMI FEE:	$0.00	**TUMF FEE:**	$0.00		
DOUBLE FEE:	$0.00	**PARK FEE:**	$0.00		
				TOTAL PERMIT FEES:	$86.00
				PLAN CHECK DEPOSIT:	$0.00
				TOTAL DUE:	$86.00

PERMIT CONDITIONS:

OWNER-BUILDER DECLARATION

I hereby affirm that I am exempt from the Contractor's License Law for the following reason (Sec. 7031.5, California Business and Professions Code: Any City which requires a permit to construct, alter, improve, demolish or reparir any structure, prior to its issuance, also requires the applicant for such permit to file a signed statement that he is a licensed contractor pursuant to the provisions of the Contractor's License Law (Ch. 9 (Commencing with Sec. 7000) of Div. 3 of the B. & P.C.) or that he is exempt therefrom and the basis for the alleged exemption. Any violations of Sec 7031.5 by any applicant for a permit subjects the applicant to a civil penalty of not more than five hundred dollars($500.00).):

___I, as owner of the property, or my employees with wages as their sole compensation, will do the work, and the structure is not inteded or offered for sale (Sec 7044, b & P.C.: The Contractor's License Law does not apply to an owner of property who builds or improves theron, and who does such work himself or through his own employees, provided that such improvements are not intended or offered for sale. If, however, the building or improvement is sold within one year of completion, the owner - builder will have the burden of proving that he did not build or improve for the purpose of sale.).

___ I, as owner of the property, am exclusively contracting with licensed contractors to construct the project (Sec. 7044, B. & P.C.: The Contractor's License Law does not apply to an owner of contracts for such projects with a contractor(s) licensed pursuant to the Contractor's License Law.).

___I am exempt under Sec._____ ,B. & P.C. for this reason:_____

Date_____Owner_____

LICENSED CONTRACTOR'S DECLARATION

I hereby affirm that I am licensed under provisions of Chapter 9 commencing with Section 7000)s of Deivision 3 of the Business and Professions Code, and my license is in full force and effect.
License Class C-21 License No. 252618

Date 10-21-08 Contractor Three D Service Company, Inc.

CERTIFICATE OF EXEMPTION FROM WORKER'S COMPENSATION INSURANCE

I certify that in the performance of the work for which this permit is issued, I shall not employ any person in any manner so as to become subject to the Worker's Compensation Laws of California.
Date 10-21-08 Applicant Three D Service Company, Inc.

NOTICE TO APPLICANT: If, after making this Certificate of Exemption,- you should become subject to the Work's Comp. provisions of the Labor Code, You must forthwith comply with such provisions or this permit shall be deemed revoked.

I certify that I have read this application and state that the above information is correct. I agree to comply with all City, and State laws relating to the building construction , and hereby authorize representatives of this City to enter upon the above-mentioned property for inspection purposes.

Signature of Owner or Contractor ONLY 10-21-08
Date

-IMPORTANT-
Application is hereby made to the Director of Building and Safety for a permit subject to the condtions and restrictions set forth.

1. Each person upon whose behalf this apllication is made and each person at whose request and for whose benefit work is performed under or pursuant to any permit issued as a result of this application agrees to, and shall indemnify and hold harmless the City of Cathedral City, it's officers, agents and employees.
2. Any permits issued as a result of this application become null and void if work is not commenced within ONE HUNDRED EIGHTY (180) DAYS from the date of issuance of such permit.

11-3-08 Larry Cox / Jim Clancy BC
FINAL DATE INSPECTOR

CHECK # 13596
RECEIPT # 140020

POSTED

MISC PERMIT

PERMIT #: *B09-0366*
STATUS: ISSUED
DATE ISSUED: 04/22/2009

SITE ADDRESS: *68832 GROVE ST CATH*
TRACT: CATHEDRAL CITY
LOT: 66
PARCEL #: 687-203-009

APPLICANT: CATHEDRAL CITY REDEV AGENCY
(760)770-0389
OWNER: CATHEDRAL CITY REDEV AGENCY
68-700 AVENIDA LALO GUERRERO
CATHEDRAL CITY, CA

92234
(760)770-0389

CONTRACTOR: THREE D SERVICE
STATE LICENSE #: 252618
1551 E. MISSION BLVD

POMONA, CA 91766
(909) 469-2600
BUSINESS LIC #: 5404 **EXP DATE:** 02/05/2010

JOB DESCRIPTION:
DEMO - 1,200 SQ FT COMMERCIAL BLDG INCLUDING REMOVAL OF SEPTIC SYSTEM. CITY PROJECT FEE WAIVED - ASBESTOS REPT ON FILE.

VALUATION: $0.00 **BLDG TYPE:** **OCC GROUP:** **SQFT TOTAL:** 0
SQFT BLDG: 0 **SQFT GARAGE:** 0 **SQFT PATIO:** 0

PLAN CHECK FEE:	$0.00	MICROFILM FEE:	$0.00	POLICE/FIRE/SIGNAL:	$0.00
BLDG PERMIT FEE:	$0.00	OTHER INSP:	$0.00	MASTER UNDERGROUND:	$0.00
ISSUANCE FEE:	$0.00	MSHCP FEE:	$0.00	TRANSIT DEVELOPMENT:	$0.00
SMI FEE:	$0.00	TUMF FEE:	$0.00	BSA STATE FUND:	$0.00
DOUBLE FEE:	$0.00	PARK FEE:	$0.00	GENERAL PLAN MAINT:	$0.00
PUBLIC ART FEE:	$0.00				
				TOTAL PERMIT FEES:	$0.00
				PLAN CHECK DEPOSIT:	$0.00
				TOTAL DUE:	$0.00

PERMIT CONDITIONS:

OWNER-BUILDER DECLARATION

I hereby affirm that I am exempt from the Contractor's License Law for the following reason (Sec. 7031.5, California Business and Professions Code: Any City which requires a permit to construct, alter, improve, demolish or reparir any structure, prior to its issuance, also requires the applicant for such permit to file a signed statement that he is a licensed contractor pursuant to the provisions of the Contractor's License Law (Ch. 9 (Commencing with Sec. 7000) of Div. 3 of the B. & P.C.) or that he is exempt therefrom and the basis for the alleged exemption. Any violations of Sec 7031.5 by any applicant for a permit subjects the applicant to a civil penalty of not more than five hundred dollars($500.00).):

___I, as owner of the property, or my employees with wages as their sole compensation, will do the work, and the structure is not inteded or offered for sale (Sec 7044, b & P.C.: The Contractor's License Law does not apply to an owner of property who builds or improves theron, and who does such work himself or through his own employees, provided that such improvements are not intended or offered for sale. If, however, the building or improvement is sold within one year of completion, the owner - builder will have the burden of proving that he did not build or improve for the purpose of sale.).

___I, as owner of the property, am exclusively contracting with licensed contractors to construct the project (Sec. 7044, B. & P.C.: The Contractor's License Law does not apply to an owner of contracts for such projects with a contractor(s) licensed pursuant to the Contractor's License Law.).

___I am exempt under Sec._____,B. & P.C. for this reason:_____

Date_____Owner_____

LICENSED CONTRACTOR'S DECLARATION

I hereby affirm that I am licensed under provisions of Chapter 9 commencing with Section 7000)s of Deivision 3 of the Business and Professions Code, and my license is in full force and effect.
License Class C-21 License No. 252618
Date 4-23-09 Contractor Three D Service Company, Inc.

CERTIFICATE OF EXEMPTION FROM WORKER'S COMPENSATION INSURANCE

I certify that in the performance of the work for which this permit is issued, I shall not employ any person in any manner so as to become subject to the Worker's Compensation Laws of California.
Date_____ Applicant_____

NOTICE TO APPLICANT: If, after making this Certificate of Exemption,- you should become subject to the Work's Comp. provisions of the Labor Code, You must forthwith comply with such provisions or this permit shall be deemed revoked.

I certify that I have read this application and state that the above information is correct. I agree to comply with all City, and State laws relating to the building construction , and hereby authorize representatives of this City to enter upon the above-mentioned property for inspection purposes.

Signature of Owner or Contractor ONLY 4-23-09 Date

-IMPORTANT-

Application is hereby made to the Director of Building and Safety for a permit subject to the condtions and restrictions set forth.

1. Each person upon whose behalf this apllication is made and each person at whose request and for whose benefit work is performed under or pursuant to any permit issued as a result of this application agrees to, and shall indemnify and hold harmless the City of Cathedral City, it's officers, agents and employees.
2. Any permits issued as a result of this application becomes null and void if work is not commenced within ONE HUNDRED EIGHTY (180) DAYS from the date of issuance of such permit.

5-14-09 Barry Cox
FINAL DATE INSPECTOR

CHECK # Ø
RECEIPT # 143451

POSTED

MISC PERMIT

PERMIT #: *B08-0039*
STATUS: ISSUED
DATE ISSUED: 01/08/2008

SITE ADDRESS: *68930 FIRST ST CATH*
TRACT: CATHEDRAL CITY
LOT: 48
PARCEL #: 687-202-011

APPLICANT: THREE D SERVICE
909-469-2600
OWNER: CATHEDRAL CITY REDEVELOPMENT AGENCY
68-700 AVENIDA LA LO GUERRERO
CATHEDRAL CITY, CALIF.

92234
770-0389

CONTRACTOR: THREE D SERVICE
STATE LICENSE #: 252618
1551 E. MISSION BLVD

POMONA, CA 91766
(909) 469-2600
BUSINESS LIC #: 5404 **EXP DATE:** 02/05/2008

JOB DESCRIPTION:
DEMO - EXISTING OF SINGLE FAMILY DWELLING INCLUDING REMOVAL OF SEPTIC SYSTEM FILED WITH AQMD, ASBESTOS SURVEY ATTACHED.

VALUATION:	$1,485.00	**BLDG TYPE:**		**OCC GROUP:**	**SQFT TOTAL:** 0
SQFT BLDG:	0	**SQFT GARAGE:**	0		**SQFT PATIO:** 0

PLAN CHECK FEE:	$0.00	**MICROFILM FEE:**	$11.00	**POLICE/FIRE/SIGNAL:**	$0.00
BLDG PERMIT FEE:	$33.00	**OTHER INSP:**	$0.00	**MASTER UNDERGROUND:**	$0.00
ISSUANCE FEE:	$30.00	**LIZARD FEE:**	$0.00	**TRANSIT DEVELOPMENT:**	$0.00
SMI FEE:	$0.00	**TUMF FEE:**	$0.00		
DOUBLE FEE:	$0.00	**PARK FEE:**	$0.00		
				TOTAL PERMIT FEES:	$74.00
				PLAN CHECK DEPOSIT:	$0.00
				TOTAL DUE:	$74.00

PERMIT CONDITIONS:

OWNER-BUILDER DECLARATION

I hereby affirm that I am exempt from the Contractor's License Law for the following reason (Sec. 7031.5, California Business and Professions Code: Any City which requires a permit to construct, alter, improve, demolish or reparir any structure, prior to its issuance, also requires the applicant for such permit to file a signed statement that he is a licensed contractor pursuant to the provisions of the Contractor's License Law (Ch. 9 (Commencing with Sec. 7000) of Div. 3 of the B. & P.C.) or that he is exempt therefrom and the basis for the alleged exemption. Any violations of Sec 7031.5 by any applicant for a permit subjects the applicant to a civil penalty of not more than five hundred dollars($500.00).):

___I, as owner of the property, or my employees with wages as their sole compensation, will do the work, and the structure is not inteded or offered for sale (Sec 7044, b & P.C.: The Contractor's License Law does not apply to an owner of property who builds or improves theron, and who does such work himself or through his own employees, provided that such improvements are not intended or offered for sale. If, however, the building or improvement is sold within one year of completion, the owner builder will have the burden of proving that he did not build or improve for the purpose of sale.).

___ I, as owner of the property, am exclusively contracting with licensed contractors to construct the project (Sec. 7044, B. & P.C.: The Contractor's License Law does not apply to an owner of contracts for such projects with a contractor(s) licensed pursuant to the Contractor's License Law.).

___I am exempt under Sec._____ ,B. & P.C. for this reason:_____

Date_____Owner_____

LICENSED CONTRACTOR'S DECLARATION

I hereby affirm that I am licensed under provisions of Chapter 9 commencing with Section 7000)s of Deivision 3 of the Business and Professions Code, and my license is in full force and effect.
License Class_____ License No._____

Date_____ Contractor_____

CERTIFICATE OF EXEMPTION FROM WORKER'S COMPENSATION INSURANCE

I certify that in the performance of the work for which this permit is issued, I shall not employ any person in any manner so as to become subject to the Worker's Compensation Laws of California.
Date_____ Applicant_____

NOTICE TO APPLICANT: If, after making this Certificate of Exemption,- you should become subject to the Work's Comp. provisions of the Labor Code, You must forthwith comply with such provisions or this permit shall be deemed revoked.

I certify that I have read this application and state that the above information is correct. I agree to comply with all City, and State laws relating to the building construction , and hereby authorize representatives of this City to enter upon the above-mentioned property for inspection purposes.

Signature of Owner or Contractor ONLY Date

-IMPORTANT-

Application is hereby made to the Director of Building and Safety for a permit subject to the condtions and restrictions set forth.

1. Each person upon whose behalf this apllication is made and each person at whose request and for whose benefit work is performed under or pursuant to any permit issued as a result of this application agrees to, and shall indemnify and hold harmless the City of Cathedral City, it's officers, agents and employees.
2. Any permits issued as a result of this application becomes null and void if work is not commenced within ONE HUNDRED EIGHTY (180) DAYS from the date of issuance of such permit.

04-07-08 B.C. / J.C.

FINAL DATE **INSPECTOR**

CHECK # _____

RECEIPT # _____

MISC PERMIT

PERMIT #: *B08-0394*
STATUS: ISSUED
DATE ISSUED: 03/13/2008

SITE ADDRESS: *68935 FIRST ST CATH*
TRACT: CATHEDRAL CITY
LOT: H
PARCEL #: 687-204-013

(#48)

APPLICANT: CATHEDRAL CITY FIRE DEPARTMENT
770-8200
OWNER: CATHEDRAL CITY REDEVELOPMENT AGENCY
68-700 AVE. LALO GUERRERO
CATHEDRAL CITY, CALIF.

92234
770-0389

CONTRACTOR: THREE D SERVICE
STATE LICENSE #: 252618
1551 E. MISSION BLVD

POMONA, CA 91766
(909) 469-2600
BUSINESS LIC #: 5404 **EXP DATE:** 02/05/2008

JOB DESCRIPTION:
DEMO - DEMO EXISTING SINGLE FAMILY DWELLING STRUCTURE , CARPORT AND PATIO COVER INCLUDING SEPTIC SYSTEM FILED WITH AQMD, ASBESTOS SURVEY ATTACHED.

VALUATION: $1,850.00 **BLDG TYPE:** **OCC GROUP:** **SQFT TOTAL:** 1,000
SQFT BLDG: 1,000 **SQFT GARAGE:** 0 **SQFT PATIO:** 0

PLAN CHECK FEE:	$0.00	MICROFILM FEE:	$11.00	POLICE/FIRE/SIGNAL:	$0.00
BLDG PERMIT FEE:	$41.00	OTHER INSP:	$0.00	MASTER UNDERGROUND:	$0.00
ISSUANCE FEE:	$30.00	LIZARD FEE:	$0.00	TRANSIT DEVELOPMENT:	$0.00
SMI FEE:	$0.00	TUMF FEE:	$0.00		
DOUBLE FEE:	$0.00	PARK FEE:	$0.00		
				TOTAL PERMIT FEES:	$82.00
				PLAN CHECK DEPOSIT:	$0.00
				TOTAL DUE:	$82.00

PERMIT CONDITIONS:

OWNER-BUILDER DECLARATION

I hereby affirm that I am exempt from the Contractor's License Law for the following reason (Sec. 7031.5, California Business and Professions Code: Any City which requires a permit to construct, alter, improve, demolish or reparir any structure, prior to its issuance, also requires the applicant for such permit to file a signed statement that he is a licensed contractor pursuant to the provisions of the Contractor's License Law (Ch. 9 (Commencing with Sec. 7000) of Div. 3 of the B. & P.C.) or that he is exempt therefrom and the basis for the alleged exemption. Any violations of Sec 7031.5 by any applicant for a permit subjects the applicant to a civil penalty of not more than five hundred dollars($500.00).):

___I, as owner of the property, or my employees with wages as their sole compensation, will do the work, and the structure is not inteded or offered for sale (Sec 7044, b & P.C.: The Contractor's License Law does not apply to an owner of property who builds or improves theron, and who does such work himself or through his own employees, provided that such improvements are not intended or offered for sale. If, however, the building or improvement is sold within one year of completion, the owner - builder will have the burden of proving that he did not build or improve for the purpose of sale.).

___ I, as owner of the property, am exclusively contracting with licensed contractors to construct the project (Sec. 7044, B. & P.C.: The Contractor's License Law does not apply to an owner of contracts for such projects with a contractor(s) licensed pursuant to the Contractor's License Law.).

___I am exempt under Sec._____ ,B. & P.C. for this reason:_____

Date_____Owner_____

LICENSED CONTRACTOR'S DECLARATION

I hereby affirm that I am licensed under provisions of Chapter 9 commencing with Section 7000)s of Deivision 3 of the Business and Professions Code, and my license is in full force and effect.
License Class C-21 License No. 252618
Date 3/28/08 Contractor Three D Service Company, Inc.

CERTIFICATE OF EXEMPTION FROM WORKER'S COMPENSATION INSURANCE

I certify that in the performance of the work for which this permit is issued, I shall not employ any person in any manner so as to become subject to the Worker's Compensation Laws of California.
Date_____ Applicant_____

NOTICE TO APPLICANT: If, after making this Certificate of Exemption,- you should become subject to the Work's Comp. provisions of the Labor Code, You must forthwith comply with such provisions or this permit shall be deemed revoked.

I certify that I have read this application and state that the above information is correct. I agree to comply with all City, and State laws relating to the building construction , and hereby authorize representatives of this City to enter upon the above-mentioned property for inspection purposes.

Signature of Owner or Contractor ONLY — Date 3/28/08

-IMPORTANT-
Application is hereby made to the Director of Building and Safety for a permit subject to the condtions and restrictions set forth.

1. Each person upon whose behalf this apllication is made and each person at whose request and for whose benefit work is performed under or pursuant to any permit issued as a result of this application agrees to, and shall indemnify and hold harmless the City of Cathedral City, it's officers, agents and employees.
2. Any permits issued as a result of this application becomes null and void if work is not commenced within ONE HUNDRED EIGHTY (180) DAYS from the date of issuance of such permit.

4/7/08 — FINAL DATE
Barry Cox / Tim Cleary — INSPECTOR
CHECK # 12828
RECEIPT # 135639
POSTED

BONDED

RIGGING & HEAVY TRANSPORT

SCRA Specialized Carriers & Rigging Association

AGC

PROPOSAL

68-915 1st St

Proposal No. 0179-B

Sheet No. 1 of 1

Date 9/12/94

Proposal Submitted To	Work To Be Performed At
Name City of Cathedral City-Housing Director	Street 68915 First Street
Street P O Box 5001	City Cathedral City State Ca
City Cathedral City	Date of Plans N/A
State Calif. 92235-5001	Architect N/A
Telephone Number (619) 770 0386	

We hereby propose to furnish the materials and perform the labor necessary for the completion of demolition and lot clearance, per attached specifications marked "Exhibit A" .

Scope of work to include complete demolition of ~~1-story structure and removal~~ offsite of waste including all concrete structures, abandon septic system per City code, and leave property in a neat and presentable condition.

All work shall be done in accordance with City of Cathedral City Standards for demolition and subject to City inspection and subsequent Approval.

Not included is the testing, handling, or disposal of any contaminated waste including asbestos if encountered during demolition operation.
Any required City permits shall be obtained by Bonded Rigging from City at no charge.

All material is guaranteed to be as specified, and the above work to be performed in accordance with the drawings and specifications submitted for above work and completed in a substantial workmanlike manner for the sum of Dollars ($ 43,500.00).

with payments to be made as follows: Per City Standards.

Any alteration or deviation from above specifications involving extra costs, will be executed only upon written orders, and will become an extra charge over and above the estimate. All agreements contingent upon strikes, accidents or delays beyond our control. Owner to carry fire, tornado and other necessary insurance upon above work. Workmen's Compensation and Public Liability Insurance on above work to be taken out by

Bonded Rigging

Respectfully submitted Bonded Rigging

Per _____ Owner

Note — This proposal may be withdrawn by us if not accepted within 10 days

MISC PERMIT

PERMIT #: *B08-0391*
STATUS: ISSUED
DATE ISSUED: 03/13/2008

SITE ADDRESS: *68904 FIRST ST CATH*
TRACT: CATHEDRAL CITY
LOT: 47
PARCEL #: 687-202-005

#22

APPLICANT: CATHEDRAL CITY FIRE DEPARTMENT
770-8200
OWNER: REDEVELOPMENT AGENCY CITY OF CATHEDRAL CITY
68700 AVE LALO GUERRERO
CATHEDRAL CY CA

92234
770-0389

CONTRACTOR: THREE D SERVICE
STATE LICENSE #: 252618
1551 E. MISSION BLVD

POMONA, CA 91766
(909) 469-2600
BUSINESS LIC #: 5404 **EXP DATE:** 02/05/2008

JOB DESCRIPTION:
DEMO - DEMO EXISTING SINGLE FAMILY DWELLING AND CARPORT INCLUDING SEPTIC SYSTEM . FILED WITH AQMD, ASBESTOS SURVEY ATTACHED.

VALUATION: $1,665.00 **BLDG TYPE:** **OCC GROUP:** **SQFT TOTAL:** 0
SQFT BLDG: 900 0 **SQFT GARAGE:** 0 **SQFT PATIO:** 0

PLAN CHECK FEE:	$0.00	MICROFILM FEE:	$11.00	POLICE/FIRE/SIGNAL:	$0.00
BLDG PERMIT FEE:	$37.00	OTHER INSP:	$0.00	MASTER UNDERGROUND:	$0.00
ISSUANCE FEE:	$30.00	LIZARD FEE:	$0.00	TRANSIT DEVELOPMENT:	$0.00
SMI FEE:	$0.00	TUMF FEE:	$0.00		
DOUBLE FEE:	$0.00	PARK FEE:	$0.00		
				TOTAL PERMIT FEES:	$78.00
				PLAN CHECK DEPOSIT:	$0.00
				TOTAL DUE:	$78.00

PERMIT CONDITIONS:

OWNER-BUILDER DECLARATION

I hereby affirm that I am exempt from the Contractor's License Law for the following reason (Sec. 7031.5, California Business and Professions Code: Any City which requires a permit to construct, alter, improve, demolish or reparir any structure, prior to its issuance, also requires the applicant for such permit to file a signed statement that he is a licensed contractor pursuant to the provisions of the Contractor's License Law (Ch. 9 (Commencing with Sec. 7000) of Div. 3 of the B. & P.C.) or that he is exempt therefrom and the basis for the alleged exemption. Any violations of Sec 7031.5 by any applicant for a permit subjects the applicant to a civil penalty of not more than five hundred dollars($500.00).):

___I, as owner of the property, or my employees with wages as their sole compensation, will do the work, and the structure is not inteded or offered for sale (Sec 7044, b & P.C.: The Contractor's License Law does not apply to an owner of property who builds or improves theron, and who does such work himself or through his own employees, provided that such improvements are not intended or offered for sale. If, however, the building or improvement is sold within one year of completion, the owner - builder will have the burden of proving that he did not build or improve for the purpose of sale.).

___ I, as owner of the property, am exclusively contracting with licensed contractors to construct the project (Sec. 7044, B. & P.C.: The Contractor's License Law does not apply to an owner of contracts for such projects with a contractor(s) licensed pursuant to the Contractor's License Law.).

___I am exempt under Sec._____ ,B. & P.C. for this reason:_____

Date_____Owner_____

LICENSED CONTRACTOR'S DECLARATION

I hereby affirm that I am licensed under provisions of Chapter 9 commencing with Section 7000)s of Deivision 3 of the Business and Professions Code, and my license is in full force and effect.
License Class C-21 License No. 252618

Date 3/28/08 Contractor Three D Service Company, Inc.

CERTIFICATE OF EXEMPTION FROM WORKER'S COMPENSATION INSURANCE

I certify that in the performance of the work for which this permit is issued, I shall not employ any person in any manner so as to become subject to the Worker's Compensation Laws of California.
Date_____ Applicant_____

NOTICE TO APPLICANT: If, after making this Certificate of Exemption,- you should become subject to the Work's Comp. provisions of the Labor Code, You must forthwith comply with such provisions or this permit shall be deemed revoked.

I certify that I have read this application and state that the above information is correct. I agree to comply with all City, and State laws relating to the building construction , and hereby authorize representatives of this City to enter upon the above-mentioned property for inspection purposes.

Signature of Owner or Contractor ONLY 3/28/08 Date

-IMPORTANT-
Application is hereby made to the Director of Building and Safety for a permit subject to the condtions and restrictions set forth.

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2. Any permits issued as a result of this application becomes null and void if work is not commenced within ONE HUNDRED EIGHTY (180) DAYS from the date of issuance of such permit.

4-7-08 FINAL DATE

Bobby Cox/Fire Dept INSPECTOR

CHECK # 12828

RECEIPT # 135639

POSTED

MISC PERMIT

PERMIT #: *B08-0004*

STATUS: ISSUED
DATE ISSUED: 01/02/2008

SITE ADDRESS: *68899 FIRST ST CATH*
TRACT:
LOT:
PARCEL #: 687-204-002

APPLICANT: THREE D SERVICE
909-469-2600
OWNER: REDEVELOPMENT AGENCY CITY OF CATHEDRAL CITY
68700 AVE LALO GUERRERO
CATHEDRAL CY CA

92234
770-0389

CONTRACTOR: THREE D SERVICE
STATE LICENSE #: 252618
1551 E. MISSION BLVD

POMONA, CA 91766
(909) 469-2600
BUSINESS LIC #: 5404 **EXP DATE:** 02/05/2008

JOB DESCRIPTION:
DEMO - EXISTING OF TWO STORY DWELLING INCLUDING REMOVAL OF SEPTIC SYSTEM . FILED WITH AQMD, ASBESTOS SURVEY ATTACHED.

VALUATION:	$5,500.00	**BLDG TYPE:**		**OCC GROUP:**	**SQFT TOTAL:** 0
SQFT BLDG:	0	**SQFT GARAGE:**	0		**SQFT PATIO:** 0

PLAN CHECK FEE:	$0.00	MICROFILM FEE:	$11.00	POLICE/FIRE/SIGNAL:	$0.00
BLDG PERMIT FEE:	$72.00	OTHER INSP:	$0.00	MASTER UNDERGROUND:	$0.00
ISSUANCE FEE:	$30.00	LIZARD FEE:	$0.00	TRANSIT DEVELOPMENT:	$0.00
SMI FEE:	$0.00	TUMF FEE:	$0.00		
DOUBLE FEE:	$0.00	PARK FEE:	$0.00		
				TOTAL PERMIT FEES:	$113.00
				PLAN CHECK DEPOSIT:	$0.00
				TOTAL DUE:	$113.00

PERMIT CONDITIONS:

OWNER-BUILDER DECLARATION

I hereby affirm that I am exempt from the Contractor's License Law for the following reason (Sec. 7031.5, California Business and Professions Code: Any City which requires a permit to construct, alter, improve, demolish or reparir any structure, prior to its issuance, also requires the applicant for such permit to file a signed statement that he is a licensed contractor pursuant to the provisions of the Contractor's License Law (Ch. 9 (Commencing with Sec. 7000) of Div. 3 of the B. & P.C.) or that he is exempt therefrom and the basis for the alleged exemption. Any violations of Sec 7031.5 by any applicant for a permit subjects the applicant to a civil penalty of not more than five hundred dollars($500.00).):

___I, as owner of the property, or my employees with wages as their sole compensation, will do the work, and the structure is not inteded or offered for sale (Sec 7044, b & P.C.: The Contractor's License Law does not apply to an owner of property who builds or improves theron, and who does such work himself or through his own employees, provided that such improvements are not intended or offered for sale. If, however, the building or improvement is sold within one year of completion, the owner builder will have the burden of proving that he did not build or improve for the purpose of sale.).

___ I, as owner of the property, am exclusively contracting with licensed contractors to construct the project (Sec. 7044, B. & P.C.: The Contractor's License Law does not apply to an owner of contracts for such projects with a contractor(s) licensed pursuant to the Contractor's License Law.).

___I am exempt under Sec._____ ,B. & P.C. for this reason:_____

Date_____Owner_____

LICENSED CONTRACTOR'S DECLARATION

I hereby affirm that I am licensed under provisions of Chapter 9 commencing with Section 7000)s of Deivision 3 of the Business and Professions Code, and my license is in full force and effect.
License Class C-21 License No. 252618
Date 1/7/08 Contractor Three D Service Company

CERTIFICATE OF EXEMPTION FROM WORKER'S COMPENSATION INSURANCE

I certify that in the performance of the work for which this permit is issued, I shall not employ any person in any manner so as to become subject to the Worker's Compensation Laws of California.
Date_____ Applicant_____

NOTICE TO APPLICANT: If, after making this Certificate of Exemption,- you should become subject to the Work's Comp. provisions of the Labor Code, You must forthwith comply with such provisions or this permit shall be deemed revoked.

I certify that I have read this application and state that the above information is correct. I agree to comply with all City, and State laws relating to the building construction , and hereby authorize representatives of this City to enter upon the above-mentioned property for inspection purposes.

Signature of Owner or Contractor ONLY 1/7/08 Date

-IMPORTANT-
Application is hereby made to the Director of Building and Safety for a permit subject to the condtions and restrictions set forth.

1. Each person upon whose behalf this apllication is made and each person at whose request and for whose benefit work is performed under or pursuant to any permit issued as a result of this application agrees to, and shall indemnify and hold harmless the City of Cathedral City, it's officers, agents and employees.
2. Any permits issued as a result of this application becomes null and void if work is not commenced within ONE HUNDRED EIGHTY (180) DAYS from the date of issuance of such permit.

1-22-08 FINAL DATE

Barry Cox / Jim Cloyd INSPECTOR

CHECK # 12454

RECEIPT # 133686

POSTED

MISC PERMIT

PERMIT #: *B07-1464*
STATUS: ISSUED
DATE ISSUED: 11/29/2007

SITE ADDRESS: *68874 FIRST ST CATH*
TRACT: CATHEDRAL CITY
LOT: 46
PARCEL #: 687-201-011

APPLICANT: THREE D SERVICE
(909) 469-2600
OWNER: REDEVELOPMENT AGENCY CITY OF CATHEDRAL CITY
68- 700 AVD LALO GUERRERO
CATHEDRAL CY CA

92234
770-0389

CONTRACTOR: THREE D SERVICE
STATE LICENSE #: 252618
1551 E. MISSION BLVD

POMONA, CA 91766
(909) 469-2600
BUSINESS LIC #: 5404 **EXP DATE:** 02/05/2008

JOB DESCRIPTION:
DEMO - MOBIL HOME PARK - DEMO EXISTING OF (3) RESTROOMS BUILDINGS INCLUDING REMOVAL OF SEPTIC SYSTEM FILED WITH AQMD, ASBESTOS SURVEY ATTACHED.

VALUATION: $1,520.00 **BLDG TYPE:** **OCC GROUP:** **SQFT TOTAL:** 0
SQFT BLDG: 0 **SQFT GARAGE:** 0 **SQFT PATIO:** 0

PLAN CHECK FEE:	$22.75	MICROFILM FEE:	$11.00	POLICE/FIRE/SIGNAL:	$0.00
BLDG PERMIT FEE:	$35.00	OTHER INSP:	$0.00	MASTER UNDERGROUND:	$0.00
ISSUANCE FEE:	$30.00	LIZARD FEE:	$0.00	TRANSIT DEVELOPMENT:	$0.00
SMI FEE:	$0.00	TUMF FEE:	$0.00		
DOUBLE FEE:	$0.00	PARK FEE:	$0.00		
				TOTAL PERMIT FEES:	$98.75
				PLAN CHECK DEPOSIT:	$0.00
				TOTAL DUE:	$98.75

PERMIT CONDITIONS:

OWNER-BUILDER DECLARATION

I hereby affirm that I am exempt from the Contractor's License Law for the following reason (Sec. 7031.5, California Business and Professions Code: Any City which requires a permit to construct, alter, improve, demolish or reparir any structure, prior to its issuance, also requires the applicant for such permit to file a signed statement that he is a licensed contractor pursuant to the provisions of the Contractor's License Law (Ch. 9 (Commencing with Sec. 7000) of Div. 3 of the B. & P.C.) or that he is exempt therefrom and the basis for the alleged exemption. Any violations of Sec 7031.5 by any applicant for a permit subjects the applicant to a civil penalty of not more than five hundred dollars($500.00).):

___I, as owner of the property, or my employees with wages as their sole compensation, will do the work, and the structure is not inteded or offered for sale (Sec 7044, b & P.C.: The Contractor's License Law does not apply to an owner of property who builds or improves theron, and who does such work himself or through his own employees, provided that such improvements are not intended or offered for sale. If, however, the building or improvement is sold within one year of completion, the owner builder will have the burden of proving that he did not build or improve for the purpose of sale.).

___ I, as owner of the property, am exclusively contracting with licensed contractors to construct the project (Sec. 7044, B. & P.C.: The Contractor's License Law does not apply to an owner of contracts for such projects with a contractor(s) licensed pursuant to the Contractor's License Law.).

___I am exempt under Sec._____ ,B. & P.C. for this reason:_____

Date_____Owner_____

LICENSED CONTRACTOR'S DECLARATION

I hereby affirm that I am licensed under provisions of Chapter 9 commencing with Section 7000)s of Deivision 3 of the Business and Professions Code, and my license is in full force and effect.
License Class C-21 License No. 252618
Date 11-30-07 Contractor

CERTIFICATE OF EXEMPTION FROM WORKER'S COMPENSATION INSURANCE

I certify that in the performance of the work for which this permit is issued, I shall not employ any person in any manner so as to become subject to the Worker's Compensation Laws of California.
Date_____ Applicant_____

NOTICE TO APPLICANT: If, after making this Certificate of Exemption,- you should become subject to the Work's Comp. provisions of the Labor Code, You must forthwith comply with such provisions or this permit shall be deemed revoked.

I certify that I have read this application and state that the above information is correct. I agree to comply with all City, and State laws relating to the building construction , and hereby authorize representatives of this City to enter upon the above-mentioned property for inspection purposes.

Signature of Owner or Contractor ONLY 11-30-07 Date

-IMPORTANT-

Application is hereby made to the Director of Building and Safety for a permit subject to the condtions and restrictions set forth.

1. Each person upon whose behalf this aplication is made and each person at whose request and for whose benefit work is performed under or pursuant to any permit issued as a result of this application agrees to, and shall indemnify and hold harmless the City of Cathedral City, it's officers, agents and employees.
2. Any permits issued as a result of this application becomes null and void if work is not commenced within ONE HUNDRED EIGHTY (180) DAYS from the date of issuance of such permit.

CHECK # 12312
RECEIPT # 132858

POSTED

FINAL DATE **INSPECTOR**

687-201-010
68854 1st St
SEPTIC
REMOVAL

BLDG. PERMIT NO. B07-1465

ENCROACHEMENT NO.

#13

INSPECTION RECORD

DATE 11-29-05

INSPECTIONS	DATE	APPROVED BY
TEMPORARY POWER POLE		
GROUND PLUMBING		
UNDERGROUND ELECT/UFER		
FOOTINGS/STEEL		
ROOF SHEATHING		
SHEAR		
FRAMING		
ROUGH PLUMBING		
ROUGH ELECTRICAL		
DUCTS MECHANICAL		
T-BAR		
SHAFT / HOOD		
INSULATION		
LATH		
DRYWALL		
SEWER SEPTIC		
UNDERGROUND GAS		
GAS TEST		
ELECTRIC SERVICE RELEASE		

Remove SEPTIC

ADDRESS 68-845 First St.

DESCRIPTION OF WORK: Demo - Existing Single family Dwelling & Detached Garage. Shed Remove Septic System Fully Abandoned

OWNER Cathedral City Fire Dept

CONTRACTOR Thread "Service

INSPECTIONS	DATE	APPROVED BY
SWIMMING POOLS & SPAS		
SETBACKS, BONDING, STEEL		
UNDERGROUND ELECTRICAL		
UNDERGROUND PLUMBING		
GAS PRESSURE		
ENCLOSURE PRE PLASTER		
WALLS/FIREPLACES		
FOOTING		
BOND BEAM		
REROOF		
CLEAN OFF		
MOBILE HOME		
INSTALLATION SET UP		
FINAL		

OCCUPANCY OF THIS BUILDING BEFORE A CERTIFICATE OF OCCUPANCY IS ISSUED IS A VIOLATION OF THE CATHEDRAL CITY MUNICIPAL CODE

MISC PERMIT

PERMIT #: *B10-1353*

P/C #:
STATUS: ISSUED
DATE ISSUED: 10/14/2010

SITE ADDRESS: *68863 FIRST ST CATH*
TRACT: CATHEDRAL CITY
LOT: 63
PARCEL #: 687-203-012

APPLICANT: REDEVELOPMENT AGENCY CITY OF CATHEDRAL CITY
(760)770-0389
OWNER: REDEVELOPMENT AGENCY CITY OF CATHEDRAL CITY
C/O JAMES CLEARY
68700 AVD LALO GUERRERO
CATHEDRAL CY CA
92234

CONTRACTOR: THREE D SERVICE
STATE LICENSE #: 252618
1551 E. MISSION BLVD

POMONA, CA 91766
(909) 469-2600
BUSINESS LIC #: 5404 **EXP DATE:** 02/05/2011

JOB DESCRIPTION:
DEMO - FIVE-UNIT APARTMENT COMPLEX INCLUDING THE REMOVAL OF PERIMETER CMU WALL AND SEPTIC SYSTEM. ASBESTOS REPORT ON FILE.

VALUATION: $2,550.00 **BLDG TYPE:** **OCC GROUP:** **SQFT TOTAL:** 0
SQFT BLDG: 0 **SQFT GARAGE:** 0 **SQFT PATIO:** 0

PLAN CHECK FEE:	$0.00	DOC IMAGING FEE:	$11.00	POLICE/FIRE/SIGNAL:	$0.00
BLDG PERMIT FEE:	$45.00	OTHER INSP:	$0.00	MASTER UNDERGROUND:	$0.00
ISSUANCE FEE:	$30.00	MSHCP FEE:	$0.00	TRANSIT DEVELOPMENT:	$0.00
SMI FEE:	$0.00	TUMF FEE:	$0.00	BSA STATE FUND:	$1.00
DOUBLE FEE:	$0.00	PARK FEE:	$0.00	GENERAL PLAN MAINT:	$1.50
PUBLIC ART FEE:	$0.00				
				TOTAL PERMIT FEES:	$88.50
				PLAN CHECK DEPOSIT:	$0.00
				TOTAL DUE:	$88.50

PERMIT CONDITIONS:

OWNER-BUILDER DECLARATION

I hereby affirm that I am exempt from the Contractor's License Law for the following reason (Sec. 7031.5, California Business and Professions Code: Any City which requires a permit to construct, alter, improve, demolish or reparir any structure, prior to its issuance, also requires the applicant for such permit to file a signed statement that he is a licensed contractor pursuant to the provisions of the Contractor's License Law (Ch. 9 (Commencing with Sec. 7000) of Div. 3 of the B. & P.C.) or that he is exempt therefrom and the basis for the alleged exemption. Any violations of Sec 7031.5 by any applicant for a permit subjects the applicant to a civil penalty of not more than five hundred dollars($500.00).):

___I, as owner of the property, or my employees with wages as their sole compensation, will do the work, and the structure is not inteded or offered for sale (Sec 7044, b & P.C.: The Contractor's License Law does not apply to an owner of property who builds or improves theron, and who does such work himself or through his own employees, provided that such improvements are not intended or offered for sale. If, however, the building or improvement is sold within one year of completion, the owner - builder will have the burden of proving that he did not build or improve for the purpose of sale.).

___ I, as owner of the property, am exclusively contracting with licensed contractors to construct the project (Sec. 7044, B. & P.C.: The Contractor's License Law does not apply to an owner of contracts for such projects with a contractor(s) licensed pursuant to the Contractor's License Law.).

___I am exempt under Sec._____ ,B. & P.C. for this reason:_____

Date 10/20/10 Owner _____

LICENSED CONTRACTOR'S DECLARATION

I hereby affirm that I am licensed under provisions of Chapter 9 commencing with Section 7000)s of Deivision 3 of the Business and Professions Code, and my license is in full force and effect.
License Class C-21 License No. 252618
Date 10/20/10 Contractor Three D Service Company, Inc.

CERTIFICATE OF EXEMPTION FROM WORKER'S COMPENSATION INSURANCE

I certify that in the performance of the work for which this permit is issued, I shall not employ any person in any manner so as to become subject to the Worker's Compensation Laws of California.
Date_____ Applicant _____

NOTICE TO APPLICANT: If, after making this Certificate of Exemption, you should become subject to the Work's Comp. provisions of the Labor Code, You must forthwith comply with such provisions or this permit shall be deemed revoked.

I certify that I have read this application and state that the above information is correct. I agree to comply with all City, and State laws relating to the building construction , and hereby authorize representatives of this City to enter upon the above-mentioned property for inspection purposes.

Signature of Owner or Contractor ONLY _____ Date 10/20/10

-IMPORTANT-
Application is hereby made to the Director of Building and Safety for a permit subject to the condtions and restrictions set forth.

1. Each person upon whose behalf this apllication is made and each person at whose request and for whose benefit work is performed under or pursuant to any permit issued as a result of this application agrees to, and shall indemnify and hold harmless the City of Cathedral City, it's officers, agents and employees.
2. Any permits issued as a result of this application becomes null and void if work is not commenced within ONE HUNDRED EIGHTY (180) DAYS from the date of issuance of such permit.

10/28/10 BC
FINAL DATE INSPECTOR

CHECK # 7149
RECEIPT # 166655

POSTED

MISC PERMIT

PERMIT #: *B09-0365*
STATUS: ISSUED
DATE ISSUED: 04/22/2009

SITE ADDRESS: *68831 FIRST ST CATH*
TRACT: CATHEDRAL CITY
LOT: 66
PARCEL #: 687-203-008

APPLICANT: CATHEDRAL CITY REDEV AGENCY
(760)770-0389
OWNER: CATHEDRAL CITY REDEV AGENCY
68-700 AVENIDA LALO GUERRERO
CATHEDRAL CITY, CA

92234
(760)770-0389

CONTRACTOR: THREE D SERVICE
STATE LICENSE #: 252618
1551 E. MISSION BLVD

POMONA, CA 91766
(909) 469-2600
BUSINESS LIC #: 5404 **EXP DATE:** 02/05/2010

JOB DESCRIPTION:
DEMO - 1,200 SQ FT COMMERCIAL BLDG INCLUDING REMOVAL OF SEPTIC SYSTEM. CITY PROJECT FEE WAIVED - ASBESTOS REPT ON FILE.

VALUATION: $0.00 **BLDG TYPE:** ~~OCC GROUP:~~ **SQFT TOTAL:** 0
SQFT BLDG: 0 **SQFT GARAGE:** 0 **SQFT PATIO:** 0

PLAN CHECK FEE:	$0.00	**MICROFILM FEE:**	$0.00	**POLICE/FIRE/SIGNAL:**	$0.00
BLDG PERMIT FEE:	$0.00	**OTHER INSP:**	$0.00	**MASTER UNDERGROUND:**	$0.00
ISSUANCE FEE:	$0.00	**MSHCP FEE:**	$0.00	**TRANSIT DEVELOPMENT:**	$0.00
SMI FEE:	$0.00	**TUMF FEE:**	$0.00	**BSA STATE FUND:**	$0.00
DOUBLE FEE:	$0.00	**PARK FEE:**	$0.00	**GENERAL PLAN MAINT:**	$0.00
PUBLIC ART FEE:	$0.00				
				TOTAL PERMIT FEES:	$0.00
				PLAN CHECK DEPOSIT:	$0.00
				TOTAL DUE:	$0.00

PERMIT CONDITIONS:

OWNER-BUILDER DECLARATION

I hereby affirm that I am exempt from the Contractor's License Law for the following reason (Sec. 7031.5, California Business and Professions Code: Any City which requires a permit to construct, alter, improve, demolish or reparir any structure, prior to its issuance, also requires the applicant for such permit to file a signed statement that he is a licensed contractor pursuant to the provisions of the Contractor's License Law (Ch. 9 (Commencing with Sec. 7000) of Div. 3 of the B. & P.C.) or that he is exempt therefrom and the basis for the alleged exemption. Any violations of Sec 7031.5 by any applicant for a permit subjects the applicant to a civil penalty of not more than five hundred dollars($500.00).):

___I, as owner of the property, or my employees with wages as their sole compensation, will do the work, and the structure is not inteded or offered for sale (Sec 7044, b & P.C.: The Contractor's License Law does not apply to an owner of property who builds or improves theron, and who does such work himself or through his own employees, provided that such improvements are not intended or offered for sale. If, however, the building or improvement is sold within one year of completion, the owner - builder will have the burden of proving that he did not build or improve for the purpose of sale.).

___ I, as owner of the property, am exclusively contracting with licensed contractors to construct the project (Sec. 7044, B. & P.C.: The Contractor's License Law does not apply to an owner of contracts for such projects with a contractor(s) licensed pursuant to the Contractor's License Law.).

___I am exempt under Sec._____ ,B. & P.C. for this reason:_____

Date_____Owner_____

LICENSED CONTRACTOR'S DECLARATION

I hereby affirm that I am licensed under provisions of Chapter 9 commencing with Section 7000)s of Deivision 3 of the Business and Professions Code, and my license is in full force and effect.
License Class C-21 License No. 252618
Date 4/23/09 Contractor Three D Service Company, Inc.

CERTIFICATE OF EXEMPTION FROM WORKER'S COMPENSATION INSURANCE

I certify that in the performance of the work for which this permit is issued, I shall not employ any person in any manner so as to become subject to the Worker's Compensation Laws of California.
Date_____ Applicant_____

NOTICE TO APPLICANT: If, after making this Certificate of Exemption,- you should become subject to the Work's Comp. provisions of the Labor Code, You must forthwith comply with such provisions or this permit shall be deemed revoked.

I certify that I have read this application and state that the above information is correct. I agree to comply with all City, and State laws relating to the building construction , and hereby authorize representatives of this City to enter upon the above-mentioned property for inspection purposes.

X _____ 4/23/09
Signature of Owner or Contractor ONLY Date

-IMPORTANT-
Application is hereby made to the Director of Building and Safety for a permit subject to the condtions and restrictions set forth.

1. Each person upon whose behalf this apllication is made and each person at whose request and for whose benefit work is performed under or pursuant to any permit issued as a result of this application agrees to, and shall indemnify and hold harmless the City of Cathedral City, it's officers, agents and employees.
2. Any permits issued as a result of this application become null and void if work is not commenced within ONE HUNDRED EIGHTY (180) DAYS from the date of issuance of such permit.

5-14-09 _____
FINAL DATE INSPECTOR

CHECK # 0
RECEIPT # 173456

POSTED

3 UNIT AB 1 BLDG

MISC PERMIT

PERMIT #: *B12-0937*

P/C #:
STATUS: ISSUED
DATE ISSUED: 06/13/2012

SITE ADDRESS: *68958 DAWES ST CATH*
TRACT: CATHEDRAL CITY
LOT: 91
PARCEL #: 687-206-012

APPLICANT: SUCCESSOR AGENGY TO THE
(760)770-0389
OWNER: SUCCESSOR AGENGY TO THE
CATHEDRAL CITY REDEVELOPMENT AGENCY
68700 AVENIDA LALO GUERRERO
CATHEDRAL CITY, CA
92234
(760)770-0389

CONTRACTOR: THREE D SERVICE
STATE LICENSE #: 252618
1551 E. MISSION DR

POMONA, CA 91766
(909)469-2600
BUSINESS LIC #: 5404 EXP DATE: 02/05/2013

JOB DESCRIPTION:
DEMO 3-UNIT, SINGLE STORY APARTMENT COMPLEX (UNITS 1, 2, &3) INCLUDING REMOVAL OF SEPTIC SYSTEM. ASBESTOS REPORT ON FILE. (AKA 68962 DAWES ST)

VALUATION: $2,180.00 BLDG TYPE: OCC GROUP: SQFT TOTAL.: 2,100
SQFT BLDG: 2,100 SQFT GARAGE: 0 SQFT PATIO: 0

PLAN CHECK FEE:	$0.00	DOC IMAGING FEE:	$11.00	POLICE/FIRE/SIGNAL:	$0.00
BLDG PERMIT FEE:	$45.00	OTHER INSP:	$0.00	MASTER UNDERGROUND:	$0.00
ISSUANCE FEE:	$30.00	MSHCP FEE:	$0.00	TRANSIT DEVELOPMENT:	$0.00
SMI FEE:	$0.00	TUMF FEE:	$0.00	BSA STATE FUND:	$1.00
DOUBLE FEE:	$0.00	PARK FEE:	$0.00	GENERAL PLAN MAINT:	$1.50
PUBLIC ART FEE:	$0.00				
				TOTAL PERMIT FEES:	$86.50
				PLAN CHECK DEPOSIT:	$0.00
				TOTAL DUE:	$88.50

PERMIT CONDITIONS:

OWNER-BUILDER DECLARATION

I hereby affirm that I am exempt from the Contractor's License Law for the following reason (Sec. 7031.5, California Business and Professions Code: Any City which requires a permit to construct, alter, improve, demolish or reparir any structure, prior to its issuance, also requires the applicant for such permit to file a signed statement that he is a licensed contractor pursuant to the provisions of the Contractor's License Law (Ch. 9 (Commencing with Sec. 7000) of Div. 3 of the B. & P.C.) or that he is exempt therefrom and the basis for the alleged exemption. Any violations of Sec 7031.5 by any applicant for a permit subjects the applicant to a civil penalty of not more than five hundred dollars($500.00).):

___I, as owner of the property, or my employees with wages as their sole compensation, will do the work, and the structure is not inteded or offered for sale (Sec 7044, b & P.C.: The Contractor's License Law does not apply to an owner of property who builds or improves theron, and who does such work himself or through his own employees, provided that such improvements are not intended or offered for sale. If, however, the building or improvement is sold within one year of completion, the owner - builder will have the burden of proving that he did not build or improve for the purpose of sale.).

___I, as owner of the property, am exclusively contracting with licensed contractors to construct the project (Sec. 7044, B. & P.C.: The Contractor's License Law does not apply to an owner of contracts for such projects with a contractor(s) licensed pursuant to the Contractor's License Law.).

___I am exempt under Sec._____ ,B. & P.C. for this reason:_____

Date_____Owner_____

LICENSED CONTRACTOR'S DECLARATION

I hereby affirm that I am licensed under provisions of Chapter 9 commencing with Section 7000)s of Deivision 3 of the Business and Professions Code, and my license is in full force [illegible] License Class C21 License No. 252618

X Date 6/14/12 Contractor Charlie L. Clark, President

CERTIFICATE OF EXEMPTION FROM WORKER'S COMPENSATION INSURANCE

I certify that in the performance of the work for which this permit is issued, I shall not employ any person in any manner so as to become subject to the Worker's Compensation Laws of California.
Date_____ Applicant_____

NOTICE TO APPLICANT: If, after making this Certificate of Exemption, you should become subject to the Work's Comp. provisions of the Labor Code, You must forthwith comply with such provisions or this permit shall be deemed revoked.

I certify that I have read this application and state that the above information is correct. I agree to comply with all City, and State laws relating to the building construction , and hereby authorize representatives of this City to enter upon the above-mentioned property for inspection purposes.

X Charlie L. Clark 6/14/2012
Signature of Owner or Contractor ONLY Date Charlie L. Clark, President

-IMPORTANT-
Application is hereby made to the Director of Building and Safety for a permit subject to the conditions and restrictions set forth.

1. Each person upon whose behalf this application is made and each person at whose request and for whose benefit work is performed under or pursuant to any permit issued as a result of this application agrees to, and shall indemnify and hold harmless the City of Cathedral City, it's officers, agents and employees.
2. Any permits issued as a result of this application becomes null and void if work is not commenced within ONE HUNDRED EIGHTY (180) DAYS from the date of issuance of such permit.

7-2-13 FINAL DATE

J Ruiz INSPECTOR

CHECK # 9787

RECEIPT # 192261

POSTED

Summary Document

APN	Address	Septic/Removed--YES Permit Copy Enclosed
		NO Permit Copy - Abanonded per City Code
687-201-005	38821 2nd (or allen)	PUMPED, CRUSHED, FILLED PER CITY CODE
687-201-006	Parcel not on file	PUMPED, CRUSHED, FILLED PER CITY CODE
687-201-007	68822 First	PUMPED, CRUSHED, FILLED PER CITY CODE
687-201-008	68845 Buddy	PUMPED, CRUSHED, FILLED PER CITY CODE
687-201-009	68853 Buddy	PUMPED, CRUSHED, FILLED PER CITY CODE
687-201-010	68854 !st	PUMPED, CRUSHED, FILLED PER CITY CODE
687-201-011	68824 1st	SEPTIC REMOVAL PERMIT COPY ENCLOSED
687-202-001	68885 2nd st	PUMPED, CRUSHED, FILLED PER CITY CODE
687-202-002	36968 ALLEN	PUMPED, CRUSHED, FILLED PER CITY CODE
687-202-003	68884 1ST (Fire Burn Hse)	PUMPED, CRUSHED, FILLED PER CITY CODE
687-202-004	68903 Buddy	PUMPED, CRUSHED, FILLED PER CITY CODE
687-202-005	68904 1ST	SEPTIC REMOVAL PERMIT COPY ENCLOSED
687-202-006	68911 BUDDY	PUMPED, CRUSHED, FILLED PER CITY CODE
687-202-007	68916 1ST	PUMPED, CRUSHED, FILLED PER CITY CODE
687-202-008	?	PUMPED, CRUSHED, FILLED PER CITY CODE
687-202-009	68926 1ST	PUMPED, CRUSHED, FILLED PER CITY CODE
687-202-010	68933 1ST	SEPTIC REMOVAL PERMIT COPY ENCLOSED
687-202-011	68930 1ST	SEPTIC REMOVAL PERMIT COPY ENCLOSED
687-202-012	68941 2ND	PUMPED, CRUSHED, FILLED PER CITY CODE
687-202-015	36913 DATE PALM	PUMPED, CRUSHED, FILLED PER CITY CODE
687-203-008	68831 1ST	SEPTIC REMOVAL PERMIT COPY ENCLOSED
687-203-009	68926 1ST	PUMPED, CRUSHED, FILLED PER CITY CODE
687-203-010	68842 GROVE	PUMPED, CRUSHED, FILLED PER CITY CODE
687-203-011	68852 GROVE	PUMPED, CRUSHED, FILLED PER CITY CODE
687-203-012	68863 1ST	SEPTIC REMOVAL PERMIT COPY ENCLOSED
687-203-013	68854 GROVE	SEPTIC REMOVAL PERMIT COPY ENCLOSED
687-203-014	37029 ALLEN	NO - Cesspool Abandoned
687-203-015	68821 1st	PUMPED, CRUSHED, FILLED PER CITY CODE
687-204-001	68880 Grove	PUMPED, CRUSHED, FILLED PER CITY CODE
687-204-002	68899 1ST	SEPTIC REMOVAL PERMIT COPY ENCLOSED
687-204-003	68896 GROVE	PUMPED, CRUSHED, FILLED PER CITY CODE
687-204-004	68913 1ST	PUMPED, CRUSHED, FILLED PER CITY CODE
687-204-005	68906 GROVE	PUMPED, CRUSHED, FILLED PER CITY CODE
687-204-006	68915 1ST	PUMPED, CRUSHED, FILLED PER CITY CODE
687-204-007	68920 GROVE	PUMPED, CRUSHED, FILLED PER CITY CODE
687-204-008	68925 1ST	PUMPED, CRUSHED, FILLED PER CITY CODE
687-204-009	68936 GROVE	SEPTIC REMOVAL PERMIT COPY ENCLOSED
687-204-013	68935 1ST	SEPTIC REMOVAL PERMIT COPY ENCLOSED
687-204-014	68936 GROVE	SEPTIC REMOVAL PERMIT COPY ENCLOSED
687-204-016	37055 DATE PALM	PUMPED, CRUSHED, FILLED PER CITY CODE
687-205-005	68887 GROVE	PUMPED, CRUSHED, FILLED PER CITY CODE
687-205-006	68850 E. PALM CYN	PUMPED, CRUSHED, FILLED PER CITY CODE
687-205-007	68824 E. PALM CYN	PUMPED, CRUSHED, FILLED PER CITY CODE
687-205-008	68866 E. PALM CYN	SEPTIC REMOVAL PERMIT COPY ENCLOSED
687-206-001	68877 GROVE	PUMPED, CRUSHED, FILLED PER CITY CODE
687-206-002	68901 GROVE	PUMPED, CRUSHED, FILLED PER CITY CODE
687-206-003	68908 GROVE	PUMPED, CRUSHED, FILLED PER CITY CODE
687-206-004	68917 GROVE	SEPTIC REMOVAL PERMIT COPY ENCLOSED
687-206-005	68921 GROVE	PUMPED, CRUSHED, FILLED PER CITY CODE
687-206-006	68918 DAWES	SEPTIC REMOVAL PERMIT COPY ENCLOSED
687-206-007	68937 GROVE	SEPTIC REMOVAL PERMIT COPY ENCLOSED
687-206-008	68930 DAWES	SEPTIC REMOVAL PERMIT COPY ENCLOSED
687-206-009	68962 DAWES	SEPTIC REMOVAL PERMIT COPY ENCLOSED
687-206-010	68957 GROVE	PUMPED, CRUSHED, FILLED PER CITY CODE
687-206-011	68963 1ST	SEPTIC REMOVAL PERMIT COPY ENCLOSED
687-206-012	68958 DAWES	SEPTIC REMOVAL PERMIT COPY ENCLOSED
687-206-013	68989 DAWES	SEPTIC REMOVAL PERMIT COPY ENCLOSED

APPENDIX E

RESUMES

PETRA

ED LUMP

MR. ED LUMP
Associate Geologist

EDUCATION
B.Sc Geology, San Diego State University, San Diego, California

PROFESSIONAL SUMMARY
Mr. Lump has been in the field of Engineering Geology since 1984 and in the field of Environmental Assessment since 1990. Serving as a field technician, soils laboratory technician, and geologist he has gained field experience on numerous hillside and flatland residential and commercial developments throughout southern California. As an engineering geologist he supervised field personnel and conducted numerous geologic and geotechnical evaluations on residential, commercial and industrial developments in California, Arizona and Nevada. His projects have included landslide and fault evaluations, single and multi-tract residential properties, shopping centers/national chain retail developments, and forensic evaluations, as well as grading and construction oversight. Mr. Lump has also conducted and managed numerous Phase I Environmental Site Assessments and Phase II soil, groundwater and soil vapor assessments for vacant, agricultural, residential, commercial and industrial properties in California, Arizona and Nevada.

SELECTED PROJECT EXPERIENCE

Environmental Site Assessments
- Limited Phase II and Soil Vapor Survey, 2013, County of Riverside, future Eastvale fire station, Riverside County, CA
- Phase I ESA, 2013, Wakeland Housing Development, 10 apartment complex portfolio, San Diego County, CA
- Phase I ESA and Limited Phase II, 2013, William Lyon Homes, Upland Residential Development, San Bernardino County, CA
- Limited Phase II Assessment, 2013, KB Homes, Spring Mountain Ranch, Riverside County, CA
- Environmental demolition and grading oversight, 2011/2012, Standard Pacific Homes, Harmony Grove residential development, San Diego County, CA
- Groundwater Mounding Evaluation, 2008, Lowe's HIW, Lowe's of Pacoima, Los Angeles County, CA
- Phase I ESA, Pesticide Residue Survey, Remedial Earthwork Guidelines, and Final As-Built Assessment, 2003/2004, Lennar Homes, Bressi Ranch, San Diego County, CA

Geologic and Geotechnical Evaluations
- Lake Elsinore Marketplace, Diamond Development, Riverside County, CA
- Salton Sea Solar Plant, Chevron Solar, Inc., Imperial County, CA
- Lowe's of Sparks, Nevada, Lowe's HIW, Washoe County, NV
- Walmart Murrieta, Walmart, Inc., Riverside County, CA
- Santa Fe Hills/Paloma Residential Development, KB Homes, San Diego County, CA
- Carmel Mountain Ranch Residential Development, Presley of San Diego, San Diego County, CA
- Lowe's of Bullhead City, Arizona, Lowe's HIW, Mohave County, AZ

ED LUMP

Grading and Construction

- Discovery Hills Residential Development, Presley of San Diego, San Diego County, CA
- Lowe's of Prescott, Arizona, Lowe's HIW, Yavapai County, AZ
- Salt Creek Residential Development, KB Homes, San Diego County, CA
- Lowe's of Pacoima, Lowe's HIW, Los Angeles County, CA
- Lake Elsinore Marketplace, Diamond Development, Riverside County, CA
- Carmel Mountain Ranch Residential Development, Presley of San Diego, San Diego County, CA
- Santa Fe Hills/Paloma Residential Development, KB Homes, San Diego County, CA
- Cobra Golf Facility-Carlsbad, Cobra Golf, San Diego County, CA

SIAMAK JAFROUDI

DR. SIAMAK JAFROUDI
President
Principal-in-Charge

EDUCATION
PhD, Geotechnical Engineering, 1983,
UC Davis
MS, Civil Engineering, 1978, UC Davis

REGISTRATIONS
Civil Engineering, California, PE 36641
Geotechnical Engineer, California, GE 2024
Environmental Assessor, REA 01655

PROFESSIONAL SUMMARY
Dr. Jafroudi has over 34 years of professional experience in geotechnical engineering. His area of specialization is “material characterization” in relation to slope stability evaluation, liquefaction analysis, pavement design, collapse potential, earth retaining structures and earthquake engineering. Dr. Jafroudi’s experience encompasses the design and supervision of a multitude of soil mechanics laboratory tests and drilling programs. With a broad range of project experience, he has served as a Principal Engineer on several key projects for such clients as school, university and college districts, public agencies; transportation agencies; residential and commercial developers, as well as private sector clients.

Acquiring a doctorate degree in Geotechnical Engineering as well as a Master of Science degree in Civil Engineering, Dr. Jafroudi maintains extensive working knowledge and experience with respect to these challenging fields. Dr. Jafroudi is a Registered Geotechnical Engineer (GE), a Registered Environmental Assessor (REA), and is registered in Civil Engineering (PE), all in the state of California. Additionally, he is an active member of the American Society of Civil Engineers, the Earthquake Engineering Research Institute and California Geotechnical Engineering Association.

SELECTED PROJECT EXPERIENCE

Environmental Site Assessments
- KB Homes, Hollywood Beverly Christian Church, Hollywood
- Castle & Cooke, Lake Elsinore Outlet Mall, Lake Elsinore
- Covina Transit Plaza, Foothill Transit, Covina
- First Street Bridge Widening, Los Angeles County
- Overland Street Bridge Improvements, Los Angeles County
- 801 Office Tower, Mani Brothers, Los Angeles
- Harmony Grove Site Acquisition, New Urban West, San Diego County
- Site Acquisitions, County of Los Angeles Office of Education, Los Angeles
- Eleven Projects, City of Mission Viejo, Mission Viejo
- Site Acquisitions, Paramount USD, Paramount
- Site Acquisitions, Santa Ana USD, Santa Ana
- Site Acquisition, Nevis Construction, Chino Hills
- Site Acquisitions, Moreno Valley USD, Moreno Valley
- Corona Farms, Confidential Client, Corona
- Amusement Park, Confidential Client, Orange County
- Nursery Site, Confidential Client, Sylmar

NORTH SITE – LIMITED PHASE II EVALUATION

December 22, 2017
J.N. 17-246

AGUA CALIENTE BAND OF CAHUILLA INDIANS
5401 Dinah Shore Drive
Palm Springs, California 92264

Attention: Ms. Margaret Park

Subject: **Limited Phase II Environmental Evaluation; *Fee to Trust Application*, A Portion of 13.6 Acres of Land Located at the Northwest Corner of Date Palm Drive and Palm Canyon Drive, APN's 687-202-015, 687-208-015 and 687-208-022 to -026, Cathedral City, Riverside County, California 92234**

Reference: Phase I Environmental Site Assessment; *Fee to Trust Application*, 13.6 Acres of Land Located at the Northwest Corner of Date Palm Drive and Palm Canyon Drive, Cathedral City, Riverside County, California 92234; report by Petra Geosciences, Inc., J.N. 17-246, dated July 31, 2017.

Dear Ms. Park:

As requested, **Petra Geosciences, Inc. (Petra)** is submitting herein the results of our Limited Phase II Environmental Evaluation on a portion of the subject property along Palm Canyon Drive (Highway 111) and Date Palm Drive in Cathedral City, California. The purpose of this limited Phase II Environmental Evaluation was to assess near-surface conditions within three areas of the subject property, which were identified as potential recognized environmental conditions (RECs) in our Phase I Environmental Site Assessment (ESA), due to historical information indicating the areas may have contained underground or aboveground storage tanks (Petra, 2017).

Brief Site Summary

Five former and one current occupant of the subject property were identified in our above referenced Phase I ESA as either historic gasoline stations and/or vehicle repair shops, and an existing fire station where the potential existence for detectable levels of petroleum hydrocarbon-based soil residues cannot be entirely precluded.

One of the former sites, Palm Springs Oil #9, 68830 Palm Canyon Drive (APN 687-205-005), was identified as a former LUST case where soil vapor extraction remediation reportedly removed most of the subsurface contamination. The case was closed in 2006 by the County of Riverside with hydrocarbon soil vapors left in-place at a depth of approximately 48 feet. The site was closed with no restrictions to redevelopment.

This site is considered a Historical Recognized Environmental Condition (HREC). At this time, however, no further assessment is recommended.

Three of the sites within the property were identified based solely upon non-regulatory agency database listings such as EDR's City Directory Search and EDR's Historic Auto Stations (Petra, 2017): *Pyles Robert*, 68904 Palm Canyon Drive (APN 687-208-024, -025 and -026); *Bob's Choice Cars*, 68920 E. Palm Canyon Drive (APN 687-208-023); and *Auto Truck Repair*, 68930 E. Palm Canyon Drive (APN 687-208-022). In addition, the existing *Cathedral City Fire Station* (36913 Date Palm Drive [APN 687-202-015]) was reported to contain a 1,000 gallon diesel UST from 1975 to at least 1988 (possibly removed in 1998). The Cathedral City Fire Station at 36913 Date Palm Drive (APN 687-202-015), was listed in the Statewide Environmental Evaluation and Planning System (SWEEPS UST) database, and the EDR Historical Underground Storage Tank (HIST UST) database. Based upon interpretation of aerial photographs and the address listed in the U.S. Environmental Protection Agency's Facility Index System/Facility Registry System (FINDS) database, the sixth site is likely a gasoline service station which existed at 68980 E. Palm Canyon Drive (APN 687-208-015) from at least 1966 to sometime after 1972 and before 1978. The location of these areas within the project area is provided on Figure 2.

Based upon our preliminary inquiries into the above mentioned sites, including the existing Cathedral City Fire Station and the former service station site at the northwest corner of Palm Canyon Drive and Date Palm Drive (Carl's Jr.), no known information on former USTs or former land use was available (Petra, 2017).

SCOPE OF SERVICES

Prior to "blind" placement of environmental borings within the subject parcels identified as potential RECs, we recommended an initial evaluation of whether USTs and piping remain buried within the properties. To aid in evaluating potential environmental boring locations, Petra coordinated geophysical surveys to be completed on the five potential REC sites within the subject property. The surveys would identify buried metallic objects (such as piping/debris, USTs, concrete structures/debris), and outline of the former UST excavation(s) may be discernable.

Geophysical surveys were conducted within three areas of potential RECs: the Carl's Jr. site; the fire station site; and the contiguous vacant parcels along the north side of Palm Canyon Drive, between Carl's Jr. and Allen Avenue. The limited Phase II Environmental Evaluation included the following services:

Task 1 – Geophysical Survey – An experienced geophysicist under the supervision of a State Registered Geophysicist conducted surveys within the three areas of the site. A combination of three survey instruments were used: ground penetrating radar (GPR), electromagnetic induction (EM), and magnetic gradiometer. The surveys traversed the sites systematically in multiple, organized directions. Additional traverses, and possible other geophysical data, were taken for detailing and confirmation of anomalous conditions found. Additionally, a utility locator with line tracing capabilities was utilized where existing risers were observed, which a signal could be impressed and traced.

Task 2 – Geophysical Survey Analysis – Survey results, site conditions and field data were assessed. A discussion of preliminary results occurred between the geophysicist and Petra's Professional Geologist the first day. Anomalies were physically delineated on the ground surface by colored spray paint, and a photographic record was made.

Task 3 – Additional Agency Research – Petra requested file and records review of specific addresses of the five potential REC businesses. Requests were submitted to the Regional Water Quality Control Board, the County of Riverside Hazardous Materials Management Division, and the Cathedral City Building Department.

Task 4 – Data Evaluation and Reporting – The report presenting the results of our limited Phase II evaluation includes the following information:

i. Site location and a vicinity map identifying the subject sites;
ii. A brief description of current site physical conditions;
iii. A discussion of the field procedures and the work completed;
iv. A geophysical survey report, including explanation of findings and location plan(s);
v. Findings of our additional agency research;
vi. Conclusions regarding findings associated with the field and agency research; and
vii. Recommendations concerning additional assessment or mitigating measures, if appropriate, including possible environmental boring locations.

Site Description

The subject areas of potential environmental conditions are comprised of approximately 2.5 acres of the approximately 13.6 acre property situated along the north side of Highway 111, south of Buddy Rogers Avenue, west of Date Palm Drive and east of Van Fleet Drive in Cathedral City, Riverside County, California. The subject survey area consists of 6 contiguous parcels along Palm Canyon Drive identified as Riverside County Assessor Parcel Numbers (APN's) 687-208-015 and -022 to -026, and one parcel situated at the southwest corner of Date Palm Drive and Buddy Rogers Avenue, APN 687-202-015. The general location of the parcels is provided on Figures 1 and 2.

The subject property as a whole is bounded by Date Palm Drive on the east, Highway 111 (Palm Canyon Drive) on the south, Buddy Rogers Avenue on the north. A mix of commercial properties and vacant land bounds the subject property on the west. The parcel at the northwest corner of Date Palm Drive and Palm

Canyon Drive is occupied by a Carl's Jr. restaurant. Five parcels along Palm Canyon Drive, situated between Allen Avenue and the Carl's Jr. parcel, are vacant land. Soil covers a large majority of the vacant property with minor amounts of finely crusted asphalt and gravel. This material appears to be from demolition performed on the subject property. Recent surface disturbance of soils on the triangular-shaped lot near the southeast corner of Allen Avenue and Dawes Street represents relatively recent demolition of the former Goody's Restaurant. An active Cathedral City fire station is located on the southwest corner of Date Palm Drive and Buddy Rogers Avenue. No signs of surface staining, noxious odors, stressed vegetation, and/or dumped trash or debris, were noted during our site reconnaissance. An aerial photograph of the subject survey parcels are depicted In Appendix A.

Field Work - Geophysical Survey

They geophysical survey was conducted by SubSurface Surveys on October 11 and 12, 2017. The survey was completed by a staff geophysicist under the direct supervision of a California licensed Geophysicist. A representative from Petra was onsite the first day to provide orientation to the subject parcels, discuss former development of the sites, and observe preliminary results from the two occupied parcels. Interpretation of data took place while the surveys were being conducted.

As previously noted, the purpose of the geophysical survey on the subject parcels was to identify, to the extent practical, the existence of underground storage tanks (USTs) and/or remnants of a UST excavation backfills, piping and conduits, or other near-surface objects that may provide knowledge pertaining to the former usage of the sites as service stations or auto repair shops.

A summary of the geophysical survey, including explanation of the equipment used, interpretation of findings and conclusions, and color photographs depicting the survey anomalies is provided in Appendix A.

SUMMARY OF FINDINGS

Research of Agency Records

As a part of this Limited Phase II Environmental Evaluation, Petra conducted further research into readily available records/files regarding former development and/or UST records related to the seven subject parcels (Petra, 2017). Petra requested review of additional agency files from the Cathedral City Building Department, the Colorado River Basin Regional Water Quality Control Board (RWQCB) and the Riverside County Department of Environmental Health (RCDEH), Environmental Protection and Oversight Branch. A summary of our research and review is provided below.

Cathedral City Building Department

On October 2, 2017, Petra contacted Ms. Tami Scott, Administrative Services Director with Cathedral City to request a physical file review of building records associated with the addresses related to our assessment. Public records forms were completed and submitted to Mr. Jim Sherman with the Building Department the same day. Mr. Sherman provided copies of all City and County of Riverside building permit records in their possession for the requested addresses on October 9, 2017. A copy of the building permit files can be provided upon request. A summary of the records received is provided below.

- Fire Station, 36913 Date Palm Dr., Cathedral City, CA:

  No city files. Structure constructed prior to incorporation. Construction completed under County of Riverside jurisdiction.

- Vacant property, 68904 E. Palm Canyon Dr., Cathedral City, CA:

  Special inspection permit for gas installation dated January 17, 1968. Letter pertaining to a drywall permit to Desert Oasis Restaurant and Hotel Supply dated May 22, 1990.

- Vacant property-Palm Spring Oil, 68830 E. Palm Canyon Dr., Cathedral City, CA:

  Permit for addition of 2 ton AC unit with heat pump, dated October 31, 1979. Letter indicating closure of Union 76 gas station dated June 14, 1998. South coast AQMD notification permit for demolition or asbestos removal dated May 10, 1999. Demolition permit for 450 square foot gas station issued May 12, 1999. Miscellaneous permit for septic and drywall demolition issued May 12, 1999, and finalized August 3, 1999. Permit for installation of temporary power pole for soil vapor extraction unit issued October 18, 2001. Permit for "gas test" related to power pole also issued October 18, 2001.

- Carl's Jr. Restaurant, 68980 E. Palm Canyon Dr., Cathedral City, CA:

  Plan Check permit for construction of 2,881 square foot restaurant building dated March 7, 1977. Construction permit for onsite utilities dated March 9, 1977, and finalized February 8, 1978. Permit to add canopy to restaurant dated September 13, 1977, and finalized February 8, 1978. Application to construct building issued to Carl Karcher Enterprises dated June 4, 1980. Construction permit for repair of roof and overhang issued October 21, 2011. Construction permit for replacement of exterior column darted June 6, 2013.

  Also included in the building permit records for 68980 E. Palm Canyon Drive was a permit for construction of a 64 square foot retail store at 68-802 Highway 111 dated September 20, 1973, and finalized February 6, 1974. Permit was issued to Bob Pyles. Address changed on permit to 68-980 Highway 111.

- Vacant-Goody's Restaurant and former Kentucky Fried Chicken Restaurant, 68930 E. Palm Canyon Dr., Cathedral City, CA:

  Plan check permit for 2,435 square foot restaurant (Kentucky Fried Chicken [KFC]) issued August 1, 1979 and expired July 22, 1980. Permit to review structural plans for KFC approved May 24, 1982. Certification of occupancy for KFC dated December 7, 1982. Building permit for addition/alteration to vestibule dated March 9, 1992, and finalized April 17, 1992. County of Riverside Department of Environmental Health septic system installation form dated May 11, 1999. Certificate of occupancy

for Goody's Restaurant dated July 28, 1999. Permit for demolition of building, parking lot removal, grease trap removal and cap sewer 5 foot inside property line issued May 2, 2017. Demolition was finalized June 1, 2017.

- Vacant-former parking lot for Goody's Restaurant and former Kentucky Fried Chicken Restaurant, 68920 Palm Canyon Dr., Cathedral City, CA:

  No building files and no property files available.

County of Riverside Building and Safety Department

On October 30, 2017, Petra submitted electronic requests to the County of Riverside for a building permit records search on the existing fire department parcel (APN 687-202-015), and the Carl's Jr. parcel situated at the northwest corner of Date Palm Drive and Palm Canyon Drive (APN 687-208-015). The County responded that they were unable to locate any building records for 68-802 Highway 111 which is the former address of the service station noted in Cathedral City building records at the Carl's Jr. parcel. The County also indicated they were not able to locate any building records for 68980 E. Palm Canyon Drive (Carl's Jr. site). The County noted that building records dated prior to 1963 have been destroyed.

A response was received on November 1, 2017, indicating that they have building permits for construction of a 4,032 square foot fire station at 36913 Date Palm Drive (dated January 9, 1975) that was finalized on October 16, 1975. The permit noted that a 2,000 gallon septic tank was installed near the northeast corner of the lot with what appeared to be two vertical seepage pits situated further west. Permits were also found for construction of a 320 square foot detached storage building (dated October 8, 1975) that was finalized June 29, 1976. Of note was permits for electrical wiring to a diesel dispenser pump, dated January 6, 1976. The work was finalized on June 29, 1976. No additional information was available.

Colorado River Basin Regional Water Quality Control Board

On September 29, 2017, Petra contacted the Colorado River Basin RWQCB public records review desk regarding a search of records/files pertaining to five addresses associated with the subject parcels. A response was received on October 3, 2017, indicating that the Regional Board has no files for any of the listed addresses. The addresses listed were 36913 Date Palm Drive, and 68904, 68920, 68930 and 68980 Palm Canyon Drive, Cathedral City, California.

On October 27, 2017, Petra requested a file review search for an old address found on a County building permit received from the City of Cathedral City for a retail store owned by Bob Pyles at 68802 Highway 111. Pyles, Robert was listed as the owner of a Historic Service Station in the EDR Radius Search report identified during the Phase I Environmental Site Assessment (ESA) for the project as a whole (Petra, 2017).

As noted above, this address was subsequently changed on the permit to 68980 Highway 111 (i.e., Carl's Jr. site). A response was received from the RWQCB on October 27, 2017, indicating that the Regional Board has no files for the listed addresses.

Riverside County Department of Environmental Health

Petra reviewed database lists from the Riverside County Department of Environmental Health (RCDEH) – Hazardous Materials Management Branch, dated July 11, 2017. They included a Disclosure Facility List, a Generator Facility List, a Tank Facility List, and a Listing of Underground Tank Cleanup Sites from the Local Oversight Program (LOA). The following results were found:

- Under the Disclosure Facility List, Carl's Jr. #724 (68980 E. Palm Canyon Dr.) was reported.
- Under the Generator Facility List, none of the addresses were reported.
- Under the Tank Facility List, none of the addresses were reported.
- Under the Listing of Underground Tank Cleanup Sites, none of the addresses were reported. For referenced purposes, Palm Springs Oil #9 (68830 Highway 111) was listed with a case type of "Soil" and a case status of "Case Closed."

On November 1, 2017, Petra submitted a written request to review public records on the fire station site (36913 Date Palm Drive) and the Carl's Jr. site (68980 E. Palm Canyon Drive). On November 6, 2017, the County of Riverside Department of Environmental Health responded that there were records available for the Fire Station site (36913 Date Palm Drive) and the Carl's Jr. site (68980 E. Palm Canyon Drive). Records for Carl's Jr. were (in part) redacted. A brief summary is provided below.

Cathedral City Fire Department (36913 Date Palm Drive)

- County of Riverside Department of Health, Underground Storage Tank Monitoring Alternative Application, dated October 28, 1986 – one 1,000 gallon UST, installation date 1975. Type of monitoring equipment-inventory reconciliation. Product piping is suction.
- County of Riverside Department of Health Tank Permit, dated December 31, 1986.
- County of Riverside Department of Health Tank Permit, dated February 4, 1988.
- Cathedral City, Purchase Order, dated February 1990 – underground storage tank permits for 36-913 Date Palm Dr.
- County of Riverside Department of Health Tank Permit, dated February 22, 1991.
- RCDEH Underground Tank Permit, dated October 5, 1993.
- County of Riverside Hazardous Materials UST Data Sheet – undated. One 1,000 gallon diesel tank. Tank Year 1975. Operating fees paid June 10, 1986- November 10, 1993.
- Data Chart for Tank System Tightness Test, dated November 5, 1992 – passed.

- RCDEH Special Handler Disclosure permit (Class C), dated May 27, 1994.
- Underground Storage Tank (one) permit and Special Handler Disclosure, dated October 3, 1995.
- RCDEH Business Emergency Plan Inspection Report, dated October 24, 1996 – RCDEH noted violations due to absence of Business Plan, chemical inventory disclosure, emergency response plan, and improper labeling.
- RCDEH Supplemental Underground Storage Tank (UST) Official Inspection Report, dated October 24, 1996 – UST and pipeline not tested, no leak monitoring system and no inventory reconciliation. Records indicated last tank integrity test done on November 5, 1992. Dispenser must be calibrated.
- RCDEH Tank Integrity Test Report, dated November 18, 1996 - passed.
- RCDEH Business Emergency Plan Inspection Report, dated March 6, 1997 – facility requested that RCDEH exempt them from the disclosure requirement.
- Delinquent Account for RCDEH Underground Storage Tank UST permit for one underground tank, dated January 21, 1998.
- RCDEH UST Closure/Abandonment Application, dated March 9, 1998 – permit for removal of one 500 gallon diesel tank, steel construction.
- RCDEH Underground Storage Tank Closure Report, dated June 17, 1998 – one, 1,000 gallon diesel tank, no apparent holes.
- Tank Destruction Certificates, G&M Construction, dated July 7, 1998 – Plan Check No. 98-071, one 1,000 gallon diesel UST.

RCDEH records also contained a sampling report with analytical results of soils collected during UST removal, dated July 7, 1998, by G&M Construction. One sample was collected from a depth of 2 feet below the bottom of the middle of the UST excavation and one sample was collected from a depth of 6 feet. Both samples were tested for Fuel Hydrocarbons by Modified EPA Test Method 8015. Results were reported as "non-detect" for gasoline, mineral spirits, kerosene, diesel fuel and heavy hydrocarbons. RCDEH issued a "No Further Action" letter dated August 4, 1998. A copy of the soil sampling report, map of the former UST location, and the RCDEH letter is provided in Appendix B.

Carl's Jr. #724 (68980 E. Palm Canyon Drive)

County of Riverside Department of Environmental Health, Certified Unified Program Agency Hazardous Materials Management Permits were issued yearly for the restaurant from March 28, 2007 to March 31, 2016. The regulated activity was listed as "special handler." A February 29, 2008 Unified Program Consolidated, Business Activities form noted that the site is not an UST facility. A County of Riverside Department of Environmental Health (RCDEH) Change of Status form, dated February 23, 2004, reported the Carl's Jr. as a "new facility" and a "new permit." The purpose of the change of status was to identify a carbon dioxide tank within the restaurant (bulk liquefied, non-flammable compressed gas). A RCDEH

Hazardous Materials Disclosure Re-Inspection report, dated May 10, 2016, indicated that a previous violation for not providing training plan/procedures for the carbon dioxide tank was corrected.

Geophysical Survey

A geophysical survey of the subject site area, consisting of 7 parcels, took place on October 11 and 12, 2017. The first day survey consisted of the Carl's Jr. parcel at the northwest corner of Palm Canyon Drive and Date Palm Drive, and the Cathedral City Fire Station parcel at the southwest corner of Date Palm Drive and Buddy Rogers Avenue. The remainder of the contiguous parcels, located along Palm Canyon Drive, were surveyed the second day.

Interpretation of data took place in real time as each of the surveys progressed. Based upon these interpretations, anomalies were marked on the ground surface with spray paint for delineation and documentation. Ultimately, each delineation was marked and photographed. Explanation of the colored markings, photographs and radar images of each detected anomaly are included in Appendix A.

The area surveyed within the fire station parcel included the fenced parking area west of the building, as well as the asphalt-paved drive area outside the fencing to the west. Interpretation of data indicated that the anomalies detected were directly related to existing underground utilities. Based upon the absence of unusual anomalies detected on the fire station parcel, no delineation and colored surface markings were completed.

As expected on a commercially-developed site, multiple anomalies were detected within exterior areas of the Carl's Jr. parcel. Of note were at least six small manhole covers observed in the northeasterly portion of the parking lot, between the driveway entrance off Date Palm Drive and the drive-thru entrance; however, a few manholes were also observed along the west side of the parking spaces along Date Palm Drive, between the existing sewer lines, grease trap and northeast driveway entrance. A seventh isolated manhole cover was observed near the southwestern portion of the parcel, near an existing active sewer manhole. These manholes were labeled as either "water" or "sewer." Further assessment indicated one capped vertical pipe at each location. Where assessed, the pipes extending to a depth of approximately 18 feet below the ground surface, and no fluids were encountered at the time. Discussions with Mr. Ed Luna, maintenance personnel for the Carl's Jr. restaurant (onsite at the time), indicated that he was not aware of the purpose of these subsurface pipes, and he was not aware of a septic system ever being used by the restaurant. The purpose of these pipes is not known, but they may be remnants of a former septic system.

Also discovered during the survey of the Carl's Jr. site was a 40 foot by 28 foot rectangular-shaped anomaly in the southeastern portion of the parking lot. Historical aerial photographs indicated development of this intersection corner, from sometime before 1966 to sometime after 1972 and before 1978, was similar to that of a gasoline service station (Petra, 2017): however, our review of readily available agency records provided no verification. Based upon our interpretation of what appeared to be pump island canopies in aerial photographs, the ground penetrating radar anomaly found in the southeast corner of this site what is interpreted to possibly be a former underground storage tank backfill area.

Within the six contiguous vacant parcels fronting Palm Canyon Drive, nine electromagnetic and three ground penetrating radar anomalies were discovered. What appeared to be an irregularly-shaped feature was interpreted underlying the former footprint of the Goody's Restaurant. Interpretation of this feature suggests a possible concrete foundation. The remainder of anomalies was interpreted as junk piles, shallow junk pipe, metal debris and small concrete structures. A detailed description, interpretation and conclusions of the geophysical survey including color aerials and photographs are provided in Appendix A.

CONCLUSIONS AND RECOMMENDATIONS

Based upon geophysical survey results and our requests for a physical review of additional Regional Water Quality Control Board, Riverside County Department of Environmental Health, Cathedral City, and County of Riverside records pertaining to the seven parcels, no information is readily available that either confirms or denies the existence of former gasoline service stations, auto repair facilities, and/or underground fuel storage tanks within the subject parcels, except the following:

1. Riverside County Department of Environmental Health (RCDEH) records indicated that one 1,000 gallon diesel underground storage tank was installed within the Cathedral City Fire Department Station in 1975. The fire station, located at 36913 Date Palm Drive, Cathedral City, California 92234 is identified as APN 687-202-015. Analytical test results of soil samples collected from beneath the UST removal excavation (June 17, 1998) reported non-detect levels of petroleum hydrocarbons in the gasoline to heavy hydrocarbon range. No odors, staining and no apparent holes in the steel UST were noted. RCDEH provided a "no further action" letter regarding the UST abandonment removal on July 4, 1998. Based on this information, as well as the site receiving a "no further action" status from RCDEH, this site is not considered a recognized environmental condition at this time. No further assessment is recommended at this time.

2. Our interpretation of aerial photographs and historic agency database records (Petra, 2017) indicated that a gasoline service station more than likely existed at 68980 E. Palm Canyon Drive (APN 687-208-015) from at least 1966 to sometime after 1972 and before 1978. No agency records, however, were found pertaining to the historic station located at the northwest corner of Date Palm Drive and E. Palm Canyon Drive. The site has apparently been occupied by a Carl's Jr. Restaurant from at least 2004 to the present. Based upon the absence of permits and/or documents verifying the service station location and status of the underground fuel storage tanks, a geophysical

survey was undertaken on the parcel. Results of the survey (provided in Appendix A) suggested that a backfilled, former underground storage tank excavation was likely situated in the southeastern portion of the Carl's Jr. parking lot. Subsurface assessment of the possible former tank excavation is recommended to evaluate the potential for detectable levels of petroleum hydrocarbon soil residues to exist at elevated concentrations requiring remediation.

3. No agency records were found pertaining to the three remaining contiguous parcels east of Carl's Jr., along the north side of E. Palm Canyon Drive (APN's 687-208-022 through -026). Based upon the absence of permits and/or documents verifying the use of the properties and/or the existence of former underground/aboveground fuel storage tanks, a geophysical survey was undertaken on the parcels. Results of the survey (provided in Appendix A) found no anomalies suggesting a backfilled, former underground storage tank excavation within the parcels. From an environmental viewpoint, these parcels are not considered to represent a recognized environmental condition at this time. No further assessment is recommended at this time.

   The geophysical survey did, however, encountered buried concrete structures and/or debris within these five parcels, particularly APN 687-208-024 through -026. While it appears unlikely that these buried items represent recognized environmental conditions, it cannot be entirely precluded. As such, an experienced environmental consultant should monitor excavation and removal of these items. Any areas exposed during removal and/or rough grading exhibiting discolored soils or noxious odors should be left undisturbed until an experienced environmental consultant has conducted an evaluation of the soils for potential environmental conditions.

LIMITATIONS

The limited environmental scope of work described herein provided subsurface information regarding potential Recognized Environmental Conditions within the subject property. This information is a means to evaluate whether underground storage tanks or piping remain within the parcels from former gasoline stations and auto repair shops active in the 1960's and 1970's, delineation of former UST excavations, and location of future environmental borings as needed.

Since no environmental evaluation can wholly eliminate uncertainty regarding potential recognized environmental conditions, some uncertainty regarding potential recognized environmental conditions at the site may remain at the conclusion of this evaluation.

Respectfully submitted,

PETRA GEOSCIENCES, INC.

Edward Lump
Associate Geologist
PG 5975

Siamak Jafroudi, PhD
Senior Principal Engineer
GE 2024

12/22/17

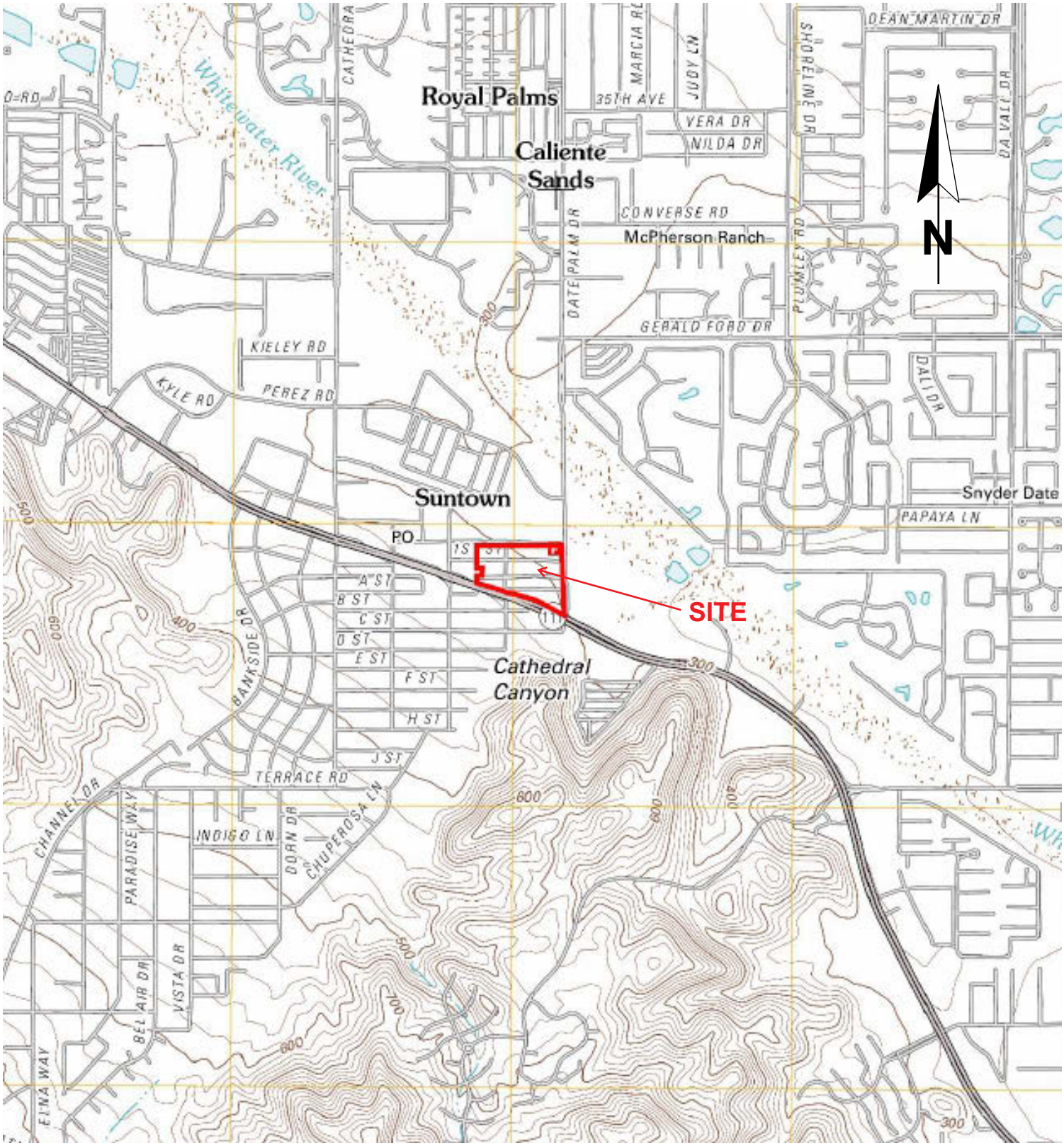
EL/JC/SJ/lv

Attachments: Figure 1 – Site Location Map
Figure 2 – Aerial Photograph of Subject Parcels
Appendix A – Geophysical Survey Results
Appendix B – RCDEH Records for Fire Station Parcel

Distribution: (1) Addressee (electronic)
(1) Mr. Dan Malcolm (electronic)

W:\2014-2019\2017\200\17-246 Agua Caliente (Hotel & Casino, Cathedral City)\Reports\17-246 550 Supplemental Phase II geophysical.docx

FIGURES



LEGEND

- Approximate Site Location

- Reproduced from USGS 2012, 7.5' Minute Quadrangle, Cathedral City, CA

PETRA GEOSCIENCES, INC.
40880 COUNTY CENTER DRIVE, SUITE R
TEMECULA, CALIFORNIA 92591
PHONE: (951) 600-9271
COSTA MESA MURRIETA PALM DESERT SANTA CLARITA

Site Location Map

Agua Caliente Band of Cahuilla Indians
Cathedral City, Riverside County, California

DATE: December 2017	J.N.: 17-246	**Figure 1**
DWG BY: epl	SCALE: NTS	



LEGEND

- Approximate Location of Geophysical Survey

- Base Map provided by Agua Caliente Band of Cahuilla Indians

PETRA GEOSCIENCES, INC.
40880 COUNTY CENTER DRIVE, SUITE R
TEMECULA, CALIFORNIA 92591
PHONE: (951) 600-9271
COSTA MESA MURRIETA PALM DESERT SANTA CLARITA

Site Location Map

Agua Caliente Band of Cahuilla Indians
Cathedral City, Riverside County, California

DATE: December 2017	J.N.: 17-246	**Figure 2**
DWG BY: epl	SCALE: NTS	

APPENDIX A

GEOPHYSICAL SURVEY RESULTS

SubSurface Surveys
An Applied Geophysical Company

2075 Corte Del Nogal, Suite W
Carlsbad, California 92011
Office: 760-476-0492
Fax: 760-476-0493

Petra Geosciences, Inc.
Attn: Ed Lump
40880 County Center Drive
Suite R
Temecula, California 92591

October 24th, 2017

Subject: Geophysical Survey
Multiple properties near intersection of
Date Palm Dr & US Hwy 111
Cathedral City, California

Project Number: 17-427

This report is to present the results of our geophysical survey carried over multiple properties located near the intersection of Date Palm Drive and US Highway 111 in Cathedral City, California (Figure 1), on October 11th and 12th, 2017. Purpose of the survey was to locate and identify, insofar as possible, the existence of any underground storage tanks (USTs), backfilled excavations, piping, conduit, and other buried features that may exist within all the accessible exterior portions of three separate properties designated in the field by the client.

A combination of electromagnetic induction (EM), magnetometry, and ground penetrating radar (GPR) were applied to the search. A utility locator with line tracing capabilities was also brought to the field and used where risers exist onto which a signal could be impressed and traced.



FIGURE 1 –Site Location Map (Map data ©2017 Google)

Survey Design – Although the survey objective was the same, the survey approach was different at each specific site.

Site 1 (Figure 2a): *Carls Jr, 68980 East US Hwy 111, Cathedral City, CA.*

The area to be surveyed for this site included all accessible exterior portions of the subject property.

The magnetic gradiometer, line tracer, EM61, M-Scope and GPR were systematically traversed in many directions over the entire property. Additional traverses were taken, access permitting, for detailing and confirmation where anomalous conditions were found. Multiple GPR profiles were also collected throughout the area and in specific areas for confirmation where other instruments detected anomalies. The line tracer was also used to trace out all detectable utilities in the area.

Because this was an active business a hard copy of the EM data was not acquired, that is, discrete readings on the nodes of a grid were not recorded that could be put into a contoured map format. Rather, the instruments' meters were read continuously, and in real-time, during each traverse. This free-traversing method allowed for immediate detection of anomalous objects and facilitated the opportunity to investigate them further, without first having to download data in the office. The lack of hard copy for EM data sets does not degrade the quality of the survey in any way.

The line tracers were used to impress signals onto pipes, generally through accessible risers and tracer wires when present, to delineate the lines' locations and orientations. The instruments were also used in passive mode, configured to detect 60 Hz electrical signals and other common radio-frequency signals.

Site 2 (Figure 2b): *Empty Lot, 68950 East Palm Canyon Drive, Cathedral City, CA.*

The area to be surveyed for this site included all accessible portions of the subject property sandwiched between Carls Jr, East Palm Canyon Drive and Dawes Street.

A rectilinear grid was established over this area to guide the acquisition of recorded data. It was a triangular grid measuring 380 feet wide and 170 feet long in its longest dimensions. The EM61 was then used to collect EM data at 0.66 foot intervals along south trending grid lines spaced 5.0-feet apart. This data was then downloaded for further analysis where anomalous conditions were encountered.

The magnetic gradiometer, line tracer, EM61, M-Scope and GPR were then traversed systematically in many directions over the area. Additional traverses were taken, access permitting, for detailing and confirmation where anomalous conditions were found. Multiple GPR profiles were also collected throughout the area and in specific areas for confirmation where other instruments detected anomalies. The line tracer was also used to trace out all detectable utilities in the area.

Site 3: *Cathedral City Fire Department Station #411, 36913 Date Palm Drive, Cathedral City, CA.*

The EM61 and GPR were traversed in a reconnaissance mode over all the accessible exterior portions of this property in attempts to locate and identify, insofar as possible, the existence of any underground storage tanks (USTs), and/or backfilled excavation candidates. If such candidates exist, then a full geophysical investigation would commence.

A Geonic's model EM61 and a Fischer M-Scope was used for the EM sampling. A Sensors and Software Noggin Ground Penetrating Radar unit with a 500 MHz antenna produced the radar images. The magnetic gradiometer was a Schonstedt GA-52, and a Metrotech 9890 and RIDGID SR-60 SeekTech utility locator rounded out the tools applied.

Brief Description of the Geophysical Methods Applied - The line locator is used to passively detect energized high voltage electric lines and electrical conduit (50-60 Hz), VLF signals (14-22 kHz), as well as to actively trace other utilities. Where risers are present, the utility locator transmitter can be connected directly to the object, and a signal (9.8-82 kHz) is sent traveling along the conductor, pipe, conduit, etc. In the absence of a riser, the transmitter can be used to impress an input signal on the utility by induction. In either case, the receiver unit is tuned to the input signal, and is used to actively trace the signal along the pipe's surface projection.

The EM61 and EM61MK2 instruments are high resolution, time-domain devices for detecting buried conductive objects. They both consists of a powerful transmitter that generates a pulsed primary magnetic field when their coils are energized, which induces eddy currents in nearby conductive objects. The decay of the eddy currents, following the input pulse, is measured by the coils, which in turn serve as receiver coils. The decay rate is measured for two coils, mounted concentrically, one above the other. By making the measurements at a relatively long time interval (measured in milliseconds) after termination of the primary pulse, the response is nearly independent of the electrical conductivity of the ground. Thus, the instruments are super-sensitive metal detectors. Due to its unique coil arrangement, the response curve is a single well-defined positive peak directly over a buried conductive object. This facilitates quick and accurate location of targets up to 12-feet below ground surface depending on target size.

Standard total-field magnetic surveying employs a small, portable magnetometer to measure changes in the Earth's total magnetic field intensity, and can detect variations as minute as 0.1 nanoTeslas (nT). Non-native buried ferrous objects will distort the Earth's magnetic field immediately around the object resulting in sudden spatial variations that deviate suddenly and unexpectedly from the Earth's normal background levels; and the location of these sudden distortions generally correspond to the location of the anomalous object. Note that USTs and other large metallic objects produce highly robust anomalies with amplitudes deviating up to 2000 nT above background and are thus relatively easy to locate with this geophysical method.

The magnetic gradiometer has two flux gate magnetic fixed sensors that are passed closely to and over the ground. When not in close proximity to a magnetic object, that is, only in the earth's field, the instrument emits a sound signal at a low frequency. When the instrument passes over a buried iron or steel object, so that locally there is a high magnetic gradient, the frequency of the emitted sound increases. The frequency is a function of the gradient between the two sensors.

The GPR instrument beams energy into the ground from its transducer/antenna, in the form of electromagnetic waves. A portion of this energy is reflected back to the antenna at a boundary in the subsurface across which there is an electrical contrast. The instrument produces a continuous record of the reflected energy as the antenna is traversed across the ground surface. The greater the electrical contrast, the higher the amplitude of the returned energy. The radar wave travels at a velocity unique to the material properties of the ground being investigated, and when these velocities are known, the two-way travel times can be converted to depth. The depth of penetration and image resolution produced are a function of ground electrical conductivity and dielectric constant, but generally averaged approximately 10-feet below ground surface.

The TW-6 M-Scope device energizes the ground by producing an alternating primary magnetic field with AC current in a transmitting coil. If conducting materials are within the area of influence of the primary field, AC eddy currents are induced to flow in the conductors. A receiving coil senses the secondary magnetic field

produced by these eddy currents, and outputs the response to a meter in the form of ground conductivity values for the M-Scope. The strength of the secondary field is a function of the conductivity of the object, say a pipe, tank or cluster of drums, its size, and its depth and position relative to the instrument's two coils. Conductive objects, to a depth of approximately 7-feet for the M-Scope are sensed. The devices are also somewhat focused; that is, they are more sensitive to conductors below the instrument than they are to conductors off to the side.

Interpretation and Conclusions – The interpretation took place in real time as the survey progressed, and accordingly, the findings of our investigation were marked on the ground cover with spray marking paint and further documented with two Google™ earth maps (Figures 2a and 2b); along with site photographs and radar images of each detected anomaly (Figures 3-50).

Piping and utilities detected during the survey were marked with spray marking paint on the ground cover using red for electric, yellow for gas, orange for communications (dark orange in graphics), green for sanitary sewer/storm drain, pink and white for lines of unknown utility type (dark pink in graphics), pink was also used for EM Anomalies (light pink in graphics), and orange was used for GPR Anomalies (light orange in graphics). Please note that green marking paint was used to delineate GPR Anomaly's #2, #3 and #4 for visualization purposes; however, light orange was used in all graphic pages.

There were 18 metallic anomalies and 4 non-metallic anomalies detected within the boundaries of the first two survey areas. Dimensions and characteristics are listed on the chart below.

EM	Figures	Dimension	~depth	Characteristics:	Possible object
1	3, 4	5' x 6'	Unknown	No definitive radar imagery	NA
2	5, 6	4' x 10'	1.0' to 3.0'	Flat and hyperbolic feature	Concrete + UST
3	7, 8	6' x 6'	2.0'	Hyperbolic feature	Junk pipe
4	9, 10	5' x 6'	1.5'	Hyperbolic feature	Merging pipes
5	11, 12	5' x 5'	1.0'	Subtle flat segment	Concrete
6	13, 14	7' x 4'	<1.0'	Small hyperbolic features	Shallow junk pipes
7	15, 16	5' x 4'	1.5' to 2.0'	Flat feature	Concrete
8	17, 18	9' x 3'	Unknown	No definitive radar imagery	NA
9	19, 20	12' x 10'	Unknown	Backfilled excavation-like feature	Debris pile
10	21, 22	4' x 3'	2.0'	Hyperbolic feature	Junk pipe
11	23, 24	4' x 3'	Unknown	No definitive radar imagery	NA
12	25, 26	4' x 9'	<1.0'	Near surface hyperbolic feature	Junk pipe
13	27, 28	2' x 4'	<1.0'	Small hyperbolic features	Shallow junk pipes
14	29, 30	3' x 4'	Unknown	No definitive radar imagery	NA
15	31-34	35' x 45'	1.0'	Flat underground feature	Concrete foundation
16	35, 36	4' x 4'	Unknown	No definitive radar imagery	NA
17	37, 38	4' x 9'	1.5'	Flat feature	Metal junk debris
18	39, 40	5' x 5'	1.5'	Hyperbolic features	Shallow junk pipes

GPR	Figures	Dimension	~depth	Characteristics:	Possible theory
1	41-44	40' x 28'	Unknown	Backfilled excavation-like	Former tank hold
2	45, 46	7' x 7'	2.0'	Non-metallic flat feature	Concrete structure
3	47, 48	7' x 7'	2.0'	Non-metallic flat feature	Concrete structure
4	49, 50	7' x 7'	2.0'	Non-metallic flat feature	Concrete structure

Although it is possible that any localized underground metallic object could be a potential candidate for a UST, the use of geophysical instrumentation can potentially limit and/or rule out these anomalous conditions. As can be seen on the chart above, most EM Anomalies were likely attributed to near surface junk piping. In some cases the underground metallic object associated with each EM Anomaly is not definitive on the radar system so the object itself is unknown aside from its known metallic content. This was the case for EM Anomalies #1, #8, #11, #14 and #16. There was one candidate anomaly; however, that possessed both metallic content along with a hyperbolic feature at a common depth, 3.0 feet, to an underground storage tank, EM Anomaly #2. It should be noted however, that the EM and magnetic instruments may have been responding to a near surface flat layer viewed at approximately 1.0' to 1.5' bgs. If this near-surface underground feature does indeed possess metal, and is the true cause of the high EM response, then it might be less likely that the 3.0 foot deep hyperbolic feature is metallic as well.

There were four radar anomalies detected within the boundaries of the survey. GPR Anomaly #1 possessed backfilled excavation-like characteristics and contains no metal with its boundaries. Based on information along with historical figures provided in the field by the client, this was the most likely locale for former underground storage tanks. Numerous traverses were taken around the Carls Jr property and this was the best backfilled excavation candidate.

The other three non-metallic anomalies were located on adjacent empty lot (GPR Anomalies #2, #3 and #4). Each of these anomalies possessed the same reflective characteristic at approximately 2.0 feet bgs. Although these anomalies do not contain metal, and it is most likely a concrete pad, it is still recommended that ground truthing be performed by Petra Geosciences to determine the cause of this reflective layer.

It should be noted that there was no detected geophysical evidence for an existing underground storage tank or a backfilled excavation at the Cathedral City Fire Department Station #411.

Limitations and Further Recommendations - It should be understood that limitations inherent in geophysical instruments and/or surveying techniques exist at all sites, and nearly all sites exhibit conditions under which instruments might not perform optimally. Consequently, the detection of buried objects in all circumstances **cannot be guaranteed**. Such limitations are numerous and include, but are not limited to, rebar-reinforced ground cover, abrupt changes in ground cover type, above-ground obstacles preventing full traverses or traverses in one direction only, above-ground conductive objects interfering with instrument signal, nearby powerlines or EM transmitters, highly conductive background soil conditions, limiting GPR penetration, non-metallic targets, shallower or larger objects shielding deeper or smaller targets, tracing signal jumping from one line to another, and inaccessible risers, cleanouts, valve boxes, and manholes. If one or more geophysical instrument is rendered ineffective and cannot be utilized, the quality of the survey can be somewhat degraded.

For the above reasons, and in the interest of maximum safety, we encourage our clients to take advantage of Underground Service Alert (USA), Dig Alert, or other similar services, when possible. Furthermore, we recommend hand-auguring and the use of a drilling method known as air knifing and vacuum extraction, when feasible or if applicable to this project. These methods may significantly limit damage to underground pipes, conduits, and utilities that might not have been detectable during the course of this survey. Please bear in mind,

that geophysical surveying is only one of several levels of protection that is available to our clients.

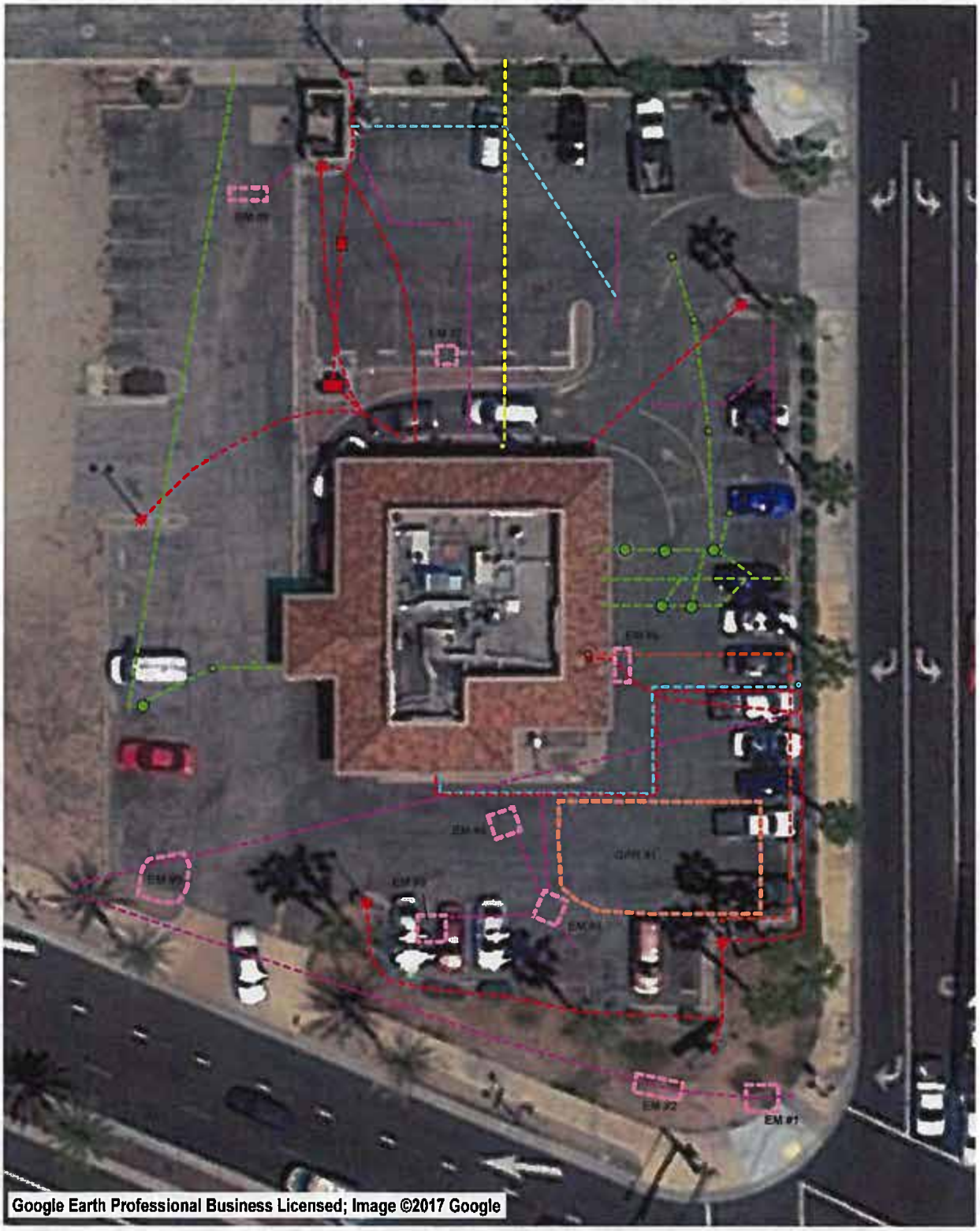
SubSurface Surveys may include maps in some reports. While they are an accurate general representation of the site and our findings, they are not of engineering quality (i.e., measured and mapped by a licensed land surveyor).

SubSurface Surveys and Associates makes no guarantee either expressed or implied regarding the accuracy of the findings and interpretations present. And, in no event will SubSurface Surveys and Associates be liable for any direct, indirect, special, incidental, or consequential damages resulting from interpretations and opinions presented herewith.

All data acquired in these surveys are in confidential file in this office, and are available for review by your staff, or by us at your request, at any time. We appreciate the opportunity to participate in this project. Please call, if there are questions.

Bret Herman
Staff Geophysicist

Travis Crosby, GP# 1044
California State Geophysics Registration GP1044
Senior Geophysicist, SubSurface Surveys



Sub Surface Surveys	SITE: Date Palm & Hwy 111 Cathedral City, California	TITLE: Site Interpretation Map A	DATE: October 11th and 12th, 2017
		PREPARED FOR: Petra	SSS PROJECT NO: 17-427

LEGEND:

- unknown line
- water line
- electric line
- gas line
- telephone line
- sewer/drain line
- EM Anomaly
- GPR Anomaly
- light standard
- electric riser/box
- water riser
- gas riser
- comm. riser

SCALE 0 ~30ft

FIGURE 2a



Sub Surface Surveys	SITE: Date Palm & Hwy 111 Cathedral City, California	TITLE: Site Interpretation Map B	DATE: October 11th and 12th, 2017
		PREPARED FOR: Petra	SSS PROJECT NO.: 17-427

LEGEND:

- unknown line
- water line
- electric line
- gas line
- telephone line
- contour lines
- water box
- electric box
- EM Anomaly
- GPR Anomaly

EM-61 GRID
Contour Interval = 50 mVolts

SCALE
0 ~47ft

FIGURE 2b

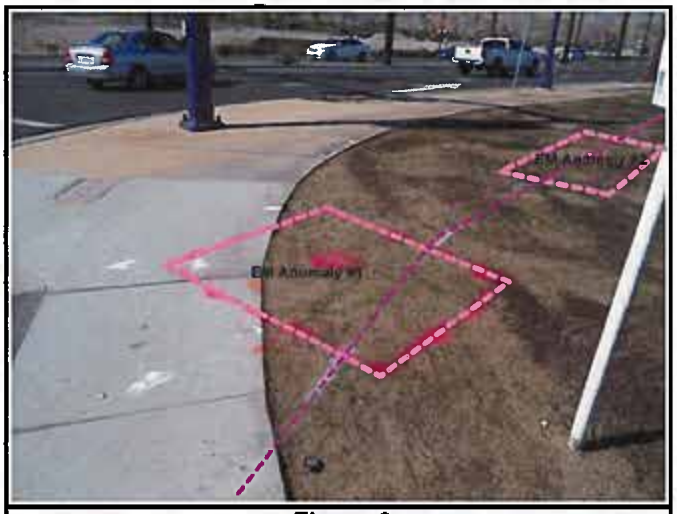


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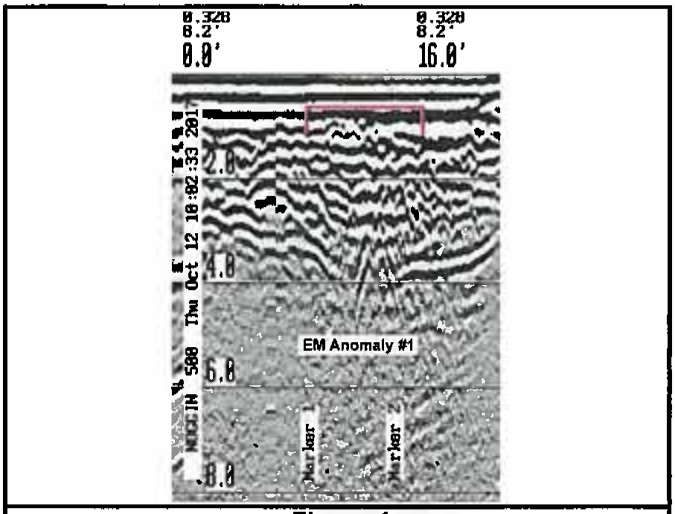


Figure 4



Figure 5

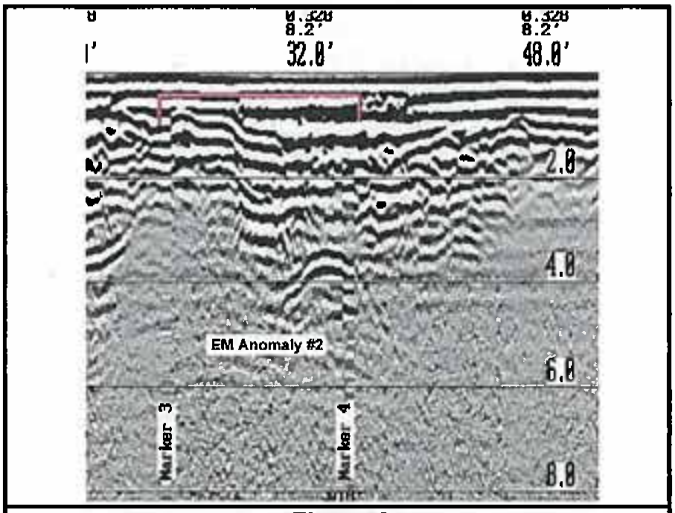


Figure 6



Figure 7

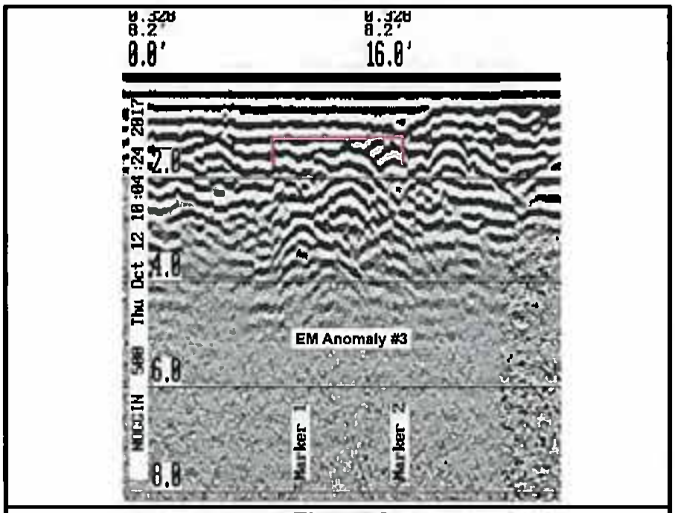


Figure 8

Sub Surface Surveys	SITE: **Date Palm & Hwy 111** **Cathedral City, California**	TITLE: **Site Photographs and Radar Images**	SURVEY DATE: **October 11th and 12th, 2017**
		PREPARED FOR: **Petra**	SSS PROJECT NO: **17-427**

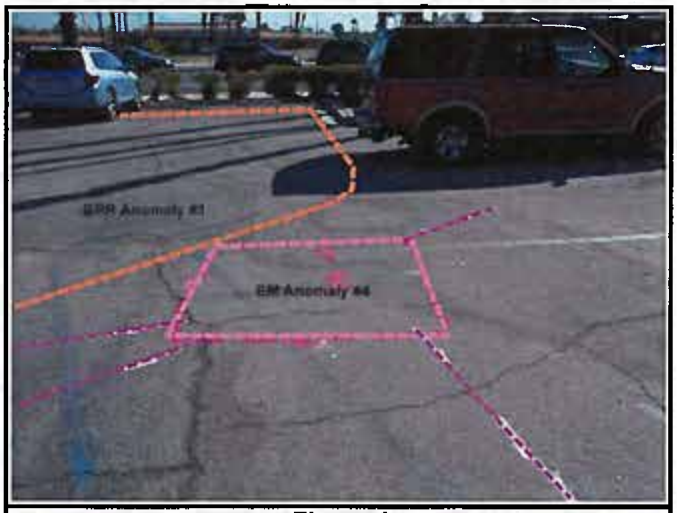


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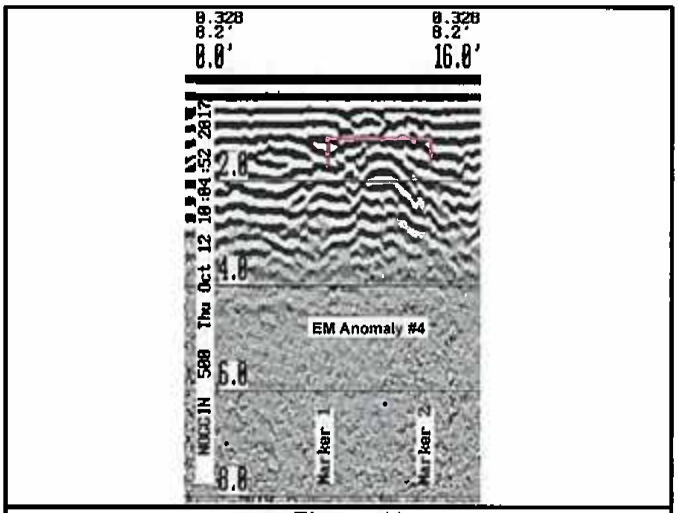


Figure 10

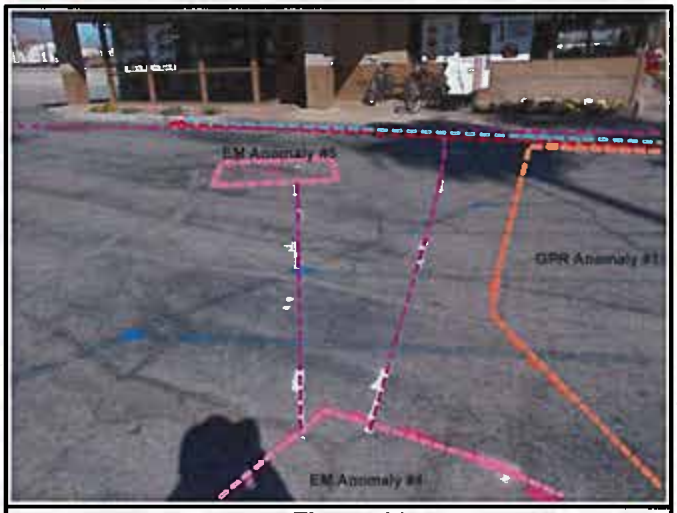


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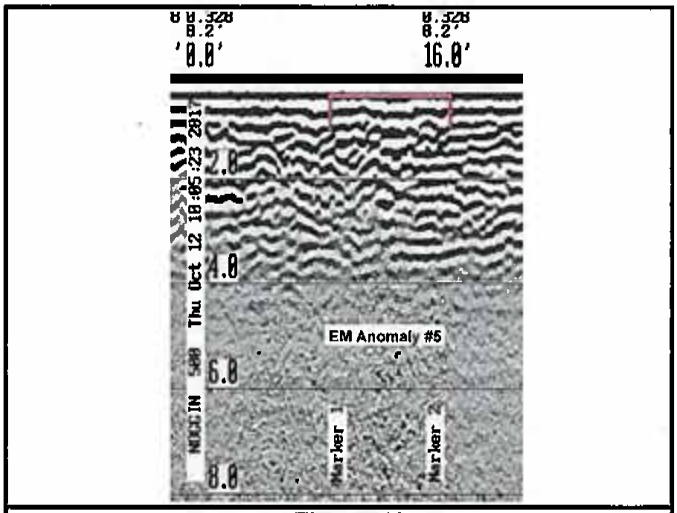


Figure 12



Figure 13

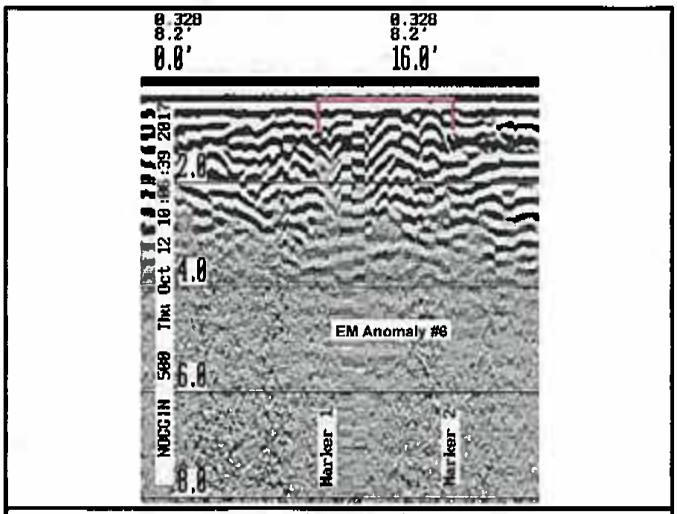


Figure 14

Sub Surface Surveys	SITE: **Date Palm & Hwy 111** **Cathedral City, California**	TITLE: **Site Photographs and Radar Images**	SURVEY DATE: **October 11th and 12th, 2017**
		PREPARED FOR: **Petra**	SSS PROJECT NO: **17-427**

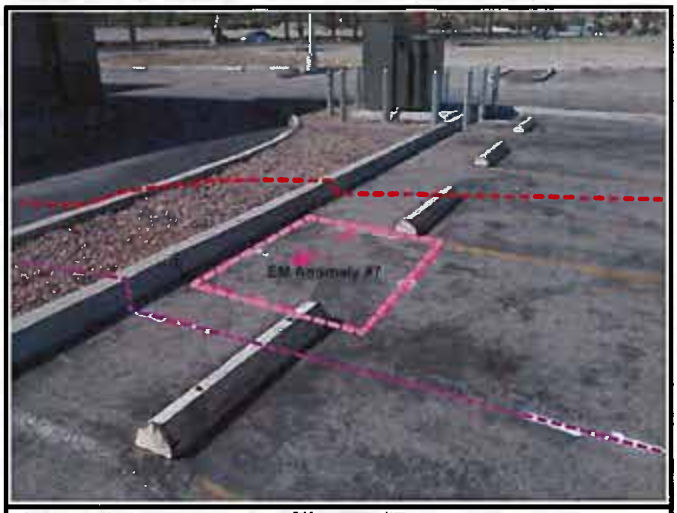


Figure 15

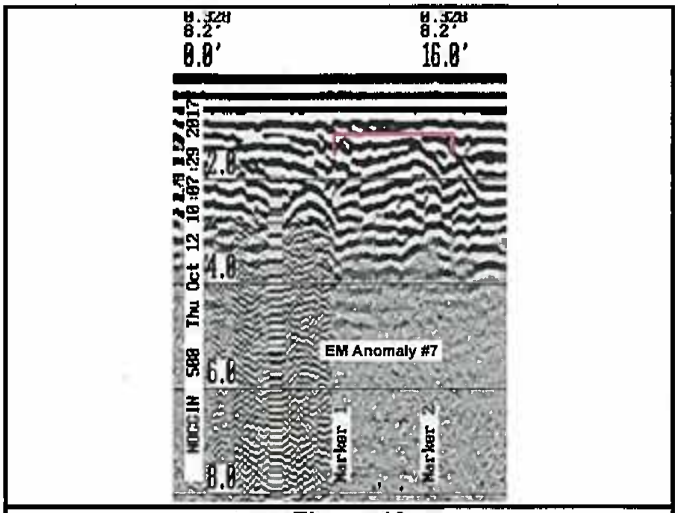


Figure 16



Figure 17

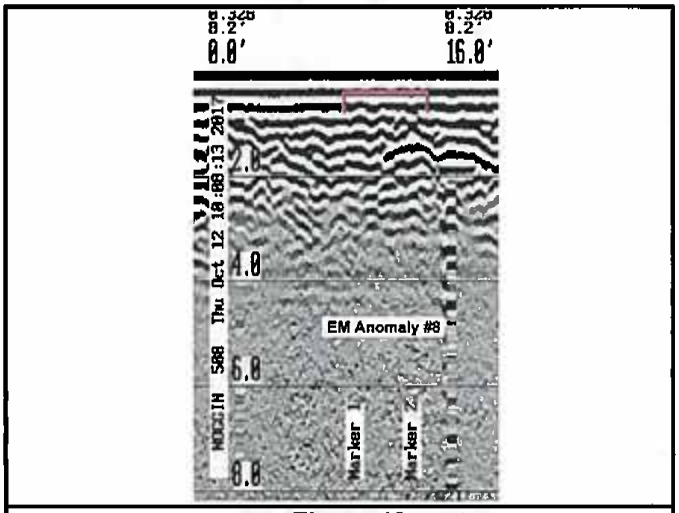


Figure 18



Figure 19

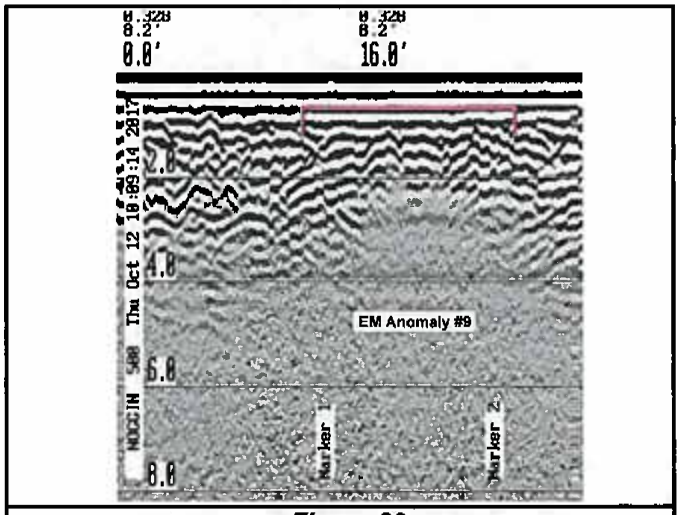


Figure 20

Sub Surface Surveys	SITE: Date Palm & Hwy 111 Cathedral City, California	TITLE: Site Photographs and Radar Images	SURVEY DATE: October 11th and 12th, 2017
		PREPARED FOR: Petra	SSS PROJECT NO: 17-427



Figure 21

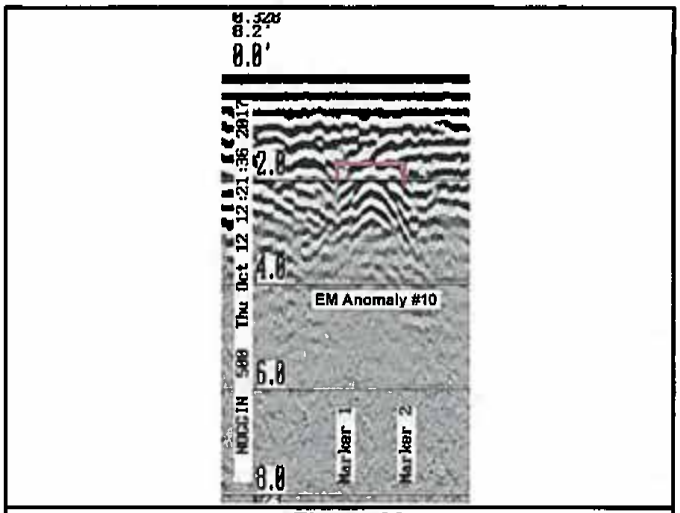


Figure 22



Figure 23

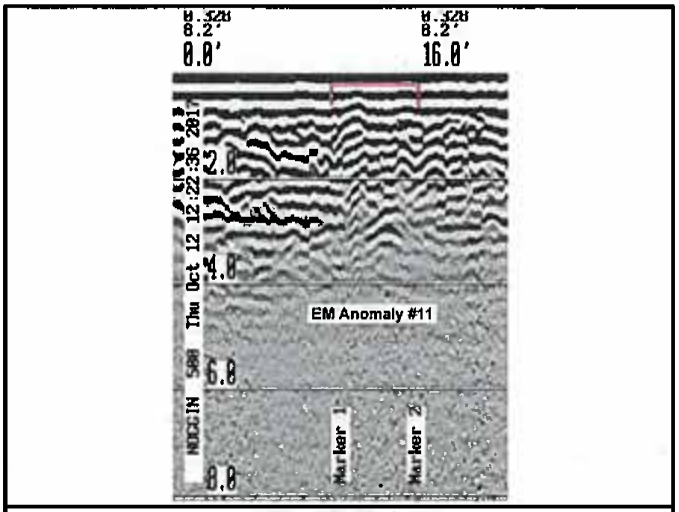


Figure 24



Figure 25

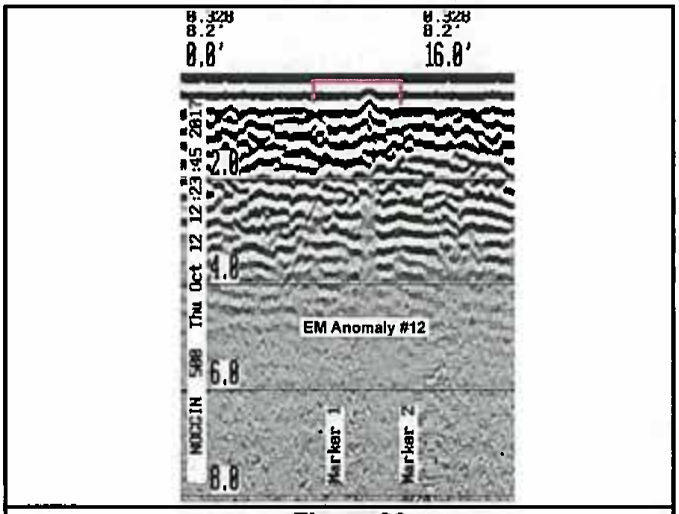


Figure 26

Sub Surface Surveys	SITE: Date Palm & Hwy 111 Cathedral City, California	TITLE: Site Photographs and Radar Images	SURVEY DATE: October 11th and 12th, 2017
		PREPARED FOR: Petra	SSS PROJECT NO: 17-427



Figure 27

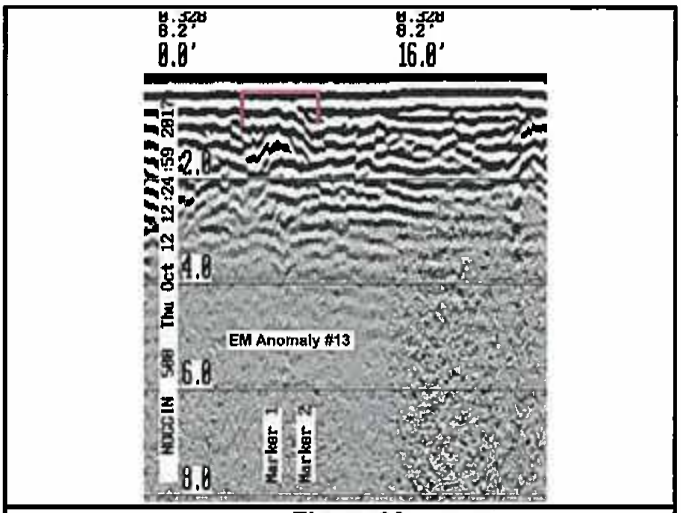


Figure 28



Figure 29

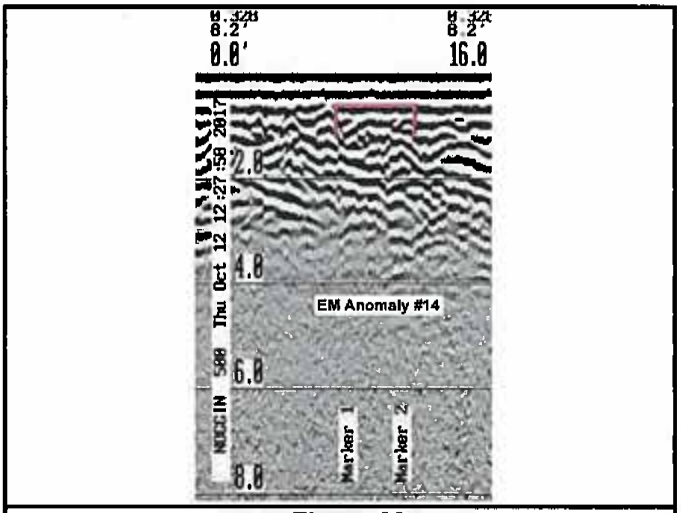


Figure 30



Figure 31



Figure 32

Sub Surface Surveys	SITE: Date Palm & Hwy 111 Cathedral City, California	TITLE: Site Photographs and Radar Images	SURVEY DATE: October 11th and 12th, 2017
		PREPARED FOR: Petra	SSS PROJECT NO: 17-427



Figure 33

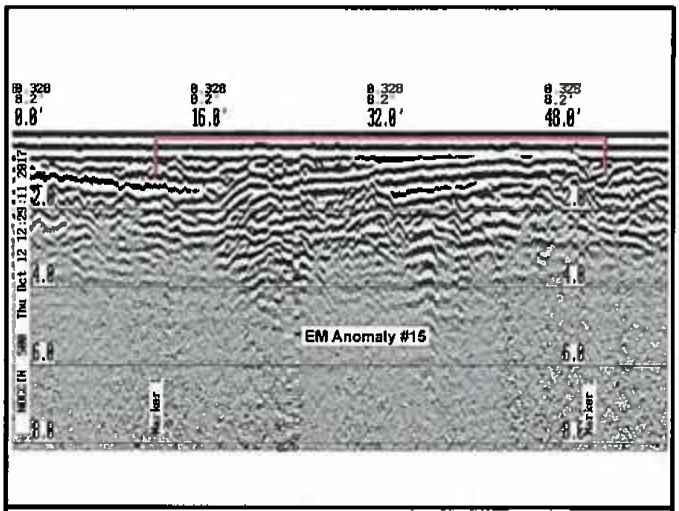


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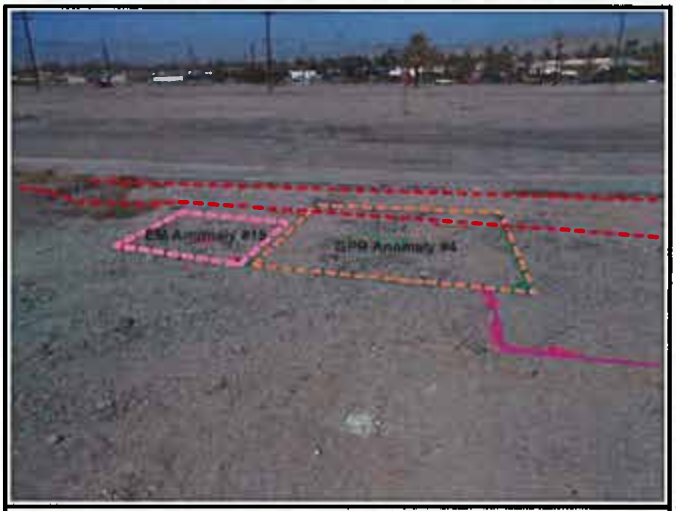


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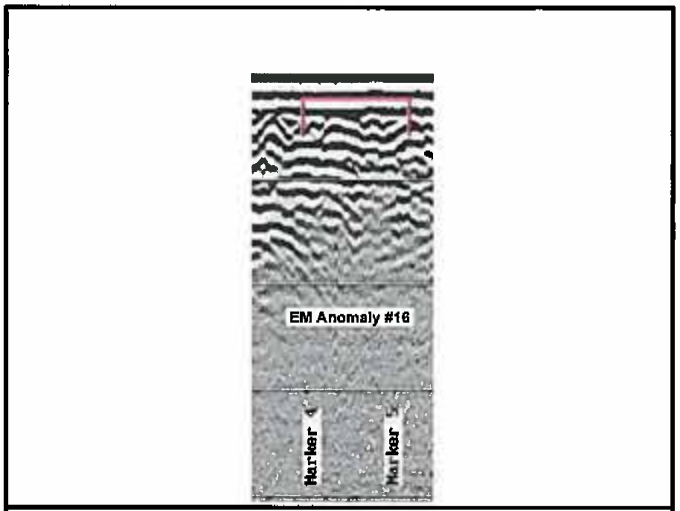


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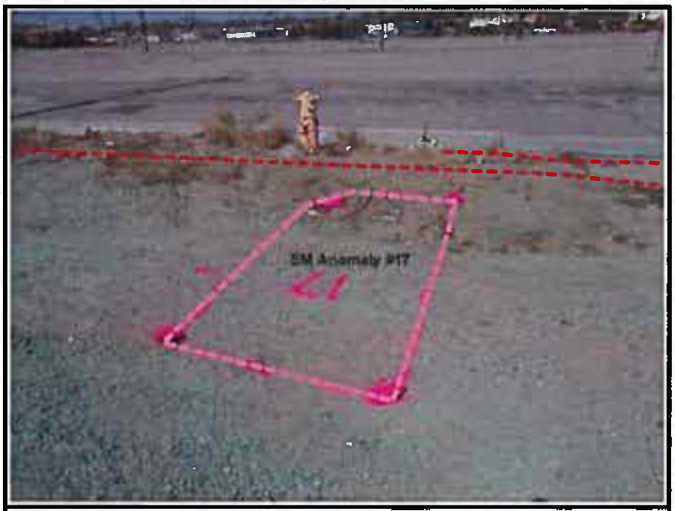


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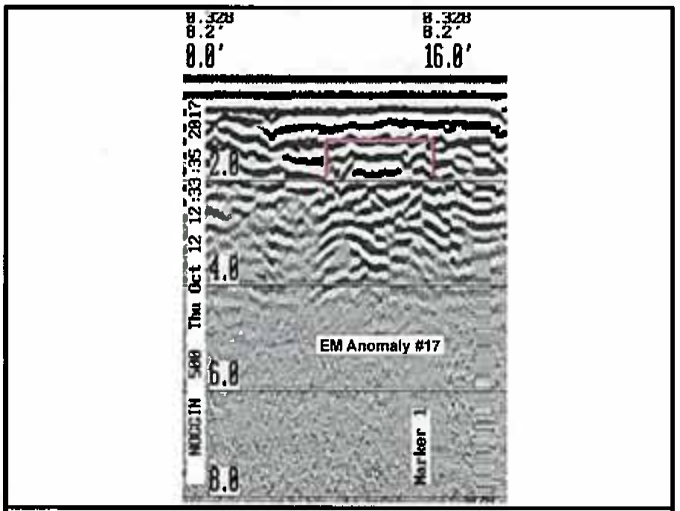


Figure 38

Sub Surface Surveys	SITE: Date Palm & Hwy 111 Cathedral City, California	TITLE: Site Photographs and Radar Images	SURVEY DATE: October 11th and 12th, 2017
		PREPARED FOR: Petra	SSS PROJECT NO: 17-427



Figure 39

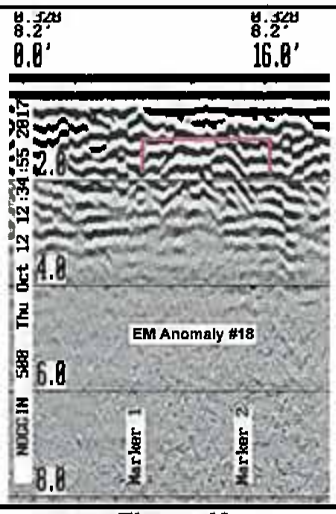


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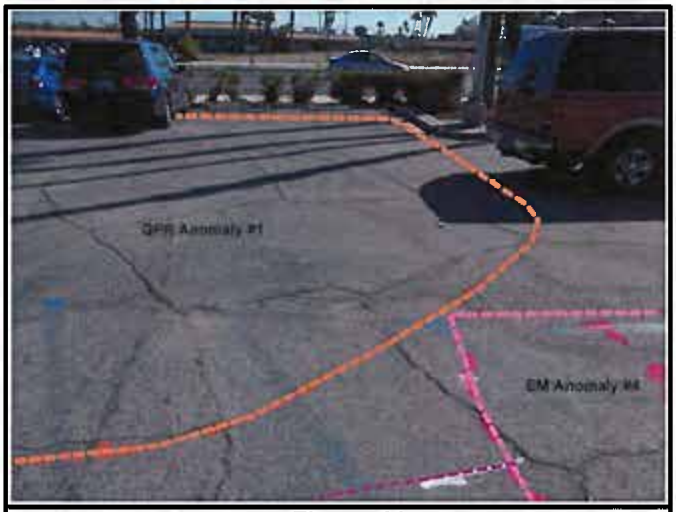


Figure 41



Figure 42



Figure 43

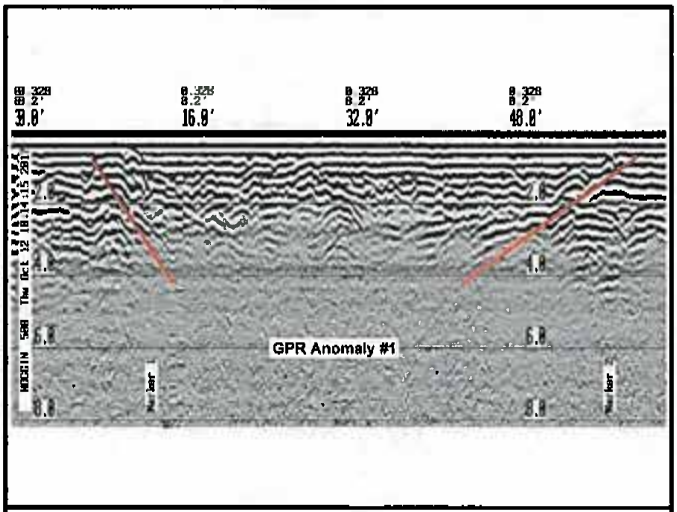


Figure 44

Sub Surface Surveys	SITE: Date Palm & Hwy 111 Cathedral City, California	TITLE: Site Photographs and Radar Images	SURVEY DATE: October 11th and 12th, 2017
		PREPARED FOR: Petra	SSS PROJECT NO: 17-427



Figure 45

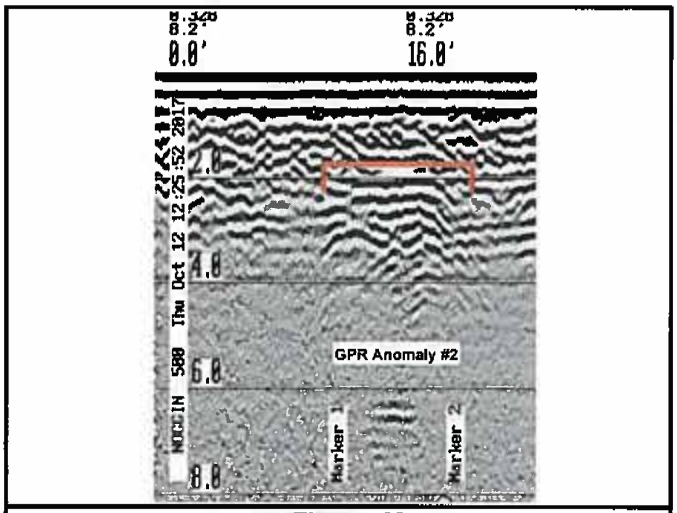


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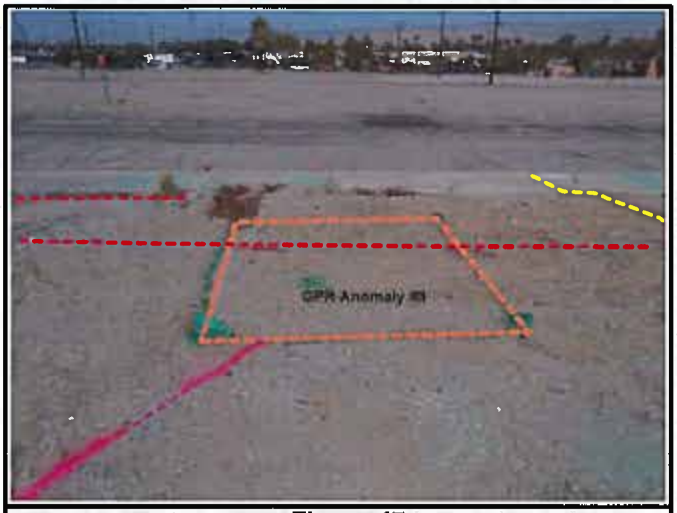


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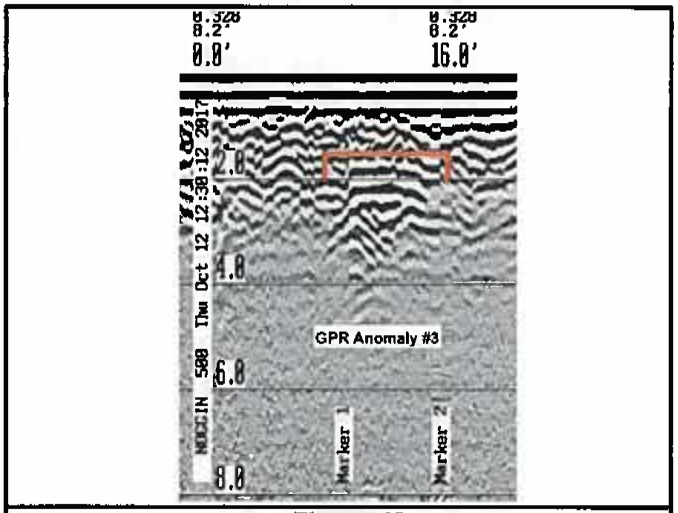


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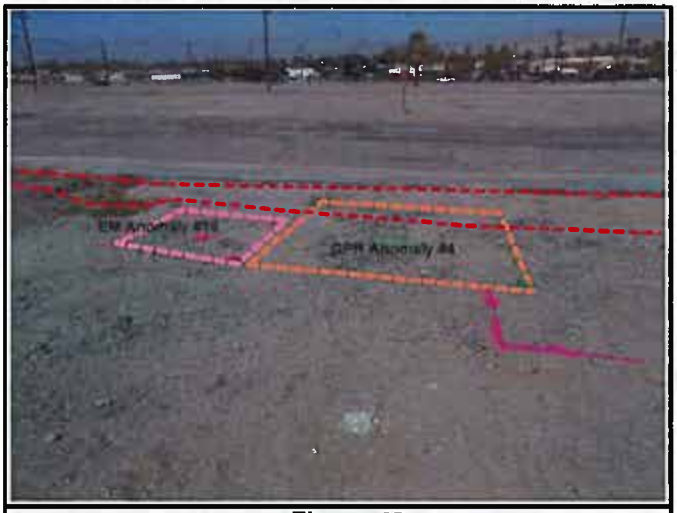


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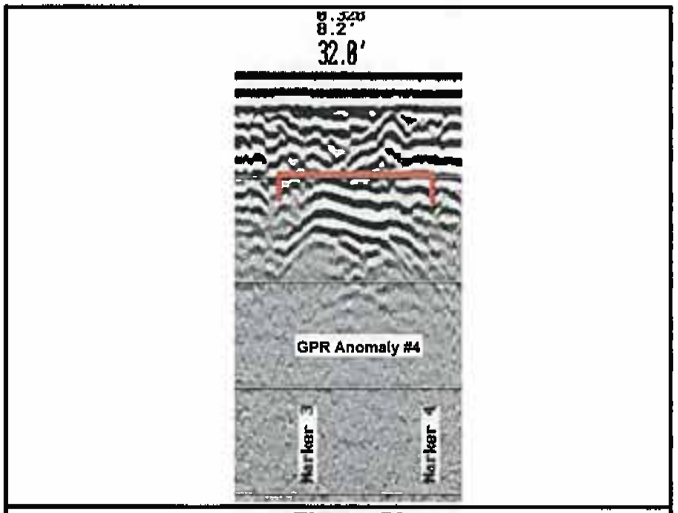


Figure 50

Sub Surface Surveys	SITE: Date Palm & Hwy 111 Cathedral City, California	TITLE: Site Photographs and Radar Images	SURVEY DATE: October 11th and 12th, 2017
		PREPARED FOR: Petra	SSS PROJECT NO: 17-427

APPENDIX B

RCDEH RECORDS FOR FIRE STATION PARCEL

G & M CONSTRUCTION

Subsidiary of Happy Traveler
211 West Mesquite Avenue
Palm Springs, California 92264
(760) 322-6918
Fax (760) 778-6708

Fed. ID #95-2417032

Lic. #A-272619

General Engineering • Grading • Pipeline • Hazardous Waste • Asbestos • Demolition

July 7, 1998

Riverside Cty. Environmental Health
Hazardous Materials Dept.
47-923 Oasis, Suite E-4
Indio, CA 92201

Attention: Brad Ballen
Regarding: Soil Sample Analyzation Results
Cathedral City Fire Department
Plan Check: #98-071

Enclosed please find Soil Sample Analyzation Results from the above mentioned project for your review and recommendation.

Upon receipt of "Gas Free" and Tank Destruction Certificates, I will forward them to you.

Thank you,

Michael Marantz
G & M Construction

cc. Cathedral City Fire Department
Mike Youngberg

WEST COAST
ANALYTICAL
SERVICE, INC.
Analytical Chemists

June 23, 1998

G & M CONSTRUCTION
211 West Mesquite Avenue
Palm Springs, CA 92264

Attn: Mike Marantz

Job No: 38461 S

LABORATORY REPORT

Samples Received: Two (2) Soil Samples
Date Received: 06/18/98
Purchase Order No: VERBAL-MIKE MARANTZ
Project Name: CC Fire-STA# 411

The samples were analyzed as follows:

Analysis	Page
Fuel Hydrocarbons by Modified EPA 8015	2 - 3

Enclosure: Sample Receipt Form

Charles Jacks, Ph.D.
Senior Staff Chemist

B. Michael Hovanec
Senior Staff Chemist

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9840 Alburtis Avenue • Santa Fe Springs, CA 90670 • 562•948•2225 • FAX 562•948•5850 • http://www.wcaslab.com

WEST COAST ANALYTICAL SERVICE, INC.

G & M CONSTRUCTION
Attn: Mike Marantz

Job No: 38461
June 23, 1998

LABORATORY REPORT

Fuel Hydrocarbons by Modified EPA 8015
(LUFT Manual, April 1989)

Parts Per Million (mg/kg)

Sample ID	C5-C10 Gasoline	C7-C12 Mineral Spirits	C7-C15 Kerosene	C10-C20 Diesel Fuel	C20-C35 Heavy Hydrocarbons
1	ND	ND	ND	ND	ND
2	ND	ND	ND	ND	ND
Method Blank	ND	ND	ND	ND	ND
Detection Limit	10	10	10	10	100

Date Analyzed: 06/18/98

This report is to be reproduced in its entirety.

WCAS

County of Riverside Health Services Agency
Department of Environmental Health
Hazardous Materials Management Division
Underground Storage Tank Closure Report

(11)

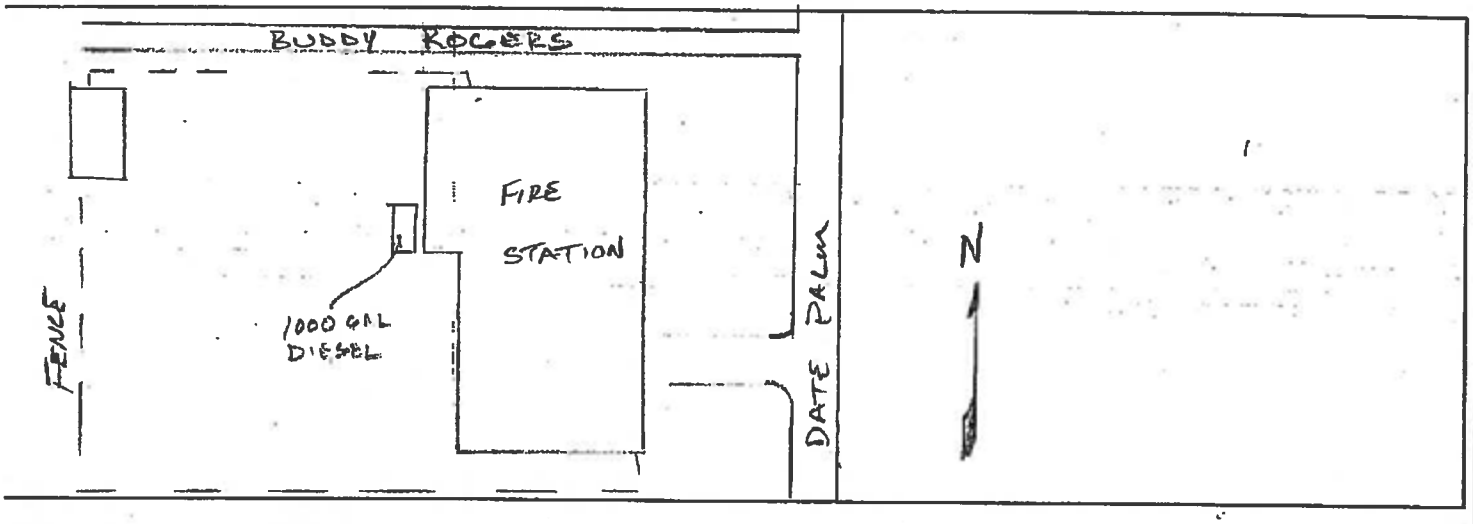
Facility Name CATHEDRAL CITY FIRE DEPT. Date 6/17/98
Facility Address 36913 DATE PALM DR. Plan Check # 98-071
Facility Contact Person MIKE YOUNGBERG Phone Facility # 32796
Contractor C & M CONST Phone # of Tanks Closed 1
HMMS Personnel BALLEN # of Tanks Remaining 0

REMOVAL

Tank #	Size	Contents	Appearance (Integrity)
001	1000	DIESEL	NO APPARENT HOLES

UST(s) Rinsed 50 GAL
Rinsate Manifest # 97329390
Destination of Rinsate DEMENO KERDOON
Hazardous Waste Hauler ECI
UST(s) Inerted 10 LBS DRY ICE
Destination of UST(s) ERICKSON
Certificate of Destruction Requested YES

FACILITY MAP



SAMPLING INFORMATION

Tank #	Sample #	Depth	Description	Analysis
1	001	2'	MIDDLE	8015 DIESEL 8020
1	002	6'	MIDDLE	"

Depth to UST bottom 7'-0"
Depth to groundwater N/A
Samples sealed and chilled YES
Chain of Custody YES
CA Certified Lab WEST COAST
Status of excavated materials BACKFILLED
URR Issued NO
Referred to LOP NO

ADDITIONAL COMMENTS: NO ODERS OK

SOIL STAINING

COUNTY OF RIVERSIDE • HEALTH SERVICES AGENCY
DEPARTMENT OF ENVIRONMENTAL HEALTH

August 4, 1998

Mr. Michael Youngberg
Cathedral City Fire Department
P.O. Box 5001
Cathedral City, CA 92235-5001

Re: Underground Storage Tank Closure Plan Check #98-071 for
1 tank at 36913 Date Palm Drive, Cathedral City, CA 92234.

Dear Mr. Youngberg:

This letter confirms the completion of the underground storage tank closure of 1 tank at the above site. Based on the assumption that the information provided to this agency was accurate and representative of the existing conditions, it is the position of this office that no further action is required at this time.

Please be advised that this letter does not relieve you of any liability under the California Health and Safety Code or Water Code for past, present, or future operations at the site. Nor does it relieve you of the responsibility to clean up existing, additional or previously unidentified conditions at the site, which cause or threaten to cause pollution or nuisance or otherwise pose a threat to water quality or public health.

If you have any questions regarding this matter, contact this office at (760) 863-8976.

Sincerely,

Bradley Ballen
Hazardous Materials Specialist III

cc: file LDS

John M. Fanning, Director
4065 County Circle Drive • Riverside, CA 92503 • Phone (909) 358-5316 • FAX (909) 358-5017
(Mailing Address – P.O. Box 7600 • Riverside, CA 92513-7600)

printed on recycled paper

NORTH SITE – SECOND PHASE OF PHASE II

February 12, 2018
J.N. 17-246

AGUA CALIENTE BAND OF CAHUILLA INDIANS
5401 Dinah Shore Drive
Palm Springs, California 92264

Attention: Ms. Margaret Park

Subject: **Second Phase of Limited Phase II Environmental Evaluation; *Fee to Trust Application*, 68980 E. Palm Canyon Drive, APN's 687-208-015, Cathedral City, Riverside County, California 92234**

References: See Attached List

Dear Ms. Park:

As requested, **Petra Geosciences, Inc. (Petra)** is submitting the results of the second phase of a Limited Phase II Environmental Evaluation on the parcel at 68980 E. Palm Canyon Drive (Highway 111), Cathedral City, California. The purpose of this second phase was to evaluate the potential for detectable concentrations of petroleum hydrocarbon residues to exist is soils associated with a former service station underground storage tank pit identified at the northwest corner of Palm Canyon Drive and Date Palm Drive, in Cathedral City, California (Figure 1).

Brief Site Location and Description

The subject property, located at 68980 E. Palm Canyon Drive, Cathedral City, California is occupied by a Carl's Jr. Restaurant. The property is identified by Riverside County Assessor's Parcel Number (APN) 687-208-015. The roughly rectangular-shaped parcel is comprised of a single-story fast-food restaurant in the southern half of the site. A drive-thru isle is located along the north and west sides of the building. The remainder of the property is asphalt paved drive isles and parking. Landscape vegetation is situated along the east property boundary with Date Palm Drive, and along the south boundary with Palm Canyon Drive. Dawes Street is located along the north edge of the parcel. Vacant parcel APN 687-208-022 is located to the west.

According to the Division of Oil, Gas, and Geothermal Resources (DOGGR) Online Mapping System (2017), the site is located within Section 33, of Township 05 South, Range 05 East, within the San Bernardino Base and Meridian. A United State Geological Survey (USGS) topographic map of the Cathedral City Mirage 7.5-Minute Quadrangle (2012) indicates that the site slopes in a northerly direction.

Information provided on the topographic map indicate elevations onsite range from 300± feet to 320± feet above mean sea level (msl). A site location map is included as Figure 1.

Background

Petra completed a Phase I Environmental Site Assessment (ESA) on a 13.6 acre property in Cathedral City, bounded by Palm Canyon Drive on the south, Date Palm Avenue on the east, and Buddy Rogers Avenue on the north (Petra, 2017a). Five former and one current occupant of the overall property were identified during our Phase I ESA as either historic gasoline stations and/or vehicle repair shops, and an existing fire station, where records indicate or suggest underground storage tanks (USTs) were present, and where the potential existence for petroleum hydrocarbon-based soil and/or soil vapor residues may be detected cannot be entirely precluded.

One of the sites, Palm Springs Oil #9, 68830 Palm Canyon Drive (APN 687-205-005), was identified as a former LUST case where soil vapor extraction remediation reportedly removed most of the subsurface contamination. The case was closed in 2006 by the County of Riverside with hydrocarbon soil vapors left in-place at a depth of approximately 48 feet. The site was closed with no restrictions to redevelopment. This site is considered a HREC. At this time, however, no further assessment is recommended.

The six sites were identified as Potential Recognized Environmental Concerns (PRECs). Based upon interpretation of aerial photographs and the address listed in the U.S. Environmental Protection Agency's Facility Index System/Facility Registry System (FINDS) database, the Carl's Jr. restaurant site was likely a gasoline service station which existed at 68980 E. Palm Canyon Drive (APN 687-208-015) from at least 1966 to sometime after 1972 and before 1978 (Petra, 2017a).

Three of the sites within the property were identified as EDR Historic Auto Stations: Pyles Robert (service station), 68904 Palm Canyon Drive (APN 687-205-024, -025 and -026); Bob's Choice Cars, 68920 E. Palm Canyon Drive (APN 687-205-023); and Auto Truck Repair, 68930 E. Palm Canyon Drive (APN 687-208-022). One of the sites, Bob's Choice Cars and Auto Truck Repair were also listed in the EDR City Directory Search (Petra, 2017a). The Existing Cathedral City Fire Station (36913 Date Palm Drive [APN 687-202-015]) was reported to contain a 1,000 gallon diesel UST from 1975 to at least 1988. Based solely upon interpretation of aerial photographs, the sixth site is considered likely a gasoline service station which existed at 68980 E. Palm Canyon Drive (APN 687-208-015) from at least 1966 to sometime after 1972 and before 1978. No regulatory oversight agency database records were found for these four

former and one active onsite facilities indicating removal of USTs or cleanup of soil residues. As a result, these sites are considered potential REC's (Petra, 2017a).

Petra recommended, therefore, an initial Phase II Environmental Evaluation to ascertain whether USTs and/or piping remain buried within the five aforementioned properties, as well as to aid in evaluating potential environmental boring locations. The first phase of environmental evaluation included geophysical surveys within the five potential REC sites. Results of the initial Phase II Environmental Evaluation are provided in a separate report by Petra, dated December 2, 2017.

In addition to numerous underground utility conduits, and what may be remnants of a former septic system discovered during the survey of the Carl's Jr. site (68980 E. Palm Canyon Drive), was a 40 foot by 28 foot rectangular-shaped anomaly in the southeastern portion of the parking lot. Historical aerial photographs indicated development of this intersection corner, from sometime before 1966 to sometime after 1972 and before 1978, was similar to that of a gasoline service station (Petra, 2017a); however, our review of readily available government and/or regulatory agency records provided no verification. Based upon interpretation of what appeared to be pump island canopies in aerial photographs, the ground penetrating radar anomaly found in the southeast corner of this site was interpreted to possibly be a former underground storage tank backfill area (Petra, 2017b).

As a result, Petra conducted subsurface exploration in the geophysical anomaly area to evaluate soils associated with the former gasoline service station at the Carl's Jr. Restaurant parcel (Figure 1). Soil samples collected from the borings were analyzed to assess the potential for detectable levels of petroleum hydrocarbon soil residues to exist at elevated concentrations within what is likely considered the former service station's UST excavation (Petra, 2017b).

Environmental Setting

The following section provides a limited overview of the regional and local geologic setting and includes information pertaining to groundwater conditions in the vicinity of the subject site. Geotechnical hazard information (faults, landslides, etc.) is not part of this assessment. This section does not constitute a geotechnical evaluation of the subject site and should not be taken as such.

Geology

A regional geologic map of the subject property and vicinity maps the majority of the site as being underlain predominantly by Late Holocene Alluvial Wash Deposits and Holocene to late Pleistocene Young Alluvial Fan Deposits (Lancaster, Hayhurst & Bedrossian, 2012). Alluvial Wash deposits, mapped over half of the

site, are described as unconsolidated sandy and gravelly sediment deposited in recently active channels of streams and rivers. Alluvial Fan deposits are described as unconsolidated to slightly consolidated, undissected to slightly dissected boulder, cobble, gravel, sand, and silt deposits issued from a confined valley or canyon.

Soils encountered in the 3 borings placed within the subject property were found to consist of predominantly light brown, slightly moist, silty fine- to coarse-grained sand to a depth of 25 feet below the ground surface. Minor gravel was encountered below a depth of 15 feet.

Groundwater

The site is located within the Coachella-Indio Groundwater Sub-Basin (California Department of Water Resources [CDWR], Water Data Library, 2017), and the Whitewater-Coachella-Indio CALWATER Watershed. Groundwater depth varies within the area, and though recent flow direction beneath the subject site is unknown, it is regionally estimated to parallel the Whitewater River in a southeasterly direction.

A 2006 Case Closure Summary report from a leaking underground fuel storage tank (LUST) facility on the subject property (APN 687-205-005, at 68830 Highway 111, Cathedral City, California) estimated groundwater at depths on the order of 220-260 feet below the ground surface (bgs). The flow direction was not reported.

SCOPE OF SERVICES

Petra conducted limited Phase II soil testing of subsurface soils to evaluate an area of potential environmental concern as discussed above. Laboratory testing would identify detectable petroleum hydrocarbon soil residues in excess of regulatory screening levels that may be required remediation under the applicable oversight agency (Riverside County Department of Environmental Health).

Soil samples were collected from three geoprobe (direct push) borings placed within the former UST pit area identified by the geophysical survey (Petra, 2017b). Soil samples were collected at depth intervals of five feet. Samples were also field screened for volatile petroleum hydrocarbon vapors using a hand-held photo-ionization detector (PID) meter. All samples collected during the sampling phase will be submitted under chain-of-custody documentation to a state-certified laboratory. All borings were backfilled with bentonite granules and capped with cold-patch asphalt.

Petra completed the following services:

Task 1 – Preparation. Petra conducted a site visit prior to field exploration to mark-out borings. As required by law, Petra notified Underground Services Alert (USA) at least 48 hours prior to conducting field operations (Dig Alert Ticket A180162292).

Task 2 - Soil Sampling. Petra collected soil samples from three Geoprobe (direct push) borings within the former UST pit area identified by the geophysical survey. Discrete soil samples were collected at depth intervals of five feet to a maximum depth of 25 feet below the ground surface. Samples were hand cut from the acetate liner at a 0.5± foot length, immediately capped with Teflon sheets and a plastic cap, and properly labeled with a unique number. Samples were properly labeled with sample date, time, boring location and depth, and placed in a chilled cooler for transport to a certified testing laboratory. Sampling equipment was pre-cleaned onsite before boring operations begin and cleaned onsite between each boring.

Discrete soil samples were also field screened for volatile organic vapors using the hand-held PID meter. No detectable volatile organic vapors were recorded.

Quality Control Samples

Petra collected quality control samples, consisting of field duplicates and equipment rinsates. Typically, one in every ten discrete samples, per analysis, will require a duplicate. One duplicate soil sample was collected for analysis. Equipment rinsates will be tested upon detection of elevated levels of petroleum hydrocarbon soil residues.

Task 2 - Laboratory Analysis. All samples collected during the sampling phase were submitted under chain-of-custody documentation to a state-certified laboratory. Sample analysis will be conducted on a standard turn-around basis of approximately 7 to 10 working days.

Samples collected from depths of 10, 15, 20 and 25 feet below the ground surface will be discretely tested. Samples collected from a depth of 5 feet below the ground surface were archived by the laboratory, pending analysis results. Samples collected will be analyzed discretely for total lead according to EPA Test Method 6010B/7471A, Total Petroleum Hydrocarbons (TPH)-carbon chain by EPA Test Method 8015B, and pH using EPA Test Method 9045.

Task 3 – Data Evaluation and Reporting. Petra reviewed the laboratory findings and a summary of the results of the subsurface soil evaluation are discussed below. A copy of the laboratory results and chain-of-custody form is provided in Appendix A.

SAMPLING PROTOCOL

Soil Sampling

All soil borings were completed utilizing a 2.5-inch diameter direct push rig. Samples collected from the direct push borings were collected in situ using new acetate liners. The discrete soil samples were cut to a 0.5-1.0 foot length and the ends were immediately covered with Teflon sheets and sealed with a tight-fitting plastic cap. The soil samples were immediately sealed with a cap and placed in a cooler with ice for

subsequent laboratory analysis. Chain-of-custody procedures, including sample labeling, preservation, and handling protocols were followed for identification and tracking of all samples obtained.

All samples collected were transported to, and analyzed by Enviro-Chem, Inc. in Pomona, California, (a state certified laboratory). Sample security was maintained and documented using sample labels and chain-of-custody records. Copies of the official laboratory reports and chain-of-custody records are included in Appendix A.

Petra conducted the limited Phase II Environmental Evaluation within the subject property on January 22, 2018. A discussion of the field activities is provided below. The boring locations are shown on Figure 2.

Field Activities

To assess the potential for elevated levels of petroleum hydrocarbon soil residues associated within what is estimated to be the backfilled UST tank pit of the former service station, a total of 3 shallow borings (DP-1 through DP-3) were excavated on the site to a depth of either 20 or 25 feet below the ground surface. Soil samples were collected at 5 foot intervals. Once completed, all borings were backfilled with bentonite granules and capped with asphalt cold-patch. Boring locations are depicted in Figure 2.

Laboratory Analysis

All soil samples analyzed during this assessment were analyzed by Enviro-Chem, Inc. (ECI) in Pomona, California. ECI is accredited by the California Environmental Protection Agency, Department of Health Services, Environmental Laboratory Accreditation Program (ELAP). Analyses were requested on a chain-of-custody record. Below is a discussion of the laboratory results.

The following analytical tests were performed:

- Total lead using EPA Method 6010B/7471A
- pH using EPA Method 9045
- Total Petroleum Hydrocarbons (TPH) using EPA Method 8015M

Total Lead

The results for lead were reported ranging from 1.75 milligrams per kilogram (mg/kg) to 6.06 mg/kg. California Environmental Protection Agency (CalEPA) Human Health Screening Levels (CHHSLs) and USEPA Regional Screening Levels (RSLs) were evaluated for lead residues in soil pertaining to residential land use. A RSL of 400 mg/kg was listed for lead and compounds (USEPA, 2018) and a CHHSL of 80

mg/kg was listed (CalEPA, 2009). Test results for samples collected from the subject site are well below both regulatory screening levels for lead is residential soils. A summary of laboratory test results are provided in Table 1 below.

Total Petroleum Hydrocarbons (TPH) – Carbon Chain

Twelve discreet samples were tested for TPH-Carbon Chain. No concentrations were detected above the laboratory detection limit in the C4-C10 Gasoline Range, C11-C22 Diesel Range, and/or C23-C35 Motor Oil Range in any of the samples analyzed, except one sample from boring DP-1 at 10 feet, where 133 mg/kg TPH in the Motor Oil Range was recorded. Sample DP-1 at a depth of 15 feet detected no TPH. A summary of laboratory test results are provided in Table 1 below.

RSL's and CHHSL's for TPH-gas, TPH-diesel and TPH-motor oil are not available; however, they are provided in the 2013 San Francisco Bay Regional Water Quality Control Board's Environmental Screening Levels (ESLs). Considering deep soil (i.e., less than or equal to approximately 10 feet below the ground surface), and groundwater is a current or potential source of drinking water, the ESL for TPH-motor oil is 500 mg/kg.

pH

The results for pH were reported ranging from 8.41 to 8.61. These results are moderately to strongly alkaline. A summary of laboratory test results are provided in Table 1 below.

TABLE 1 – SUMMARY OF LABORATORY TEST RESULTS

Sample ID	TPH(1)-Carbon Chain (mg/kg)(2)	Lead (mg/kg)	pH
DP-1 @ 10'	TPH-gas & -diesel ND(3); TPH-oil 133 mg/kg	2.30	8.45
DP-1 @ 15'	ND(3)	3.14	8.42
DP-1 @ 20'	ND	2.3	8.44
DP-1 @ 25'	ND	2.62	8.41
DP-2 @ 05'	ND	1.75	8.61
DP-2 @ 10'	ND	6.06	8.54
DP-2 @ 15'	ND	3.14	8.45
DP-2 @ 20'	ND	2.25	8.47
DP-3 @ 10'	ND	2.58	8.60
DP-3 @ 15'	ND	2.30	8.59
DP-3 @ 20'	ND	3.26	8.54
DP-3 @ 25'	ND	2.93	8.43
Residential Regulatory Screening Level	TPH-gas, 500 mg/kg(4) TPH-diesel, 110 mg/kg(4) TPH-motor oil, 500 mg/kg(4)	80 mg/kg(5) 400 mg/kg(6)	<2 = pH(7) =12.5<

Notes: (1)-Total Petroleum Hydrocarbons (2) micrograms per kilogram
(3)-Non-detected or below the detection limit (4) - SF Bay RWQCB, 2013, Environmental Screening Levels
(5) California Human Health Screening Levels, CHHSLs (Cal EPA, 2010) (6) Regional Screening Levels, RSL's (US EPA, 2018)
(7) US EPA Hazardous Waste Criteria, Soils

CONCLUSIONS

Total Petroleum Hydrocarbons

Total Petroleum Hydrocarbons (TPH)-carbon chain (gasoline-, diesel- and motor-oil range) concentrations in the eleven of the twelve soil samples analyzed were reported below the laboratories PQL (i.e., non-detect). One soil sample collected from boring DP1 at a depth of 10 feet below the ground surface, reported a concentration of TPH-motor oil at 133 mg/kg. TPH was non-detect in the sample from DP-1 and 15 feet.

RSL's and CHHSL's for TPH-gas, TPH-diesel and TPH-motor oil are not available; however, they are provided in the 2013 San Francisco Bay Regional Water Quality Control Board's Environmental Screening Levels (ESLs). Considering deep soil (i.e., less than or equal to approximately 10 feet below the ground surface), and groundwater is a current or potential source of drinking water, the ESL for TPH-motor oil is 500 mg/kg.

Based on our Limited Phase II Environmental Evaluation of the former underground fuel storage tank pit, petroleum-based hydrocarbon residues in near surface soils onsite do not appear to represent a recognized environmental condition with regards to the site soils analyzed at this time. No further evaluation and/or testing appears warranted for the intended use of the subject property at this time.

Lead

Twelve discreet samples were tested for Lead. No concentrations were detected above the Total Threshold Limit Concentration (TTLC) for any of the individual elements tested in the samples.

The laboratory test results for detected concentrations of lead were reported as 1.75 mg/kg to 6.06 mg/kg. California Environmental Protection Agency (CalEPA) Human Health Screening Levels (CHHSLs) and USEPA Regional Screening Levels (RSLs) were evaluated for lead residues in soil pertaining to residential land use. A RSL of 400 mg/kg was listed for lead and compounds (USEPA, 2016) and a CHHSL of 80 mg/kg was listed (CalEPA, 2009). Both test results for samples collected from the subject site are well below both regulatory screening levels for lead in residential soils. No further evaluation and/or testing appears warranted for the intended use of the subject property at this time.

Recommendations

With redevelopment of any historically developed property, a certain amount of unknown conditions in the subsurface should be anticipated (i.e., buried debris and foundations, utility conduits, etc.). Any discolored soils or unanticipated buried objects should be left in place until an experienced environmental professional has had the opportunity to evaluate the conditions, and provide recommendations if needed.

LIMITATIONS

Petra has completed the above scope of work in general accordance with our Revised Supplemental Proposal No. 17-246, dated January 3, 2018. The work activities described herein were conducted to address the specific issues identified by the historical use of the property as a service station (as discussed in this report), and is not intended to assess all possible environmental concerns associated with the subject property. This limited assessment should not be inferred to be a numerical study of the subject property, but is reasonably intended to provide a preliminary assessment of property impacts from previous site use and/or the release of hazardous materials. If substantial signs of the presence of hazardous materials and/or petroleum contamination are not encountered during this assessment, this does not exclude their presence.

Involved Parties

This report was prepared by Petra Geosciences, Inc. (Petra), at the request of Agua Caliente Band of Cahuilla Indians, for their exclusive use. Use of this report or reliance thereon by other parties or projects is not authorized. The report may not be suitable for other parties or other purposes.

If you have questions regarding the content or terminology of these conditions, please contact us immediately. Revisions must be agreed upon by both parties prior to commencement of work.

Respectfully submitted,

PETRA GEOSCIENCES, INC.

Edward Lump
Associate Geologist
PG 5975

Siamak Jafroudi, PhD
Senior Principal Engineer
GE 2024

2/12/18

EL/JC/SJ/lv

Distribution: (1) Addressee (electronic)
(1) Dan Malcolm (electronic)

Attachments: References
Figure 1 – Site Location Map
Figure 2 – Boring Location Map
Appendix A – Laboratory Test Data and Chain-of-Custody

REFERENCES

California Environmental Protection Agency (CAL EPA), 2009, Revised California Human Health Screening levels for Lead, dated September.

_____, 2010, California Human Health Screening Levels (CHHSLs).

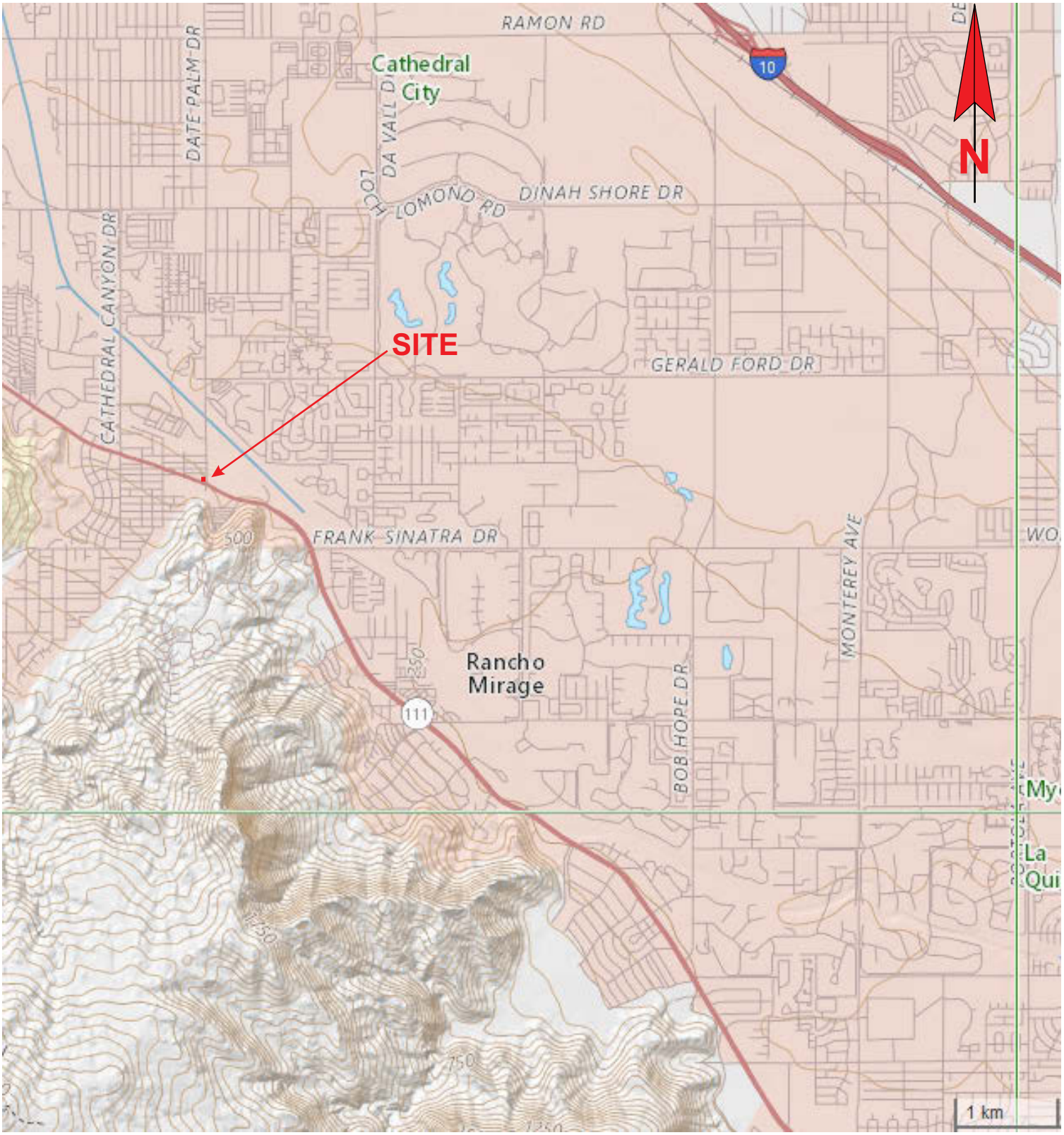
Lancaster, J.T., Hayhurst, C.A., and Bedrossian, T.L., 2012, Preliminary Geologic Map of Quaternary Surficial Deposits in Southern California, Palm Springs 30' x 60' Quadrangle, CGS Special Report 217, Plate 24, dated December.

Petra Geosciences, Inc., 2017a, Phase I Environmental Site Assessment; *Fee to Trust Application*, 13.6 Acres of Land Located at the Northwest Corner of Date Palm Drive and Palm Canyon Drive, Cathedral City, Riverside County, California 92234, J.N. 17-246, dated July 31.

_____, 2017b, Limited Phase II Environmental Evaluation; *Fee to Trust Application*, A Portion of 13.6 Acres of Land Located at the Northwest Corner of Date Palm Drive and Palm Canyon Drive, APN's 687-202-015, 687-208-015 and 687-208-022 to -026, Cathedral City, Riverside County, California 92234, J.N. 17-246, Draft dated December 22.

San Francisco Bay Regional Water Quality Control Board (SF Bay RWQCB), 2013, Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater, Interim Final, November.

United States Environmental Protection Agency (US EPA), 2017, EPA Region 9 Regional Screening Levels (RSLs), dated November.



LEGEND

- Approximate Site Location

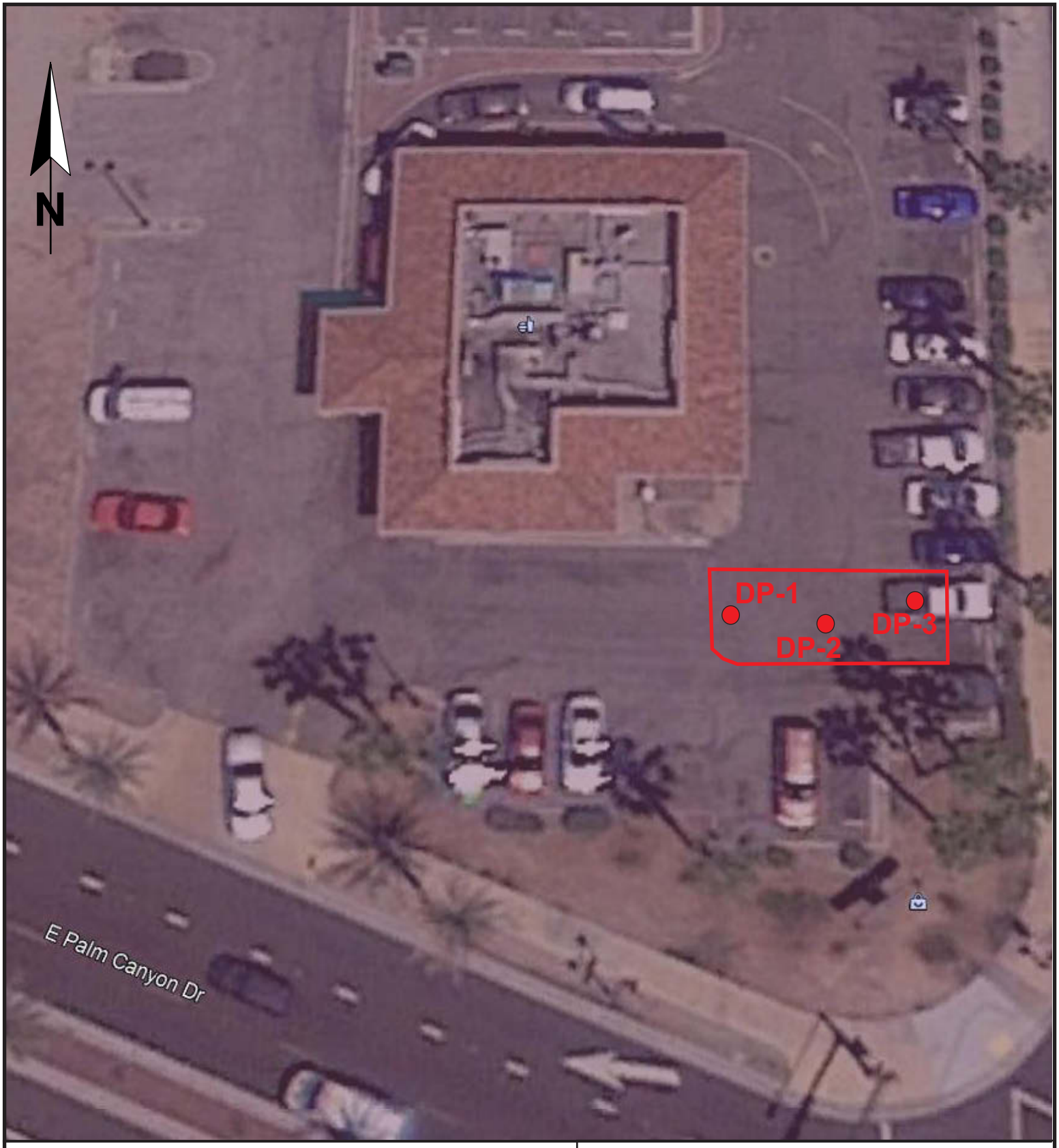
- Reproduced from USGS, 2018, The National Map, Map Viewer 1.0

PETRA GEOSCIENCES, INC.
40880 COUNTY CENTER DRIVE, SUITE R
TEMECULA, CALIFORNIA 92591
PHONE: (951) 600-9271
COSTA MESA MURRIETA PALM DESERT SANTA CLARITA

Site Location Map

68980 E. Palm Canyon Drive
Cathedral City, Riverside County, California

DATE: February 2018	J.N.: 17-246	**Figure 1**
DWG BY: epl	SCALE: NTS	



LEGEND

- Estimation of Former Tank Pit Limits

DP-3 - Approximate Location of Direct Push Boring

- Reproduced from Goggle Earth, 2018

PETRA GEOSCIENCES, INC.
40880 COUNTY CENTER DRIVE, SUITE R
TEMECULA, CALIFORNIA 92591
PHONE: (951) 600-9271
COSTA MESA MURRIETA PALM DESERT SANTA CLARITA

Boring Location Map

Carl's Jr. Parcel, 68980 E. Palm Canyon Drive
Cathedral City, Riverside County, California

DATE: February 2018	J.N.: 17-246	**Figure 2**
DWG BY: epl	SCALE: NTS	

APPENDIX A

LABORATORY TEST DATA AND CHAIN-OF-CUSTODY

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

Date: January 29, 2018

Mr. Ed Lump
Petra Geotechnical, Inc.
40880 Country Center Drive
Temecula, CA 92591
Tel(951)600-9271 E-Mail: ELump@petra-inc.com

Project: **17-246**
Lab I.D.: **180122-37 through -51**

Dear Mr. Lump:

The **analytical results** for the soil samples, received by our laboratory on January 22, 2018, are attached. The samples were received intact, and accompanying chain of custody.

Enviro-Chem appreciates the opportunity to provide you and your company this and other services. Please do not hesitate to call us if you have any questions.

Sincerely,

Curtis Desilets
Vice President/Program Manager

for
Andy Wang
Laboratory Manager

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: Petra Geotechnical
40880 Country Center Drive
Temecula, CA 92591
Tel(951)600-9271 E-Mail: ELump@petra-inc.com
PROJECT: 17-246

MATRIX: SOIL
SAMPLING DATE: 01/22/18
REPORT TO: MR. ED LUMP

DATE RECEIVED: 01/22/18
DATE ANALYZED: 01/22/18
DATE REPORTED: 01/29/18

pH ANALYSIS
METHOD: EPA 9045C
UNIT: pH UNITS

SAMPLE I.D.	LAB I.D.	pH RESULT
DP-1@10'	180122-38	8.45
DP-1@15'	180122-39	8.42
DP-1@20'	180122-40	8.44
DP-1@25'	180122-41	8.41
DP-2@5' DUPE	180122-43	8.61
DP-2@10'	180122-44	8.54
DP-2@15'	180122-45	8.45
DP-2@20'	180122-46	8.47
DP-3@10'	180122-48	8.60
DP-3@15'	180122-49	8.59
DP-3@20'	180122-50	8.54
DP-3@25'	180122-51	8.43

COMMENTS:
pH ANALYSIS CONDUCTED ON 1:1 SOIL/DEIONIZED WATER EXTRACTION

DATA REVIEWED AND APPROVED BY: _____
CAL-DHS ELAP CERTIFICATE No.: 1555

Enviro-Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766
Tel (909)590-5905 Fax (909)590-5907

Matrix: SOLID/SOIL/LIQUID

QA/QC Report

Analysis	Units	Date Analyzed	Sample I.D.	S.R.	Duplicate	% RPD	ACP %RPD
Alkalinity	mg/Kg					0.0%	0-20
Residual Chlorine	mg/Kg					0.0%	0-20
Density	g/mL					0.00%	0-20
EC	umhos/cm					0.0%	0-20
pH	pH units	1/22/2018	180122-49	8.59	8.57	0.23%	0-20
TDS	mg/L					0.0%	0-20
TSS	mg/Kg					0.0%	0-20
Resistivity	ohms					0.0%	0-20
% MOISTURE	%					0.0%	0-20
BTU	BTU/lb					0.0%	0-20
Salinity	S					0.00%	0-20

%RPD = Relative Percent Difference **ACP %RPD** = Acceptable Relative Percent Difference

Analysis	Units	Date Analyzed	Sample I.D.	Spk Conc	S.R.	ACP %RPD	ACP %RC	MS	MS %RC	MSD	MSD %RC	% RPD
Acidity	mg/Kg				0	0	80-120					#VALUE!
Ammonia as N	mg/Kg			50.0	0.000	0-20	80-120					#VALUE!
MBAS	mg/Kg			6.00	0.0	0-20	80-120					#VALUE!
Chloride	mg/Kg			200	0.0	0-20	80-120					#VALUE!
COD	mg/Kg			500	0.0	0-20	80-120					#VALUE!
Cr VI	mg/Kg			4.00	0.00	0-20	80-120					#VALUE!
Cyanide	mg/Kg			10.0	0.0	0-20	80-120					#VALUE!
Fluoride	mg/Kg			10.0	0.000	0-20	80-120					#VALUE!
Nitrate as N	mg/Kg			4.0	0.00	0-20	80-120					#VALUE!
Nitrite as N	mg/Kg			4.0	0.00	0-20	80-120					#VALUE!
Oil and Grease	mg/Kg			667	0	0-20	80-120					#VALUE!
PHOSPHATE	mg/Kg			100.0	0.0	0-20	80-120					#VALUE!
Sulfate	mg/Kg			200	0.00	0-20	80-120					#VALUE!
Sulfide	mg/Kg			3.00	0.0	0-20	80-120					#VALUE!
TRPH	mg/kg			667	0.0	0-20	80-120					#VALUE!
Sulfide, Reactive	mg/Kg			3.00	0.0	0-20	80-120					#VALUE!
EPA 1664A	mg/Kg			500	0	0-20	80-120					#VALUE!

S.R. = Sample Results **%RC** = Percent Recovery **ACP %RC** = Accepted Percent Recovery

Analyst Signature: WP

Final Reviewer:

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: Petra Geotechnical
40880 Country Center Drive
Temecula, CA 92591
Tel(951)600-9271 E-Mail: ELump@petra-inc.com

PROJECT: 17-246

DATE RECEIVED:01/22/18
DATE EXTRACTED:01/23/18
DATE ANALYZED:01/24/18
DATE REPORTED:01/29/18

MATRIX:SOIL
SAMPLING DATE:01/22/18
REPORT TO:MR. ED LUMP

TOTAL PETROLEUM HYDROCARBONS(TPH) - CARBON CHAIN ANALYSIS
METHOD: EPA 8015B
UNIT: mg/Kg = MILLIGRAM PER KILOGRAM = PPM

SAMPLE I.D.	LAB I.D.	C4-C10	C11-C22	C23-C35	DF
DP-1@10'	180122-38	ND	ND	133	2
DP-1@15'	180122-39	ND	ND	ND	1
DP-1@20'	180122-40	ND	ND	ND	1
DP-1@25'	180122-41	ND	ND	ND	1
DP-2@5' DUPE	180122-43	ND	ND	ND	1
DP-2@10'	180122-44	ND	ND	ND	1
DP-2@15'	180122-45	ND	ND	ND	1
DP-2@20'	180122-46	ND	ND	ND	1
DP-3@10'	180122-48	ND	ND	ND	1
DP-3@15'	180122-49	ND	ND	ND	1
DP-3@20'	180122-50	ND	ND	ND	1
DP-3@25'	180122-51	ND	ND	ND	1
METHOD BLANK		ND	ND	ND	1
	PQL	10	10	50	

COMMENTS
C4-C10 = GASOLINE RANGE
C11-C22 = DIESEL RANGE
C23-C35 = MOTOR OIL RANGE
DF = DILUTION FACTOR
PQL = PRACTICAL QUANTITATION LIMIT
ACTUAL DETECTION LIMIT = DF X PQL
ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT

Data Reviewed and Approved by: _____
CAL-DHS ELAP CERTIFICATE No.: 1555

Enviro Chem, Inc

1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909)590-5905 Fax (909)590-5907

8015B QA/QC Report

Date Analyzed: 1/24/2018 **Units:** mg/Kg (ppm)

Matrix: **Soil/Solid/Sludge/Liquid**

Matrix Spike (MS)/Matrix Spike Duplicate (MSD)

Spiked Sample Lab I.D.: **180122-39 MS/MSD**

Analyte	SR	spk conc	MS	%MS	MSD	%MSD	%RPD	ACP %MS	ACP RPD
C11~C22 Range	0	200	193	**97%**	182	**91%**	**6%**	**75-125**	**0-20%**

LCS STD RECOVERY:

Analyte	spk conc	LCS	% REC	ACP
C11~C22 Range	200	200	**100%**	**75-125**

Analyzed and Reviewed By: _____

Final Reviewer: _____

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: Petra Geotechnical
40880 Country Center Drive
Temecula, CA 92591
Tel(951)600-9271 E-Mail: ELump@petra-inc.com
PROJECT: 17-246

MATRIX: SOIL
SAMPLING DATE: 01/22/18
REPORT TO: MR. ED LUMP

DATE RECEIVED: 01/22/18
DATE ANALYZED: 01/23/18
DATE REPORTED: 01/29/18

EPA 6010B FOR TTLC-LEAD
UNITS: mg/Kg = MILLIGRAM PER KILOGRAM = PPM

SAMPLE I.D.	LAB I.D.	TTLC-LEAD RESULT	DF
DP-1@10'	180122-38	2.30	1
DP-1@15'	180122-39	3.14	1
DP-1@20'	180122-40	2.30	1
DP-1@25'	180122-41	2.62	1
DP-2@5' DUPE	180122-43	1.75	1
DP-2@10'	180122-44	6.06	1
DP-2@15'	180122-45	3.14	1
DP-2@20'	180122-46	2.25	1
DP-3@10'	180122-48	2.58	1
DP-3@15'	180122-49	2.30	1
DP-3@20'	180122-50	3.26	1
DP-3@25'	180122-51	2.93	1
Method Blank	---	ND	1
	PQL	0.50	

COMMENTS:
DF = Dilution Factor
PQL = Practical Quantitation Limit
Actual Detection Limit = DF X PQL
ND = Non-Detected or below the Actual Detection Limit
TTLC = Total Threshold Limit Concentration
STLC = Soluble Threshold Limit Concentration
STLC Limit for lead = 5 PPM
* = STLC analysis is recommended (if marked)
** = Additional Analysis required, please call to discuss (if marked)
*** = The concentration exceeds the TTLC Limit @ 1000 PPM, therefore the sample is defined as hazardous waste, as per CCR-TITLE 22 (if marked)

Data Reviewed and Approved by: _____
CAL-DHS ELAP CERTIFICATE No.: 1555

QA/QC for Metals Analysis --TTLC--SOLID/SOIL MATRIX

Matrix Spike/ Matrix Spike Duplicate/ LCS :

ANALYSIS DATE: 1/23/2018

Unit : mg/Kg(ppm)

Analysis	Spk.Sample ID	CONC.	LCS %Rec.	LCS STATUS	Sample Result	Spike Conc.	MS	% Rec MS	MSD	% Rec MSD	% RPD
Arsenic(As)	180122-43	50.0	99	PASS	0.763	50.0	51.6	102%	52.9	104%	3%
Lead(Pb)	180122-43	50.0	103	PASS	1.75	50.0	50.3	97%	51.2	99%	2%
Nickel(Ni)	180122-43	50.0	103	PASS	2.77	50.0	52.5	99%	53.8	102%	3%

ANALYSIS DATE. : 1/22/2018

Analysis	Spk.Sample ID	LCS CONC.	LCS %Rec.	LCS STATUS	Sample Result	Spike Conc.	MS	% Rec MS	MSD	% Rec MSD	% RPD
Mercury (Hg)	180122-25	0.125	96	PASS	0	0.125	0.109	87%	0.114	91%	4%

MS/MSD Status:

Analysis	%MS	%MSD	%LCS	%RPD
Arsenic(As)	PASS	PASS	PASS	PASS
Lead(Pb)	PASS	PASS	PASS	PASS
Nickel(Ni)	PASS	PASS	PASS	PASS
Mercury (Hg)	PASS	PASS	PASS	PASS
Accepted Range	**75 ~ 125**	**75 ~ 125**	**85 ~ 115**	**0 ~ 20**

*=Fail due to matrix interference

Note:LCS is in control therefore results are in control

ANALYST: _____

FINAL REVIEWER: _____

Enviro-Chem, Inc. Laboratories
1214 E. Lexington Avenue,
Pomona, CA 91766
Tel: (909) 590-5905 Fax: (909) 590-5907
CA-DHS ELAP CERTIFICATE #1555

Turnaround Time
0 Same Day
0 24 Hours
0 48 Hours
0 72 Hours
0 1 Week (Standard)
Other:

SAMPLE ID	LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	No. OF CONTAINERS	TEMPERATURE	PRESERVATION	Lead (6010B/7471A)	TPH Carbon Chain 8015B	PH 9045	COMMENTS
DP-1@5'	18022-37	01/22/18	7:25	Soil	1		ICE				Hold
DP-1@10'	-38	01/22/18	7:27	Soil				X	X	X	
DP-1@15'	-39	01/22/18	7:35	Soil				X	X	X	
DP-1@20'	-40	01/22/18	7:40	Soil				X	X	X	
DP-1@25'	-41	01/22/18	7:45	Soil				X	X	X	
DP-2@5'	-42		8:03								Hold
DP-2@5'	-43		8:03					X	X	X	Dupe
DP-2@10'	-44		8:05					X	X	X	
DP-2@15'	-45		8:08					X	X	X	
DP-2@20'	-46		8:10					X	X	X	
DP-3@5'	-47	01/22/18	8:24	Soil	1		ICE				Hold
DP-3@10'	-48		8:28					X	X	X	
DP-3@15'	-49		8:35								
DP-3@20	-50		8:37								
DP-3@25'	-51		8:45								

Misc./PO#

Analysis Required

Company Name: Petra Geosciences Inc.
Address: 40880 County Center Dr.
City/State/Zip: Temecula, CA 92591

Project Contact: Ed Lump
Tel: (951) 600-9271
Fax: (951) 719-1499

Sampler's Signature:

Project Name/ID: 17-246

Relinquished by:	01/22/18 12:04	Received by:	Date & Time: 1/23/2018 1205 PM
Relinquished by:		Received by:	Date & Time:
Relinquished by:		Received by:	Date & Time:

Instructions for Sample Storage After Analysis:
O Dispose of O Return to Client O Store (30 Days)
O Other:

CHAIN OF CUSTODY RECORD

Date: 1/22/18

WHITE WITH SAMPLE • YELLOW TO CLIENT

SOUTH SITE – EDR RADIUS MAP REPORT

South Site
E PALM CANYON DR
Cathedral City, CA 92234

Inquiry Number: 5208224.2s
March 05, 2018

The EDR Radius Map™ Report with GeoCheck®

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

TABLE OF CONTENTS

SECTION	PAGE
Executive Summary	ES1
Overview Map	2
Detail Map	3
Map Findings Summary	4
Map Findings	8
Orphan Summary	89
Government Records Searched/Data Currency Tracking	GR-1

GEOCHECK ADDENDUM

Physical Setting Source Addendum	A-1
Physical Setting Source Summary	A-2
Physical Setting SSURGO Soil Map	A-5
Physical Setting Source Map	A-10
Physical Setting Source Map Findings	A-12
Physical Setting Source Records Searched	PSGR-1

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-13), the ASTM Standard Practice for Environmental Site Assessments for Forestland or Rural Property (E 2247-16), the ASTM Standard Practice for Limited Environmental Due Diligence: Transaction Screen Process (E 1528-14) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

TARGET PROPERTY INFORMATION

ADDRESS

E PALM CANYON DR
CATHEDRAL CITY, CA 92234

COORDINATES

Latitude (North):	33.7776350 - 33° 46' 39.48''
Longitude (West):	116.4614050 - 116° 27' 41.05''
Universal Tranverse Mercator:	Zone 11
UTM X (Meters):	549868.7
UTM Y (Meters):	3737437.5
Elevation:	332 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map:	5639316 CATHEDRAL CITY, CA
Version Date:	2012

AERIAL PHOTOGRAPHY IN THIS REPORT

Portions of Photo from:	20140521
Source:	USDA

MAPPED SITES SUMMARY

Target Property Address:
E PALM CANYON DR
CATHEDRAL CITY, CA 92234

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
Reg	AGUA CALIENTE INDIAN		INDIAN RESERV	Same	1 ft.
A1	ANGEL VIEW THRIFT MA	68823 E PALM CANYON	HAZNET	Lower	1 ft.
B2	ELITE TIRE	68883 E PALM CANYON	FINDS	Lower	1 ft.
3	HUD/GOLDEN FEATHER R	68933 C ST	HAZNET	Lower	1 ft.
B4	WORLD OIL STATION NO	68869 HIGHWAY 111 (B	RGA LUST	Lower	1 ft.
B5	WORLD OIL #71 (FORME	68869 HIGHWAY 111 (B	FINDS	Lower	1 ft.
B6	WORLD OIL STATION #7	68869 HWY 111	LUST	Lower	1 ft.
B7	WORLD OIL #71 (FORME	68869 HIGHWAY 111 (B	RGA LUST	Lower	1 ft.
B8	1X JOSEPH H PEARLMAN	68-883 E PALM CANYON	HAZNET	Lower	1 ft.
9	HUD/GOLDEN FEATHER R	68759 B ST	HAZNET	Lower	1 ft.
B10		68915 B STREET APT 2	CHMIRS	Lower	1 ft.
B11	CATHEDRAL CITY FIRES	68885 E PALM CYN DR	EDR Hist Auto	Lower	1 ft.
B12	CATHEDRAL CITY FIRES	68885 HWY 111	HAZNET	Lower	1 ft.
B13	ELITE TIRE & AUTOMOT	68885 HWY 111	FINDS	Lower	1 ft.
B14	CATHEDRAL TIRE/AUTOM	68885 E PALM CANYON	FINDS	Lower	1 ft.
B15	WORLD OIL STATION NO	68869 HIGHWAY 111 (B	RGA LUST	Lower	1 ft.
B16	WORLD OIL CO	68869 BROADWAY	RCRA-SQG, LUST, SWEEPS UST, HIST UST, CA FID UST,...	Lower	1 ft.
B17	SHELL SWIFT STOP	68869 E PALM CANYON	EDR Hist Auto	Lower	1 ft.
A18	PALM SPRINGS OIL #9	68830 HIGHWAY 111	LUST, SWEEPS UST, HIST CORTESE	Lower	79, 0.015, NNE
A19	PALM SPRINGS OIL #9	68830 HWY 111	RCRA-SQG, LUST, FINDS, ECHO	Lower	79, 0.015, NNE
A20	PALM SPRINGS OIL #9	68830 HIGHWAY 111	SWEEPS UST, CA FID UST	Lower	79, 0.015, NNE
A21	PS 9	68830 HWY 111	HIST UST	Lower	79, 0.015, NNE
A22	PALM SPRINGS OIL	68830 HWY 111	EDR Hist Auto	Lower	79, 0.015, NNE
B23	PYLES ROBERT	68904-96 HWY 111	EDR Hist Auto	Lower	86, 0.016, ENE
C24	CATHEDRAL CITY SHELL	69010 HWY 111	UST	Lower	132, 0.025, East
C25	SHELL SERVICE STATIO	69010 HWY 111	RCRA NonGen / NLR, FINDS, ECHO, HAZNET	Lower	132, 0.025, East
C26	CATHEDRAL CITY SHELL	69010 E PALM CANYON	EDR Hist Auto	Lower	132, 0.025, East
C27	SHELL STATION	69010 HIGHWAY 111	LUST	Lower	132, 0.025, East
C28	CATHEDRAL SHELL	69010 E US HIGHWAY 1	EDR Hist Auto	Lower	132, 0.025, East
C29	CATHEDRAL CITY OIL (	69010 HWY 111	INDIAN LUST, INDIAN UST	Lower	132, 0.025, East
C30	SHELL OIL SERVICE ST	69010 HWY 111 @ DATE	Notify 65	Lower	132, 0.025, East
C31	SHELL STATION	69010 E PALM CANYON	SWEEPS UST, CA FID UST	Lower	132, 0.025, East
C32	SHELL STATION	69010 111	LUST, HIST CORTESE	Lower	132, 0.025, East
C33	SUPER CLEANERS	69040 E PALM CANYON	EDR Hist Cleaner	Lower	303, 0.057, East
C34	SUPER CLEAN	69040 E PALM CANYON	DRYCLEANERS	Lower	303, 0.057, East
D35	CATHEDRAL CITY FIRE	36913 DATE PALM DR	SWEEPS UST, CA FID UST	Lower	621, 0.118, NE
D36	CATHEDRAL CITY 34	36-913 DATE PALM	HIST UST	Lower	621, 0.118, NE
E37	93045	68-630 E PALM CANYON	HIST UST	Lower	648, 0.123, NW
E38	CHEVRON STATION #9-3	68630 PALM CNYN	LUST, HIST CORTESE	Lower	648, 0.123, NW

MAPPED SITES SUMMARY

Target Property Address:
E PALM CANYON DR
CATHEDRAL CITY, CA 92234

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
E39	H & D KRINGS INC	68630 E PALM CANYON	EDR Hist Auto	Lower	648, 0.123, NW
E40	CHEVRON #9-3045	68630 E PALM CANYON	LUST	Lower	648, 0.123, NW
E41	CHEVRON #93045	68630 E PALM CANYON	SWEEPS UST, CA FID UST	Lower	648, 0.123, NW
E42	BEEP-BEEP LUBE & TUN	68635 HIGHWAY 111	SWEEPS UST, CA FID UST	Lower	659, 0.125, NW
43	SUNGATE MOBILE HOME	69333 EAST PALM CANY	SEMS	Lower	946, 0.179, ESE
44	BEST CLEANERS	68600 HIGHWAY 111	RCRA-SQG, FINDS, ECHO, HAZNET	Lower	1090, 0.206, NW
F45	PALM SPRINGS MOTORS	69 200 HWY 111	HIST UST, RCRA NonGen / NLR	Lower	1152, 0.218, East
F46	PALM SPRINGS MOTORS	69-200 HY 111	RCRA-SQG, HIST UST	Lower	1152, 0.218, East
G47	CIRCLE K STORE #333	37040 CATHEDRAL CANY	RCRA-SQG, SWEEPS UST, HIST UST, CA FID UST, FINDS,...	Higher	1289, 0.244, WNW
G48	CIRCLE K #333	37040 CATHEDRAL CANY	LUST	Higher	1289, 0.244, WNW
G49	CIRCLE K # 333	37040 CATHEDRAL CNYN	LUST, HIST CORTESE	Higher	1289, 0.244, WNW
G50	R D PARKER SERVICES	36650 A CATHEDRAL CA	LUST	Higher	1337, 0.253, WNW
H51	PALM SPRINGS FORD MO	69200 HIGHWAY 111	LUST, HIST CORTESE	Lower	1579, 0.299, East
H52	PALM SPRINGS FORD MO	69200 HIGHWAY 111	LUST	Lower	1579, 0.299, East
I53	R D PARKER SERVICE C	36650 CATHEDRAL CANY	LUST	Lower	1718, 0.325, NW
I54	R D PARKER SERVICES	36650 CATHEDRAL CANY	LUST	Lower	1718, 0.325, NW
I55	R. D. PARKER SERVICE	36650 A CATHEDRAL CN	HIST CORTESE	Lower	1855, 0.351, NW
J56	KAY OLESEN	68384 HIGHWAY 111	LUST, HIST CORTESE	Lower	2047, 0.388, WNW
J57	OLESEN KAY	68384 HIGHWAY 111	LUST	Lower	2047, 0.388, WNW
58	PALM SPRINGS RECYCLI	36630 SUNAIR PLZ	SWRCY, NPDES, WDS	Lower	2095, 0.397, NW
59	DESERT ICE CASTLE LL	68600 PEREZ RD	LUST, CHMIRS, HAZNET, HIST CORTESE	Lower	2247, 0.426, NNW
K60	FAMILIAN PIPE & SUPP	36283 PLAZA	HIST UST, HIST CORTESE	Lower	2295, 0.435, NNW
K61	FAMILIAN PIPE & SUPP	36283 PLAZA DRIVE	LUST	Lower	2295, 0.435, NNW
62	COCA-COLA ENTERPRISE	68-600 PEREZ	Notify 65	Lower	4474, 0.847, WNW
63	CATHEDRAL CITY ELEME	CONVERSE ROAD/PLUMLE	ENVIROSTOR, SCH	Lower	5132, 0.972, NNE

EXECUTIVE SUMMARY

TARGET PROPERTY SEARCH RESULTS

The target property was not listed in any of the databases searched by EDR.

DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the search radius around the target property for the following databases:

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL ---------- National Priority List
Proposed NPL ---------- Proposed National Priority List Sites
NPL LIENS ---------- Federal Superfund Liens

Federal Delisted NPL site list

Delisted NPL ---------- National Priority List Deletions

Federal CERCLIS list

FEDERAL FACILITY ---------- Federal Facility Site Information listing

Federal CERCLIS NFRAP site list

SEMS-ARCHIVE ---------- Superfund Enterprise Management System Archive

Federal RCRA CORRACTS facilities list

CORRACTS ---------- Corrective Action Report

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF ---------- RCRA - Treatment, Storage and Disposal

Federal RCRA generators list

RCRA-LQG ---------- RCRA - Large Quantity Generators
RCRA-CESQG ---------- RCRA - Conditionally Exempt Small Quantity Generator

Federal institutional controls / engineering controls registries

LUCIS ---------- Land Use Control Information System
US ENG CONTROLS ---------- Engineering Controls Sites List
US INST CONTROL ---------- Sites with Institutional Controls

Federal ERNS list

ERNS ---------- Emergency Response Notification System

State- and tribal - equivalent NPL

RESPONSE ---------- State Response Sites

State and tribal landfill and/or solid waste disposal site lists

SWF/LF ---------- Solid Waste Information System

State and tribal leaking storage tank lists

SLIC ---------- Statewide SLIC Cases

State and tribal registered storage tank lists

FEMA UST ---------- Underground Storage Tank Listing
AST ---------- Aboveground Petroleum Storage Tank Facilities

State and tribal voluntary cleanup sites

VCP ---------- Voluntary Cleanup Program Properties
INDIAN VCP ---------- Voluntary Cleanup Priority Listing

State and tribal Brownfields sites

BROWNFIELDS ---------- Considered Brownfieds Sites Listing

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS ---------- A Listing of Brownfields Sites

Local Lists of Landfill / Solid Waste Disposal Sites

WMUDS/SWAT ---------- Waste Management Unit Database
HAULERS ---------- Registered Waste Tire Haulers Listing
INDIAN ODI ---------- Report on the Status of Open Dumps on Indian Lands
DEBRIS REGION 9 ---------- Torres Martinez Reservation Illegal Dump Site Locations
ODI ---------- Open Dump Inventory
IHS OPEN DUMPS ---------- Open Dumps on Indian Land

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL ---------- Delisted National Clandestine Laboratory Register
HIST Cal-Sites ---------- Historical Calsites Database
SCH ---------- School Property Evaluation Program
CDL ---------- Clandestine Drug Labs
Toxic Pits ---------- Toxic Pits Cleanup Act Sites
US CDL ---------- National Clandestine Laboratory Register

Local Land Records

LIENS ---------- Environmental Liens Listing

LIENS 2	CERCLA Lien Information
DEED	Deed Restriction Listing

Records of Emergency Release Reports

HMIRS	Hazardous Materials Information Reporting System
LDS	Land Disposal Sites Listing
MCS	Military Cleanup Sites Listing
SPILLS 90	SPILLS 90 data from FirstSearch

Other Ascertainable Records

FUDS	Formerly Used Defense Sites
DOD	Department of Defense Sites
SCRD DRYCLEANERS	State Coalition for Remediation of Drycleaners Listing
US FIN ASSUR	Financial Assurance Information
EPA WATCH LIST	EPA WATCH LIST
2020 COR ACTION	2020 Corrective Action Program List
TSCA	Toxic Substances Control Act
TRIS	Toxic Chemical Release Inventory System
SSTS	Section 7 Tracking Systems
ROD	Records Of Decision
RMP	Risk Management Plans
RAATS	RCRA Administrative Action Tracking System
PRP	Potentially Responsible Parties
PADS	PCB Activity Database System
ICIS	Integrated Compliance Information System
FTTS	FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
MLTS	Material Licensing Tracking System
COAL ASH DOE	Steam-Electric Plant Operation Data
COAL ASH EPA	Coal Combustion Residues Surface Impoundments List
PCB TRANSFORMER	PCB Transformer Registration Database
RADINFO	Radiation Information Database
HIST FTTS	FIFRA/TSCA Tracking System Administrative Case Listing
DOT OPS	Incident and Accident Data
CONSENT	Superfund (CERCLA) Consent Decrees
FUSRAP	Formerly Utilized Sites Remedial Action Program
UMTRA	Uranium Mill Tailings Sites
LEAD SMELTERS	Lead Smelter Sites
US AIRS	Aerometric Information Retrieval System Facility Subsystem
US MINES	Mines Master Index File
ABANDONED MINES	Abandoned Mines
UXO	Unexploded Ordnance Sites
DOCKET HWC	Hazardous Waste Compliance Docket Listing
FUELS PROGRAM	EPA Fuels Program Registered Listing
CA BOND EXP. PLAN	Bond Expenditure Plan
Cortese	"Cortese" Hazardous Waste & Substances Sites List
CUPA Listings	CUPA Resources List
EMI	Emissions Inventory Data
ENF	Enforcement Action Listing
Financial Assurance	Financial Assurance Information Listing
ICE	ICE
HWP	EnviroStor Permitted Facilities Listing
HWT	Registered Hazardous Waste Transporter Database

MINES Mines Site Location Listing
MWMP Medical Waste Management Program Listing
NPDES NPDES Permits Listing
PEST LIC Pesticide Regulation Licenses Listing
PROC Certified Processors Database
UIC UIC Listing
WASTEWATER PITS Oil Wastewater Pits Listing
WDS Waste Discharge System
WIP Well Investigation Program Case List

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP EDR Proprietary Manufactured Gas Plants

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA LF Recovered Government Archive Solid Waste Facilities List

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified in the following databases.

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property.
Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

STANDARD ENVIRONMENTAL RECORDS

Federal CERCLIS list

SEMS: SEMS (Superfund Enterprise Management System) tracks hazardous waste sites, potentially hazardous waste sites, and remedial activities performed in support of EPA's Superfund Program across the United States. The list was formerly know as CERCLIS, renamed to SEMS by the EPA in 2015. The list contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). This dataset also contains sites which are either proposed to or on the National Priorities List (NPL) and the sites which are in the screening and assessment phase for possible inclusion on the NPL.

A review of the SEMS list, as provided by EDR, and dated 12/11/2017 has revealed that there is 1 SEMS site within approximately 0.5 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
SUNGATE MOBILE HOME	69333 EAST PALM CANY	ESE 1/8 - 1/4 (0.179 mi.)	43	56

Federal RCRA generators list

RCRA-SQG: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

A review of the RCRA-SQG list, as provided by EDR, and dated 12/11/2017 has revealed that there are 5 RCRA-SQG sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
CIRCLE K STORE #333	***37040 CATHEDRAL CANY***	***WNW 1/8 - 1/4 (0.244 mi.)***	***G47***	***64***

Lower Elevation	Address	Direction / Distance	Map ID	Page
WORLD OIL CO	***68869 BROADWAY***	***0 - 1/8 (0.000 mi.)***	***B16***	***14***
PALM SPRINGS OIL #9	***68830 HWY 111***	***NNE 0 - 1/8 (0.015 mi.)***	***A19***	***25***
BEST CLEANERS	***68600 HIGHWAY 111***	***NW 1/8 - 1/4 (0.206 mi.)***	***44***	***57***
PALM SPRINGS MOTORS	***69-200 HY 111***	***E 1/8 - 1/4 (0.218 mi.)***	***F46***	***61***

State- and tribal - equivalent CERCLIS

ENVIROSTOR: The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifes sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

A review of the ENVIROSTOR list, as provided by EDR, and dated 10/30/2017 has revealed that there is 1 ENVIROSTOR site within approximately 1 mile of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
CATHEDRAL CITY ELEME	***CONVERSE ROAD/PLUMLE***	***NNE 1/2 - 1 (0.972 mi.)***	***63***	***86***
Facility Id: 33010009				
Status: No Action Required				

EXECUTIVE SUMMARY

State and tribal leaking storage tank lists

LUST: Leaking Underground Storage Tank (LUST) Sites included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

A review of the LUST list, as provided by EDR, has revealed that there are 19 LUST sites within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
CIRCLE K #333	37040 CATHEDRAL CANY	WNW 1/8 - 1/4 (0.244 mi.)	G48	67
Database: LUST, Date of Government Version: 12/11/2017 Status: Completed - Case Closed Global Id: T0606500927				
CIRCLE K # 333	***37040 CATHEDRAL CNYN***	***WNW 1/8 - 1/4 (0.244 mi.)***	***G49***	***69***
Database: LUST REG 7, Date of Government Version: 02/26/2004 Database: RIVERSIDE CO. LUST, Date of Government Version: 10/11/2017 Status: 9 - Case Closed Facility Id: 9915384 Facility Status: 9 Global ID: T0606500927				
R D PARKER SERVICES	36650 A CATHEDRAL CA	WNW 1/4 - 1/2 (0.253 mi.)	G50	69
Database: LUST REG 7, Date of Government Version: 02/26/2004 Status: 9 - Case Closed Global ID: T0606500914				

Lower Elevation	Address	Direction / Distance	Map ID	Page
WORLD OIL STATION #7	68869 HWY 111	0 - 1/8 (0.000 mi.)	B6	10
Database: RIVERSIDE CO. LUST, Date of Government Version: 10/11/2017 Facility Id: 95704 Facility Status: 9				
WORLD OIL CO	***68869 BROADWAY***	***0 - 1/8 (0.000 mi.)***	***B16***	***14***
Database: LUST REG 7, Date of Government Version: 02/26/2004 Database: LUST, Date of Government Version: 12/11/2017 Status: Completed - Case Closed Status: 9 - Case Closed Global Id: T0606500919 Global ID: T0606500919				
PALM SPRINGS OIL #9	***68830 HIGHWAY 111***	***NNE 0 - 1/8 (0.015 mi.)***	***A18***	***21***
Database: RIVERSIDE CO. LUST, Date of Government Version: 10/11/2017 Database: LUST, Date of Government Version: 12/11/2017 Status: Completed - Case Closed Facility Id: 9915711 Global Id: T0606500929 Facility Status: 9				
PALM SPRINGS OIL #9	***68830 HWY 111***	***NNE 0 - 1/8 (0.015 mi.)***	***A19***	***25***
Database: LUST REG 7, Date of Government Version: 02/26/2004 Status: 7 - Remedial Action Underway Global ID: T0606500929				
SHELL STATION	69010 HIGHWAY 111	E 0 - 1/8 (0.025 mi.)	C27	35
Database: LUST REG 7, Date of Government Version: 02/26/2004				

Status: 9 - Case Closed
Global ID: T0606500910

SHELL STATION ***69010 111*** ***E 0 - 1/8 (0.025 mi.)*** ***C32*** ***39***
Database: RIVERSIDE CO. LUST, Date of Government Version: 10/11/2017
Database: LUST, Date of Government Version: 12/11/2017
Status: Completed - Case Closed
Facility Id: 200420469
Facility Id: 89936
Global Id: T0606500910
Global Id: T0606512976
Facility Status: 9

CHEVRON STATION #9-3 ***68630 PALM CNYN*** ***NW 0 - 1/8 (0.123 mi.)*** ***E38*** ***50***
Database: LUST REG 7, Date of Government Version: 02/26/2004
Database: LUST, Date of Government Version: 12/11/2017
Status: Completed - Case Closed
Status: 9 - Case Closed
Global Id: T0606500913
Global ID: T0606500913

CHEVRON #9-3045 68630 E PALM CANYON NW 0 - 1/8 (0.123 mi.) E40 52
Database: RIVERSIDE CO. LUST, Date of Government Version: 10/11/2017
Facility Id: 90960
Facility Status: 9

PALM SPRINGS FORD MO ***69200 HIGHWAY 111*** ***E 1/4 - 1/2 (0.299 mi.)*** ***H51*** ***70***
Database: RIVERSIDE CO. LUST, Date of Government Version: 10/11/2017
Database: LUST, Date of Government Version: 12/11/2017
Status: Completed - Case Closed
Facility Id: 94180
Global Id: T0606500917
Facility Status: 9

PALM SPRINGS FORD MO 69200 HIGHWAY 111 E 1/4 - 1/2 (0.299 mi.) H52 71
Database: LUST REG 7, Date of Government Version: 02/26/2004
Status: 9 - Case Closed
Global ID: T0606500917

R D PARKER SERVICE C 36650 CATHEDRAL CANY NW 1/4 - 1/2 (0.325 mi.) I53 72
Database: RIVERSIDE CO. LUST, Date of Government Version: 10/11/2017
Facility Id: 91233
Facility Status: 9

R D PARKER SERVICES 36650 CATHEDRAL CANY NW 1/4 - 1/2 (0.325 mi.) I54 72
Database: LUST, Date of Government Version: 12/11/2017
Status: Completed - Case Closed
Global Id: T0606500914

KAY OLESEN ***68384 HIGHWAY 111*** ***WNW 1/4 - 1/2 (0.388 mi.)*** ***J56*** ***74***
Database: RIVERSIDE CO. LUST, Date of Government Version: 10/11/2017
Database: LUST, Date of Government Version: 12/11/2017
Status: Completed - Case Closed
Facility Id: 88825
Global Id: T0606500908
Facility Status: 9

OLESEN KAY 68384 HIGHWAY 111 WNW 1/4 - 1/2 (0.388 mi.) J57 75
Database: LUST REG 7, Date of Government Version: 02/26/2004
Status: 9 - Case Closed
Global ID: T0606500908

DESERT ICE CASTLE LL ***68600 PEREZ RD*** ***NNW 1/4 - 1/2 (0.426 mi.)*** ***59*** ***80***
Database: LUST REG 7, Date of Government Version: 02/26/2004
Database: RIVERSIDE CO. LUST, Date of Government Version: 10/11/2017
Database: LUST, Date of Government Version: 12/11/2017

Status: Completed - Case Closed
Status: 9 - Case Closed
Facility Id: 89830
Global Id: T0606500911
Facility Status: 9
Global ID: T0606500911

FAMILIAN PIPE & SUPP | 36283 PLAZA DRIVE | NNW 1/4 - 1/2 (0.435 mi.) | K61 | 84
Database: LUST REG 7, Date of Government Version: 02/26/2004
Database: LUST, Date of Government Version: 12/11/2017
Status: Completed - Case Closed
Status: 9 - Case Closed
Global Id: T0606500909
Global ID: T0606500909

INDIAN LUST: A listing of leaking underground storage tank locations on Indian Land.

A review of the INDIAN LUST list, as provided by EDR, has revealed that there is 1 INDIAN LUST site within approximately 0.5 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
CATHEDRAL CITY OIL (	***69010 HWY 111***	***E 0 - 1/8 (0.025 mi.)***	***C29***	***36***

Database: INDIAN LUST R9, Date of Government Version: 04/13/2017

State and tribal registered storage tank lists

UST: The Underground Storage Tank database contains registered USTs. USTs are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA). The data come from the State Water Resources Control Board's Hazardous Substance Storage Container Database.

A review of the UST list, as provided by EDR, has revealed that there is 1 UST site within approximately 0.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
CATHEDRAL CITY SHELL	69010 HWY 111	E 0 - 1/8 (0.025 mi.)	C24	31

Database: UST, Date of Government Version: 12/11/2017
Facility Id: 155

INDIAN UST: A listing of underground storage tank locations on Indian Land.

A review of the INDIAN UST list, as provided by EDR, has revealed that there is 1 INDIAN UST site within approximately 0.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
CATHEDRAL CITY OIL (	***69010 HWY 111***	***E 0 - 1/8 (0.025 mi.)***	***C29***	***36***

Database: INDIAN UST R9, Date of Government Version: 04/13/2017

EXECUTIVE SUMMARY

ADDITIONAL ENVIRONMENTAL RECORDS

Local Lists of Landfill / Solid Waste Disposal Sites

SWRCY: A listing of recycling facilities in California.

A review of the SWRCY list, as provided by EDR, and dated 12/11/2017 has revealed that there is 1 SWRCY site within approximately 0.5 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
PALM SPRINGS RECYCLI Cert Id: RC3197	***36630 SUNAIR PLZ***	***NW 1/4 - 1/2 (0.397 mi.)***	***58***	***76***

Local Lists of Registered Storage Tanks

SWEEPS UST: Statewide Environmental Evaluation and Planning System. This underground storage tank listing was updated and maintained by a company contacted by the SWRCB in the early 1990's. The listing is no longer updated or maintained. The local agency is the contact for more information on a site on the SWEEPS list.

A review of the SWEEPS UST list, as provided by EDR, and dated 06/01/1994 has revealed that there are 8 SWEEPS UST sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
CIRCLE K STORE #333 Status: A Tank Status: A Comp Number: 13667	***37040 CATHEDRAL CANY***	***WNW 1/8 - 1/4 (0.244 mi.)***	***G47***	***64***

Lower Elevation	Address	Direction / Distance	Map ID	Page
WORLD OIL CO Status: A Tank Status: A Comp Number: 13721	***68869 BROADWAY***	***0 - 1/8 (0.000 mi.)***	***B16***	***14***
PALM SPRINGS OIL #9 Status: A Tank Status: A Comp Number: 803	***68830 HIGHWAY 111***	***NNE 0 - 1/8 (0.015 mi.)***	***A18***	***21***
PALM SPRINGS OIL #9 Status: A Tank Status: A Comp Number: 9083	***68830 HIGHWAY 111***	***NNE 0 - 1/8 (0.015 mi.)***	***A20***	***27***
SHELL STATION Status: A Tank Status: A Comp Number: 56698	***69010 E PALM CANYON***	***E 0 - 1/8 (0.025 mi.)***	***C31***	***38***
CATHEDRAL CITY FIRE Status: A	***36913 DATE PALM DR***	***NE 0 - 1/8 (0.118 mi.)***	***D35***	***47***

Tank Status: A
Comp Number: 44

CHEVRON #93045 Status: A Tank Status: A Comp Number: 62369	***68630 E PALM CANYON***	***NW 0 - 1/8 (0.123 mi.)***	***E41***	***53***
BEEP-BEEP LUBE & TUN Status: A Tank Status: A Comp Number: 1849	***68635 HIGHWAY 111***	***NW 0 - 1/8 (0.125 mi.)***	***E42***	***54***

HIST UST: Historical UST Registered Database.

A review of the HIST UST list, as provided by EDR, and dated 10/15/1990 has revealed that there are 7 HIST UST sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
CIRCLE K STORE #333 Facility Id: 00000013667	***37040 CATHEDRAL CANY***	***WNW 1/8 - 1/4 (0.244 mi.)***	***G47***	***64***

Lower Elevation	Address	Direction / Distance	Map ID	Page
WORLD OIL CO Facility Id: 00000013721	***68869 BROADWAY***	***0 - 1/8 (0.000 mi.)***	***B16***	***14***
PS 9 Facility Id: 00000009083	68830 HWY 111	NNE 0 - 1/8 (0.015 mi.)	A21	29
CATHEDRAL CITY 34 Facility Id: 00000057339 Facility Id: 00000032209	36-913 DATE PALM	NE 0 - 1/8 (0.118 mi.)	D36	48
93045 Facility Id: 00000062369	68-630 E PALM CANYON	NW 0 - 1/8 (0.123 mi.)	E37	49
PALM SPRINGS MOTORS Facility Id: 00000021534	***69 200 HWY 111***	***E 1/8 - 1/4 (0.218 mi.)***	***F45***	***60***
PALM SPRINGS MOTORS Facility Id: 00000008886	***69-200 HY 111***	***E 1/8 - 1/4 (0.218 mi.)***	***F46***	***61***

CA FID UST: The Facility Inventory Database contains active and inactive underground storage tank locations. The source is the State Water Resource Control Board.

A review of the CA FID UST list, as provided by EDR, and dated 10/31/1994 has revealed that there are 7 CA FID UST sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
CIRCLE K STORE #333 Facility Id: 33002567 Status: A	***37040 CATHEDRAL CANY***	***WNW 1/8 - 1/4 (0.244 mi.)***	***G47***	***64***

Lower Elevation	Address	Direction / Distance	Map ID	Page
WORLD OIL CO	***68869 BROADWAY***	***0 - 1/8 (0.000 mi.)***	***B16***	***14***

Facility Id: 33002231 Status: A				
PALM SPRINGS OIL #9 Facility Id: 33002529 Status: A	***68830 HIGHWAY 111***	***NNE 0 - 1/8 (0.015 mi.)***	***A20***	***27***
SHELL STATION Facility Id: 33007117 Status: A	***69010 E PALM CANYON***	***E 0 - 1/8 (0.025 mi.)***	***C31***	***38***
CATHEDRAL CITY FIRE Facility Id: 33006785 Status: A	***36913 DATE PALM DR***	***NE 0 - 1/8 (0.118 mi.)***	***D35***	***47***
CHEVRON #93045 Facility Id: 33000143 Status: A	***68630 E PALM CANYON***	***NW 0 - 1/8 (0.123 mi.)***	***E41***	***53***
BEEP-BEEP LUBE & TUN Facility Id: 33006831 Status: A	***68635 HIGHWAY 111***	***NW 0 - 1/8 (0.125 mi.)***	***E42***	***54***

Records of Emergency Release Reports

CHMIRS: The California Hazardous Material Incident Report System contains information on reported hazardous material incidents, i.e., accidental releases or spills. The source is the California Office of Emergency Services.

A review of the CHMIRS list, as provided by EDR, and dated 05/09/2017 has revealed that there is 1 CHMIRS site within approximately 0.001 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
Not reported OES Incident Number: 08797	68915 B STREET APT 2	0 - 1/8 (0.000 mi.)	B10	11

Other Ascertainable Records

RCRA NonGen / NLR: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

A review of the RCRA NonGen / NLR list, as provided by EDR, and dated 12/11/2017 has revealed that there are 2 RCRA NonGen / NLR sites within approximately 0.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
SHELL SERVICE STATIO	***69010 HWY 111***	***E 0 - 1/8 (0.025 mi.)***	***C25***	***31***
PALM SPRINGS MOTORS	***69 200 HWY 111***	***E 1/8 - 1/4 (0.218 mi.)***	***F45***	***60***

INDIAN RESERV: This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

A review of the INDIAN RESERV list, as provided by EDR, and dated 12/31/2014 has revealed that there is 1 INDIAN RESERV site within approximately 0.001 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
AGUA CALIENTE INDIAN		0 - 1/8 (0.000 mi.)	0	8

FINDS: The Facility Index System contains both facility information and "pointers" to other sources of information that contain more detail. These include: RCRIS; Permit Compliance System (PCS); Aerometric Information Retrieval System (AIRS); FATES (FIFRA [Federal Insecticide Fungicide Rodenticide Act] and TSCA Enforcement System, FTTS [FIFRA/TSCA Tracking System]; CERCLIS; DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes); Federal Underground Injection Control (FURS); Federal Reporting Data System (FRDS); Surface Impoundments (SIA); TSCA Chemicals in Commerce Information System (CICS); PADS; RCRA-J (medical waste transporters/disposers); TRIS; and TSCA. The source of this database is the U.S. EPA/NTIS.

A review of the FINDS list, as provided by EDR, and dated 07/23/2017 has revealed that there are 5 FINDS sites within approximately 0.001 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
ELITE TIRE	68883 E PALM CANYON	0 - 1/8 (0.000 mi.)	B2	8
WORLD OIL #71 (FORME	68869 HIGHWAY 111 (B	0 - 1/8 (0.000 mi.)	B5	9
ELITE TIRE & AUTOMOT	68885 HWY 111	0 - 1/8 (0.000 mi.)	B13	13
CATHEDRAL TIRE/AUTOM	68885 E PALM CANYON	0 - 1/8 (0.000 mi.)	B14	14
WORLD OIL CO	***68869 BROADWAY***	***0 - 1/8 (0.000 mi.)***	***B16***	***14***

ECHO: ECHO provides integrated compliance and enforcement information for about 800,000 regulated facilities nationwide.

A review of the ECHO list, as provided by EDR, and dated 01/13/2018 has revealed that there is 1 ECHO site within approximately 0.001 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
WORLD OIL CO	***68869 BROADWAY***	***0 - 1/8 (0.000 mi.)***	***B16***	***14***

DRYCLEANERS: A list of drycleaner related facilities that have EPA ID numbers. These are facilities with certain SIC codes: power laundries, family and commercial; garment pressing and cleaners' agents; linen supply; coin-operated laundries and cleaning; drycleaning plants except rugs; carpet and upholster cleaning; industrial launderers; laundry and garment services.

A review of the DRYCLEANERS list, as provided by EDR, and dated 08/02/2017 has revealed that there is 1 DRYCLEANERS site within approximately 0.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
SUPER CLEAN EPA Id: CAL000327519	69040 E PALM CANYON	E 0 - 1/8 (0.057 mi.)	C34	47

EXECUTIVE SUMMARY

HAZNET: The data is extracted from the copies of hazardous waste manifests received each year by the DTSC. The annual volume of manifests is typically 700,000-1,000,000 annually, representing approximately 350,000-500,000 shipments. Data from non-California manifests & continuation sheets are not included at the present time. Data are from the manifests submitted without correction, and therefore many contain some invalid values for data elements such as generator ID, TSD ID, waste category, & disposal method. The source is the Department of Toxic Substance Control is the agency. This database begins with calendar year 1993.

A review of the HAZNET list, as provided by EDR, and dated 12/31/2016 has revealed that there are 5 HAZNET sites within approximately 0.001 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
ANGEL VIEW THRIFT MA GEPAID: CAC002848174	68823 E PALM CANYON	0 - 1/8 (0.000 mi.)	A1	8
HUD/GOLDEN FEATHER R GEPAID: CAC002232441	68933 C ST	0 - 1/8 (0.000 mi.)	3	9
1X JOSEPH H PEARLMAN GEPAID: CAC000897504	68-883 E PALM CANYON	0 - 1/8 (0.000 mi.)	B8	10
HUD/GOLDEN FEATHER R GEPAID: CAC002276953	68759 B ST	0 - 1/8 (0.000 mi.)	9	11
CATHEDRAL CITY FIRES GEPAID: CAL000012341	68885 HWY 111	0 - 1/8 (0.000 mi.)	B12	13

HIST CORTESE: The sites for the list are designated by the State Water Resource Control Board [LUST], the Integrated Waste Board [SWF/LS], and the Department of Toxic Substances Control [CALSITES]. This listing is no longer updated by the state agency.

A review of the HIST CORTESE list, as provided by EDR, and dated 04/01/2001 has revealed that there are 10 HIST CORTESE sites within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
CIRCLE K # 333 Reg Id: 7T2234023	***37040 CATHEDRAL CNYN***	***WNW 1/8 - 1/4 (0.244 mi.)***	***G49***	***69***

Lower Elevation	Address	Direction / Distance	Map ID	Page
WORLD OIL CO Reg Id: 7T2234015	***68869 BROADWAY***	***0 - 1/8 (0.000 mi.)***	***B16***	***14***
PALM SPRINGS OIL #9 Reg Id: 7T2234025	***68830 HIGHWAY 111***	***NNE 0 - 1/8 (0.015 mi.)***	***A18***	***21***
SHELL STATION Reg Id: 7T2234006	***69010 111***	***E 0 - 1/8 (0.025 mi.)***	***C32***	***39***
CHEVRON STATION #9-3 Reg Id: 7T2234009	***68630 PALM CNYN***	***NW 0 - 1/8 (0.123 mi.)***	***E38***	***50***
PALM SPRINGS FORD MO Reg Id: 7T2234013	***69200 HIGHWAY 111***	***E 1/4 - 1/2 (0.299 mi.)***	***H51***	***70***
R. D. PARKER SERVICE Reg Id: 7T2234010	36650 A CATHEDRAL CN	NW 1/4 - 1/2 (0.351 mi.)	I55	73
KAY OLESEN Reg Id: 7T2234004	***68384 HIGHWAY 111***	***WNW 1/4 - 1/2 (0.388 mi.)***	***J56***	***74***
DESERT ICE CASTLE LL	***68600 PEREZ RD***	***NNW 1/4 - 1/2 (0.426 mi.)***	***59***	***80***

Reg Id: 7T2234007

FAMILIAN PIPE & SUPP	***36283 PLAZA***	***NNW 1/4 - 1/2 (0.435 mi.)***	***K60***	***84***

Reg Id: 7T2234005

Notify 65: Listings of all Proposition 65 incidents reported to counties by the State Water Resources Control Board and the Regional Water Quality Control Board. This database is no longer updated by the reporting agency.

A review of the Notify 65 list, as provided by EDR, and dated 12/14/2017 has revealed that there are 2 Notify 65 sites within approximately 1 mile of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
SHELL OIL SERVICE ST	69010 HWY 111 @ DATE	E 0 - 1/8 (0.025 mi.)	C30	37
COCA-COLA ENTERPRISE	68-600 PEREZ	WNW 1/2 - 1 (0.847 mi.)	62	86

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR Hist Auto: EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

A review of the EDR Hist Auto list, as provided by EDR, has revealed that there are 7 EDR Hist Auto sites within approximately 0.125 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
CATHEDRAL CITY FIRES	68885 E PALM CYN DR	0 - 1/8 (0.000 mi.)	B11	12
SHELL SWIFT STOP	68869 E PALM CANYON	0 - 1/8 (0.000 mi.)	B17	21
PALM SPRINGS OIL	68830 HWY 111	NNE 0 - 1/8 (0.015 mi.)	A22	31
PYLES ROBERT	68904-96 HWY 111	ENE 0 - 1/8 (0.016 mi.)	B23	31
CATHEDRAL CITY SHELL	69010 E PALM CANYON	E 0 - 1/8 (0.025 mi.)	C26	35
CATHEDRAL SHELL	69010 E US HIGHWAY 1	E 0 - 1/8 (0.025 mi.)	C28	35
H & D KRINGS INC	68630 E PALM CANYON	NW 0 - 1/8 (0.123 mi.)	E39	52

EDR Hist Cleaner: EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and

operations that typically create environmental concerns, but may not show up in current government records searches.

A review of the EDR Hist Cleaner list, as provided by EDR, has revealed that there is 1 EDR Hist Cleaner site within approximately 0.125 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
SUPER CLEANERS	69040 E PALM CANYON	E 0 - 1/8 (0.057 mi.)	C33	46

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA LUST: The EDR Recovered Government Archive Leaking Underground Storage Tank database provides a list of LUST incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the State Water Resources Control Board in California.

A review of the RGA LUST list, as provided by EDR, has revealed that there are 3 RGA LUST sites within approximately 0.001 miles of the target property.

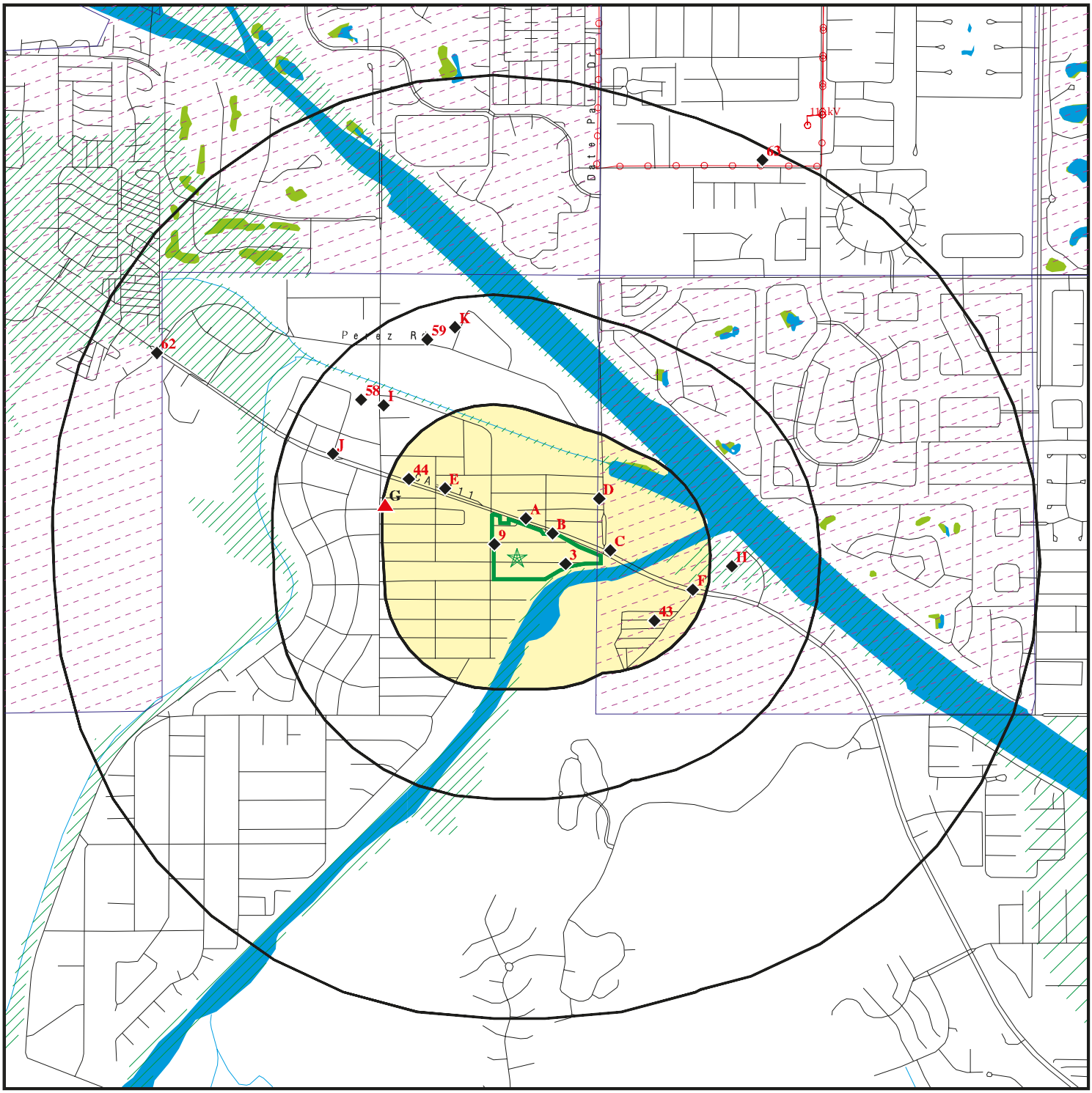
Lower Elevation	Address	Direction / Distance	Map ID	Page
WORLD OIL STATION NO	68869 HIGHWAY 111 (B	0 - 1/8 (0.000 mi.)	B4	9
WORLD OIL #71 (FORME	68869 HIGHWAY 111 (B	0 - 1/8 (0.000 mi.)	B7	10
WORLD OIL STATION NO	68869 HIGHWAY 111 (B	0 - 1/8 (0.000 mi.)	B15	14

EXECUTIVE SUMMARY

Due to poor or inadequate address information, the following sites were not mapped. Count: 2 records.

Site Name	Database(s)
TRAMWAY SHELL	LUST
CVWD 80-06 LIFT STATION	LUST

OVERVIEW MAP - 5208224.2S



0 1/4 1/2 1 Miles

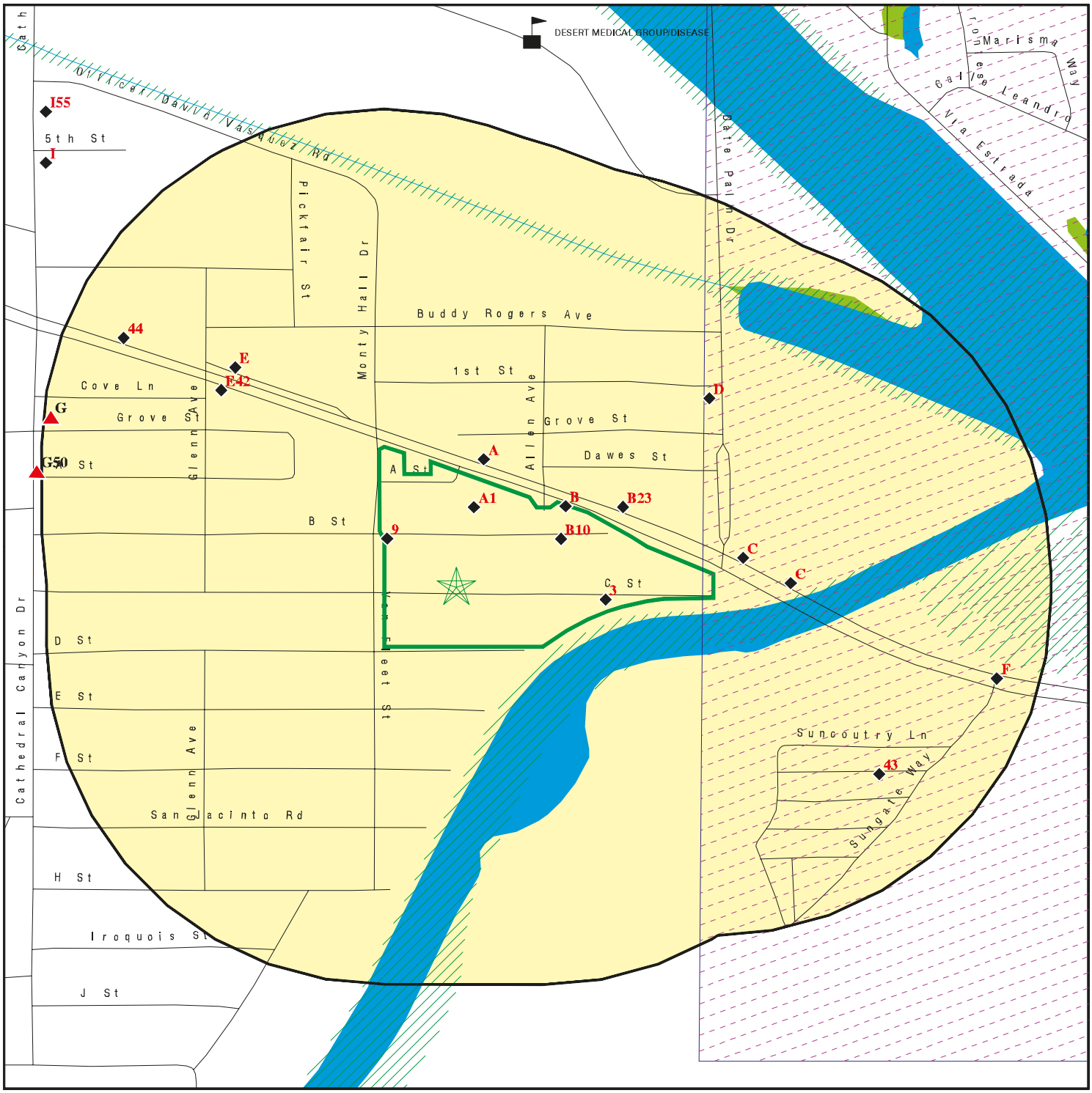
- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Manufactured Gas Plants
- National Priority List Sites
- Dept. Defense Sites
- Indian Reservations BIA
- Power transmission lines
- 100-year flood zone
- 500-year flood zone
- National Wetland Inventory
- State Wetlands
- Upgradient Area
- Areas of Concern

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: South Site	CLIENT: ANALYTICAL ENVIRONMENTAL SERVICES
ADDRESS: E PALM CANYON DR Cathedral City CA 92234	CONTACT: Katherine Green
LAT/LONG: 33.777635 / 116.461405	INQUIRY #: 5208224.2s DATE: March 05, 2018 1:47 pm

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DETAIL MAP - 5208224.2S



Target Property

Sites at elevations higher than or equal to the target property

Sites at elevations lower than the target property

Manufactured Gas Plants

Sensitive Receptors

National Priority List Sites

Dept. Defense Sites

0 1/16 1/8 1/4 Miles

Indian Reservations BIA

100-year flood zone

500-year flood zone

National Wetland Inventory

State Wetlands

Areas of Concern

N

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME:	South Site	CLIENT:	ANALYTICAL ENVIRONMENTAL SERVICES
ADDRESS:	E PALM CANYON DR Cathedral City CA 92234	CONTACT:	Katherine Green
LAT/LONG:	33.777635 / 116.461405	INQUIRY #:	5208224.2s
		DATE:	March 05, 2018 1:52 pm

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MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
STANDARD ENVIRONMENTAL RECORDS								
Federal NPL site list								
NPL	1.000		0	0	0	0	NR	0
Proposed NPL	1.000		0	0	0	0	NR	0
NPL LIENS	0.001		0	NR	NR	NR	NR	0
Federal Delisted NPL site list								
Delisted NPL	1.000		0	0	0	0	NR	0
Federal CERCLIS list								
FEDERAL FACILITY	0.500		0	0	0	NR	NR	0
SEMS	0.500		0	1	0	NR	NR	1
Federal CERCLIS NFRAP site list								
SEMS-ARCHIVE	0.500		0	0	0	NR	NR	0
Federal RCRA CORRACTS facilities list								
CORRACTS	1.000		0	0	0	0	NR	0
Federal RCRA non-CORRACTS TSD facilities list								
RCRA-TSDF	0.500		0	0	0	NR	NR	0
Federal RCRA generators list								
RCRA-LQG	0.250		0	0	NR	NR	NR	0
RCRA-SQG	0.250		2	3	NR	NR	NR	5
RCRA-CESQG	0.250		0	0	NR	NR	NR	0
Federal institutional controls / engineering controls registries								
LUCIS	0.500		0	0	0	NR	NR	0
US ENG CONTROLS	0.500		0	0	0	NR	NR	0
US INST CONTROL	0.500		0	0	0	NR	NR	0
Federal ERNS list								
ERNS	0.001		0	NR	NR	NR	NR	0
State- and tribal - equivalent NPL								
RESPONSE	1.000		0	0	0	0	NR	0
State- and tribal - equivalent CERCLIS								
ENVIROSTOR	1.000		0	0	0	1	NR	1
State and tribal landfill and/or solid waste disposal site lists								
SWF/LF	0.500		0	0	0	NR	NR	0
State and tribal leaking storage tank lists								
LUST	0.500		8	2	9	NR	NR	19

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
INDIAN LUST	0.500		1	0	0	NR	NR	1
SLIC	0.500		0	0	0	NR	NR	0
State and tribal registered storage tank lists								
FEMA UST	0.250		0	0	NR	NR	NR	0
UST	0.250		1	0	NR	NR	NR	1
AST	0.250		0	0	NR	NR	NR	0
INDIAN UST	0.250		1	0	NR	NR	NR	1
State and tribal voluntary cleanup sites								
VCP	0.500		0	0	0	NR	NR	0
INDIAN VCP	0.500		0	0	0	NR	NR	0
State and tribal Brownfields sites								
BROWNFIELDS	0.500		0	0	0	NR	NR	0
ADDITIONAL ENVIRONMENTAL RECORDS								
Local Brownfield lists								
US BROWNFIELDS	0.500		0	0	0	NR	NR	0
Local Lists of Landfill / Solid Waste Disposal Sites								
WMUDS/SWAT	0.500		0	0	0	NR	NR	0
SWRCY	0.500		0	0	1	NR	NR	1
HAULERS	0.001		0	NR	NR	NR	NR	0
INDIAN ODI	0.500		0	0	0	NR	NR	0
DEBRIS REGION 9	0.500		0	0	0	NR	NR	0
ODI	0.500		0	0	0	NR	NR	0
IHS OPEN DUMPS	0.500		0	0	0	NR	NR	0
Local Lists of Hazardous waste / Contaminated Sites								
US HIST CDL	0.001		0	NR	NR	NR	NR	0
HIST Cal-Sites	1.000		0	0	0	0	NR	0
SCH	0.250		0	0	NR	NR	NR	0
CDL	0.001		0	NR	NR	NR	NR	0
Toxic Pits	1.000		0	0	0	0	NR	0
US CDL	0.001		0	NR	NR	NR	NR	0
Local Lists of Registered Storage Tanks								
SWEEPS UST	0.250		7	1	NR	NR	NR	8
HIST UST	0.250		4	3	NR	NR	NR	7
CA FID UST	0.250		6	1	NR	NR	NR	7
Local Land Records								
LIENS	0.001		0	NR	NR	NR	NR	0
LIENS 2	0.001		0	NR	NR	NR	NR	0
DEED	0.500		0	0	0	NR	NR	0
Records of Emergency Release Reports								
HMIRS	0.001		0	NR	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
CHMIRS	0.001		1	NR	NR	NR	NR	1
LDS	0.001		0	NR	NR	NR	NR	0
MCS	0.001		0	NR	NR	NR	NR	0
SPILLS 90	0.001		0	NR	NR	NR	NR	0
Other Ascertainable Records								
RCRA NonGen / NLR	0.250		1	1	NR	NR	NR	2
FUDS	1.000		0	0	0	0	NR	0
DOD	1.000		0	0	0	0	NR	0
SCRD DRYCLEANERS	0.500		0	0	0	NR	NR	0
US FIN ASSUR	0.001		0	NR	NR	NR	NR	0
EPA WATCH LIST	0.001		0	NR	NR	NR	NR	0
2020 COR ACTION	0.250		0	0	NR	NR	NR	0
TSCA	0.001		0	NR	NR	NR	NR	0
TRIS	0.001		0	NR	NR	NR	NR	0
SSTS	0.001		0	NR	NR	NR	NR	0
ROD	1.000		0	0	0	0	NR	0
RMP	0.001		0	NR	NR	NR	NR	0
RAATS	0.001		0	NR	NR	NR	NR	0
PRP	0.001		0	NR	NR	NR	NR	0
PADS	0.001		0	NR	NR	NR	NR	0
ICIS	0.001		0	NR	NR	NR	NR	0
FTTS	0.001		0	NR	NR	NR	NR	0
MLTS	0.001		0	NR	NR	NR	NR	0
COAL ASH DOE	0.001		0	NR	NR	NR	NR	0
COAL ASH EPA	0.500		0	0	0	NR	NR	0
PCB TRANSFORMER	0.001		0	NR	NR	NR	NR	0
RADINFO	0.001		0	NR	NR	NR	NR	0
HIST FTTS	0.001		0	NR	NR	NR	NR	0
DOT OPS	0.001		0	NR	NR	NR	NR	0
CONSENT	1.000		0	0	0	0	NR	0
INDIAN RESERV	0.001		1	NR	NR	NR	NR	1
FUSRAP	1.000		0	0	0	0	NR	0
UMTRA	0.500		0	0	0	NR	NR	0
LEAD SMELTERS	0.001		0	NR	NR	NR	NR	0
US AIRS	0.001		0	NR	NR	NR	NR	0
US MINES	0.250		0	0	NR	NR	NR	0
ABANDONED MINES	0.001		0	NR	NR	NR	NR	0
FINDS	0.001		5	NR	NR	NR	NR	5
UXO	1.000		0	0	0	0	NR	0
ECHO	0.001		1	NR	NR	NR	NR	1
DOCKET HWC	0.001		0	NR	NR	NR	NR	0
FUELS PROGRAM	0.250		0	0	NR	NR	NR	0
CA BOND EXP. PLAN	1.000		0	0	0	0	NR	0
Cortese	0.500		0	0	0	NR	NR	0
CUPA Listings	0.250		0	0	NR	NR	NR	0
DRYCLEANERS	0.250		1	0	NR	NR	NR	1
EMI	0.001		0	NR	NR	NR	NR	0
ENF	0.001		0	NR	NR	NR	NR	0
Financial Assurance	0.001		0	NR	NR	NR	NR	0
HAZNET	0.001		5	NR	NR	NR	NR	5

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
ICE	0.001		0	NR	NR	NR	NR	0
HIST CORTESE	0.500		4	1	5	NR	NR	10
HWP	1.000		0	0	0	0	NR	0
HWT	0.250		0	0	NR	NR	NR	0
MINES	0.001		0	NR	NR	NR	NR	0
MWMP	0.250		0	0	NR	NR	NR	0
NPDES	0.001		0	NR	NR	NR	NR	0
PEST LIC	0.001		0	NR	NR	NR	NR	0
PROC	0.500		0	0	0	NR	NR	0
Notify 65	1.000		1	0	0	1	NR	2
UIC	0.001		0	NR	NR	NR	NR	0
WASTEWATER PITS	0.500		0	0	0	NR	NR	0
WDS	0.001		0	NR	NR	NR	NR	0
WIP	0.250		0	0	NR	NR	NR	0
EDR HIGH RISK HISTORICAL RECORDS								
EDR Exclusive Records								
EDR MGP	1.000		0	0	0	0	NR	0
EDR Hist Auto	0.125		7	NR	NR	NR	NR	7
EDR Hist Cleaner	0.125		1	NR	NR	NR	NR	1
EDR RECOVERED GOVERNMENT ARCHIVES								
Exclusive Recovered Govt. Archives								
RGA LF	0.001		0	NR	NR	NR	NR	0
RGA LUST	0.001		3	NR	NR	NR	NR	3
- Totals --		0	61	13	15	2	0	91

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

IND RES **AGUA CALIENTE INDIAN RESERVATION** **INDIAN RESERV** **CIND200714**
Region **N/A**
, CA
< 1/8
1 ft.

INDIAN RESERV:
Feature: Indian Reservation
Name: Agua Caliente Indian Reservation
Agency: BIA

A1 **ANGEL VIEW THRIFT MART** **HAZNET** **S120991072**
68823 E PALM CANYON DR **N/A**
< 1/8 **CATHEDRAL CITY, CA 92234**
1 ft.

Site 1 of 6 in cluster A

Relative: HAZNET:
Lower
envid: S120991072
Actual: Year: 2016
323 ft. GEPAID: CAC002848174
Contact: JIM SHERMAN
Telephone: 7602509933
Mailing Name: Not reported
Mailing Address: 68700 AVENUE LALO GUERRERO
Mailing City,St,Zip: CATHEDRAL CITY, CA 92234
Gen County: Riverside
TSD EPA ID: CAD009007626
TSD County: Los Angeles
Waste Category: Asbestos containing waste
Disposal Method: Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Tons: 1.84
Cat Decode: Asbestos containing waste
Method Decode: Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Facility County: Riverside

B2 **ELITE TIRE** **FINDS** **1023296844**
68883 E PALM CANYON DR **N/A**
< 1/8 **CATHEDRAL CITY, CA 92234**
1 ft.

Site 1 of 15 in cluster B

Relative: FINDS:
Lower
Actual: Registry ID: 110065886624
314 ft.

Environmental Interest/Information System
STATE MASTER

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

3 **HUD/GOLDEN FEATHER REALTY** **HAZNET** **S112906116**
68933 C ST **N/A**
< 1/8 **CATHEDRAL CITY, CA 92234**
1 ft.

Relative: Lower
Actual: 320 ft.

HAZNET:

envid:	S112906116
Year:	1999
GEPAID:	CAC002232441
Contact:	HUD
Telephone:	0000000000
Mailing Name:	Not reported
Mailing Address:	555 S SUNRISE WAY, STE 204
Mailing City,St,Zip:	PALM SPRINGS, CA 922640000
Gen County:	Not reported
TSD EPA ID:	CAD982444481
TSD County:	Not reported
Waste Category:	Household waste
Disposal Method:	Recycler
Tons:	.0208
Cat Decode:	Not reported
Method Decode:	Not reported
Facility County:	Riverside

B4 **WORLD OIL STATION NO. 71** **RGA LUST** **S114723385**
68869 HIGHWAY 111 (BROADWAY) **N/A**
< 1/8 **CATHEDRAL CITY, CA**
1 ft.

Site 2 of 15 in cluster B

Relative: Lower
Actual: 314 ft.

RGA LUST:

2005	WORLD OIL STATION NO. 71	68869 HIGHWAY 111 (BROADWAY)
2003	WORLD OIL STATION NO. 71	68869 HIGHWAY 111 (BROADWAY)

B5 **WORLD OIL #71 (FORMER)** **FINDS** **1023254112**
68869 HIGHWAY 111 (BROADWAY) **N/A**
< 1/8 **CATHEDRAL CITY, CA 92234**
1 ft.

Site 3 of 15 in cluster B

Relative: Lower
Actual: 314 ft.

FINDS:

Registry ID: 110065430019

Environmental Interest/Information System
STATE MASTER

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

B6 **WORLD OIL STATION #71** **LUST** **S103821003**
68869 HWY 111 **N/A**
< 1/8 **CATHEDRAL CITY, CA**
1 ft.

Site 4 of 15 in cluster B

Relative: RIVERSIDE CO. LUST:
Lower

Region:	RIVERSIDE
Facility ID:	95704
Employee:	Shurlow-LOP
Site Closed:	Yes
Case Type:	Soil only
Facility Status:	closed/action completed
Casetype Decode:	Soil only is impacted
Fstatus Decode:	Closed/Action completed

Actual:
314 ft.

B7 **WORLD OIL #71 (FORMER)** **RGA LUST** **S114723276**
68869 HIGHWAY 111 (BROADWAY) **N/A**
< 1/8 **CATHEDRAL CITY, CA**
1 ft.

Site 5 of 15 in cluster B

Relative: RGA LUST:
Lower

2012	WORLD OIL #71 (FORMER)	68869 HIGHWAY 111 (BROADWAY)
2011	WORLD OIL #71 (FORMER)	68869 HIGHWAY 111 (BROADWAY)
2010	WORLD OIL #71 (FORMER)	68869 HIGHWAY 111 (BROADWAY)
2009	WORLD OIL #71 (FORMER)	68869 HIGHWAY 111 (BROADWAY)
2008	WORLD OIL #71 (FORMER)	68869 HIGHWAY 111 (BROADWAY)
2007	WORLD OIL #71 (FORMER)	68869 HIGHWAY 111 (BROADWAY)
2006	WORLD OIL #71 (FORMER)	68869 HIGHWAY 111 (BROADWAY)

Actual:
314 ft.

B8 **1X JOSEPH H PEARLMAN** **HAZNET** **S112851027**
68-883 E PALM CANYON DR **N/A**
< 1/8 **CATHEDRAL CITY, CA 92234**
1 ft.

Site 6 of 15 in cluster B

Relative: HAZNET:
Lower

envid:	S112851027
Year:	1993
GEPAID:	CAC000897504
Contact:	Not reported
Telephone:	0000000000
Mailing Name:	Not reported
Mailing Address:	68-883 E PALM CANYON DR
Mailing City,St,Zip:	CATHEDRAL CITY, CA 922340000
Gen County:	Not reported
TSD EPA ID:	CAD982484933
TSD County:	Not reported
Waste Category:	Other empty containers 30 gallons or more
Disposal Method:	Recycler
Tons:	0.25
Cat Decode:	Not reported
Method Decode:	Not reported
Facility County:	Riverside

Actual:
314 ft.

9 **HUD/GOLDEN FEATHER REALTY** **HAZNET** **S112908746**
68759 B ST **N/A**
< 1/8 **CATHEDRAL CITY, CA 92234**
1 ft.

HAZNET:

Relative: envid: S112908746
Lower Year: 2000
GEPAID: CAC002276953
Actual: Contact: NICOLE\\ PROJ MGR
330 ft. Telephone: 9098902370
Mailing Name: Not reported
Mailing Address: 225 AIRPORT DR STE 100
Mailing City,St,Zip: SAN BERNARDINO, CA 942080000
Gen County: Not reported
TSD EPA ID: CAD982444481
TSD County: Not reported
Waste Category: Household waste
Disposal Method: Transfer Station
Tons: 0.02
Cat Decode: Not reported
Method Decode: Not reported
Facility County: Riverside

B10 **CHMIRS** **S105639974**
68915 B STREET APT 2 **N/A**
< 1/8 **CATHEDRAL CITY, CA 92234**
1 ft.

Site 7 of 15 in cluster B

Relative: CHMIRS:
Lower OES Incident Number: 08797
OES notification: Not reported
Actual: OES Date: 6/22/1995
318 ft. OES Time: 10:05:24 PM
Date Completed: Not reported
Property Use: Not reported
Agency Id Number: Not reported
Agency Incident Number: Not reported
Time Notified: Not reported
Time Completed: Not reported
Surrounding Area: Not reported
Estimated Temperature: Not reported
Property Management: Not reported
More Than Two Substances Involved?: Not reported
Resp Agncy Personel # Of Decontaminated: Not reported
Responding Agency Personel # Of Injuries: Not reported
Responding Agency Personel # Of Fatalities: Not reported
Others Number Of Decontaminated: Not reported
Others Number Of Injuries: Not reported
Others Number Of Fatalities: Not reported
Vehicle Make/year: Not reported
Vehicle License Number: Not reported
Vehicle State: Not reported
Vehicle Id Number: Not reported
CA DOT PUC/ICC Number: Not reported
Company Name: Not reported
Reporting Officer Name/ID: Not reported
Report Date: Not reported
Facility Telephone: Not reported

(Continued) **S105639974**

Waterway Involved:	YES
Waterway:	Not reported
Spill Site:	Not reported
Cleanup By:	Not reported
Containment:	Not reported
What Happened:	Not reported
Type:	PETROLEUM
Measure:	Not reported
Other:	Not reported
Date/Time:	Not reported
Year:	1995
Agency:	cathedral city fd
Incident Date:	6/22/95 2109
Admin Agency:	Not reported
Amount:	1 gallon
Contained:	NO
Site Type:	OTHER
E Date:	Not reported
Substance:	gasoline
Unknown:	Not reported
Substance #2:	Not reported
Substance #3:	Not reported
Evacuations:	NO
Number of Injuries:	NO
Number of Fatalities:	NO
#1 Pipeline:	Not reported
#2 Pipeline:	Not reported
#3 Pipeline:	Not reported
#1 Vessel >= 300 Tons:	Not reported
#2 Vessel >= 300 Tons:	Not reported
#3 Vessel >= 300 Tons:	Not reported
Evacs:	Not reported
Injuries:	Not reported
Fatals:	Not reported
Comments:	Not reported
Description:	resident dropped gas onto dirt area. area watered down.

B11 **CATHEDRAL CITY FIRESTONE** **EDR Hist Auto** **1020706943**
68885 E PALM CYN DR **N/A**
< 1/8 **CATHEDRAL CITY, CA 92234**
1 ft.

Site 8 of 15 in cluster B

Relative: EDR Hist Auto
Lower

Actual: Year: Name: Type:
314 ft.

1989	CATHEDRAL CITY FIRESTONE	General Automotive Repair Shops
1991	CATHEDRAL CITY FIRESTONE	General Automotive Repair Shops
1992	CATHEDRAL CITY FIRESTONE	General Automotive Repair Shops
1993	CATHEDRAL CITY FIRESTONE	General Automotive Repair Shops
1994	CATHEDRAL CITY FIRESTONE	General Automotive Repair Shops
1995	CATHEDRAL CITY FIRESTONE	General Automotive Repair Shops
1996	CATHEDRAL CITY FIRESTONE	General Automotive Repair Shops
1997	CATHEDRAL CITY FIRESTONE	General Automotive Repair Shops
1997	ROUTE 66 RIDERS INC	Gasoline Service Stations, NEC
1998	ROUTE 66 RIDERS INC	Gasoline Service Stations, NEC
1999	ROUTE 66 RIDERS INC	Gasoline Service Stations, NEC

CATHEDRAL CITY FIRESTONE (Continued) **1020706943**

2000	ROUTE 66 RIDERS INC	Gasoline Service Stations, NEC
2001	ROUTE 66 RIDERS INC	Gasoline Service Stations, NEC
2002	ROUTE 66 RIDERS INC	Gasoline Service Stations, NEC
2003	ROUTE 66 RIDERS INC	Gasoline Service Stations, NEC
2004	ROUTE 66 RIDERS INC	Gasoline Service Stations, NEC
2005	ROUTE 66 RIDERS INC	Gasoline Service Stations, NEC
2006	ROUTE 66 RIDERS INC	Gasoline Service Stations, NEC
2007	ROUTE 66 RIDERS INC	Gasoline Service Stations, NEC
2008	ROUTE 66 RIDERS INC	Gasoline Service Stations, NEC

B12 **CATHEDRAL CITY FIRESTONE** **HAZNET** **S113025766**
68885 HWY 111 **N/A**
< 1/8 **CATHEDRAL CITY, CA 92234**
1 ft.

Site 9 of 15 in cluster B

Relative: Lower
Actual: 314 ft.

HAZNET:

envid:	S113025766
Year:	2006
GEPAID:	CAL000012341
Contact:	UNDELIVERABLE SURVEY 2-7-95 JV
Telephone:	--
Mailing Name:	Not reported
Mailing Address:	68885 HWY 111
Mailing City,St,Zip:	CATHEDRAL CITY, CA 922340000
Gen County:	Not reported
TSD EPA ID:	NVD980895338
TSD County:	Not reported
Waste Category:	Off-specification, aged or surplus organics
Disposal Method:	Recycler
Tons:	0.1
Cat Decode:	Not reported
Method Decode:	Not reported
Facility County:	Riverside

B13 **ELITE TIRE & AUTOMOTIVE CENTER** **FINDS** **1023212790**
68885 HWY 111 **N/A**
< 1/8 **CATHEDRAL CITY, CA 92234**
1 ft.

Site 10 of 15 in cluster B

Relative: Lower
Actual: 314 ft.

FINDS:

Registry ID: 110064984450

Environmental Interest/Information System
STATE MASTER

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

B14 **CATHEDRAL TIRE/AUTOMOTIVE** **FINDS** **1023270836**
68885 E PALM CANYON DR **N/A**
< 1/8 **CATHEDRAL CITY, CA 92234**
1 ft.

Site 11 of 15 in cluster B

Relative: Lower

FINDS:

Actual: 314 ft.

Registry ID: 110065607622

Environmental Interest/Information System
STATE MASTER

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

B15 **WORLD OIL STATION NO. 71** **RGA LUST** **S114723384**
68869 HIGHWAY 111 (BROAD **N/A**
< 1/8 **CATHEDRAL CITY, CA**
1 ft.

Site 12 of 15 in cluster B

Relative: Lower

RGA LUST:

Actual: 314 ft.

2002 WORLD OIL STATION NO. 71 68869 HIGHWAY 111 (BROAD

B16 **WORLD OIL CO** **RCRA-SQG** **1000278380**
68869 BROADWAY **LUST** **CAD981160906**
< 1/8 **CATHEDRAL CITY, CA 92234** **SWEEPS UST**
1 ft. **HIST UST**
CA FID UST

Site 13 of 15 in cluster B **FINDS**
ECHO

Relative: Lower **HIST CORTESE**

Actual: 314 ft.

RCRA-SQG:

Date form received by agency: 09/01/1996
Facility name: WORLD OIL CO
Facility address: 68869 BROADWAY
CATHEDRAL CITY, CA 92234
EPA ID: CAD981160906
Mailing address: 9302 S GARFIELD
SOUTH GATE, CA 90280
Contact: Not reported
Contact address: Not reported
Not reported
Contact country: US
Contact telephone: Not reported
Contact email: Not reported
EPA Region: 09
Classification: Small Small Quantity Generator
Description: Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

WORLD OIL CO (Continued) **1000278380**

Owner/Operator Summary:
Owner/operator name: NOT REQUIRED
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: 415-555-1212
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: WORLD OIL MARKETING CO #71
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: 415-555-1212
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:
Date form received by agency: 10/29/1985
Site name: WORLD OIL CO
Classification: Large Quantity Generator

Violation Status: No violations found

LUST:
Lead Agency: RIVERSIDE COUNTY LOP
Case Type: LUST Cleanup Site
Geo Track: http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0606500919
Global Id: T0606500919

WORLD OIL CO (Continued) **1000278380**

Latitude: 33.7782479847298
Longitude: -116.460425731638
Status: Completed - Case Closed
Status Date: 06/03/1996
Case Worker: RIV
RB Case Number: 7T2234015
Local Agency: RIVERSIDE COUNTY LOP
File Location: Local Agency Warehouse
Local Case Number: 95704
Potential Media Affect: Soil
Potential Contaminants of Concern: Gasoline
Site History: Not reported

LUST:
Global Id: T0606500919
Contact Type: Regional Board Caseworker
Contact Name: Phan Le
Organization Name: COLORADO RIVER BASIN RWQCB (REGION 7)
Address: 73720 FRED WARING DRIVE SUITE #100
City: PALM DESERT
Email: phan.le@waterboards.ca.gov
Phone Number: 7607768974

Global Id: T0606500919
Contact Type: Local Agency Caseworker
Contact Name: Riverside County LOP
Organization Name: RIVERSIDE COUNTY LOP
Address: 3880 LEMON ST SUITE 200
City: RIVERSIDE
Email: Not reported
Phone Number: 9519558980

LUST:
Global Id: T0606500919
Action Type: Other
Date: 08/10/1995
Action: Leak Discovery

Global Id: T0606500919
Action Type: ENFORCEMENT
Date: 06/03/1996
Action: Closure/No Further Action Letter - #Riv Co Closure

Global Id: T0606500919
Action Type: ENFORCEMENT
Date: 06/02/1996
Action: File review - #RCDEH Upload Site File 9/11/2015

Global Id: T0606500919
Action Type: Other
Date: 08/29/1995
Action: Leak Stopped

Global Id: T0606500919
Action Type: Other
Date: 08/22/1995
Action: Leak Reported

WORLD OIL CO (Continued) **1000278380**

LUST:
Global Id: T0606500919
Status: Open - Case Begin Date
Status Date: 08/10/1995

Global Id: T0606500919
Status: Completed - Case Closed
Status Date: 06/03/1996

LUST REG 7:
Region: 7
Status: 9 - Case Closed
Case Num: 7T2234015
Substance: Gasoline - Automotive
ID: 1276
Global ID: T0606500919
Lead Agency: Local Agency
Case Worker: KO

SWEEPS UST:
Status: Active
Comp Number: 13721
Number: 1
Board Of Equalization: 44-011113
Referral Date: 06-19-89
Action Date: 06-19-89
Created Date: 02-29-88
Owner Tank Id: 7101
SWRCB Tank Id: 33-000-013721-000001
Tank Status: A
Capacity: 12000
Active Date: 06-19-89
Tank Use: M.V. FUEL
STG: P
Content: LEADED
Number Of Tanks: 6

Status: Active
Comp Number: 13721
Number: 1
Board Of Equalization: 44-011113
Referral Date: 06-19-89
Action Date: 06-19-89
Created Date: 02-29-88
Owner Tank Id: 7102
SWRCB Tank Id: 33-000-013721-000002
Tank Status: A
Capacity: 10000
Active Date: 06-19-89
Tank Use: M.V. FUEL
STG: P
Content: LEADED
Number Of Tanks: Not reported

Status: Active

WORLD OIL CO (Continued) **1000278380**

Comp Number: 13721
Number: 1
Board Of Equalization: 44-011113
Referral Date: 06-19-89
Action Date: 06-19-89
Created Date: 02-29-88
Owner Tank Id: 7103
SWRCB Tank Id: 33-000-013721-000003
Tank Status: A
Capacity: 12000
Active Date: 06-19-89
Tank Use: M.V. FUEL
STG: P
Content: REG UNLEADED
Number Of Tanks: Not reported

Status: Active
Comp Number: 13721
Number: 1
Board Of Equalization: 44-011113
Referral Date: 06-19-89
Action Date: 06-19-89
Created Date: 02-29-88
Owner Tank Id: 7104
SWRCB Tank Id: 33-000-013721-000004
Tank Status: A
Capacity: 10000
Active Date: 06-19-89
Tank Use: M.V. FUEL
STG: P
Content: REG UNLEADED
Number Of Tanks: Not reported

Status: Active
Comp Number: 13721
Number: 1
Board Of Equalization: 44-011113
Referral Date: 06-19-89
Action Date: 06-19-89
Created Date: 02-29-88
Owner Tank Id: 7105
SWRCB Tank Id: 33-000-013721-000005
Tank Status: A
Capacity: 12000
Active Date: 06-19-89
Tank Use: M.V. FUEL
STG: P
Content: REG UNLEADED
Number Of Tanks: Not reported

Status: Active
Comp Number: 13721
Number: 1
Board Of Equalization: 44-011113
Referral Date: 06-19-89
Action Date: 06-19-89
Created Date: 02-29-88

WORLD OIL CO (Continued) **1000278380**

Owner Tank Id: 7106
SWRCB Tank Id: 33-000-013721-000006
Tank Status: A
Capacity: 10000
Active Date: 06-19-89
Tank Use: M.V. FUEL
STG: P
Content: DIESEL
Number Of Tanks: Not reported

HIST UST:
File Number: 0001FB1A
URL: http://geotracker.waterboards.ca.gov/ustpdfs/pdf/0001FB1A.pdf
Region: STATE
Facility ID: 00000013721
Facility Type: Gas Station
Other Type: Not reported
Contact Name: RON COLEMAN
Telephone: 2135608801
Owner Name: WORLD OIL MARKETING COMPANY
Owner Address: 9302 S. GARFIELD AVENUE
Owner City,St,Zip: SOUTH GATE, CA 90280
Total Tanks: 0006

Tank Num: 001
Container Num: 7101
Year Installed: Not reported
Tank Capacity: 00012000
Tank Used for: PRODUCT
Type of Fuel: REGULAR
Container Construction Thickness: Not reported
Leak Detection: Stock Inventor

Tank Num: 002
Container Num: 7102
Year Installed: Not reported
Tank Capacity: 00010000
Tank Used for: PRODUCT
Type of Fuel: REGULAR
Container Construction Thickness: Not reported
Leak Detection: Stock Inventor

Tank Num: 003
Container Num: 7103
Year Installed: Not reported
Tank Capacity: 00012000
Tank Used for: PRODUCT
Type of Fuel: UNLEADED
Container Construction Thickness: Not reported
Leak Detection: Stock Inventor

Tank Num: 004
Container Num: 7104
Year Installed: Not reported
Tank Capacity: 00010000
Tank Used for: PRODUCT
Type of Fuel: UNLEADED

WORLD OIL CO (Continued) **1000278380**

Container Construction Thickness: Not reported
Leak Detection: Stock Inventor

Tank Num: 005
Container Num: 7105
Year Installed: Not reported
Tank Capacity: 00012000
Tank Used for: PRODUCT
Type of Fuel: 06
Container Construction Thickness: Not reported
Leak Detection: Stock Inventor

Tank Num: 006
Container Num: 7106
Year Installed: Not reported
Tank Capacity: 00010000
Tank Used for: PRODUCT
Type of Fuel: DIESEL
Container Construction Thickness: Not reported
Leak Detection: Stock Inventor

Click here for Geo Tracker PDF:

CA FID UST:
Facility ID: 33002231
Regulated By: UTNKA
Regulated ID: 00013721
Cortese Code: Not reported
SIC Code: Not reported
Facility Phone: 2135608801
Mail To: Not reported
Mailing Address: 9302 S GARFIELD AVE
Mailing Address 2: Not reported
Mailing City,St,Zip: CATHEDRAL CITY 92234
Contact: Not reported
Contact Phone: Not reported
DUNs Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported
Status: Active

FINDS:

Registry ID: 110002678460

Environmental Interest/Information System
California Hazardous Waste Tracking System - Datamart (HWTS-DATAMART) provides California with information on hazardous waste shipments for generators, transporters, and treatment, storage, and disposal facilities.

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA

WORLD OIL CO (Continued) **1000278380**

program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:
Envid: 1000278380
Registry ID: 110002678460
DFR URL: http://echo.epa.gov/detailed-facility-report?fid=110002678460

HIST CORTESE:
Region: CORTESE
Facility County Code: 33
Reg By: LTNKA
Reg Id: 7T2234015

B17 **SHELL SWIFT STOP** **EDR Hist Auto** **1021990942**
68869 E PALM CANYON DR **N/A**
< 1/8 **CATHEDRAL CITY, CA 92234**
1 ft.

Site 14 of 15 in cluster B

Relative: EDR Hist Auto
Lower

Actual: **314 ft.**

Year:	Name:	Type:
1991	SHELL SWIFT STOP	Gasoline Service Stations
1992	SHELL SWIFT STOP	Gasoline Service Stations
1993	SHELL SWIFT STOP	Gasoline Service Stations
1994	SHELL SWIFT STOP	Gasoline Service Stations
1995	SHELL SWIFT STOP	Gasoline Service Stations
1996	WORLD OIL MARKETING COMPANY	Gasoline Service Stations
1996	WORAD OIL CO	Gasoline Service Stations
1997	WORLD OIL MARKETING COMPANY	Gasoline Service Stations
1997	WORAD OIL CO	Gasoline Service Stations

A18 **PALM SPRINGS OIL #9** **LUST** **S105023149**
NNE **68830 HIGHWAY 111** **SWEEPS UST** **N/A**
< 1/8 **CATHEDRAL CITY, CA 92234** **HIST CORTESE**
0.015 mi.
79 ft.

Site 2 of 6 in cluster A

Relative: LUST:
Lower

Actual: **315 ft.**

Lead Agency: RIVERSIDE COUNTY LOP
Case Type: LUST Cleanup Site
Geo Track: http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0606500929
Global Id: T0606500929
Latitude: 33.7791154
Longitude: -116.4614646
Status: Completed - Case Closed
Status Date: 05/05/2006
Case Worker: Not reported
RB Case Number: 7T2234025
Local Agency: Not reported

PALM SPRINGS OIL #9 (Continued) **S105023149**

File Location: Not reported
Local Case Number: 9915711
Potential Media Affect: Soil
Potential Contaminants of Concern: Gasoline
Site History: Not reported

LUST:
Global Id: T0606500929
Contact Type: Regional Board Caseworker
Contact Name: Phan Le
Organization Name: COLORADO RIVER BASIN RWQCB (REGION 7)
Address: 73720 FRED WARING DRIVE SUITE #100
City: PALM DESERT
Email: phan.le@waterboards.ca.gov
Phone Number: 7607768974

LUST:
Global Id: T0606500929
Action Type: ENFORCEMENT
Date: 03/17/2003
Action: Technical Correspondence / Assistance / Other

Global Id: T0606500929
Action Type: ENFORCEMENT
Date: 11/06/2002
Action: Technical Correspondence / Assistance / Other

Global Id: T0606500929
Action Type: ENFORCEMENT
Date: 06/05/2003
Action: Technical Correspondence / Assistance / Other

Global Id: T0606500929
Action Type: REMEDIATION
Date: 11/01/2001
Action: Soil Vapor Extraction (SVE)

Global Id: T0606500929
Action Type: Other
Date: 10/12/1999
Action: Leak Discovery

Global Id: T0606500929
Action Type: ENFORCEMENT
Date: 01/27/2003
Action: Technical Correspondence / Assistance / Other

Global Id: T0606500929
Action Type: ENFORCEMENT
Date: 04/28/2006
Action: File review

Global Id: T0606500929
Action Type: ENFORCEMENT
Date: 02/23/2006
Action: File review

PALM SPRINGS OIL #9 (Continued) **S105023149**

Global Id: T0606500929
Action Type: ENFORCEMENT
Date: 03/01/2006
Action: Technical Correspondence / Assistance / Other

Global Id: T0606500929
Action Type: ENFORCEMENT
Date: 02/28/2006
Action: File review

Global Id: T0606500929
Action Type: ENFORCEMENT
Date: 02/28/2006
Action: LOP Case Closure Summary to RB

Global Id: T0606500929
Action Type: Other
Date: 07/02/1999
Action: Leak Stopped

Global Id: T0606500929
Action Type: Other
Date: 10/12/1999
Action: Leak Reported

Global Id: T0606500929
Action Type: ENFORCEMENT
Date: 04/24/2003
Action: Technical Correspondence / Assistance / Other

LUST:
Global Id: T0606500929
Status: Open - Case Begin Date
Status Date: 07/02/1999

Global Id: T0606500929
Status: Open - Site Assessment
Status Date: 10/12/1999

Global Id: T0606500929
Status: Open - Site Assessment
Status Date: 12/10/1999

Global Id: T0606500929
Status: Open - Site Assessment
Status Date: 04/10/2000

Global Id: T0606500929
Status: Open - Remediation
Status Date: 07/31/2000

Global Id: T0606500929
Status: Open - Remediation
Status Date: 01/16/2002

Global Id: T0606500929
Status: Completed - Case Closed

PALM SPRINGS OIL #9 (Continued) **S105023149**

Status Date: 05/05/2006

RIVERSIDE CO. LUST:
Region: RIVERSIDE
Facility ID: 9915711
Employee: Shurlow-LOP
Site Closed: Yes
Case Type: Soil only
Facility Status: closed/action completed
Casetype Decode: Soil only is impacted
Fstatus Decode: Closed/Action completed

SWEEPS UST:
Status: Active
Comp Number: 803
Number: 1
Board Of Equalization: 44-017921
Referral Date: 09-17-92
Action Date: 09-17-92
Created Date: 09-17-92
Owner Tank Id: Not reported
SWRCB Tank Id: 33-000-000803-000001
Tank Status: A
Capacity: 12000
Active Date: 09-17-92
Tank Use: M.V. FUEL
STG: P
Content: PRM UNLEADED
Number Of Tanks: 4

Status: Active
Comp Number: 803
Number: 1
Board Of Equalization: 44-017921
Referral Date: 09-17-92
Action Date: 09-17-92
Created Date: 09-17-92
Owner Tank Id: Not reported
SWRCB Tank Id: 33-000-000803-000002
Tank Status: A
Capacity: 12000
Active Date: 09-17-92
Tank Use: M.V. FUEL
STG: P
Content: REG UNLEADED
Number Of Tanks: Not reported

Status: Active
Comp Number: 803
Number: 1
Board Of Equalization: 44-017921
Referral Date: 09-17-92
Action Date: 09-17-92
Created Date: 09-17-92
Owner Tank Id: Not reported

PALM SPRINGS OIL #9 (Continued) **S105023149**

SWRCB Tank Id: 33-000-000803-000003
Tank Status: A
Capacity: 12000
Active Date: 09-17-92
Tank Use: M.V. FUEL
STG: P
Content: REG UNLEADED
Number Of Tanks: Not reported

Status: Active
Comp Number: 803
Number: 1
Board Of Equalization: 44-017921
Referral Date: 09-17-92
Action Date: 09-17-92
Created Date: 09-17-92
Owner Tank Id: Not reported
SWRCB Tank Id: 33-000-000803-000004
Tank Status: A
Capacity: 12000
Active Date: 09-17-92
Tank Use: M.V. FUEL
STG: P
Content: REG UNLEADED
Number Of Tanks: Not reported

HIST CORTESE:
Region: CORTESE
Facility County Code: 33
Reg By: LTNKA
Reg Id: 7T2234025

A19 **PALM SPRINGS OIL #9** **RCRA-SQG** **1000294440**
NNE **68830 HWY 111** **LUST** **CAD981660772**
< 1/8 **CATHEDRAL CITY, CA 92234** **FINDS**
0.015 mi. **ECHO**
79 ft. **Site 3 of 6 in cluster A**

Relative:
Lower

Actual:
315 ft.

RCRA-SQG:
Date form received by agency: 10/08/1986
Facility name: PALM SPRINGS OIL #9
Facility address: 68830 HWY 111
CATHEDRAL CITY, CA 92234
EPA ID: CAD981660772
Mailing address: 5121 SUNSET BLVD
LOS ANGELES, CA 90027
Contact: ENVIRONMENTAL MANAGER
Contact address: 68830 HWY 111
CATHEDRAL CITY, CA 92234
Contact country: US
Contact telephone: 213-666-4471
Contact email: Not reported
EPA Region: 09
Classification: Small Small Quantity Generator
Description: Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous

PALM SPRINGS OIL #9 (Continued) **1000294440**

waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:
Owner/operator name: STAGG OIL CO INC
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: 415-555-1212
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: NOT REQUIRED
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: 415-555-1212
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Violation Status: No violations found

LUST REG 7:
Region: 7
Status: 7 - Remedial Action Underway
Case Num: 7T2234025
Substance: Gasoline - Automotive
ID: 1071
Global ID: T0606500929
Lead Agency: Local Agency

PALM SPRINGS OIL #9 (Continued) **1000294440**

Case Worker: YO

FINDS:

Registry ID: 110005994923

Environmental Interest/Information System
RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

STATE MASTER

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:
Envid: 1000294440
Registry ID: 110005994923
DFR URL: http://echo.epa.gov/detailed-facility-report?fid=110005994923

A20 **PALM SPRINGS OIL #9** **SWEEPS UST** **S101631081**
NNE **68830 HIGHWAY 111** **CA FID UST** **N/A**
< 1/8 **PALM SPRINGS, CA 92234**
0.015 mi.
79 ft. **Site 4 of 6 in cluster A**

Relative:
Lower

Actual:
315 ft.

SWEEPS UST:
Status: Active
Comp Number: 9083
Number: 1
Board Of Equalization: 44-017921
Referral Date: 11-17-92
Action Date: 11-17-92
Created Date: 02-29-88
Owner Tank Id: 000803
SWRCB Tank Id: 33-000-009083-000001
Tank Status: A
Capacity: 12000
Active Date: 11-17-92
Tank Use: M.V. FUEL
STG: P
Content: REG UNLEADED
Number Of Tanks: 5

Status: Active
Comp Number: 9083
Number: 1
Board Of Equalization: 44-017921
Referral Date: 11-17-92
Action Date: 11-17-92
Created Date: 02-29-88
Owner Tank Id: 000803

PALM SPRINGS OIL #9 (Continued) **S101631081**

SWRCB Tank Id: 33-000-009083-000002
Tank Status: A
Capacity: 12000
Active Date: 11-17-92
Tank Use: M.V. FUEL
STG: P
Content: REG UNLEADED
Number Of Tanks: Not reported

Status: Active
Comp Number: 9083
Number: 1
Board Of Equalization: 44-017921
Referral Date: 11-17-92
Action Date: 11-17-92
Created Date: 02-29-88
Owner Tank Id: 000803
SWRCB Tank Id: 33-000-009083-000003
Tank Status: A
Capacity: 12000
Active Date: 11-17-92
Tank Use: M.V. FUEL
STG: P
Content: LEADED
Number Of Tanks: Not reported

Status: Active
Comp Number: 9083
Number: 1
Board Of Equalization: 44-017921
Referral Date: 11-17-92
Action Date: 11-17-92
Created Date: 02-29-88
Owner Tank Id: 000803
SWRCB Tank Id: 33-000-009083-000004
Tank Status: A
Capacity: 12000
Active Date: 11-17-92
Tank Use: M.V. FUEL
STG: P
Content: LEADED
Number Of Tanks: Not reported

Status: Active
Comp Number: 9083
Number: 1
Board Of Equalization: 44-017921
Referral Date: 11-17-92
Action Date: 11-17-92
Created Date: 02-29-88
Owner Tank Id: 000803
SWRCB Tank Id: 33-000-009083-000005
Tank Status: A
Capacity: 12000
Active Date: 11-17-92
Tank Use: M.V. FUEL
STG: P

PALM SPRINGS OIL #9 (Continued) **S101631081**

Content: REG UNLEADED
Number Of Tanks: Not reported

CA FID UST:
Facility ID: 33002529
Regulated By: UTNKA
Regulated ID: Not reported
Cortese Code: Not reported
SIC Code: Not reported
Facility Phone: 6193246867
Mail To: Not reported
Mailing Address: 14011 VENTURA BLVD
Mailing Address 2: Not reported
Mailing City,St,Zip: CATHEDRAL CITY 92234
Contact: Not reported
Contact Phone: Not reported
DUNs Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported
Status: Active

Facility ID: 33002529
Regulated By: UTNKA
Regulated ID: 00009083
Cortese Code: Not reported
SIC Code: Not reported
Facility Phone: 2136664471
Mail To: Not reported
Mailing Address: 5121 SUNSET BLVD
Mailing Address 2: Not reported
Mailing City,St,Zip: PALM SPRINGS 92234
Contact: Not reported
Contact Phone: Not reported
DUNs Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported
Status: Active

A21 **PS 9** **HIST UST** **U001573807**
NNE **68830 HWY 111** **N/A**
< 1/8 **PALM SPRINGS, CA 92234**
0.015 mi.
79 ft. **Site 5 of 6 in cluster A**

Relative: HIST UST:
Lower
File Number: 0001F860
Actual: URL: http://geotracker.waterboards.ca.gov/ustpdfs/pdf/0001F860.pdf
315 ft. Region: STATE
Facility ID: 00000009083
Facility Type: Gas Station
Other Type: Not reported
Contact Name: MONTRI PHUVADAKORN
Telephone: 2136664471
Owner Name: PALM SPRINGS OIL CO INC
Owner Address: 5121 SUNSET BLVD.

PS 9 (Continued) **U001573807**

Owner City,St,Zip: LOS ANGELES, CA 90027
Total Tanks: 0005

Tank Num: 001
Container Num: 1
Year Installed: Not reported
Tank Capacity: 00012000
Tank Used for: PRODUCT
Type of Fuel: UNLEADED
Container Construction Thickness: 1/4
Leak Detection: Stock Inventor

Tank Num: 002
Container Num: 2
Year Installed: Not reported
Tank Capacity: 00012000
Tank Used for: PRODUCT
Type of Fuel: UNLEADED
Container Construction Thickness: 1/4
Leak Detection: Stock Inventor

Tank Num: 003
Container Num: 3
Year Installed: Not reported
Tank Capacity: 00012000
Tank Used for: PRODUCT
Type of Fuel: REGULAR
Container Construction Thickness: 1/4
Leak Detection: Stock Inventor

Tank Num: 004
Container Num: 4
Year Installed: Not reported
Tank Capacity: 00012000
Tank Used for: PRODUCT
Type of Fuel: REGULAR
Container Construction Thickness: 1/4
Leak Detection: Stock Inventor

Tank Num: 005
Container Num: 5
Year Installed: Not reported
Tank Capacity: 00012000
Tank Used for: PRODUCT
Type of Fuel: PREMIUM
Container Construction Thickness: 1/4
Leak Detection: Stock Inventor

Click here for Geo Tracker PDF:

A22
NNE
< 1/8
0.015 mi.
79 ft.

PALM SPRINGS OIL
68830 HWY 111
CATHEDRAL CY, CA 92234

Site 6 of 6 in cluster A

Database(s): EDR Hist Auto
EDR ID Number: 1021230746
EPA ID Number: N/A

Relative:
Lower

Actual:
315 ft.

EDR Hist Auto

Year:	Name:	Type:
1986	PALM SPRINGS OIL	Gasoline Service Stations
1987	PALM SPRINGS OIL	Gasoline Service Stations

B23
ENE
< 1/8
0.016 mi.
86 ft.

PYLES ROBERT
68904-96 HWY 111
CATHEDRAL CY, CA 92234

Site 15 of 15 in cluster B

Database(s): EDR Hist Auto
EDR ID Number: 1021897602
EPA ID Number: N/A

Relative:
Lower

Actual:
309 ft.

EDR Hist Auto

Year:	Name:	Type:
1974	PYLES ROBERT	Gasoline Service Stations

C24
East
< 1/8
0.025 mi.
132 ft.

CATHEDRAL CITY SHELL
69010 HWY 111
CATHEDRAL CITY, CA 92234

Site 1 of 11 in cluster C

Database(s): UST
EDR ID Number: U004186665
EPA ID Number: N/A

Relative:
Lower

Actual:
300 ft.

UST:

Facility ID:	155
Permitting Agency:	RIVERSIDE COUNTY
Latitude:	33.77721
Longitude:	-116.45613

C25
East
< 1/8
0.025 mi.
132 ft.

SHELL SERVICE STATION
69010 HWY 111
CATHEDRAL CITY, CA 92234

Site 2 of 11 in cluster C

Database(s): RCRA NonGen / NLR, FINDS, ECHO, HAZNET
EDR ID Number: 1004678562
EPA ID Number: CAR000110569

Relative:
Lower

Actual:
300 ft.

RCRA NonGen / NLR:

Date form received by agency:	04/03/2017
Facility name:	SHELL SERVICE STATION
Facility address:	69010 HWY 111 SAP 135145 CATHEDRAL CITY, CA 92234
EPA ID:	CAR000110569
Mailing address:	P O BOX 2648 HOUSTON, TX 77252-2648
Contact:	SONDRA BIENVENU
Contact address:	P O BOX 2648 HOUSTON, TX 77252-2648
Contact country:	US
Contact telephone:	713-241-5036
Contact email:	Not reported
EPA Region:	09

SHELL SERVICE STATION (Continued) **1004678562**

Classification: Non-Generator
Description: Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:
Owner/operator name: EQUILON ENTERPRISES L L C
Owner/operator address: P O BOX 2648
HOUSTON, TX 77252
Owner/operator country: US
Owner/operator telephone: 713-241-5036
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: ADAM ESTES
Owner/operator address: Not reported
Not reported
Owner/operator country: Not reported
Owner/operator telephone: Not reported
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: 03/02/2017
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: D018
. Waste name: BENZENE

Historical Generators:
Date form received by agency: 12/03/2001
Site name: SHELL SERVICE STATION

SHELL SERVICE STATION (Continued) **1004678562**

Classification: Small Quantity Generator

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: D018
. Waste name: BENZENE

Violation Status: No violations found

FINDS:

Registry ID: 110012212961

Environmental Interest/Information System
California Hazardous Waste Tracking System - Datamart (HWTS-DATAMART) provides California with information on hazardous waste shipments for generators, transporters, and treatment, storage, and disposal facilities.

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:
Envid: 1004678562
Registry ID: 110012212961
DFR URL: http://echo.epa.gov/detailed-facility-report?fid=110012212961

HAZNET:
envid: 1004678562
Year: 2004
GEPAID: CAR000110569
Contact: N CORTEZ/ENVT'L DATA ANALYST
Telephone: 2818742224
Mailing Name: Not reported
Mailing Address: 12700 NORTHBOROUGH DRIVE MFT 240-G
Mailing City,St,Zip: Houston, TX 770672508
Gen County: Not reported
TSD EPA ID: CAD028409019
TSD County: Not reported
Waste Category: Aqueous solution with total organic residues less than 10 percent
Disposal Method: Treatment, Tank
Tons: 1.25
Cat Decode: Not reported
Method Decode: Not reported
Facility County: Riverside

envid: 1004678562
Year: 2004

SHELL SERVICE STATION (Continued) **1004678562**

GEPAID: CAR000110569
Contact: N CORTEZ/ENVT'L DATA ANALYST
Telephone: 2818742224
Mailing Name: Not reported
Mailing Address: 12700 NORTHBOROUGH DRIVE MFT 240-G
Mailing City,St,Zip: Houston, TX 770672508
Gen County: Not reported
TSD EPA ID: CAT080013352
TSD County: Not reported
Waste Category: Aqueous solution with total organic residues less than 10 percent
Disposal Method: Recycler
Tons: 4.17
Cat Decode: Not reported
Method Decode: Not reported
Facility County: Riverside

envid: 1004678562
Year: 2004
GEPAID: CAR000110569
Contact: N CORTEZ/ENVT'L DATA ANALYST
Telephone: 2818742224
Mailing Name: Not reported
Mailing Address: 12700 NORTHBOROUGH DRIVE MFT 240-G
Mailing City,St,Zip: Houston, TX 770672508
Gen County: Not reported
TSD EPA ID: CAD982484933
TSD County: Not reported
Waste Category: Other empty containers 30 gallons or more
Disposal Method: Recycler
Tons: 2.25
Cat Decode: Not reported
Method Decode: Not reported
Facility County: Riverside

envid: 1004678562
Year: 2004
GEPAID: CAR000110569
Contact: N CORTEZ/ENVT'L DATA ANALYST
Telephone: 2818742224
Mailing Name: Not reported
Mailing Address: 12700 NORTHBOROUGH DRIVE MFT 240-G
Mailing City,St,Zip: Houston, TX 770672508
Gen County: Not reported
TSD EPA ID: CAD982484933
TSD County: Not reported
Waste Category: Other empty containers 30 gallons or more
Disposal Method: Disposal, Other
Tons: 15.15
Cat Decode: Not reported
Method Decode: Not reported
Facility County: Riverside

C26 **CATHEDRAL CITY SHELL** **EDR Hist Auto** **1020535816**
East **69010 E PALM CANYON DR** **N/A**
< 1/8 **CATHEDRAL CITY, CA 92234**
0.025 mi.
132 ft. **Site 3 of 11 in cluster C**

Relative: EDR Hist Auto
Lower

Actual:
300 ft.

Year:	Name:	Type:
1994	CATHEDRAL CITY SHELL	General Automotive Repair Shops
1995	CATHEDRAL CITY SHELL	General Automotive Repair Shops
1996	CATHEDRAL CITY SHELL	General Automotive Repair Shops
1997	CATHEDRAL CITY SHELL	General Automotive Repair Shops
1998	CATHEDRAL CITY SHELL	General Automotive Repair Shops
1999	CATHEDRAL CITY SHELL	General Automotive Repair Shops
2000	CATHEDRAL CITY SHELL	General Automotive Repair Shops
2001	CATHEDRAL CITY SHELL	General Automotive Repair Shops
2002	CATHEDRAL CITY SHELL	General Automotive Repair Shops
2003	CATHEDRAL CITY SHELL	General Automotive Repair Shops
2004	CATHEDRAL CITY SHELL	General Automotive Repair Shops
2005	CATHEDRAL CITY SHELL	General Automotive Repair Shops
2006	CATHEDRAL CITY SHELL	General Automotive Repair Shops

C27 **SHELL STATION** **LUST** **S106152983**
East **69010 HIGHWAY 111** **N/A**
< 1/8 **CATHEDRAL CITY, CA**
0.025 mi.
132 ft. **Site 4 of 11 in cluster C**

Relative: LUST REG 7:
Lower

Actual:
300 ft.

Region:	7
Status:	9 - Case Closed
Case Num:	7T2234006
Substance:	Gasoline - Automotive
ID:	1142
Global ID:	T0606500910
Lead Agency:	Local Agency
Case Worker:	KO

C28 **CATHEDRAL SHELL** **EDR Hist Auto** **1020249747**
East **69010 E US HIGHWAY 111** **N/A**
< 1/8 **CATHEDRAL CITY, CA 92234**
0.025 mi.
132 ft. **Site 5 of 11 in cluster C**

Relative: EDR Hist Auto
Lower

Actual:
300 ft.

Year:	Name:	Type:
1977	SAYLOR HARRY C	Gasoline Service Stations
1978	SAYLOR HARRY C	Gasoline Service Stations
1979	SAYLOR HARRY C	Gasoline Service Stations
1980	SAYLOR HARRY C	Gasoline Service Stations
1982	SAYLOR HARRY C	Gasoline Service Stations
1983	SAYLOR HARRY C	Gasoline Service Stations
1985	SAYLOR HARRY C	Gasoline Service Stations
1986	SAYLOR HARRY C	Gasoline Service Stations
1987	SAYLOR HARRY C	Gasoline Service Stations
1988	SAYLOR HARRY C	Gasoline Service Stations

CATHEDRAL SHELL (Continued) **1020249747**

1989	CATHEDRAL SHELL	Gasoline Service Stations
1990	CATHEDRAL SHELL	Gasoline Service Stations
1991	CATHEDRAL SHELL	Gasoline Service Stations
1992	CATHEDRAL SHELL	Gasoline Service Stations
1993	CATHEDRAL SHELL	Gasoline Service Stations
1994	CATHEDRAL SHELL	Gasoline Service Stations
1995	CATHEDRAL SHELL	Gasoline Service Stations
1996	CATHEDRAL SHELL	Gasoline Service Stations
1997	CATHEDRAL SHELL	Gasoline Service Stations
1998	CATHEDRAL SHELL	Gasoline Service Stations
1999	CATHEDRAL SHELL	Gasoline Service Stations
2000	CATHEDRAL SHELL	Gasoline Service Stations
2001	CATHEDRAL SHELL	Gasoline Service Stations

C29 **CATHEDRAL CITY OIL (NOW EQUILION WAS SHELL)** **INDIAN LUST** **1011869667**
East **69010 HWY 111** **INDIAN UST** **N/A**
< 1/8 **CATHEDRAL CITY, CA 92234**
0.025 mi.
132 ft. **Site 6 of 11 in cluster C**

Relative:
Lower

Actual:
300 ft.

Indian LUST:

Facility ID:	AGUA006
Region:	9
Facility Tel:	(760) 324-9931
Tribe Name:	AGUA CALIENTE
LUST Status:	Closed
Last Event Date:	25-Feb-04
Latitude:	33.778055999999999
Longitude:	-116.457639
Last Status:	Cleanup Completed (NFA - Confirmed Release)

Indian UST:

Region:	9
Alternate Facility ID:	AGUA006
Facility Name2:	CATHEDRAL
Tank ID:	TANK 1
Tank Status:	Permanently Out of Use
Status Date:	-
Substance Description:	Used Oil
Tribe:	AGUA CALIENTE
Facility County:	Not reported
Facility Telephone:	(760) 324-9931
Overfill installed:	TRUE
Spill installed:	TRUE
Date installed:	1-Jan-89
Federally Regulated Tank:	TRUE

Region:	9
Alternate Facility ID:	AGUA006
Facility Name2:	CATHEDRAL
Tank ID:	TANK 4
Tank Status:	Permanently Out of Use
Status Date:	23-Feb-04
Substance Description:	Gasoline
Tribe:	AGUA CALIENTE
Facility County:	Not reported
Facility Telephone:	(760) 324-9931

CATHEDRAL CITY OIL (NOW EQUILION WAS SHELL) (Continued) **1011869667**

Overfill installed: TRUE
Spill installed: TRUE
Date installed: 1-Jan-89
Federally Regulated Tank: TRUE

Region: 9
Alternate Facility ID: AGUA006
Facility Name2: CATHEDRAL
Tank ID: TANK 3
Tank Status: Permanently Out of Use
Status Date: 23-Feb-04
Substance Description: Gasoline
Tribe: AGUA CALIENTE
Facility County: Not reported
Facility Telephone: (760) 324-9931
Overfill installed: TRUE
Spill installed: TRUE
Date installed: 1-Jan-89
Federally Regulated Tank: TRUE

Region: 9
Alternate Facility ID: AGUA006
Facility Name2: CATHEDRAL
Tank ID: TANK 2
Tank Status: Permanently Out of Use
Status Date: 23-Feb-04
Substance Description: Gasoline
Tribe: AGUA CALIENTE
Facility County: Not reported
Facility Telephone: (760) 324-9931
Overfill installed: TRUE
Spill installed: TRUE
Date installed: 1-Jan-89
Federally Regulated Tank: TRUE

C30 **SHELL OIL SERVICE STATION** **Notify 65** **S100178944**
East **69010 HWY 111 @ DATE PLAM** **N/A**
< 1/8 **CATHEDRAL CITY, CA 92234**
0.025 mi.
132 ft. **Site 7 of 11 in cluster C**

Relative: NOTIFY 65:
Lower Date Reported: Not reported
Staff Initials: Not reported
Actual: Board File Number: Not reported
300 ft. Facility Type: Not reported
Discharge Date: Not reported
Issue Date: Not reported
Incident Description: Not reported

C31
East
< 1/8
0.025 mi.
132 ft.

SHELL STATION
69010 E PALM CANYON DR
CATHEDRAL CITY, CA 92234

Site 8 of 11 in cluster C

SWEEPS UST
CA FID UST

S101590345
N/A

Relative:
Lower

Actual:
300 ft.

SWEEPS UST:

Status:	Active
Comp Number:	56698
Number:	1
Board Of Equalization:	44-000074
Referral Date:	11-18-92
Action Date:	11-18-92
Created Date:	09-21-89
Owner Tank Id:	000966
SWRCB Tank Id:	33-000-056698-000001
Tank Status:	A
Capacity:	12000
Active Date:	11-18-92
Tank Use:	M.V. FUEL
STG:	P
Content:	LEADED
Number Of Tanks:	4

Status:	Active
Comp Number:	56698
Number:	1
Board Of Equalization:	44-000074
Referral Date:	11-18-92
Action Date:	11-18-92
Created Date:	09-21-89
Owner Tank Id:	000966
SWRCB Tank Id:	33-000-056698-000002
Tank Status:	A
Capacity:	12000
Active Date:	11-18-92
Tank Use:	M.V. FUEL
STG:	P
Content:	REG UNLEADED
Number Of Tanks:	Not reported

Status:	Active
Comp Number:	56698
Number:	1
Board Of Equalization:	44-000074
Referral Date:	11-18-92
Action Date:	11-18-92
Created Date:	09-21-89
Owner Tank Id:	000966
SWRCB Tank Id:	33-000-056698-000003
Tank Status:	A
Capacity:	12000
Active Date:	11-18-92
Tank Use:	M.V. FUEL
STG:	P
Content:	REG UNLEADED
Number Of Tanks:	Not reported

Status:	Active

SHELL STATION (Continued) **S101590345**

Comp Number: 56698
Number: 1
Board Of Equalization: 44-000074
Referral Date: 11-18-92
Action Date: 11-18-92
Created Date: 09-21-89
Owner Tank Id: 000966
SWRCB Tank Id: 33-000-056698-000004
Tank Status: A
Capacity: 550
Active Date: 11-18-92
Tank Use: OIL
STG: W
Content: WASTE OIL
Number Of Tanks: Not reported

CA FID UST:
Facility ID: 33007117
Regulated By: UTNKA
Regulated ID: Not reported
Cortese Code: Not reported
SIC Code: Not reported
Facility Phone: 6193249931
Mail To: Not reported
Mailing Address: 511 N BROOKHURST ST
Mailing Address 2: Not reported
Mailing City,St,Zip: CATHEDRAL CITY 92234
Contact: Not reported
Contact Phone: Not reported
DUNs Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported
Status: Active

C32 **SHELL STATION** **LUST** **S105023150**
East **69010 111** **HIST CORTESE** **N/A**
< 1/8 **CATHEDRAL CITY, CA 92234**
0.025 mi.
132 ft. **Site 9 of 11 in cluster C**

Relative: **Lower**
Actual: **300 ft.**

LUST:
Lead Agency: RIVERSIDE COUNTY LOP
Case Type: LUST Cleanup Site
Geo Track: http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0606500910
Global Id: T0606500910
Latitude: 33.7780325486966
Longitude: -116.457590600525
Status: Completed - Case Closed
Status Date: 09/13/1996
Case Worker: RIV
RB Case Number: 7T2234006
Local Agency: RIVERSIDE COUNTY LOP
File Location: Local Agency Warehouse
Local Case Number: 89936
Potential Media Affect: Soil
Potential Contaminants of Concern: Gasoline

SHELL STATION (Continued) **S105023150**

Site History: Not reported

LUST:
Global Id: T0606500910
Contact Type: Regional Board Caseworker
Contact Name: Phan Le
Organization Name: COLORADO RIVER BASIN RWQCB (REGION 7)
Address: 73720 FRED WARING DRIVE SUITE #100
City: PALM DESERT
Email: phan.le@waterboards.ca.gov
Phone Number: 7607768974

Global Id: T0606500910
Contact Type: Local Agency Caseworker
Contact Name: Riverside County LOP
Organization Name: RIVERSIDE COUNTY LOP
Address: 3880 LEMON ST SUITE 200
City: RIVERSIDE
Email: Not reported
Phone Number: 9519558980

LUST:
Global Id: T0606500910
Action Type: Other
Date: 07/07/1989
Action: Leak Discovery

Global Id: T0606500910
Action Type: ENFORCEMENT
Date: 04/20/1997
Action: File review - #RCDEH Upload Site File 10/29/2015

Global Id: T0606500910
Action Type: ENFORCEMENT
Date: 04/21/1997
Action: Closure/No Further Action Letter - #Riv Co Closure

Global Id: T0606500910
Action Type: Other
Date: 07/07/1989
Action: Leak Stopped

Global Id: T0606500910
Action Type: Other
Date: 10/06/1989
Action: Leak Reported

LUST:
Global Id: T0606500910
Status: Open - Case Begin Date
Status Date: 03/23/1989

Global Id: T0606500910
Status: Open - Site Assessment
Status Date: 03/23/1989

Global Id: T0606500910

SHELL STATION (Continued) **S105023150**

Status: Open - Site Assessment
Status Date: 04/25/1990

Global Id: T0606500910
Status: Open - Site Assessment
Status Date: 04/27/1990

Global Id: T0606500910
Status: Open - Site Assessment
Status Date: 05/07/1990

Global Id: T0606500910
Status: Open - Remediation
Status Date: 01/10/1992

Global Id: T0606500910
Status: Open - Remediation
Status Date: 06/04/1996

Global Id: T0606500910
Status: Completed - Case Closed
Status Date: 09/13/1996

Lead Agency: RIVERSIDE COUNTY LOP
Case Type: LUST Cleanup Site
Geo Track: http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0606512976
Global Id: T0606512976
Latitude: 33.778092686
Longitude: -116.457633778
Status: Completed - Case Closed
Status Date: 08/26/2010
Case Worker: Not reported
RB Case Number: 7t2234032
Local Agency: Not reported
File Location: Local Agency
Local Case Number: 200420469
Potential Media Affect: Aquifer used for drinking water supply
Potential Contaminants of Concern: Gasoline
Site History: ***Data prior to 2005 does not appear in GeoTracker. Consult agency file for all site data*** On February 23, 2004, 3-12K gasoline and 1-500 gallon waste oil tank were removed. Up to 1400 ppm TPHg was detected at 3 under dispenser 5, 36 ppb MTBE at 14 in the tank pit, 42 ppm TBA at 14 in the tank pit and 1.5 ppm ethanol at 14 in the tank pit. On March 13, 2004 the tank pit was over excavated down to 19. Up to 51 ppm TBA was detected at the bottom of the pit. 5 borings were drilled October 24-28, 2005 to 100-140. All borings had TPHd, up to 53 ppm. All borings had TPHg, up to 7.8 ppm. All borings had MTBE, up to 13 ppm, and all borings had TBA, up to 52 ppm. Detectable concentrations of hydrocarbons were detected to 140 where the boring was terminated. Two borings were converted to dual nested vapor wells. VE-1 was screened from 15-25 and 30-45. VE-2 was screened from 15-30 and 35-45. Monitoring well MW-1 was drilled March 23-24, 2006. Groundwater was encountered at 193. Up to 0.21 ppm MTBE was detected in the soil. A grab water sample was obtained prior to development and 48 ppb MTBE was detected. A water sample was taken on March 29, 2006 and showed 11 ppb MTBE. Based on the results of the grab sample,

SHELL STATION (Continued) **S105023150**

one additional boring and two additional wells were installed March 30 through April 5, 2006. Up to 8.6 ppm MTBE and 210 ppm TBA was detected in the soils. An additional boring was drilled June 5, 2006 to 100 near the north property line. 10 ppm TPHd was detected at 10 and 2.5 ppm naphthalene was detected at 35. Another boring was drilled in the old tank pit to 45 and a nested SVE well was installed, screened from 22-27 and 35-45. A maximum of 2.4 ppm TPHg was detected at 35, MTBE was detected to a maximum of 0.82 to 30 and TBA was detected t a maximum of 90 ppm at 30. SVE-4 was installed April 14, 2006 as a dual nested SVE well screened from 15-30 and 35-45. TPHg was detected in the 30-45 samples with a maximum of 4.8 ppm. Benzene was detected at 40 at 4.6 ppb. MTBE was detected from 25-45 with a maximum of 0.3 ppm. TBA was detected from 30-45 with a maximum of 2.4 ppm. Low levels of VOCs were detected. The SVE system began operating September 25, 2006 using all 4 SVE wells and was run until June 25, 2007 when a rebound test was successfully completed. Influent TPHg went from 74 ppmv to ND<3 ppm. MTBE went from 56 ppmv to 0.07 ppmv. TBA went from 15 ppmv to ND<0.002 ppmv. Ethanol went from 0.014 to 0.0084 ppmv. Case closed 08/26/2010 following well abandonments

LUST:
Global Id: T0606512976
Contact Type: Regional Board Caseworker
Contact Name: KAI DUNN
Organization Name: COLORADO RIVER BASIN RWQCB (REGION 7)
Address: 73-720 FRED WARING DR. STE 100
City: PALM DESERT
Email: kai.dunn@waterboards.ca.gov
Phone Number: Not reported

LUST:
Global Id: T0606512976
Action Type: RESPONSE
Date: 01/15/2010
Action: Monitoring Report - Quarterly

Global Id: T0606512976
Action Type: ENFORCEMENT
Date: 03/14/2007
Action: Staff Letter - #031407

Global Id: T0606512976
Action Type: ENFORCEMENT
Date: 11/26/2007
Action: Staff Letter - #112607

Global Id: T0606512976
Action Type: ENFORCEMENT
Date: 08/26/2010
Action: Closure/No Further Action Letter - #RCDEH Closure

Global Id: T0606512976
Action Type: ENFORCEMENT
Date: 10/15/2008
Action: File review

SHELL STATION (Continued) **S105023150**

Global Id: T0606512976
Action Type: ENFORCEMENT
Date: 01/12/2009
Action: File review

Global Id: T0606512976
Action Type: RESPONSE
Date: 08/06/2010
Action: Well Destruction Report

Global Id: T0606512976
Action Type: ENFORCEMENT
Date: 10/03/2007
Action: Staff Letter - #100307

Global Id: T0606512976
Action Type: RESPONSE
Date: 09/23/2007
Action: Other Report / Document

Global Id: T0606512976
Action Type: ENFORCEMENT
Date: 07/11/2008
Action: File review

Global Id: T0606512976
Action Type: ENFORCEMENT
Date: 07/15/2004
Action: Technical Correspondence / Assistance / Other

Global Id: T0606512976
Action Type: RESPONSE
Date: 10/15/2009
Action: Monitoring Report - Quarterly

Global Id: T0606512976
Action Type: RESPONSE
Date: 04/15/2010
Action: Monitoring Report - Annually

Global Id: T0606512976
Action Type: ENFORCEMENT
Date: 03/21/2008
Action: Staff Letter - #032108

Global Id: T0606512976
Action Type: ENFORCEMENT
Date: 01/09/2008
Action: Staff Letter - #010908

Global Id: T0606512976
Action Type: ENFORCEMENT
Date: 04/24/2007
Action: File review

Global Id: T0606512976
Action Type: ENFORCEMENT

SHELL STATION (Continued) **S105023150**

Date: 01/24/2008
Action: File review

Global Id: T0606512976
Action Type: RESPONSE
Date: 06/10/2010
Action: Request for Closure

Global Id: T0606512976
Action Type: RESPONSE
Date: 01/15/2008
Action: Other Workplan

Global Id: T0606512976
Action Type: ENFORCEMENT
Date: 04/29/2009
Action: Staff Letter - #RCDEH042909

Global Id: T0606512976
Action Type: ENFORCEMENT
Date: 04/08/2009
Action: File review

Global Id: T0606512976
Action Type: ENFORCEMENT
Date: 08/04/2009
Action: Staff Letter - #Riv Co 080409

Global Id: T0606512976
Action Type: ENFORCEMENT
Date: 07/22/2007
Action: Staff Letter - #072307

Global Id: T0606512976
Action Type: ENFORCEMENT
Date: 07/30/2007
Action: File review

Global Id: T0606512976
Action Type: ENFORCEMENT
Date: 06/02/2010
Action: Staff Letter - #RCDEH 060210

Global Id: T0606512976
Action Type: ENFORCEMENT
Date: 10/15/2007
Action: File review

Global Id: T0606512976
Action Type: ENFORCEMENT
Date: 10/29/2008
Action: Technical Correspondence / Assistance / Other

Global Id: T0606512976
Action Type: ENFORCEMENT
Date: 07/14/2009
Action: File review

SHELL STATION (Continued) **S105023150**

Global Id: T0606512976
Action Type: ENFORCEMENT
Date: 04/29/2008
Action: File review

Global Id: T0606512976
Action Type: Other
Date: 02/23/2004
Action: Leak Stopped

Global Id: T0606512976
Action Type: Other
Date: 04/05/2004
Action: Leak Reported

Global Id: T0606512976
Action Type: RESPONSE
Date: 08/15/2008
Action: Other Report / Document

Global Id: T0606512976
Action Type: Other
Date: 04/05/2004
Action: Leak Discovery

Global Id: T0606512976
Action Type: RESPONSE
Date: 11/18/2007
Action: Other Workplan

Global Id: T0606512976
Action Type: REMEDIATION
Date: 09/25/2006
Action: Soil Vapor Extraction (SVE)

LUST:
Global Id: T0606512976
Status: Open - Case Begin Date
Status Date: 02/23/2004

Global Id: T0606512976
Status: Open - Site Assessment
Status Date: 04/05/2004

Global Id: T0606512976
Status: Open - Site Assessment
Status Date: 05/18/2004

Global Id: T0606512976
Status: Open - Remediation
Status Date: 05/22/2006

Global Id: T0606512976
Status: Completed - Case Closed
Status Date: 08/26/2010

SHELL STATION (Continued) **S105023150**

RIVERSIDE CO. LUST:

Region:	RIVERSIDE
Facility ID:	200420469
Employee:	Shurlow-LOP
Site Closed:	Yes
Case Type:	Drinking Water Aquifer affected
Facility Status:	closed/action completed
Casetype Decode:	An Aquifer used for Drinking Water supply has been contaminated.
Fstatus Decode:	Closed/Action completed

Region:	RIVERSIDE
Facility ID:	89936
Employee:	Shurlow-LOP
Site Closed:	Yes
Case Type:	Soil only
Facility Status:	closed/action completed
Casetype Decode:	Soil only is impacted
Fstatus Decode:	Closed/Action completed

HIST CORTESE:

Region:	CORTESE
Facility County Code:	33
Reg By:	LTNKA
Reg Id:	7T2234006

C33 **SUPER CLEANERS** **EDR Hist Cleaner** **1018436102**
East **69040 E PALM CANYON DR** **N/A**
< 1/8 **CATHEDRAL CITY, CA 92234**
0.057 mi.
303 ft. **Site 10 of 11 in cluster C**

Relative: EDR Hist Cleaner
Lower

Actual: **297 ft.**

Year:	Name:	Type:
1999	BEST CLEANERS OF DESERT	Drycleaning Plants, Except Rugs, NEC
2000	SUPER CLEANERS	Drycleaning Plants, Except Rugs, NEC
2001	SUPER CLEANERS	Drycleaning Plants, Except Rugs, NEC
2002	SUPER CLEANERS	Drycleaning Plants, Except Rugs, NEC
2003	SUPER CLEANERS	Drycleaning Plants, Except Rugs, NEC
2004	SUPER CLEANERS	Drycleaning Plants, Except Rugs, NEC
2005	SUPER CLEANERS	Drycleaning Plants, Except Rugs, NEC
2005	DAKOTA 1 50 CLEANERS	Drycleaning Plants, Except Rugs, NEC
2006	DAKOTA 1 50 CLEANERS	Drycleaning Plants, Except Rugs, NEC
2007	DAKOTA 1 50 CLEANERS	Drycleaning Plants, Except Rugs, NEC
2008	SUPER CLEANERS	Drycleaning Plants, Except Rugs, NEC
2008	DAKOTA 1 50 CLEANERS	Drycleaning Plants, Except Rugs, NEC
2009	SUPER CLEANERS	Drycleaning Plants, Except Rugs, NEC

C34 **SUPER CLEAN** **DRYCLEANERS** **S108541315**
East **69040 E PALM CANYON DR STE A** **N/A**
< 1/8 **CATHEDRAL CITY, CA 92234**
0.057 mi.
303 ft. **Site 11 of 11 in cluster C**

Relative: **Lower**
Actual: **297 ft.**

DRYCLEANERS:

EPA Id:	CAL000327519
NAICS Code:	333312
NAICS Description:	Commercial Laundry, Drycleaning, and Pressing Machine Manufacturing
SIC Code:	3582
SIC Description:	Commercial Laundry, Drycleaning and Pressing Machines
Create Date:	12/05/2007
Facility Active:	No
Inactive Date:	06/30/2008
Facility Addr2:	Not reported
Owner Name:	JAMES & GENY KARNES
Owner Address:	37066 BANKSIDE DR APT 4
Owner Address 2:	Not reported
Owner Telephone:	7609927443
Contact Name:	JAMES KARNES
Contact Address:	37066 BANKSIDE DR APT 4
Contact Address 2:	Not reported
Contact Telephone:	7609927443
Mailing Name:	Not reported
Mailing Address 1:	69040 E PALM CANYON DR STE A
Mailing Address 2:	Not reported
Mailing City:	CATHEDRAL CITY
Mailing State:	CA
Mailing Zip:	922341447
Owner Fax:	Not reported
Region Code:	4

D35 **CATHEDRAL CITY FIRE STATION** **SWEEPS UST** **S101590204**
NE **36913 DATE PALM DR** **CA FID UST** **N/A**
< 1/8 **CATHEDRAL CITY, CA 92234**
0.118 mi.
621 ft. **Site 1 of 2 in cluster D**

Relative: **Lower**
Actual: **295 ft.**

SWEEPS UST:

Status:	Active
Comp Number:	44
Number:	4
Board Of Equalization:	Not reported
Referral Date:	10-27-92
Action Date:	10-27-92
Created Date:	07-05-90
Owner Tank Id:	Not reported
SWRCB Tank Id:	33-000-000044-000001
Tank Status:	A
Capacity:	100
Active Date:	10-27-92
Tank Use:	UNKNOWN
STG:	P
Content:	UNKNOWN CONT
Number Of Tanks:	1

CA FID UST:

Facility ID:	33006785

CATHEDRAL CITY FIRE STATION (Continued) **S101590204**

Regulated By: UTNKA
Regulated ID: Not reported
Cortese Code: Not reported
SIC Code: Not reported
Facility Phone: Not reported
Mail To: Not reported
Mailing Address: 36913 DATE PALM DR
Mailing Address 2: Not reported
Mailing City,St,Zip: CATHEDRAL CITY 92234
Contact: Not reported
Contact Phone: Not reported
DUNs Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported
Status: Active

D36 **CATHEDRAL CITY 34** **HIST UST** **U001573793**
NE **36-913 DATE PALM** **N/A**
< 1/8 **CATHEDRAL CITY, CA 92234**
0.118 mi.
621 ft. **Site 2 of 2 in cluster D**

Relative: HIST UST:
Lower
File Number: 0001F8E5
Actual: URL: http://geotracker.waterboards.ca.gov/ustpdfs/pdf/0001F8E5.pdf
295 ft. Region: STATE
Facility ID: 00000057339
Facility Type: Other
Other Type: FIRE STATION
Contact Name: SAMUEL ORTIZ
Telephone: 6193283884
Owner Name: RIVERSIDE COUNTY FIRE DEPARTME
Owner Address: 210 W. SAN JACINTO
Owner City,St,Zip: PERRIS, CA 92370
Total Tanks: 0001

Tank Num: 001
Container Num: 1
Year Installed: 1975
Tank Capacity: 00001000
Tank Used for: PRODUCT
Type of Fuel: DIESEL
Container Construction Thickness: Not reported
Leak Detection: Visual, Stock Inventor

Tank Num: 001
Container Num: 1
Year Installed: 1975
Tank Capacity: 00001000
Tank Used for: PRODUCT
Type of Fuel: DIESEL
Container Construction Thickness: Not reported
Leak Detection: Visual, Stock Inventor

Tank Num: 001
Container Num: 1
Year Installed: 1975

CATHEDRAL CITY 34 (Continued) **U001573793**

Tank Capacity: 00001000
Tank Used for: PRODUCT
Type of Fuel: DIESEL
Container Construction Thickness: Not reported
Leak Detection: Visual, Stock Inventor

Tank Num: 001
Container Num: 1
Year Installed: 1975
Tank Capacity: 00001000
Tank Used for: PRODUCT
Type of Fuel: DIESEL
Container Construction Thickness: Not reported
Leak Detection: Visual, Stock Inventor

Click here for Geo Tracker PDF:

E37 **93045** **HIST UST** **U001573787**
NW **68-630 E PALM CANYON DR** **N/A**
< 1/8 **CATHEDRAL CITY, CA 92234**
0.123 mi.
648 ft. **Site 1 of 6 in cluster E**

Relative: HIST UST:
Lower
File Number: 0001F4C8
Actual: URL: http://geotracker.waterboards.ca.gov/ustpdfs/pdf/0001F4C8.pdf
319 ft. Region: STATE
Facility ID: 00000062369
Facility Type: Gas Station
Other Type: Not reported
Contact Name: KRINGS,HARRY
Telephone: 6193282513
Owner Name: CHEVRON U.S.A. INC.
Owner Address: 575 MARKET
Owner City,St,Zip: SAN FRANCISCO, CA 94105
Total Tanks: 0004

Tank Num: 001
Container Num: 1
Year Installed: 1971
Tank Capacity: 00010000
Tank Used for: PRODUCT
Type of Fuel: Not reported
Container Construction Thickness: 0000250
Leak Detection: Stock Inventor

Tank Num: 002
Container Num: 2
Year Installed: 1971
Tank Capacity: 00010000
Tank Used for: PRODUCT
Type of Fuel: Not reported
Container Construction Thickness: 0000250
Leak Detection: Stock Inventor

Tank Num: 003
Container Num: 3
Year Installed: 1971

93045 (Continued) **U001573787**

Tank Capacity: 00005000
Tank Used for: PRODUCT
Type of Fuel: Not reported
Container Construction Thickness: 0000250
Leak Detection: Stock Inventor

Tank Num: 004
Container Num: 4
Year Installed: 1971
Tank Capacity: 00001000
Tank Used for: WASTE
Type of Fuel: Not reported
Container Construction Thickness: 0000130
Leak Detection: Stock Inventor

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E38 **CHEVRON STATION #9-3045** **LUST** **S105023146**
NW **68630 PALM CNYN** **HIST CORTESE** **N/A**
< 1/8 **CATHEDRAL CITY, CA 92234**
0.123 mi.
648 ft. **Site 2 of 6 in cluster E**

Relative: **Lower**
Actual: **319 ft.**

LUST:
Lead Agency: RIVERSIDE COUNTY LOP
Case Type: LUST Cleanup Site
Geo Track: http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0606500913
Global Id: T0606500913
Latitude: 33.780128410854
Longitude: -116.464278275394
Status: Completed - Case Closed
Status Date: 10/05/2005
Case Worker: RIV
RB Case Number: 7T2234009
Local Agency: RIVERSIDE COUNTY LOP
File Location: Local Agency Warehouse
Local Case Number: 90960
Potential Media Affect: Soil
Potential Contaminants of Concern: Gasoline
Site History: Not reported

LUST:
Global Id: T0606500913
Contact Type: Regional Board Caseworker
Contact Name: Phan Le
Organization Name: COLORADO RIVER BASIN RWQCB (REGION 7)
Address: 73720 FRED WARING DRIVE SUITE #100
City: PALM DESERT
Email: phan.le@waterboards.ca.gov
Phone Number: 7607768974

Global Id: T0606500913
Contact Type: Local Agency Caseworker
Contact Name: Riverside County LOP
Organization Name: RIVERSIDE COUNTY LOP
Address: 3880 LEMON ST SUITE 200
City: RIVERSIDE
Email: Not reported

CHEVRON STATION #9-3045 (Continued) **S105023146**

Phone Number: 9519558980

LUST:
Global Id: T0606500913
Action Type: ENFORCEMENT
Date: 11/17/2008
Action: Closure/No Further Action Letter - #Site Closure

Global Id: T0606500913
Action Type: Other
Date: 10/18/1990
Action: Leak Discovery

Global Id: T0606500913
Action Type: ENFORCEMENT
Date: 11/16/2008
Action: File review - #RCDEH Upload Site File 9/5/2014

Global Id: T0606500913
Action Type: Other
Date: 10/18/1990
Action: Leak Stopped

Global Id: T0606500913
Action Type: Other
Date: 10/23/1990
Action: Leak Reported

LUST:
Global Id: T0606500913
Status: Open - Case Begin Date
Status Date: 10/18/1990

Global Id: T0606500913
Status: Open - Site Assessment
Status Date: 10/18/1990

Global Id: T0606500913
Status: Open - Site Assessment
Status Date: 10/29/1990

Global Id: T0606500913
Status: Open - Site Assessment
Status Date: 11/01/1990

Global Id: T0606500913
Status: Open - Site Assessment
Status Date: 07/15/1991

Global Id: T0606500913
Status: Open - Remediation
Status Date: 02/21/1992

Global Id: T0606500913
Status: Open - Remediation
Status Date: 09/23/1993

CHEVRON STATION #9-3045 (Continued) **S105023146**

Global Id: T0606500913
Status: Completed - Case Closed
Status Date: 10/05/2005

LUST REG 7:
Region: 7
Status: 9 - Case Closed
Case Num: 7T2234009
Substance: Gasoline - Automotive
ID: 619
Global ID: T0606500913
Lead Agency: Local Agency
Case Worker: KO

HIST CORTESE:
Region: CORTESE
Facility County Code: 33
Reg By: LTNKA
Reg Id: 7T2234009

E39 **H & D KRINGS INC** **EDR Hist Auto** **1020332026**
NW **68630 E PALM CANYON DR** **N/A**
< 1/8 **CATHEDRAL CITY, CA 92234**
0.123 mi.
648 ft. **Site 3 of 6 in cluster E**

Relative: EDR Hist Auto
Lower

Actual: Year: Name: Type:
319 ft. 1991 H & D KRINGS INC Gasoline Service Stations
1992 H & D KRINGS INC Gasoline Service Stations
1993 H & D KRINGS INC Gasoline Service Stations
1994 CHEVRON STATIONS Gasoline Service Stations
1995 CHEVRON STATIONS Gasoline Service Stations
1996 PECARICH JANET Gasoline Service Stations
1997 PECARICH JANET Gasoline Service Stations

E40 **CHEVRON #9-3045** **LUST** **S104970772**
NW **68630 E PALM CANYON DR** **N/A**
< 1/8 **CATHEDRAL CITY, CA**
0.123 mi.
648 ft. **Site 4 of 6 in cluster E**

Relative: RIVERSIDE CO. LUST:
Lower
Region: RIVERSIDE
Actual: Facility ID: 90960
319 ft. Employee: Shurlow-LOP
Site Closed: Yes
Case Type: Soil only
Facility Status: closed/action completed
Casetype Decode: Soil only is impacted
Fstatus Decode: Closed/Action completed

E41
NW
< 1/8
0.123 mi.
648 ft.

CHEVRON #93045
68630 E PALM CANYON DR
CATHEDRAL CITY, CA 92234

Site 5 of 6 in cluster E

SWEEPS UST **S101589817**
CA FID UST **N/A**

Relative:
Lower

Actual:
319 ft.

SWEEPS UST:

Status:	Active
Comp Number:	62369
Number:	1
Board Of Equalization:	44-018433
Referral Date:	02-27-92
Action Date:	02-27-92
Created Date:	02-29-88
Owner Tank Id:	38767
SWRCB Tank Id:	33-000-062369-000005
Tank Status:	A
Capacity:	12000
Active Date:	02-27-92
Tank Use:	M.V. FUEL
STG:	P
Content:	MID GRADE UN
Number Of Tanks:	4

Status:	Active
Comp Number:	62369
Number:	1
Board Of Equalization:	44-018433
Referral Date:	02-27-92
Action Date:	02-27-92
Created Date:	02-29-88
Owner Tank Id:	38778
SWRCB Tank Id:	33-000-062369-000006
Tank Status:	A
Capacity:	12000
Active Date:	02-27-92
Tank Use:	M.V. FUEL
STG:	P
Content:	REG UNLEADED
Number Of Tanks:	Not reported

Status:	Active
Comp Number:	62369
Number:	1
Board Of Equalization:	44-018433
Referral Date:	02-27-92
Action Date:	02-27-92
Created Date:	02-29-88
Owner Tank Id:	38769
SWRCB Tank Id:	33-000-062369-000007
Tank Status:	A
Capacity:	12000
Active Date:	02-27-92
Tank Use:	M.V. FUEL
STG:	P
Content:	REG UNLEADED
Number Of Tanks:	Not reported

Status:	Active

CHEVRON #93045 (Continued) **S101589817**

Comp Number: 62369
Number: 1
Board Of Equalization: 44-018433
Referral Date: 02-27-92
Action Date: 02-27-92
Created Date: 02-29-88
Owner Tank Id: Not reported
SWRCB Tank Id: 33-000-062369-000008
Tank Status: A
Capacity: 1000
Active Date: 02-27-92
Tank Use: OIL
STG: W
Content: WASTE OIL
Number Of Tanks: Not reported

CA FID UST:
Facility ID: 33000143
Regulated By: UTNKA
Regulated ID: 00062369
Cortese Code: Not reported
SIC Code: Not reported
Facility Phone: 6193282513
Mail To: Not reported
Mailing Address: P O BOX 2833
Mailing Address 2: Not reported
Mailing City,St,Zip: CATHEDRAL CITY 92234
Contact: Not reported
Contact Phone: Not reported
DUNs Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported
Status: Active

E42 **BEEP-BEEP LUBE & TUNE** **SWEEPS UST** **S101631080**
NW **68635 HIGHWAY 111** **CA FID UST** **N/A**
< 1/8 **CATHEDRAL CITY, CA 92234**
0.125 mi.
659 ft. **Site 6 of 6 in cluster E**

Relative: **Lower**

Actual: **321 ft.**

SWEEPS UST:
Status: Active
Comp Number: 1849
Number: 2
Board Of Equalization: Not reported
Referral Date: 08-26-91
Action Date: 08-26-91
Created Date: 08-26-91
Owner Tank Id: Not reported
SWRCB Tank Id: 33-000-001849-000001
Tank Status: A
Capacity: 10
Active Date: 08-26-91
Tank Use: M.V. FUEL
STG: P
Content: UNKNOWN CONT

BEEP-BEEP LUBE & TUNE (Continued) **S101631080**

Number Of Tanks: 5

Status: Active
Comp Number: 1849
Number: 2
Board Of Equalization: Not reported
Referral Date: 08-26-91
Action Date: 08-26-91
Created Date: 08-26-91
Owner Tank Id: Not reported
SWRCB Tank Id: 33-000-001849-000002
Tank Status: A
Capacity: 10
Active Date: 08-26-91
Tank Use: M.V. FUEL
STG: P
Content: UNKNOWN CONT
Number Of Tanks: Not reported

Status: Active
Comp Number: 1849
Number: 2
Board Of Equalization: Not reported
Referral Date: 08-26-91
Action Date: 08-26-91
Created Date: 08-26-91
Owner Tank Id: Not reported
SWRCB Tank Id: 33-000-001849-000003
Tank Status: A
Capacity: 10
Active Date: 08-26-91
Tank Use: M.V. FUEL
STG: P
Content: UNKNOWN CONT
Number Of Tanks: Not reported

Status: Active
Comp Number: 1849
Number: 2
Board Of Equalization: Not reported
Referral Date: 08-26-91
Action Date: 08-26-91
Created Date: 08-26-91
Owner Tank Id: Not reported
SWRCB Tank Id: 33-000-001849-000004
Tank Status: A
Capacity: 10
Active Date: 08-26-91
Tank Use: M.V. FUEL
STG: P
Content: UNKNOWN CONT
Number Of Tanks: Not reported

Status: Active
Comp Number: 1849
Number: 2
Board Of Equalization: Not reported

BEEP-BEEP LUBE & TUNE (Continued) **S101631080**

Referral Date:	08-26-91
Action Date:	08-26-91
Created Date:	08-26-91
Owner Tank Id:	Not reported
SWRCB Tank Id:	33-000-001849-000005
Tank Status:	A
Capacity:	10
Active Date:	08-26-91
Tank Use:	OIL
STG:	W
Content:	WASTE OIL
Number Of Tanks:	Not reported

CA FID UST:

Facility ID:	33006831
Regulated By:	UTNKA
Regulated ID:	Not reported
Cortese Code:	Not reported
SIC Code:	Not reported
Facility Phone:	Not reported
Mail To:	Not reported
Mailing Address:	3320 RED ROSE
Mailing Address 2:	Not reported
Mailing City,St,Zip:	CATHEDRAL CITY 92234
Contact:	Not reported
Contact Phone:	Not reported
DUNs Number:	Not reported
NPDES Number:	Not reported
EPA ID:	Not reported
Comments:	Not reported
Status:	Active

---

43 **SUNGATE MOBILE HOME RENDER SAFE** **SEMS** **1018148632**
ESE **69333 EAST PALM CANYON DRIVE** **CAN000900221**
1/8-1/4 **CATHEDRAL CITY, CA 92234**
0.179 mi.
946 ft.

Relative:
Lower

Actual:
313 ft.

SEMS:

Site ID:	900221
EPA ID:	CAN000900221
Cong District:	Not reported
FIPS Code:	6065
Latitude:	Not reported
Longitude:	Not reported
FF:	N
NPL:	Not on the NPL
Non NPL Status:	Removal Only Site (No Site Assessment Work Needed)

SEMS Detail:

Region:	9
Site ID:	900221
EPA ID:	CAN000900221
Site Name:	SUNGATE MOBILE HOME RENDER SAFE
NPL:	N
FF:	N
OU:	0
Action Code:	BB

SUNGATE MOBILE HOME RENDER SAFE (Continued) **1018148632**

Action Name: PRP RV
SEQ: 1
Start Date: 2014-06-26 00:00:00
Finish Date: 6/28/2014
Qual: C
Current Action Lead: EPA Ovrsght

44
NW
1/8-1/4
0.206 mi.
1090 ft.

BEST CLEANERS
68600 HIGHWAY 111
CATHEDRAL CITY, CA 92234

RCRA-SQG **1000596101**
FINDS **CAD983600644**
ECHO
HAZNET

Relative:
Lower

Actual:
324 ft.

RCRA-SQG:
Date form received by agency: 08/02/1991
Facility name: BEST CLEANERS
Facility address: 68600 HIGHWAY 111
CATHEDRAL CITY, CA 92234
EPA ID: CAD983600644
Mailing address: HIGHWAY 111
CATHEDRAL CITY, CA 92234
Contact: ROBERT YOUNG
Contact address: 68600 HIGHWAY 111
CATHEDRAL CITY, CA 92234
Contact country: US
Contact telephone: 619-328-1447
Contact email: Not reported
EPA Region: 09
Classification: Small Small Quantity Generator
Description: Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:
Owner/operator name: ROBERT YOUNG
Owner/operator address: 68600 HIGHWAY 111
CATHEDRAL CITY, CA 92234
Owner/operator country: Not reported
Owner/operator telephone: 619-328-1447
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No

BEST CLEANERS (Continued) **1000596101**

On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Violation Status: No violations found

FINDS:

Registry ID: 110005996253

Environmental Interest/Information System
RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:
Envid: 1000596101
Registry ID: 110005996253
DFR URL: http://echo.epa.gov/detailed-facility-report?fid=110005996253

HAZNET:
envid: 1000596101
Year: 1998
GEPAID: CAD983600644
Contact: ROBERT YOUNG
Telephone: 6193217814
Mailing Name: Not reported
Mailing Address: 69040 E PALM CANYON DR STE A
Mailing City,St,Zip: CATHEDRAL CITY, CA 922341447
Gen County: Not reported
TSD EPA ID: CAT000613927
TSD County: Not reported
Waste Category: Liquids with halogenated organic compounds >= 1,000 Mg./L
Disposal Method: Transfer Station
Tons: .3900
Cat Decode: Not reported
Method Decode: Not reported
Facility County: Riverside

envid: 1000596101
Year: 1997
GEPAID: CAD983600644
Contact: ROBERT YOUNG
Telephone: 6193217814

BEST CLEANERS (Continued) **1000596101**

Mailing Name: Not reported
Mailing Address: 69040 E PALM CANYON DR STE A
Mailing City,St,Zip: CATHEDRAL CITY, CA 922341447
Gen County: Not reported
TSD EPA ID: CAT000613927
TSD County: Not reported
Waste Category: Liquids with halogenated organic compounds >= 1,000 Mg./L
Disposal Method: Transfer Station
Tons: .6750
Cat Decode: Not reported
Method Decode: Not reported
Facility County: Riverside

envid: 1000596101
Year: 1996
GEPAID: CAD983600644
Contact: ROBERT YOUNG
Telephone: 6193217814
Mailing Name: Not reported
Mailing Address: 69040 E PALM CANYON DR STE A
Mailing City,St,Zip: CATHEDRAL CITY, CA 922341447
Gen County: Not reported
TSD EPA ID: CAT000613927
TSD County: Not reported
Waste Category: Liquids with halogenated organic compounds >= 1,000 Mg./L
Disposal Method: Transfer Station
Tons: 1.0850
Cat Decode: Not reported
Method Decode: Not reported
Facility County: Riverside

envid: 1000596101
Year: 1995
GEPAID: CAD983600644
Contact: ROBERT YOUNG
Telephone: 6193217814
Mailing Name: Not reported
Mailing Address: 69040 E PALM CANYON DR STE A
Mailing City,St,Zip: CATHEDRAL CITY, CA 922341447
Gen County: Not reported
TSD EPA ID: CAT000613927
TSD County: Not reported
Waste Category: Liquids with halogenated organic compounds >= 1,000 Mg./L
Disposal Method: Transfer Station
Tons: .5850
Cat Decode: Not reported
Method Decode: Not reported
Facility County: Riverside

envid: 1000596101
Year: 1994
GEPAID: CAD983600644
Contact: ROBERT YOUNG
Telephone: 6193217814
Mailing Name: Not reported
Mailing Address: 69040 E PALM CANYON DR STE A
Mailing City,St,Zip: CATHEDRAL CITY, CA 922341447

BEST CLEANERS (Continued) **1000596101**

Gen County: Not reported
TSD EPA ID: CAT000613927
TSD County: Not reported
Waste Category: Liquids with halogenated organic compounds >= 1,000 Mg./L
Disposal Method: Transfer Station
Tons: .8225
Cat Decode: Not reported
Method Decode: Not reported
Facility County: Riverside

Click this hyperlink while viewing on your computer to access
1 additional CA_HAZNET: record(s) in the EDR Site Report.

F45 **PALM SPRINGS MOTORS INC** **HIST UST** **1000294434**
East **69 200 HWY 111** **RCRA NonGen / NLR** **CAD005994504**
1/8-1/4 **CATHEDRAL CITY, CA 92234**
0.218 mi.
1152 ft. **Site 1 of 2 in cluster F**

Relative:
Lower

Actual:
298 ft.

HIST UST:
File Number: Not reported
URL: Not reported
Region: STATE
Facility ID: 00000021534
Facility Type: Other
Other Type: AUTO SALES & SERVICE
Contact Name: WM. S. TORRANCE
Telephone: 6193282102
Owner Name: PALMS SPRINGS MOTORS, INC.
Owner Address: 69-200 HIGHWAY #111
Owner City,St,Zip: CATHEDRAL CITY, CA 92234
Total Tanks: 0001

Tank Num: 001
Container Num: 0000000001
Year Installed: 1983
Tank Capacity: 00001000
Tank Used for: PRODUCT
Type of Fuel: UNLEADED
Container Construction Thickness: Not reported
Leak Detection: Groundwater Monitoring Well

RCRA NonGen / NLR:
Date form received by agency: 07/11/2002
Facility name: PALM SPRINGS MOTORS INC
Facility address: 69 200 HWY 111
CATHEDRAL CITY, CA 92234
EPA ID: CAD005994504
Contact: TERRY O BRIEN
Contact address: 69 200 HWY 111
CATHEDRAL CITY, CA 92234
Contact country: US
Contact telephone: 760-328-2102
Contact email: Not reported
EPA Region: 09
Classification: Non-Generator
Description: Handler: Non-Generators do not presently generate hazardous waste

PALM SPRINGS MOTORS INC (Continued) **1000294434**

Owner/Operator Summary:
Owner/operator name: WILLIAM TORRANCE
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: 415-555-1212
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: NOT REQUIRED
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: 415-555-1212
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Violation Status: No violations found

F46 **PALM SPRINGS MOTORS INC** **RCRA-SQG** **1000294436**
East **69-200 HY 111** **HIST UST** **CAD981573991**
1/8-1/4 **CATHEDRAL CITY, CA 92234**
0.218 mi.
1152 ft. **Site 2 of 2 in cluster F**

Relative: **Lower**
Actual: **298 ft.**

RCRA-SQG:
Date form received by agency: 03/06/2002
Facility name: PALM SPRINGS MOTORS INC
Facility address: 69-200 HY 111
CATHEDRAL CITY, CA 92234
EPA ID: CAD981573991

PALM SPRINGS MOTORS INC (Continued) **1000294436**

Contact: THOMAS R PENDLETON
Contact address: Not reported
Not reported
Contact country: US
Contact telephone: 760-328-2102
Telephone ext.: 221
Contact email: Not reported
EPA Region: 09
Classification: Small Small Quantity Generator
Description: Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:
Owner/operator name: WILLIAM JORRANCE
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: 415-555-1212
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: NOT REQUIRED
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: 415-555-1212
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No

PALM SPRINGS MOTORS INC (Continued) **1000294436**

Used oil transfer facility: No
Used oil transporter: No

Historical Generators:
Date form received by agency: 03/06/2002
Site name: PALM SPRINGS MOTORS INC
Classification: Large Quantity Generator

Date form received by agency: 09/30/1986
Site name: PALM SPRINGS MOTORS
Classification: Small Quantity Generator

Violation Status: No violations found

HIST UST:
File Number: 0001F85F
URL: http://geotracker.waterboards.ca.gov/ustpdfs/pdf/0001F85F.pdf
Region: STATE
Facility ID: 00000008886
Facility Type: Other
Other Type: AUTO SALES & SERVICE
Contact Name: WM. S. TORRANCE, DEALER
Telephone: 6193282102
Owner Name: PALM SPRINGS MOTORS, INC.
Owner Address: 69-200 HIGHWAY #111
Owner City,St,Zip: CATHEDRAL CITY, CA 92234
Total Tanks: 0001

Tank Num: 001
Container Num: 1
Year Installed: 1983
Tank Capacity: 00001000
Tank Used for: PRODUCT
Type of Fuel: UNLEADED
Container Construction Thickness: Not reported
Leak Detection: None

Tank Num: 001
Container Num: 1
Year Installed: 1983
Tank Capacity: 00001000
Tank Used for: PRODUCT
Type of Fuel: UNLEADED
Container Construction Thickness: Not reported
Leak Detection: None

Click here for Geo Tracker PDF:

G47
WNW
1/8-1/4
0.244 mi.
1289 ft.

Relative: Higher

Actual: 341 ft.

CIRCLE K STORE #333
37040 CATHEDRAL CANYON
CATHEDRAL CITY, CA 92234

Site 1 of 4 in cluster G

Database(s): RCRA-SQG, SWEEPS UST, HIST UST, CA FID UST, FINDS, ECHO

EDR ID Number: 1000174048
EPA ID Number: CAD981680226

RCRA-SQG:
Date form received by agency: 09/01/1996
Facility name: CIRCLE K STORE #333
Facility address: 37040 CATHEDRAL CANYON
CATHEDRAL CITY, CA 92234
EPA ID: CAD981680226
Mailing address: 5811 MANZANITA AVE
CARMICHAEL, CA 95608
Contact: Not reported
Contact address: Not reported
Not reported
Contact country: US
Contact telephone: Not reported
Contact email: Not reported
EPA Region: 09
Classification: Small Small Quantity Generator
Description: Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:
Owner/operator name: CIRCLE K CORP
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: 415-555-1212
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: NOT REQUIRED
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: 415-555-1212
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No

CIRCLE K STORE #333 (Continued) **1000174048**

Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:
Date form received by agency: 10/16/1986
Site name: CIRCLE K STORE #333
Classification: Large Quantity Generator

Violation Status: No violations found

SWEEPS UST:
Status: Active
Comp Number: 13667
Number: 1
Board Of Equalization: 44-017990
Referral Date: 10-28-92
Action Date: 10-28-92
Created Date: 02-29-88
Owner Tank Id: 000040
SWRCB Tank Id: 33-000-013667-000001
Tank Status: A
Capacity: 10000
Active Date: 10-28-92
Tank Use: M.V. FUEL
STG: P
Content: LEADED
Number Of Tanks: 2

Status: Active
Comp Number: 13667
Number: 1
Board Of Equalization: 44-017990
Referral Date: 10-28-92
Action Date: 10-28-92
Created Date: 02-29-88
Owner Tank Id: 000040
SWRCB Tank Id: 33-000-013667-000002
Tank Status: A
Capacity: 10000
Active Date: 10-28-92
Tank Use: M.V. FUEL
STG: P
Content: REG UNLEADED
Number Of Tanks: Not reported

CIRCLE K STORE #333 (Continued) **1000174048**

HIST UST:
File Number: 0001F4FF
URL: http://geotracker.waterboards.ca.gov/ustpdfs/pdf/0001F4FF.pdf
Region: STATE
Facility ID: 00000013667
Facility Type: Gas Station
Other Type: Not reported
Contact Name: KEN ZIMMERMAN
Telephone: 6193285605
Owner Name: CIRCLE K CORPORATION
Owner Address: 4500 SOUTH 40TH STREET
Owner City,St,Zip: PHOENIX, AZ 85040
Total Tanks: 0002

Tank Num: 001
Container Num: 1
Year Installed: Not reported
Tank Capacity: 00010000
Tank Used for: PRODUCT
Type of Fuel: REGULAR
Container Construction Thickness: Not reported
Leak Detection: Stock Inventor

Tank Num: 002
Container Num: 2
Year Installed: Not reported
Tank Capacity: 00010000
Tank Used for: PRODUCT
Type of Fuel: UNLEADED
Container Construction Thickness: Not reported
Leak Detection: Stock Inventor

Click here for Geo Tracker PDF:

CA FID UST:
Facility ID: 33002567
Regulated By: UTNKA
Regulated ID: 00013667
Cortese Code: Not reported
SIC Code: Not reported
Facility Phone: 6193285605
Mail To: Not reported
Mailing Address: P O BOX 52084
Mailing Address 2: Not reported
Mailing City,St,Zip: CATHEDRAL CITY 92234
Contact: Not reported
Contact Phone: Not reported
DUNs Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported
Status: Active

FINDS:

Registry ID: 110002749232

CIRCLE K STORE #333 (Continued) **1000174048**

Environmental Interest/Information System
RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

STATE MASTER

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:
Envid: 1000174048
Registry ID: 110002749232
DFR URL: http://echo.epa.gov/detailed-facility-report?fid=110002749232

G48 **CIRCLE K #333** **LUST** **S104574430**
WNW **37040 CATHEDRAL CANYON DR** **N/A**
1/8-1/4 **CATHEDRAL CITY, CA 92234**
0.244 mi.
1289 ft. **Site 2 of 4 in cluster G**

Relative:
Higher

Actual:
341 ft.

LUST:
Lead Agency: RIVERSIDE COUNTY LOP
Case Type: LUST Cleanup Site
Geo Track: http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0606500927
Global Id: T0606500927
Latitude: 33.7795578391039
Longitude: -116.466670876057
Status: Completed - Case Closed
Status Date: 04/28/2000
Case Worker: RIV
RB Case Number: 7T2234023
Local Agency: RIVERSIDE COUNTY LOP
File Location: Not reported
Local Case Number: 9915384
Potential Media Affect: Soil
Potential Contaminants of Concern: Gasoline
Site History: Not reported

LUST:
Global Id: T0606500927
Contact Type: Regional Board Caseworker
Contact Name: Phan Le
Organization Name: COLORADO RIVER BASIN RWQCB (REGION 7)
Address: 73720 FRED WARING DRIVE SUITE #100
City: PALM DESERT
Email: phan.le@waterboards.ca.gov
Phone Number: 7607768974

Global Id: T0606500927
Contact Type: Local Agency Caseworker
Contact Name: Riverside County LOP
Organization Name: RIVERSIDE COUNTY LOP
Address: 3880 LEMON ST SUITE 200

CIRCLE K #333 (Continued) **S104574430**

City: RIVERSIDE
Email: Not reported
Phone Number: 9519558980

LUST:
Global Id: T0606500927
Action Type: ENFORCEMENT
Date: 11/17/2008
Action: File review - #RCDEH Upload Site File 2/18/2015

Global Id: T0606500927
Action Type: ENFORCEMENT
Date: 11/18/2008
Action: Closure/No Further Action Letter - #Site Closure

Global Id: T0606500927
Action Type: Other
Date: 07/07/1999
Action: Leak Discovery

Global Id: T0606500927
Action Type: Other
Date: 03/23/1999
Action: Leak Stopped

Global Id: T0606500927
Action Type: Other
Date: 07/07/1999
Action: Leak Reported

LUST:
Global Id: T0606500927
Status: Open - Case Begin Date
Status Date: 03/23/1999

Global Id: T0606500927
Status: Open - Site Assessment
Status Date: 08/31/1999

Global Id: T0606500927
Status: Open - Site Assessment
Status Date: 09/01/1999

Global Id: T0606500927
Status: Open - Site Assessment
Status Date: 01/26/2000

Global Id: T0606500927
Status: Completed - Case Closed
Status Date: 04/28/2000

G49 **CIRCLE K # 333** **LUST** **S105023142**
WNW **37040 CATHEDRAL CNYN** **HIST CORTESE** **N/A**
1/8-1/4 **CATHEDRAL CITY, CA 92234**
0.244 mi.
1289 ft. **Site 3 of 4 in cluster G**

Relative:
Higher

Actual:
341 ft.

LUST REG 7:

Region:	7
Status:	9 - Case Closed
Case Num:	7T2234023
Substance:	Gasoline - Automotive
ID:	631
Global ID:	T0606500927
Lead Agency:	Local Agency
Case Worker:	YO

RIVERSIDE CO. LUST:

Region:	RIVERSIDE
Facility ID:	9915384
Employee:	Shurlow-LOP
Site Closed:	Yes
Case Type:	Soil only
Facility Status:	closed/action completed
Casetype Decode:	Soil only is impacted
Fstatus Decode:	Closed/Action completed

HIST CORTESE:

Region:	CORTESE
Facility County Code:	33
Reg By:	LTNKA
Reg Id:	7T2234023

G50 **R D PARKER SERVICES** **LUST** **S104816279**
WNW **36650 A CATHEDRAL CANYON** **N/A**
1/4-1/2 **CATHEDRAL CITY, CA**
0.253 mi.
1337 ft. **Site 4 of 4 in cluster G**

Relative:
Higher

Actual:
348 ft.

LUST REG 7:

Region:	7
Status:	9 - Case Closed
Case Num:	7T2234010
Substance:	Waste oil/Used oil
ID:	1092
Global ID:	T0606500914
Lead Agency:	Local Agency
Case Worker:	KO

H51 **PALM SPRINGS FORD MOTORS** **LUST** **S105023151**
East **69200 HIGHWAY 111** **HIST CORTESE** **N/A**
1/4-1/2 **CATHEDRAL CITY, CA 92234**
0.299 mi.
1579 ft. **Site 1 of 2 in cluster H**

Relative:
Lower

Actual:
275 ft.

LUST:

Lead Agency:	RIVERSIDE COUNTY LOP
Case Type:	LUST Cleanup Site
Geo Track:	http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0606500917
Global Id:	T0606500917
Latitude:	33.777095586068
Longitude:	-116.453597743586
Status:	Completed - Case Closed
Status Date:	09/06/1994
Case Worker:	RIV
RB Case Number:	7T2234013
Local Agency:	RIVERSIDE COUNTY LOP
File Location:	Local Agency Warehouse
Local Case Number:	94180
Potential Media Affect:	Soil
Potential Contaminants of Concern:	Gasoline
Site History:	Not reported

LUST:

Global Id:	T0606500917
Contact Type:	Regional Board Caseworker
Contact Name:	Phan Le
Organization Name:	COLORADO RIVER BASIN RWQCB (REGION 7)
Address:	73720 FRED WARING DRIVE SUITE #100
City:	PALM DESERT
Email:	phan.le@waterboards.ca.gov
Phone Number:	7607768974

Global Id:	T0606500917
Contact Type:	Local Agency Caseworker
Contact Name:	Riverside County LOP
Organization Name:	RIVERSIDE COUNTY LOP
Address:	3880 LEMON ST SUITE 200
City:	RIVERSIDE
Email:	Not reported
Phone Number:	9519558980

LUST:

Global Id:	T0606500917
Action Type:	Other
Date:	12/13/1993
Action:	Leak Discovery

Global Id:	T0606500917
Action Type:	ENFORCEMENT
Date:	06/09/1994
Action:	Closure/No Further Action Letter - #Riv Co Closure

Global Id:	T0606500917
Action Type:	ENFORCEMENT
Date:	06/08/1994
Action:	File review - #RCDEH Upload Site File 9/29/2015

PALM SPRINGS FORD MOTORS (Continued) **S105023151**

Global Id: T0606500917
Action Type: Other
Date: 11/17/1993
Action: Leak Stopped

Global Id: T0606500917
Action Type: Other
Date: 03/07/1994
Action: Leak Reported

LUST:
Global Id: T0606500917
Status: Open - Case Begin Date
Status Date: 11/17/1993

Global Id: T0606500917
Status: Completed - Case Closed
Status Date: 09/06/1994

RIVERSIDE CO. LUST:
Region: RIVERSIDE
Facility ID: 94180
Employee: Hoy
Site Closed: Yes
Case Type: Soil only
Facility Status: closed/action completed
Casetype Decode: Soil only is impacted
Fstatus Decode: Closed/Action completed

HIST CORTESE:
Region: CORTESE
Facility County Code: 33
Reg By: LTNKA
Reg Id: 7T2234013

H52 **PALM SPRINGS FORD MOTORS** **LUST** **S106152961**
East **69200 HIGHWAY 111** **N/A**
1/4-1/2 **CATHEDRAL CITY, CA**
0.299 mi.
1579 ft. **Site 2 of 2 in cluster H**

Relative:
Lower

Actual:
275 ft.

LUST REG 7:
Region: 7
Status: 9 - Case Closed
Case Num: 7T2234013
Substance: Gasoline - Automotive
ID: 1060
Global ID: T0606500917
Lead Agency: Local Agency
Case Worker: KO

I53 **R D PARKER SERVICE CENTER** **LUST** **S103820852**
NW **36650 CATHEDRAL CANYON RD** **N/A**
1/4-1/2 **CATHEDRAL CITY, CA**
0.325 mi.
1718 ft. **Site 1 of 3 in cluster I**

Relative: **Lower**
Actual: **301 ft.**

RIVERSIDE CO. LUST:

Region:	RIVERSIDE
Facility ID:	91233
Employee:	Lehmann
Site Closed:	Yes
Case Type:	Soil only
Facility Status:	closed/action completed
Casetype Decode:	Soil only is impacted
Fstatus Decode:	Closed/Action completed

I54 **R D PARKER SERVICES** **LUST** **S109284977**
NW **36650 CATHEDRAL CANYON** **N/A**
1/4-1/2 **CATHEDRAL CITY, CA 92234**
0.325 mi.
1718 ft. **Site 2 of 3 in cluster I**

Relative: **Lower**
Actual: **301 ft.**

LUST:

Lead Agency:	RIVERSIDE COUNTY LOP
Case Type:	LUST Cleanup Site
Geo Track:	http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0606500914
Global Id:	T0606500914
Latitude:	33.7824408054021
Longitude:	-116.466388353933
Status:	Completed - Case Closed
Status Date:	07/10/1992
Case Worker:	RIV
RB Case Number:	7T2234010
Local Agency:	RIVERSIDE COUNTY LOP
File Location:	Local Agency Warehouse
Local Case Number:	91233
Potential Media Affect:	Soil
Potential Contaminants of Concern:	Waste Oil / Motor / Hydraulic / Lubricating
Site History:	Not reported

LUST:

Global Id:	T0606500914
Contact Type:	Regional Board Caseworker
Contact Name:	Phan Le
Organization Name:	COLORADO RIVER BASIN RWQCB (REGION 7)
Address:	73720 FRED WARING DRIVE SUITE #100
City:	PALM DESERT
Email:	phan.le@waterboards.ca.gov
Phone Number:	7607768974

Global Id:	T0606500914
Contact Type:	Local Agency Caseworker
Contact Name:	Riverside County LOP
Organization Name:	RIVERSIDE COUNTY LOP
Address:	3880 LEMON ST SUITE 200
City:	RIVERSIDE
Email:	Not reported
Phone Number:	9519558980

R D PARKER SERVICES (Continued) **S109284977**

LUST:
Global Id: T0606500914
Action Type: ENFORCEMENT
Date: 08/16/1991
Action: Closure/No Further Action Letter - #Riv Co Closure

Global Id: T0606500914
Action Type: Other
Date: 03/26/1991
Action: Leak Discovery

Global Id: T0606500914
Action Type: Other
Date: 03/26/1991
Action: Leak Stopped

Global Id: T0606500914
Action Type: Other
Date: 03/27/1991
Action: Leak Reported

Global Id: T0606500914
Action Type: ENFORCEMENT
Date: 08/15/1991
Action: File review - #RCDEH uploaded file 9/30/2015

LUST:
Global Id: T0606500914
Status: Open - Case Begin Date
Status Date: 03/26/1991

Global Id: T0606500914
Status: Completed - Case Closed
Status Date: 07/10/1992

I55 **R. D. PARKER SERVICES** **HIST CORTESE** **S105023140**
NW **36650 A CATHEDRAL CNYN DRIV** **N/A**
1/4-1/2 **CATHEDRAL CITY, CA**
0.351 mi.
1855 ft. **Site 3 of 3 in cluster I**

Relative:
Lower

Actual:
298 ft.

HIST CORTESE:
Region: CORTESE
Facility County Code: 33
Reg By: LTNKA
Reg Id: 7T2234010

J56 **KAY OLESEN** **LUST** **S105023148**
WNW **68384 HIGHWAY 111** **HIST CORTESE** **N/A**
1/4-1/2 **CATHEDRAL CITY, CA 92234**
0.388 mi.
2047 ft. **Site 1 of 2 in cluster J**

Relative:
Lower

Actual:
327 ft.

LUST:

Lead Agency:	RIVERSIDE COUNTY LOP
Case Type:	LUST Cleanup Site
Geo Track:	http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0606500908
Global Id:	T0606500908
Latitude:	33.78131858134
Longitude:	-116.468786782803
Status:	Completed - Case Closed
Status Date:	08/27/1992
Case Worker:	RIV
RB Case Number:	7T2234004
Local Agency:	RIVERSIDE COUNTY LOP
File Location:	Local Agency Warehouse
Local Case Number:	88825
Potential Media Affect:	Soil
Potential Contaminants of Concern:	Waste Oil / Motor / Hydraulic / Lubricating
Site History:	Not reported

LUST:

Global Id:	T0606500908
Contact Type:	Regional Board Caseworker
Contact Name:	Phan Le
Organization Name:	COLORADO RIVER BASIN RWQCB (REGION 7)
Address:	73720 FRED WARING DRIVE SUITE #100
City:	PALM DESERT
Email:	phan.le@waterboards.ca.gov
Phone Number:	7607768974

Global Id:	T0606500908
Contact Type:	Local Agency Caseworker
Contact Name:	Riverside County LOP
Organization Name:	RIVERSIDE COUNTY LOP
Address:	3880 LEMON ST SUITE 200
City:	RIVERSIDE
Email:	Not reported
Phone Number:	9519558980

LUST:

Global Id:	T0606500908
Action Type:	Other
Date:	11/10/1988
Action:	Leak Discovery

Global Id:	T0606500908
Action Type:	ENFORCEMENT
Date:	04/13/1989
Action:	File review - #RCDEH Upload Site File 6/4/2015

Global Id:	T0606500908
Action Type:	ENFORCEMENT
Date:	04/14/1989
Action:	Closure/No Further Action Letter - #Riv Co Closure

KAY OLESEN (Continued) **S105023148**

Global Id: T0606500908
Action Type: Other
Date: 10/26/1988
Action: Leak Stopped

Global Id: T0606500908
Action Type: Other
Date: 11/10/1988
Action: Leak Reported

LUST:
Global Id: T0606500908
Status: Open - Case Begin Date
Status Date: 10/26/1988

Global Id: T0606500908
Status: Completed - Case Closed
Status Date: 08/27/1992

RIVERSIDE CO. LUST:
Region: RIVERSIDE
Facility ID: 88825
Employee: Lehmann
Site Closed: Yes
Case Type: Soil only
Facility Status: closed/action completed
Casetype Decode: Soil only is impacted
Fstatus Decode: Closed/Action completed

HIST CORTESE:
Region: CORTESE
Facility County Code: 33
Reg By: LTNKA
Reg Id: 7T2234004

J57 **OLESEN KAY** **LUST** **S104816277**
WNW **68384 HIGHWAY 111** **N/A**
1/4-1/2 **CATHEDRAL CITY, CA**
0.388 mi.
2047 ft. **Site 2 of 2 in cluster J**

Relative:
Lower

Actual:
327 ft.

LUST REG 7:
Region: 7
Status: 9 - Case Closed
Case Num: 7T2234004
Substance: Waste oil/Used oil
ID: 1047
Global ID: T0606500908
Lead Agency: Local Agency
Case Worker: KO

58
NW
1/4-1/2
0.397 mi.
2095 ft.

PALM SPRINGS RECYCLING
36630 SUNAIR PLZ
CATHEDRAL CITY, CA 92234

SWRCY **S106104716**
NPDES **N/A**
WDS

Relative:
Lower

Actual:
300 ft.

SWRCY:

Reg Id:	27286	
Cert Id:	RC3197	
Mailing Address:	36630 Sunair Plz	
Mailing City:	Cathedral City	
Mailing State:	CA	
Mailing Zip Code:		92234
Website:	Not reported	
Email:	bracamonte5807@aol.com	
Phone Number:	(760) 321-4087	
Grand Father:	N	
Rural:	N	
Operation Begin Date:		06/12/1989
Aluminium:	Y	
Glass:	Y	
Plastic:	Y	
Bimetal:	Y	
Agency:	N/A	
Monday Hours Of Operation:		8:00 am - 4:00 pm; Closed 11:30 am - 12:00 pm
Tuesday Hours Of Operation:		8:00 am - 4:00 pm; Closed 11:30 am - 12:00 pm
Wednesday Hours Of Operation:		8:00 am - 4:00 pm; Closed 11:30 am - 12:00 pm
Thursday Hours Of Operation:		8:00 am - 4:00 pm; Closed 11:30 am - 12:00 pm
Friday Hours Of Operation:		8:00 am - 4:00 pm; Closed 11:30 am - 12:00 pm
Saturday Hours Of Operation:		8:00 am - 1:00 pm
Sunday Hours Of Operation:		CLOSED
Organization ID:	18823	
Organization Name:		Palm Springs Recycling Center Inc

NPDES:

Npdes Number:	Not reported	
Facility Status:	Not reported	
Agency Id:	Not reported	
Region:	7	
Regulatory Measure Id:		205465
Order No:	Not reported	
Regulatory Measure Type:		Industrial
Place Id:	Not reported	
WDID:	7 33I011649	
Program Type:	Not reported	
Adoption Date Of Regulatory Measure:		Not reported
Effective Date Of Regulatory Measure:		Not reported
Expiration Date Of Regulatory Measure:		Not reported
Termination Date Of Regulatory Measure:		Not reported
Discharge Name:	Not reported	
Discharge Address:		Not reported
Discharge City:	Not reported	
Discharge State:	Not reported	
Discharge Zip:	Not reported	
RECEIVED DATE:	05/09/2008	
PROCESSED DATE:	06/08/1995	
STATUS CODE NAME:		Active
STATUS DATE:	06/08/1995	
PLACE SIZE:	39204	

PALM SPRINGS RECYCLING (Continued) **S106104716**

PLACE SIZE UNIT: SqFt
FACILITY CONTACT NAME: Rick Bracamonte
FACILITY CONTACT TITLE: CEO
FACILITY CONTACT PHONE: 760-321-4087
FACILITY CONTACT PHONE EXT: Not reported
FACILITY CONTACT EMAIL: bracamonte5807@aol.com
OPERATOR NAME: Palm Springs Recycling
OPERATOR ADDRESS: 36630 Sunair Plz
OPERATOR CITY: Cathedral City
OPERATOR STATE: California
OPERATOR ZIP: 92234
OPERATOR CONTACT NAME: Rick Bracamonte
OPERATOR CONTACT TITLE: Not reported
OPERATOR CONTACT PHONE: 760-321-4087
OPERATOR CONTACT PHONE EXT: Not reported
OPERATOR CONTACT EMAIL: bracamonte5807@aol.com
OPERATOR TYPE: Private Business
DEVELOPER NAME: Not reported
DEVELOPER ADDRESS: Not reported
DEVELOPER CITY: Not reported
DEVELOPER STATE: California
DEVELOPER ZIP: Not reported
DEVELOPER CONTACT NAME: Not reported
DEVELOPER CONTACT TITLE: Not reported
CONSTYPE LINEAR UTILITY IND: Not reported
EMERGENCY PHONE NO: 760-321-4087
EMERGENCY PHONE EXT: Not reported
CONSTYPE ABOVE GROUND IND: Not reported
CONSTYPE BELOW GROUND IND: Not reported
CONSTYPE CABLE LINE IND: Not reported
CONSTYPE COMM LINE IND: Not reported
CONSTYPE COMMERTIAL IND: Not reported
CONSTYPE ELECTRICAL LINE IND Not reported
CONSTYPE GAS LINE IND: Not reported
CONSTYPE INDUSTRIAL IND: Not reported
CONSTYPE OTHER DESRIPTION: Not reported
CONSTYPE OTHER IND: Not reported
CONSTYPE RECONS IND: Not reported
CONSTYPE RESIDENTIAL IND: Not reported
CONSTYPE TRANSPORT IND: Not reported
CONSTYPE UTILITY DESCRIPTION: Not reported
CONSTYPE UTILITY IND: Not reported
CONSTYPE WATER SEWER IND: Not reported
DIR DISCHARGE USWATER IND: N
RECEIVING WATER NAME: Whitewater River
CERTIFIER NAME: Sauce Adelman
CERTIFIER TITLE: Bookkeeper
CERTIFICATION DATE: 22-JUL-15
PRIMARY SIC: 5093-Scrap and Waste Materials
SECONDARY SIC: Not reported
TERTIARY SIC: Not reported

Npdes Number: CAS000001
Facility Status: Active
Agency Id: 0
Region: 7
Regulatory Measure Id: 205465

PALM SPRINGS RECYCLING (Continued) **S106104716**

Order No:	97-03-DWQ
Regulatory Measure Type:	Enrollee
Place Id:	Not reported
WDID:	7 33I011649
Program Type:	Industrial
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	06/08/1995
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Discharge Name:	Palm Springs Recycling
Discharge Address:	36630 Sunair Plz
Discharge City:	Cathedral City
Discharge State:	California
Discharge Zip:	92234
RECEIVED DATE:	Not reported
PROCESSED DATE:	Not reported
STATUS CODE NAME:	Not reported
STATUS DATE:	Not reported
PLACE SIZE:	Not reported
PLACE SIZE UNIT:	Not reported
FACILITY CONTACT NAME:	Not reported
FACILITY CONTACT TITLE:	Not reported
FACILITY CONTACT PHONE:	Not reported
FACILITY CONTACT PHONE EXT:	Not reported
FACILITY CONTACT EMAIL:	Not reported
OPERATOR NAME:	Not reported
OPERATOR ADDRESS:	Not reported
OPERATOR CITY:	Not reported
OPERATOR STATE:	Not reported
OPERATOR ZIP:	Not reported
OPERATOR CONTACT NAME:	Not reported
OPERATOR CONTACT TITLE:	Not reported
OPERATOR CONTACT PHONE:	Not reported
OPERATOR CONTACT PHONE EXT:	Not reported
OPERATOR CONTACT EMAIL:	Not reported
OPERATOR TYPE:	Not reported
DEVELOPER NAME:	Not reported
DEVELOPER ADDRESS:	Not reported
DEVELOPER CITY:	Not reported
DEVELOPER STATE:	Not reported
DEVELOPER ZIP:	Not reported
DEVELOPER CONTACT NAME:	Not reported
DEVELOPER CONTACT TITLE:	Not reported
CONSTYPE LINEAR UTILITY IND:	Not reported
EMERGENCY PHONE NO:	Not reported
EMERGENCY PHONE EXT:	Not reported
CONSTYPE ABOVE GROUND IND:	Not reported
CONSTYPE BELOW GROUND IND:	Not reported
CONSTYPE CABLE LINE IND:	Not reported
CONSTYPE COMM LINE IND:	Not reported
CONSTYPE COMMERTIAL IND:	Not reported
CONSTYPE ELECTRICAL LINE IND:	Not reported
CONSTYPE GAS LINE IND:	Not reported
CONSTYPE INDUSTRIAL IND:	Not reported
CONSTYPE OTHER DESRIPTION:	Not reported
CONSTYPE OTHER IND:	Not reported
CONSTYPE RECONS IND:	Not reported

PALM SPRINGS RECYCLING (Continued) **S106104716**

CONSTYPE RESIDENTIAL IND: Not reported
CONSTYPE TRANSPORT IND: Not reported
CONSTYPE UTILITY DESCRIPTION: Not reported
CONSTYPE UTILITY IND: Not reported
CONSTYPE WATER SEWER IND: Not reported
DIR DISCHARGE USWATER IND: Not reported
RECEIVING WATER NAME: Not reported
CERTIFIER NAME: Not reported
CERTIFIER TITLE: Not reported
CERTIFICATION DATE: Not reported
PRIMARY SIC: Not reported
SECONDARY SIC: Not reported
TERTIARY SIC: Not reported

WDS:
Facility ID: 7 33I011649
Facility Type: Not reported
Facility Status: Active - Any facility with a continuous or seasonal discharge that is under Waste Discharge Requirements.
NPDES Number: CAS000001 The 1st 2 characters designate the state. The remaining 7 are assigned by the Regional Board
Subregion: 7
Facility Telephone: Not reported
Facility Contact: Not reported
Agency Name: PALM SPRINGS RECYCLING
Agency Address: Not reported
Agency City,St,Zip: 0
Agency Contact: Not reported
Agency Telephone: Not reported
Agency Type: Not reported
SIC Code: 0
SIC Code 2: Not reported
Primary Waste Type: Not reported
Primary Waste: Not reported
Waste Type2: Not reported
Waste2: Not reported
Primary Waste Type: Not reported
Secondary Waste: Not reported
Secondary Waste Type: Not reported
Design Flow: 0
Baseline Flow: 0
Reclamation: Not reported
POTW: Not reported
Treat To Water: Minor Threat to Water Quality. A violation of a regional board order should cause a relatively minor impairment of beneficial uses compared to a major or minor threat. Not: All nurds without a TTWQ will be considered a minor threat to water quality unless coded at a higher Level. A Zero (0) may be used to code those NURDS that are found to represent no threat to water quality.
Complexity: Category C - Facilities having no waste treatment systems, such as cooling water dischargers or thosewho must comply through best management practices, facilities with passive waste treatment and disposal systems, such as septic systems with subsurface disposal, or dischargers having waste storage systems with land disposal such as dairy waste ponds.

59 NNW 1/4-1/2 0.426 mi. 2247 ft.

DESERT ICE CASTLE LLC
68600 PEREZ RD
CATHEDRAL CITY, CA 92234

LUST S102428186
CHMIRS N/A
HAZNET
HIST CORTESE

Relative: Lower

Actual: 301 ft.

LUST:
Lead Agency: RIVERSIDE COUNTY LOP
Case Type: LUST Cleanup Site
Geo Track: http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0606500911
Global Id: T0606500911
Latitude: 33.7855027474975
Longitude: -116.464724326389
Status: Completed - Case Closed
Status Date: 07/24/1992
Case Worker: RIV
RB Case Number: 7T2234007
Local Agency: RIVERSIDE COUNTY LOP
File Location: Local Agency Warehouse
Local Case Number: 89830
Potential Media Affect: Soil
Potential Contaminants of Concern: Gasoline
Site History: Not reported

LUST:
Global Id: T0606500911
Contact Type: Regional Board Caseworker
Contact Name: Phan Le
Organization Name: COLORADO RIVER BASIN RWQCB (REGION 7)
Address: 73720 FRED WARING DRIVE SUITE #100
City: PALM DESERT
Email: phan.le@waterboards.ca.gov
Phone Number: 7607768974

Global Id: T0606500911
Contact Type: Local Agency Caseworker
Contact Name: Riverside County LOP
Organization Name: RIVERSIDE COUNTY LOP
Address: 3880 LEMON ST SUITE 200
City: RIVERSIDE
Email: Not reported
Phone Number: 9519558980

LUST:
Global Id: T0606500911
Action Type: Other
Date: 08/23/1989
Action: Leak Discovery

Global Id: T0606500911
Action Type: ENFORCEMENT
Date: 08/24/1989
Action: Closure/No Further Action Letter - #Riv Co Closure

Global Id: T0606500911
Action Type: ENFORCEMENT
Date: 08/23/1989
Action: File review - #RCDEH Upload Site File 3/11/2015

DESERT ICE CASTLE LLC (Continued) **S102428186**

Global Id: T0606500911
Action Type: Other
Date: 08/23/1989
Action: Leak Stopped

Global Id: T0606500911
Action Type: Other
Date: 08/23/1989
Action: Leak Reported

LUST:
Global Id: T0606500911
Status: Open - Case Begin Date
Status Date: 08/23/1989

Global Id: T0606500911
Status: Completed - Case Closed
Status Date: 07/24/1992

LUST REG 7:
Region: 7
Status: 9 - Case Closed
Case Num: 7T2234007
Substance: Gasoline - Automotive
ID: 665
Global ID: T0606500911
Lead Agency: Local Agency
Case Worker: KO

RIVERSIDE CO. LUST:
Region: RIVERSIDE
Facility ID: 89830
Employee: Whitehead
Site Closed: Yes
Case Type: Undefined
Facility Status: closed/action completed
Casetype Decode: Undefined
Fstatus Decode: Closed/Action completed

CHMIRS:
OES Incident Number: 15-3333
OES notification: 06/13/2015
OES Date: Not reported
OES Time: Not reported
Date Completed: Not reported
Property Use: Not reported
Agency Id Number: Not reported
Agency Incident Number: Not reported
Time Notified: Not reported
Time Completed: Not reported
Surrounding Area: Not reported
Estimated Temperature: Not reported
Property Management: Not reported
More Than Two Substances Involved?: Not reported

DESERT ICE CASTLE LLC (Continued) **S102428186**

Resp Agncy Personel # Of Decontaminated:	Not reported
Responding Agency Personel # Of Injuries:	Not reported
Responding Agency Personel # Of Fatalities:	Not reported
Others Number Of Decontaminated:	Not reported
Others Number Of Injuries:	Not reported
Others Number Of Fatalities:	Not reported
Vehicle Make/year:	Not reported
Vehicle License Number:	Not reported
Vehicle State:	Not reported
Vehicle Id Number:	Not reported
CA DOT PUC/ICC Number:	Not reported
Company Name:	Not reported
Reporting Officer Name/ID:	Not reported
Report Date:	Not reported
Facility Telephone:	Not reported
Waterway Involved:	No
Waterway:	Not reported
Spill Site:	Other
Cleanup By:	Reporting Party
Containment:	Not reported
What Happened:	Not reported
Type:	Not reported
Measure:	Not reported
Other:	Not reported
Type:	VAPOR
Measure:	Lbs.
Other:	Not reported
Date/Time:	945
Year:	2015
Agency:	Desert Ice Castle
Incident Date:	06/13/2015
Admin Agency:	Riverside County Environmental Health
Amount:	Not reported
Contained:	Yes
Site Type:	Not reported
E Date:	Not reported
Substance:	Ammonia
Quantity Released:	200-250
Unknown:	Not reported
Substance #2:	Not reported
Substance #3:	Not reported
Evacuations:	Not reported
Number of Injuries:	Not reported
Number of Fatalities:	Not reported
#1 Pipeline:	No
#2 Pipeline:	No
#3 Pipeline:	No
#1 Vessel >= 300 Tons:	No
#2 Vessel >= 300 Tons:	No
#3 Vessel >= 300 Tons:	No
Evacs:	No
Injuries:	No
Fatals:	No
Comments:	Not reported
Description:	RP states, "An opening of a valve caused the release of approx. 200-250 lbs of ammonia."

DESERT ICE CASTLE LLC (Continued) **S102428186**

HAZNET:

envid:	S102428186
Year:	2015
GEPAID:	CAL000368423
Contact:	ANTHONY LIU
Telephone:	7608083276
Mailing Name:	Not reported
Mailing Address:	68600 PEREZ RD
Mailing City,St,Zip:	CATHEDRAL CITY, CA 922340000
Gen County:	Riverside
TSD EPA ID:	NVT330010000
TSD County:	99
Waste Category:	Waste oil and mixed oil
Disposal Method:	Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Tons:	0.532
Cat Decode:	Not reported
Method Decode:	Not reported
Facility County:	Riverside

envid:	S102428186
Year:	2015
GEPAID:	CAL000368423
Contact:	ANTHONY LIU
Telephone:	7608083276
Mailing Name:	Not reported
Mailing Address:	68600 PEREZ RD
Mailing City,St,Zip:	CATHEDRAL CITY, CA 922340000
Gen County:	Riverside
TSD EPA ID:	NVT330010000
TSD County:	99
Waste Category:	Other organic solids
Disposal Method:	Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Tons:	0.075
Cat Decode:	Not reported
Method Decode:	Not reported
Facility County:	Riverside

envid:	S102428186
Year:	2013
GEPAID:	CAL000368423
Contact:	ANDREW LUCZYNSKI
Telephone:	9097089933
Mailing Name:	Not reported
Mailing Address:	68600 PEREZ RD
Mailing City,St,Zip:	CATHEDRAL CITY, CA 922340000
Gen County:	Riverside
TSD EPA ID:	CAT080013352
TSD County:	Los Angeles
Waste Category:	Not reported
Disposal Method:	Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Tons:	0.85
Cat Decode:	Not reported
Method Decode:	Not reported
Facility County:	Not reported

DESERT ICE CASTLE LLC (Continued) **S102428186**

HIST CORTESE:
Region: CORTESE
Facility County Code: 33
Reg By: LTNKA
Reg Id: 7T2234007

K60 **FAMILIAN PIPE & SUPPLY** **HIST UST** **U001573802**
NNW **36283 PLAZA** **HIST CORTESE** **N/A**
1/4-1/2 **CATHEDRAL CITY, CA 91409**
0.435 mi.
2295 ft. **Site 1 of 2 in cluster K**

Relative: **Lower**
Actual: **304 ft.**

HIST UST:
File Number: Not reported
URL: Not reported
Region: STATE
Facility ID: 00000010915
Facility Type: Other
Other Type: WHOLESALE PLUMBING
Contact Name: MIKE WILLIAMSON, BRANCH MANAGE
Telephone: 6193286581
Owner Name: FAMILIAN PIPE & SUPPLY
Owner Address: 7651 WOODMAN AVENUE
Owner City,St,Zip: VAN NUYS, CA 91402
Total Tanks: 0001

Tank Num: 001
Container Num: 11
Year Installed: 1972
Tank Capacity: 00008000
Tank Used for: PRODUCT
Type of Fuel: DIESEL
Container Construction Thickness: Not reported
Leak Detection: Stock Inventor

HIST CORTESE:
Region: CORTESE
Facility County Code: 33
Reg By: LTNKA
Reg Id: 7T2234005

K61 **FAMILIAN PIPE & SUPPLY** **LUST** **S106152907**
NNW **36283 PLAZA DRIVE** **N/A**
1/4-1/2 **CATHEDRAL CITY, CA 92234**
0.435 mi.
2295 ft. **Site 2 of 2 in cluster K**

Relative: **Lower**
Actual: **304 ft.**

LUST:
Lead Agency: RIVERSIDE COUNTY LOP
Case Type: LUST Cleanup Site
Geo Track: http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0606500909
Global Id: T0606500909
Latitude: 33.7853179
Longitude: -116.46403
Status: Completed - Case Closed

FAMILIAN PIPE & SUPPLY (Continued) **S106152907**

Status Date: 08/24/1992
Case Worker: RIV
RB Case Number: 7T2234005
Local Agency: RIVERSIDE COUNTY LOP
File Location: Not reported
Local Case Number: Not reported
Potential Media Affect: Soil
Potential Contaminants of Concern: Diesel
Site History: Not reported

LUST:
Global Id: T0606500909
Contact Type: Regional Board Caseworker
Contact Name: Phan Le
Organization Name: COLORADO RIVER BASIN RWQCB (REGION 7)
Address: 73720 FRED WARING DRIVE SUITE #100
City: PALM DESERT
Email: phan.le@waterboards.ca.gov
Phone Number: 7607768974

Global Id: T0606500909
Contact Type: Local Agency Caseworker
Contact Name: Riverside County LOP
Organization Name: RIVERSIDE COUNTY LOP
Address: 3880 LEMON ST SUITE 200
City: RIVERSIDE
Email: Not reported
Phone Number: 9519558980

LUST:
Global Id: T0606500909
Action Type: Other
Date: 12/05/1988
Action: Leak Discovery

Global Id: T0606500909
Action Type: Other
Date: 09/30/1988
Action: Leak Stopped

Global Id: T0606500909
Action Type: Other
Date: 12/05/1988
Action: Leak Reported

LUST:
Global Id: T0606500909
Status: Open - Case Begin Date
Status Date: 09/30/1988

Global Id: T0606500909
Status: Completed - Case Closed
Status Date: 08/24/1992

LUST REG 7:

FAMILIAN PIPE & SUPPLY (Continued) **S106152907**

Region: 7
Status: 9 - Case Closed
Case Num: 7T2234005
Substance: Diesel fuel oil and additives
ID: 760
Global ID: T0606500909
Lead Agency: Local Agency
Case Worker: KO

62
WNW
1/2-1
0.847 mi.
4474 ft.

COCA-COLA ENTERPRISES WEST **Notify 65** **S100231373**
68-600 PEREZ **N/A**
CATHEDRAL CITY, CA

Relative:
Lower

Actual:
321 ft.

NOTIFY 65:
Date Reported: Not reported
Staff Initials: Not reported
Board File Number: Not reported
Facility Type: Not reported
Discharge Date: Not reported
Issue Date: Not reported
Incident Description: Not reported

63
NNE
1/2-1
0.972 mi.
5132 ft.

CATHEDRAL CITY ELEMENTARY SCHOOL SITE **ENVIROSTOR SCH** **S118756697**
CONVERSE ROAD/PLUMLEY ROAD **N/A**
CATHEDRAL CITY, CA 92234

Relative:
Lower

Actual:
297 ft.

ENVIROSTOR:
Facility ID: 33010009
Status: No Action Required
Status Date: 01/13/2000
Site Code: 404004
Site Type: School Investigation
Site Type Detailed: School
Acres: 14.3
NPL: NO
Regulatory Agencies: SMBRP
Lead Agency: SMBRP
Program Manager: Not reported
Supervisor: Mark Malinowski
Division Branch: Southern California Schools & Brownfields Outreach
Assembly: 56
Senate: 28
Special Program: Not reported
Restricted Use: NO
Site Mgmt Req: NONE SPECIFIED
Funding: School District
Latitude: 33.79083
Longitude: -116.4517
APN: NONE SPECIFIED
Past Use: AGRICULTURAL - ROW CROPS
Potential COC: NONE SPECIFIED No Contaminants found
Confirmed COC: NONE SPECIFIED

CATHEDRAL CITY ELEMENTARY SCHOOL SITE (Continued) **S118756697**

Potential Description: NMA
Alias Name: CATHEDRAL CITY ELEMENTARY SCHOOL
Alias Type: Alternate Name
Alias Name: PALM SPRINGS USD
Alias Type: Alternate Name
Alias Name: PALM SPRINGS USD-CATHEDRAL CITY ELEM
Alias Type: Alternate Name
Alias Name: 404004
Alias Type: Project Code (Site Code)
Alias Name: 33010009
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Phase 1
Completed Date: 01/13/2000
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Cost Recovery Closeout Memo
Completed Date: 03/02/2000
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Inspections/Visit (Non LUR)
Completed Date: 01/08/2000
Comments: Not reported

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

SCH:

Facility ID: 33010009
Site Type: School Investigation
Site Type Detail: School
Site Mgmt. Req.: NONE SPECIFIED
Acres: 14.3
National Priorities List: NO
Cleanup Oversight Agencies: SMBRP
Lead Agency: SMBRP
Lead Agency Description: DTSC - Site Cleanup Program
Project Manager: Not reported
Supervisor: Mark Malinowski
Division Branch: Southern California Schools & Brownfields Outreach
Site Code: 404004
Assembly: 56

CATHEDRAL CITY ELEMENTARY SCHOOL SITE (Continued) **S118756697**

Senate: 28
Special Program Status: Not reported
Status: No Action Required
Status Date: 01/13/2000
Restricted Use: NO
Funding: School District
Latitude: 33.79083
Longitude: -116.4517
APN: NONE SPECIFIED
Past Use: AGRICULTURAL - ROW CROPS
Potential COC: NONE SPECIFIED, No Contaminants found
Confirmed COC: NONE SPECIFIED
Potential Description: NMA
Alias Name: CATHEDRAL CITY ELEMENTARY SCHOOL
Alias Type: Alternate Name
Alias Name: PALM SPRINGS USD
Alias Type: Alternate Name
Alias Name: PALM SPRINGS USD-CATHEDRAL CITY ELEM
Alias Type: Alternate Name
Alias Name: 404004
Alias Type: Project Code (Site Code)
Alias Name: 33010009
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Phase 1
Completed Date: 01/13/2000
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Cost Recovery Closeout Memo
Completed Date: 03/02/2000
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Inspections/Visit (Non LUR)
Completed Date: 01/08/2000
Comments: Not reported

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

Count: 2 records. ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
PALM SPRINGS	S105181489	TRAMWAY SHELL	NORTH PALM CANYON DRIVE		LUST
RANCHO MIRAGE	S106117721	CVWD 80-06 LIFT STATION	00 C CLUB & HITEWATER		LUST

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Number of Days to Update: Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL: National Priority List

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 12/11/2017
Date Data Arrived at EDR: 12/22/2017
Date Made Active in Reports: 01/05/2018
Number of Days to Update: 14

Source: EPA
Telephone: N/A
Last EDR Contact: 02/06/2018
Next Scheduled EDR Contact: 04/16/2018
Data Release Frequency: Quarterly

NPL Site Boundaries

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)
Telephone: 202-564-7333

EPA Region 1
Telephone 617-918-1143

EPA Region 6
Telephone: 214-655-6659

EPA Region 3
Telephone 215-814-5418

EPA Region 7
Telephone: 913-551-7247

EPA Region 4
Telephone 404-562-8033

EPA Region 8
Telephone: 303-312-6774

EPA Region 5
Telephone 312-886-6686

EPA Region 9
Telephone: 415-947-4246

EPA Region 10
Telephone 206-553-8665

Proposed NPL: Proposed National Priority List Sites

A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

Date of Government Version: 12/11/2017
Date Data Arrived at EDR: 12/22/2017
Date Made Active in Reports: 01/05/2018
Number of Days to Update: 14

Source: EPA
Telephone: N/A
Last EDR Contact: 02/06/2018
Next Scheduled EDR Contact: 05/21/2018
Data Release Frequency: Quarterly

NPL LIENS: Federal Superfund Liens

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/1991
Date Data Arrived at EDR: 02/02/1994
Date Made Active in Reports: 03/30/1994
Number of Days to Update: 56

Source: EPA
Telephone: 202-564-4267
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Federal Delisted NPL site list

Delisted NPL: National Priority List Deletions

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 12/11/2017
Date Data Arrived at EDR: 12/22/2017
Date Made Active in Reports: 01/05/2018
Number of Days to Update: 14

Source: EPA
Telephone: N/A
Last EDR Contact: 02/06/2018
Next Scheduled EDR Contact: 04/16/2018
Data Release Frequency: Quarterly

Federal CERCLIS list

FEDERAL FACILITY: Federal Facility Site Information listing

A listing of National Priority List (NPL) and Base Realignment and Closure (BRAC) sites found in the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) Database where EPA Federal Facilities Restoration and Reuse Office is involved in cleanup activities.

Date of Government Version: 11/07/2016
Date Data Arrived at EDR: 01/05/2017
Date Made Active in Reports: 04/07/2017
Number of Days to Update: 92

Source: Environmental Protection Agency
Telephone: 703-603-8704
Last EDR Contact: 01/05/2018
Next Scheduled EDR Contact: 04/16/2018
Data Release Frequency: Varies

SEMS: Superfund Enterprise Management System

SEMS (Superfund Enterprise Management System) tracks hazardous waste sites, potentially hazardous waste sites, and remedial activities performed in support of EPA's Superfund Program across the United States. The list was formerly know as CERCLIS, renamed to SEMS by the EPA in 2015. The list contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). This dataset also contains sites which are either proposed to or on the National Priorities List (NPL) and the sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 12/11/2017
Date Data Arrived at EDR: 12/22/2017
Date Made Active in Reports: 01/12/2018
Number of Days to Update: 21

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 02/06/2018
Next Scheduled EDR Contact: 04/30/2018
Data Release Frequency: Quarterly

Federal CERCLIS NFRAP site list

SEMS-ARCHIVE: Superfund Enterprise Management System Archive

SEMS-ARCHIVE (Superfund Enterprise Management System Archive) tracks sites that have no further interest under the Federal Superfund Program based on available information. The list was formerly known as the CERCLIS-NFRAP, renamed to SEMS ARCHIVE by the EPA in 2015. EPA may perform a minimal level of assessment work at a site while it is archived if site conditions change and/or new information becomes available. Archived sites have been removed and archived from the inventory of SEMS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list the site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. The decision does not necessarily mean that there is no hazard associated with a given site; it only means that. based upon available information, the location is not judged to be potential NPL site.

Date of Government Version: 12/11/2017
Date Data Arrived at EDR: 12/22/2017
Date Made Active in Reports: 01/12/2018
Number of Days to Update: 21
Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 02/06/2018
Next Scheduled EDR Contact: 04/30/2018
Data Release Frequency: Quarterly

Federal RCRA CORRACTS facilities list

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 12/11/2017
Date Data Arrived at EDR: 12/26/2017
Date Made Active in Reports: 02/09/2018
Number of Days to Update: 45
Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 01/19/2018
Next Scheduled EDR Contact: 04/09/2018
Data Release Frequency: Quarterly

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF: RCRA - Treatment, Storage and Disposal

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 12/11/2017
Date Data Arrived at EDR: 12/26/2017
Date Made Active in Reports: 02/09/2018
Number of Days to Update: 45
Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 01/19/2018
Next Scheduled EDR Contact: 04/09/2018
Data Release Frequency: Quarterly

Federal RCRA generators list

RCRA-LQG: RCRA - Large Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Date of Government Version: 12/11/2017
Date Data Arrived at EDR: 12/26/2017
Date Made Active in Reports: 02/09/2018
Number of Days to Update: 45
Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 01/19/2018
Next Scheduled EDR Contact: 04/09/2018
Data Release Frequency: Quarterly

RCRA-SQG: RCRA - Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

Date of Government Version: 12/11/2017
Date Data Arrived at EDR: 12/26/2017
Date Made Active in Reports: 02/09/2018
Number of Days to Update: 45

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 01/19/2018
Next Scheduled EDR Contact: 04/09/2018
Data Release Frequency: Quarterly

RCRA-CESQG: RCRA - Conditionally Exempt Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 12/11/2017
Date Data Arrived at EDR: 12/26/2017
Date Made Active in Reports: 02/09/2018
Number of Days to Update: 45

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 01/19/2018
Next Scheduled EDR Contact: 04/09/2018
Data Release Frequency: Quarterly

Federal institutional controls / engineering controls registries

LUCIS: Land Use Control Information System

LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 05/22/2017
Date Data Arrived at EDR: 06/13/2017
Date Made Active in Reports: 09/15/2017
Number of Days to Update: 94

Source: Department of the Navy
Telephone: 843-820-7326
Last EDR Contact: 02/09/2018
Next Scheduled EDR Contact: 05/28/2018
Data Release Frequency: Varies

US ENG CONTROLS: Engineering Controls Sites List

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 11/13/2017
Date Data Arrived at EDR: 11/27/2017
Date Made Active in Reports: 02/09/2018
Number of Days to Update: 74

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 02/27/2018
Next Scheduled EDR Contact: 06/11/2018
Data Release Frequency: Varies

US INST CONTROL: Sites with Institutional Controls

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 11/13/2017
Date Data Arrived at EDR: 11/27/2017
Date Made Active in Reports: 02/09/2018
Number of Days to Update: 74

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 02/27/2018
Next Scheduled EDR Contact: 06/11/2018
Data Release Frequency: Varies

Federal ERNS list

ERNS: Emergency Response Notification System

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 09/18/2017
Date Data Arrived at EDR: 09/21/2017
Date Made Active in Reports: 10/13/2017
Number of Days to Update: 22

Source: National Response Center, United States Coast Guard
Telephone: 202-267-2180
Last EDR Contact: 01/19/2018
Next Scheduled EDR Contact: 04/09/2018
Data Release Frequency: Quarterly

State- and tribal - equivalent NPL

RESPONSE: State Response Sites

Identifies confirmed release sites where DTSC is involved in remediation, either in a lead or oversight capacity. These confirmed release sites are generally high-priority and high potential risk.

Date of Government Version: 10/30/2017
Date Data Arrived at EDR: 10/31/2017
Date Made Active in Reports: 12/15/2017
Number of Days to Update: 45

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 01/31/2018
Next Scheduled EDR Contact: 05/14/2018
Data Release Frequency: Quarterly

State- and tribal - equivalent CERCLIS

ENVIROSTOR: EnviroStor Database

The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifes sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

Date of Government Version: 10/30/2017
Date Data Arrived at EDR: 10/31/2017
Date Made Active in Reports: 12/15/2017
Number of Days to Update: 45

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 01/31/2018
Next Scheduled EDR Contact: 05/14/2018
Data Release Frequency: Quarterly

State and tribal landfill and/or solid waste disposal site lists

SWF/LF (SWIS): Solid Waste Information System

Active, Closed and Inactive Landfills. SWF/LF records typically contain an inve ntory of solid waste disposal facilities or landfills. These may be active or i nactive facilities or open dumps that failed to meet RCRA Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 11/13/2017
Date Data Arrived at EDR: 11/14/2017
Date Made Active in Reports: 12/07/2017
Number of Days to Update: 23

Source: Department of Resources Recycling and Recovery
Telephone: 916-341-6320
Last EDR Contact: 02/14/2018
Next Scheduled EDR Contact: 05/28/2018
Data Release Frequency: Quarterly

State and tribal leaking storage tank lists

LUST REG 6L: Leaking Underground Storage Tank Case Listing
For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/09/2003
Date Data Arrived at EDR: 09/10/2003
Date Made Active in Reports: 10/07/2003
Number of Days to Update: 27

Source: California Regional Water Quality Control Board Lahontan Region (6)
Telephone: 530-542-5572
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

LUST REG 9: Leaking Underground Storage Tank Report
Orange, Riverside, San Diego counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 03/01/2001
Date Data Arrived at EDR: 04/23/2001
Date Made Active in Reports: 05/21/2001
Number of Days to Update: 28

Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-637-5595
Last EDR Contact: 09/26/2011
Next Scheduled EDR Contact: 01/09/2012
Data Release Frequency: No Update Planned

LUST: Leaking Underground Fuel Tank Report (GEOTRACKER)
Leaking Underground Storage Tank (LUST) Sites included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 12/11/2017
Date Data Arrived at EDR: 12/12/2017
Date Made Active in Reports: 01/11/2018
Number of Days to Update: 30

Source: State Water Resources Control Board
Telephone: see region list
Last EDR Contact: 12/12/2018
Next Scheduled EDR Contact: 03/26/2018
Data Release Frequency: Quarterly

LUST REG 7: Leaking Underground Storage Tank Case Listing
Leaking Underground Storage Tank locations. Imperial, Riverside, San Diego, Santa Barbara counties.

Date of Government Version: 02/26/2004
Date Data Arrived at EDR: 02/26/2004
Date Made Active in Reports: 03/24/2004
Number of Days to Update: 27

Source: California Regional Water Quality Control Board Colorado River Basin Region (7)
Telephone: 760-776-8943
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

LUST REG 6V: Leaking Underground Storage Tank Case Listing
Leaking Underground Storage Tank locations. Inyo, Kern, Los Angeles, Mono, San Bernardino counties.

Date of Government Version: 06/07/2005
Date Data Arrived at EDR: 06/07/2005
Date Made Active in Reports: 06/29/2005
Number of Days to Update: 22

Source: California Regional Water Quality Control Board Victorville Branch Office (6)
Telephone: 760-241-7365
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

LUST REG 8: Leaking Underground Storage Tanks
California Regional Water Quality Control Board Santa Ana Region (8). For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/14/2005
Date Data Arrived at EDR: 02/15/2005
Date Made Active in Reports: 03/28/2005
Number of Days to Update: 41

Source: California Regional Water Quality Control Board Santa Ana Region (8)
Telephone: 909-782-4496
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: Varies

LUST REG 5: Leaking Underground Storage Tank Database
Leaking Underground Storage Tank locations. Alameda, Alpine, Amador, Butte, Colusa, Contra Costa, Calveras, El Dorado, Fresno, Glenn, Kern, Kings, Lake, Lassen, Madera, Mariposa, Merced, Modoc, Napa, Nevada, Placer, Plumas, Sacramento, San Joaquin, Shasta, Solano, Stanislaus, Sutter, Tehama, Tulare, Tuolumne, Yolo, Yuba counties.

Date of Government Version: 07/01/2008
Date Data Arrived at EDR: 07/22/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 9

Source: California Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-4834
Last EDR Contact: 07/01/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: No Update Planned

LUST REG 4: Underground Storage Tank Leak List

Los Angeles, Ventura counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/07/2004
Date Data Arrived at EDR: 09/07/2004
Date Made Active in Reports: 10/12/2004
Number of Days to Update: 35

Source: California Regional Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6710
Last EDR Contact: 09/06/2011
Next Scheduled EDR Contact: 12/19/2011
Data Release Frequency: No Update Planned

LUST REG 3: Leaking Underground Storage Tank Database

Leaking Underground Storage Tank locations. Monterey, San Benito, San Luis Obispo, Santa Barbara, Santa Cruz counties.

Date of Government Version: 05/19/2003
Date Data Arrived at EDR: 05/19/2003
Date Made Active in Reports: 06/02/2003
Number of Days to Update: 14

Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-542-4786
Last EDR Contact: 07/18/2011
Next Scheduled EDR Contact: 10/31/2011
Data Release Frequency: No Update Planned

LUST REG 2: Fuel Leak List

Leaking Underground Storage Tank locations. Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, Sonoma counties.

Date of Government Version: 09/30/2004
Date Data Arrived at EDR: 10/20/2004
Date Made Active in Reports: 11/19/2004
Number of Days to Update: 30

Source: California Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-622-2433
Last EDR Contact: 09/19/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: Quarterly

LUST REG 1: Active Toxic Site Investigation

Del Norte, Humboldt, Lake, Mendocino, Modoc, Siskiyou, Sonoma, Trinity counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/01/2001
Date Data Arrived at EDR: 02/28/2001
Date Made Active in Reports: 03/29/2001
Number of Days to Update: 29

Source: California Regional Water Quality Control Board North Coast (1)
Telephone: 707-570-3769
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land

A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 04/14/2017
Date Data Arrived at EDR: 07/27/2017
Date Made Active in Reports: 10/06/2017
Number of Days to Update: 71

Source: EPA Region 1
Telephone: 617-918-1313
Last EDR Contact: 01/23/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Varies

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 04/14/2017
Date Data Arrived at EDR: 07/27/2017
Date Made Active in Reports: 10/06/2017
Number of Days to Update: 71

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 01/23/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Varies

INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 05/01/2017
Date Data Arrived at EDR: 07/27/2017
Date Made Active in Reports: 10/13/2017
Number of Days to Update: 78
Source: EPA Region 8
Telephone: 303-312-6271
Last EDR Contact: 01/23/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Varies

INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 04/13/2017
Date Data Arrived at EDR: 07/27/2017
Date Made Active in Reports: 10/13/2017
Number of Days to Update: 78
Source: Environmental Protection Agency
Telephone: 415-972-3372
Last EDR Contact: 01/23/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Varies

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 04/25/2017
Date Data Arrived at EDR: 11/07/2017
Date Made Active in Reports: 12/08/2017
Number of Days to Update: 31
Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 01/23/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Varies

INDIAN LUST R5: Leaking Underground Storage Tanks on Indian Land
Leaking underground storage tanks located on Indian Land in Michigan, Minnesota and Wisconsin.

Date of Government Version: 04/26/2017
Date Data Arrived at EDR: 07/27/2017
Date Made Active in Reports: 10/13/2017
Number of Days to Update: 78
Source: EPA, Region 5
Telephone: 312-886-7439
Last EDR Contact: 01/23/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Varies

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Florida, Mississippi and North Carolina.

Date of Government Version: 10/14/2016
Date Data Arrived at EDR: 01/27/2017
Date Made Active in Reports: 05/05/2017
Number of Days to Update: 98
Source: EPA Region 4
Telephone: 404-562-8677
Last EDR Contact: 01/19/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Semi-Annually

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 04/24/2017
Date Data Arrived at EDR: 07/27/2017
Date Made Active in Reports: 10/06/2017
Number of Days to Update: 71
Source: EPA Region 6
Telephone: 214-665-6597
Last EDR Contact: 01/23/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Varies

SLIC: Statewide SLIC Cases (GEOTRACKER)
Cleanup Program Sites (CPS; also known as Site Cleanups [SC] and formerly known as Spills, Leaks, Investigations, and Cleanups [SLIC] sites) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 12/11/2017
Date Data Arrived at EDR: 12/12/2017
Date Made Active in Reports: 01/12/2018
Number of Days to Update: 31
Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/12/2018
Next Scheduled EDR Contact: 03/26/2018
Data Release Frequency: Varies

SLIC REG 1: Active Toxic Site Investigations
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2003
Date Data Arrived at EDR: 04/07/2003
Date Made Active in Reports: 04/25/2003
Number of Days to Update: 18

Source: California Regional Water Quality Control Board, North Coast Region (1)
Telephone: 707-576-2220
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

SLIC REG 2: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/30/2004
Date Data Arrived at EDR: 10/20/2004
Date Made Active in Reports: 11/19/2004
Number of Days to Update: 30

Source: Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-286-0457
Last EDR Contact: 09/19/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: Quarterly

SLIC REG 3: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/18/2006
Date Data Arrived at EDR: 05/18/2006
Date Made Active in Reports: 06/15/2006
Number of Days to Update: 28

Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-549-3147
Last EDR Contact: 07/18/2011
Next Scheduled EDR Contact: 10/31/2011
Data Release Frequency: Semi-Annually

SLIC REG 4: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/17/2004
Date Data Arrived at EDR: 11/18/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 47

Source: Region Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6600
Last EDR Contact: 07/01/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: Varies

SLIC REG 5: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/01/2005
Date Data Arrived at EDR: 04/05/2005
Date Made Active in Reports: 04/21/2005
Number of Days to Update: 16

Source: Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-3291
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: Semi-Annually

SLIC REG 6V: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/24/2005
Date Data Arrived at EDR: 05/25/2005
Date Made Active in Reports: 06/16/2005
Number of Days to Update: 22

Source: Regional Water Quality Control Board, Victorville Branch
Telephone: 619-241-6583
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: Semi-Annually

SLIC REG 6L: SLIC Sites
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/07/2004
Date Data Arrived at EDR: 09/07/2004
Date Made Active in Reports: 10/12/2004
Number of Days to Update: 35
Source: California Regional Water Quality Control Board, Lahontan Region
Telephone: 530-542-5574
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

SLIC REG 7: SLIC List
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/24/2004
Date Data Arrived at EDR: 11/29/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 36
Source: California Regional Quality Control Board, Colorado River Basin Region
Telephone: 760-346-7491
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

SLIC REG 8: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2008
Date Data Arrived at EDR: 04/03/2008
Date Made Active in Reports: 04/14/2008
Number of Days to Update: 11
Source: California Region Water Quality Control Board Santa Ana Region (8)
Telephone: 951-782-3298
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: Semi-Annually

SLIC REG 9: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/10/2007
Date Data Arrived at EDR: 09/11/2007
Date Made Active in Reports: 09/28/2007
Number of Days to Update: 17
Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-467-2980
Last EDR Contact: 08/08/2011
Next Scheduled EDR Contact: 11/21/2011
Data Release Frequency: Annually

State and tribal registered storage tank lists

FEMA UST: Underground Storage Tank Listing
A listing of all FEMA owned underground storage tanks.

Date of Government Version: 05/15/2017
Date Data Arrived at EDR: 05/30/2017
Date Made Active in Reports: 10/13/2017
Number of Days to Update: 136
Source: FEMA
Telephone: 202-646-5797
Last EDR Contact: 01/09/2018
Next Scheduled EDR Contact: 04/23/2018
Data Release Frequency: Varies

UST: Active UST Facilities
Active UST facilities gathered from the local regulatory agencies

Date of Government Version: 12/11/2017
Date Data Arrived at EDR: 12/12/2017
Date Made Active in Reports: 01/17/2018
Number of Days to Update: 36
Source: SWRCB
Telephone: 916-341-5851
Last EDR Contact: 12/12/2017
Next Scheduled EDR Contact: 03/26/2018
Data Release Frequency: Semi-Annually

AST: Aboveground Petroleum Storage Tank Facilities
A listing of aboveground storage tank petroleum storage tank locations.

Date of Government Version: 07/06/2016
Date Data Arrived at EDR: 07/12/2016
Date Made Active in Reports: 09/19/2016
Number of Days to Update: 69
Source: California Environmental Protection Agency
Telephone: 916-327-5092
Last EDR Contact: 12/26/2017
Next Scheduled EDR Contact: 04/09/2018
Data Release Frequency: Quarterly

INDIAN UST R1: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

Date of Government Version: 04/14/2017
Date Data Arrived at EDR: 07/27/2017
Date Made Active in Reports: 10/06/2017
Number of Days to Update: 71
Source: EPA, Region 1
Telephone: 617-918-1313
Last EDR Contact: 01/23/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Varies

INDIAN UST R6: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 6 (Louisiana, Arkansas, Oklahoma, New Mexico, Texas and 65 Tribes).

Date of Government Version: 04/24/2017
Date Data Arrived at EDR: 07/27/2017
Date Made Active in Reports: 12/08/2017
Number of Days to Update: 134
Source: EPA Region 6
Telephone: 214-665-7591
Last EDR Contact: 01/23/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Varies

INDIAN UST R7: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 7 (Iowa, Kansas, Missouri, Nebraska, and 9 Tribal Nations).

Date of Government Version: 05/02/2017
Date Data Arrived at EDR: 07/27/2017
Date Made Active in Reports: 10/06/2017
Number of Days to Update: 71
Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 01/23/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Varies

INDIAN UST R4: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and Tribal Nations)

Date of Government Version: 10/14/2016
Date Data Arrived at EDR: 01/27/2017
Date Made Active in Reports: 05/05/2017
Number of Days to Update: 98
Source: EPA Region 4
Telephone: 404-562-9424
Last EDR Contact: 01/19/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Semi-Annually

INDIAN UST R5: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 5 (Michigan, Minnesota and Wisconsin and Tribal Nations).

Date of Government Version: 04/26/2017
Date Data Arrived at EDR: 07/27/2017
Date Made Active in Reports: 10/06/2017
Number of Days to Update: 71
Source: EPA Region 5
Telephone: 312-886-6136
Last EDR Contact: 01/23/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Varies

INDIAN UST R9: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 9 (Arizona, California, Hawaii, Nevada, the Pacific Islands, and Tribal Nations).

Date of Government Version: 04/13/2017
Date Data Arrived at EDR: 07/27/2017
Date Made Active in Reports: 10/13/2017
Number of Days to Update: 78

Source: EPA Region 9
Telephone: 415-972-3368
Last EDR Contact: 01/23/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Varies

INDIAN UST R10: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 10 (Alaska, Idaho, Oregon, Washington, and Tribal Nations).

Date of Government Version: 04/25/2017
Date Data Arrived at EDR: 07/27/2017
Date Made Active in Reports: 10/13/2017
Number of Days to Update: 78

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 01/23/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Varies

INDIAN UST R8: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 27 Tribal Nations).

Date of Government Version: 05/01/2017
Date Data Arrived at EDR: 07/27/2017
Date Made Active in Reports: 10/13/2017
Number of Days to Update: 78

Source: EPA Region 8
Telephone: 303-312-6137
Last EDR Contact: 01/23/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Varies

State and tribal voluntary cleanup sites

INDIAN VCP R7: Voluntary Cleanup Priority Lisitng

A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

Date of Government Version: 03/20/2008
Date Data Arrived at EDR: 04/22/2008
Date Made Active in Reports: 05/19/2008
Number of Days to Update: 27

Source: EPA, Region 7
Telephone: 913-551-7365
Last EDR Contact: 04/20/2009
Next Scheduled EDR Contact: 07/20/2009
Data Release Frequency: Varies

INDIAN VCP R1: Voluntary Cleanup Priority Listing

A listing of voluntary cleanup priority sites located on Indian Land located in Region 1.

Date of Government Version: 07/27/2015
Date Data Arrived at EDR: 09/29/2015
Date Made Active in Reports: 02/18/2016
Number of Days to Update: 142

Source: EPA, Region 1
Telephone: 617-918-1102
Last EDR Contact: 12/20/2017
Next Scheduled EDR Contact: 04/09/2018
Data Release Frequency: Varies

VCP: Voluntary Cleanup Program Properties

Contains low threat level properties with either confirmed or unconfirmed releases and the project proponents have request that DTSC oversee investigation and/or cleanup activities and have agreed to provide coverage for DTSC's costs.

Date of Government Version: 10/30/2017
Date Data Arrived at EDR: 10/31/2017
Date Made Active in Reports: 12/15/2017
Number of Days to Update: 45

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 01/31/2018
Next Scheduled EDR Contact: 05/14/2018
Data Release Frequency: Quarterly

State and tribal Brownfields sites

BROWNFIELDS: Considered Brownfieds Sites Listing
A listing of sites the SWRCB considers to be Brownfields since these are sites have come to them through the MOA Process.

Date of Government Version: 12/22/2017
Date Data Arrived at EDR: 12/26/2017
Date Made Active in Reports: 01/31/2018
Number of Days to Update: 36
Source: State Water Resources Control Board
Telephone: 916-323-7905
Last EDR Contact: 12/26/2017
Next Scheduled EDR Contact: 04/09/2018
Data Release Frequency: Quarterly

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS: A Listing of Brownfields Sites
Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties takes development pressures off of undeveloped, open land, and both improves and protects the environment. Assessment, Cleanup and Redevelopment Exchange System (ACRES) stores information reported by EPA Brownfields grant recipients on brownfields properties assessed or cleaned up with grant funding as well as information on Targeted Brownfields Assessments performed by EPA Regions. A listing of ACRES Brownfield sites is obtained from Cleanups in My Community. Cleanups in My Community provides information on Brownfields properties for which information is reported back to EPA, as well as areas served by Brownfields grant programs.

Date of Government Version: 01/19/2018
Date Data Arrived at EDR: 01/19/2018
Date Made Active in Reports: 02/09/2018
Number of Days to Update: 21
Source: Environmental Protection Agency
Telephone: 202-566-2777
Last EDR Contact: 01/19/2018
Next Scheduled EDR Contact: 04/02/2018
Data Release Frequency: Semi-Annually

Local Lists of Landfill / Solid Waste Disposal Sites

WMUDS/SWAT: Waste Management Unit Database
Waste Management Unit Database System. WMUDS is used by the State Water Resources Control Board staff and the Regional Water Quality Control Boards for program tracking and inventory of waste management units. WMUDS is composed of the following databases: Facility Information, Scheduled Inspections Information, Waste Management Unit Information, SWAT Program Information, SWAT Report Summary Information, SWAT Report Summary Data, Chapter 15 (formerly Subchapter 15) Information, Chapter 15 Monitoring Parameters, TPCA Program Information, RCRA Program Information, Closure Information, and Interested Parties Information.

Date of Government Version: 04/01/2000
Date Data Arrived at EDR: 04/10/2000
Date Made Active in Reports: 05/10/2000
Number of Days to Update: 30
Source: State Water Resources Control Board
Telephone: 916-227-4448
Last EDR Contact: 01/31/2018
Next Scheduled EDR Contact: 05/21/2018
Data Release Frequency: No Update Planned

SWRCY: Recycler Database
A listing of recycling facilities in California.

Date of Government Version: 12/11/2017
Date Data Arrived at EDR: 12/12/2017
Date Made Active in Reports: 01/17/2018
Number of Days to Update: 36
Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 12/12/2017
Next Scheduled EDR Contact: 03/26/2018
Data Release Frequency: Quarterly

HAULERS: Registered Waste Tire Haulers Listing
A listing of registered waste tire haulers.

Date of Government Version: 05/30/2017
Date Data Arrived at EDR: 05/31/2017
Date Made Active in Reports: 08/15/2017
Number of Days to Update: 76

Source: Integrated Waste Management Board
Telephone: 916-341-6422
Last EDR Contact: 02/09/2018
Next Scheduled EDR Contact: 02/26/2018
Data Release Frequency: Varies

INDIAN ODI: Report on the Status of Open Dumps on Indian Lands

Location of open dumps on Indian land.

Date of Government Version: 12/31/1998
Date Data Arrived at EDR: 12/03/2007
Date Made Active in Reports: 01/24/2008
Number of Days to Update: 52

Source: Environmental Protection Agency
Telephone: 703-308-8245
Last EDR Contact: 01/30/2018
Next Scheduled EDR Contact: 05/14/2018
Data Release Frequency: Varies

ODI: Open Dump Inventory

An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985
Date Data Arrived at EDR: 08/09/2004
Date Made Active in Reports: 09/17/2004
Number of Days to Update: 39

Source: Environmental Protection Agency
Telephone: 800-424-9346
Last EDR Contact: 06/09/2004
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

DEBRIS REGION 9: Torres Martinez Reservation Illegal Dump Site Locations

A listing of illegal dump sites location on the Torres Martinez Indian Reservation located in eastern Riverside County and northern Imperial County, California.

Date of Government Version: 01/12/2009
Date Data Arrived at EDR: 05/07/2009
Date Made Active in Reports: 09/21/2009
Number of Days to Update: 137

Source: EPA, Region 9
Telephone: 415-947-4219
Last EDR Contact: 01/22/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: No Update Planned

IHS OPEN DUMPS: Open Dumps on Indian Land

A listing of all open dumps located on Indian Land in the United States.

Date of Government Version: 04/01/2014
Date Data Arrived at EDR: 08/06/2014
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 176

Source: Department of Health & Human Serivces, Indian Health Service
Telephone: 301-443-1452
Last EDR Contact: 02/02/2018
Next Scheduled EDR Contact: 05/14/2018
Data Release Frequency: Varies

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL: National Clandestine Laboratory Register

A listing of clandestine drug lab locations that have been removed from the DEAs National Clandestine Laboratory Register.

Date of Government Version: 01/19/2018
Date Data Arrived at EDR: 01/24/2018
Date Made Active in Reports: 02/09/2018
Number of Days to Update: 16

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 02/27/2018
Next Scheduled EDR Contact: 06/11/2018
Data Release Frequency: No Update Planned

HIST CAL-SITES: Calsites Database

The Calsites database contains potential or confirmed hazardous substance release properties. In 1996, California EPA reevaluated and significantly reduced the number of sites in the Calsites database. No longer updated by the state agency. It has been replaced by ENVIROSTOR.

Date of Government Version: 08/08/2005
Date Data Arrived at EDR: 08/03/2006
Date Made Active in Reports: 08/24/2006
Number of Days to Update: 21

Source: Department of Toxic Substance Control
Telephone: 916-323-3400
Last EDR Contact: 02/23/2009
Next Scheduled EDR Contact: 05/25/2009
Data Release Frequency: No Update Planned

SCH: School Property Evaluation Program

This category contains proposed and existing school sites that are being evaluated by DTSC for possible hazardous materials contamination. In some cases, these properties may be listed in the CalSites category depending on the level of threat to public health and safety or the environment they pose.

Date of Government Version: 10/30/2017
Date Data Arrived at EDR: 10/31/2017
Date Made Active in Reports: 12/15/2017
Number of Days to Update: 45

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 01/31/2018
Next Scheduled EDR Contact: 05/14/2018
Data Release Frequency: Quarterly

CDL: Clandestine Drug Labs

A listing of drug lab locations. Listing of a location in this database does not indicate that any illegal drug lab materials were or were not present there, and does not constitute a determination that the location either requires or does not require additional cleanup work.

Date of Government Version: 06/30/2017
Date Data Arrived at EDR: 08/18/2017
Date Made Active in Reports: 09/21/2017
Number of Days to Update: 34

Source: Department of Toxic Substances Control
Telephone: 916-255-6504
Last EDR Contact: 02/22/2018
Next Scheduled EDR Contact: 04/23/2018
Data Release Frequency: Varies

TOXIC PITS: Toxic Pits Cleanup Act Sites

Toxic PITS Cleanup Act Sites. TOXIC PITS identifies sites suspected of containing hazardous substances where cleanup has not yet been completed.

Date of Government Version: 07/01/1995
Date Data Arrived at EDR: 08/30/1995
Date Made Active in Reports: 09/26/1995
Number of Days to Update: 27

Source: State Water Resources Control Board
Telephone: 916-227-4364
Last EDR Contact: 01/26/2009
Next Scheduled EDR Contact: 04/27/2009
Data Release Frequency: No Update Planned

US CDL: Clandestine Drug Labs

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 01/09/2018
Date Data Arrived at EDR: 01/24/2018
Date Made Active in Reports: 02/09/2018
Number of Days to Update: 16

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 02/27/2018
Next Scheduled EDR Contact: 06/11/2018
Data Release Frequency: Quarterly

Local Lists of Registered Storage Tanks

SWEEPS UST: SWEEPS UST Listing

Statewide Environmental Evaluation and Planning System. This underground storage tank listing was updated and maintained by a company contacted by the SWRCB in the early 1990's. The listing is no longer updated or maintained. The local agency is the contact for more information on a site on the SWEEPS list.

Date of Government Version: 06/01/1994
Date Data Arrived at EDR: 07/07/2005
Date Made Active in Reports: 08/11/2005
Number of Days to Update: 35

Source: State Water Resources Control Board
Telephone: N/A
Last EDR Contact: 06/03/2005
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

UST MENDOCINO: Mendocino County UST Database

A listing of underground storage tank locations in Mendocino County.

Date of Government Version: 11/27/2017
Date Data Arrived at EDR: 11/29/2017
Date Made Active in Reports: 12/18/2017
Number of Days to Update: 19

Source: Department of Public Health
Telephone: 707-463-4466
Last EDR Contact: 02/22/2018
Next Scheduled EDR Contact: 06/11/2018
Data Release Frequency: Annually

HIST UST: Hazardous Substance Storage Container Database

The Hazardous Substance Storage Container Database is a historical listing of UST sites. Refer to local/county source for current data.

Date of Government Version: 10/15/1990
Date Data Arrived at EDR: 01/25/1991
Date Made Active in Reports: 02/12/1991
Number of Days to Update: 18

Source: State Water Resources Control Board
Telephone: 916-341-5851
Last EDR Contact: 07/26/2001
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

CA FID UST: Facility Inventory Database

The Facility Inventory Database (FID) contains a historical listing of active and inactive underground storage tank locations from the State Water Resource Control Board. Refer to local/county source for current data.

Date of Government Version: 10/31/1994
Date Data Arrived at EDR: 09/05/1995
Date Made Active in Reports: 09/29/1995
Number of Days to Update: 24

Source: California Environmental Protection Agency
Telephone: 916-341-5851
Last EDR Contact: 12/28/1998
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

Local Land Records

LIENS: Environmental Liens Listing

A listing of property locations with environmental liens for California where DTSC is a lien holder.

Date of Government Version: 11/30/2017
Date Data Arrived at EDR: 12/01/2017
Date Made Active in Reports: 01/11/2018
Number of Days to Update: 41

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 02/28/2018
Next Scheduled EDR Contact: 06/18/2018
Data Release Frequency: Varies

LIENS 2: CERCLA Lien Information

A Federal CERCLA ('Superfund') lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

Date of Government Version: 12/11/2017
Date Data Arrived at EDR: 12/22/2017
Date Made Active in Reports: 01/12/2018
Number of Days to Update: 21

Source: Environmental Protection Agency
Telephone: 202-564-6023
Last EDR Contact: 02/06/2018
Next Scheduled EDR Contact: 05/21/2018
Data Release Frequency: Semi-Annually

DEED: Deed Restriction Listing

Site Mitigation and Brownfields Reuse Program Facility Sites with Deed Restrictions & Hazardous Waste Management Program Facility Sites with Deed / Land Use Restriction. The DTSC Site Mitigation and Brownfields Reuse Program (SMBRP) list includes sites cleaned up under the program's oversight and generally does not include current or former hazardous waste facilities that required a hazardous waste facility permit. The list represents deed restrictions that are active. Some sites have multiple deed restrictions. The DTSC Hazardous Waste Management Program (HWMP) has developed a list of current or former hazardous waste facilities that have a recorded land use restriction at the local county recorder's office. The land use restrictions on this list were required by the DTSC HWMP as a result of the presence of hazardous substances that remain on site after the facility (or part of the facility) has been closed or cleaned up. The types of land use restriction include deed notice, deed restriction, or a land use restriction that binds current and future owners.

Date of Government Version: 02/08/2018
Date Data Arrived at EDR: 02/08/2018
Date Made Active in Reports: 02/08/2018
Number of Days to Update: 0

Source: DTSC and SWRCB
Telephone: 916-323-3400
Last EDR Contact: 02/08/2018
Next Scheduled EDR Contact: 03/19/2018
Data Release Frequency: Semi-Annually

Records of Emergency Release Reports

HMIRS: Hazardous Materials Information Reporting System

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 09/21/2017
Date Data Arrived at EDR: 09/21/2017
Date Made Active in Reports: 10/13/2017
Number of Days to Update: 22

Source: U.S. Department of Transportation
Telephone: 202-366-4555
Last EDR Contact: 01/19/2018
Next Scheduled EDR Contact: 04/09/2018
Data Release Frequency: Quarterly

CHMIRS: California Hazardous Material Incident Report System

California Hazardous Material Incident Reporting System. CHMIRS contains information on reported hazardous material incidents (accidental releases or spills).

Date of Government Version: 05/09/2017
Date Data Arrived at EDR: 07/26/2017
Date Made Active in Reports: 09/21/2017
Number of Days to Update: 57

Source: Office of Emergency Services
Telephone: 916-845-8400
Last EDR Contact: 02/20/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Varies

LDS: Land Disposal Sites Listing (GEOTRACKER)

Land Disposal sites (Landfills) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 12/11/2017
Date Data Arrived at EDR: 12/12/2017
Date Made Active in Reports: 01/11/2018
Number of Days to Update: 30

Source: State Water Qualilty Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/12/2018
Next Scheduled EDR Contact: 03/26/2018
Data Release Frequency: Quarterly

MCS: Military Cleanup Sites Listing (GEOTRACKER)

Military sites (consisting of: Military UST sites; Military Privatized sites; and Military Cleanup sites [formerly known as DoD non UST]) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 12/11/2017
Date Data Arrived at EDR: 12/12/2017
Date Made Active in Reports: 01/12/2018
Number of Days to Update: 31

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/12/2018
Next Scheduled EDR Contact: 03/26/2018
Data Release Frequency: Quarterly

SPILLS 90: SPILLS90 data from FirstSearch

Spills 90 includes those spill and release records available exclusively from FirstSearch databases. Typically, they may include chemical, oil and/or hazardous substance spills recorded after 1990. Duplicate records that are already included in EDR incident and release records are not included in Spills 90.

Date of Government Version: 06/06/2012
Date Data Arrived at EDR: 01/03/2013
Date Made Active in Reports: 02/22/2013
Number of Days to Update: 50

Source: FirstSearch
Telephone: N/A
Last EDR Contact: 01/03/2013
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

Other Ascertainable Records

RCRA NonGen / NLR: RCRA - Non Generators / No Longer Regulated

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

Date of Government Version: 12/11/2017
Date Data Arrived at EDR: 12/26/2017
Date Made Active in Reports: 02/09/2018
Number of Days to Update: 45

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 01/19/2018
Next Scheduled EDR Contact: 04/09/2018
Data Release Frequency: Quarterly

FUDS: Formerly Used Defense Sites

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 01/31/2015
Date Data Arrived at EDR: 07/08/2015
Date Made Active in Reports: 10/13/2015
Number of Days to Update: 97

Source: U.S. Army Corps of Engineers
Telephone: 202-528-4285
Last EDR Contact: 02/21/2018
Next Scheduled EDR Contact: 06/04/2018
Data Release Frequency: Varies

DOD: Department of Defense Sites

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 11/10/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 62

Source: USGS
Telephone: 888-275-8747
Last EDR Contact: 10/13/2017
Next Scheduled EDR Contact: 01/22/2018
Data Release Frequency: Semi-Annually

FEDLAND: Federal and Indian Lands

Federally and Indian administrated lands of the United States. Lands included are administrated by: Army Corps of Engineers, Bureau of Reclamation, National Wild and Scenic River, National Wildlife Refuge, Public Domain Land, Wilderness, Wilderness Study Area, Wildlife Management Area, Bureau of Indian Affairs, Bureau of Land Management, Department of Justice, Forest Service, Fish and Wildlife Service, National Park Service.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 02/06/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 339

Source: U.S. Geological Survey
Telephone: 888-275-8747
Last EDR Contact: 10/11/2017
Next Scheduled EDR Contact: 01/22/2018
Data Release Frequency: N/A

SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners Listing

The State Coalition for Remediation of Drycleaners was established in 1998, with support from the U.S. EPA Office of Superfund Remediation and Technology Innovation. It is comprised of representatives of states with established drycleaner remediation programs. Currently the member states are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

Date of Government Version: 01/01/2017
Date Data Arrived at EDR: 02/03/2017
Date Made Active in Reports: 04/07/2017
Number of Days to Update: 63

Source: Environmental Protection Agency
Telephone: 615-532-8599
Last EDR Contact: 02/16/2018
Next Scheduled EDR Contact: 05/28/2018
Data Release Frequency: Varies

US FIN ASSUR: Financial Assurance Information

All owners and operators of facilities that treat, store, or dispose of hazardous waste are required to provide proof that they will have sufficient funds to pay for the clean up, closure, and post-closure care of their facilities.

Date of Government Version: 01/11/2018
Date Data Arrived at EDR: 01/19/2018
Date Made Active in Reports: 03/02/2018
Number of Days to Update: 42

Source: Environmental Protection Agency
Telephone: 202-566-1917
Last EDR Contact: 01/19/2018
Next Scheduled EDR Contact: 04/09/2018
Data Release Frequency: Quarterly

EPA WATCH LIST: EPA WATCH LIST

EPA maintains a "Watch List" to facilitate dialogue between EPA, state and local environmental agencies on enforcement matters relating to facilities with alleged violations identified as either significant or high priority. Being on the Watch List does not mean that the facility has actually violated the law only that an investigation by EPA or a state or local environmental agency has led those organizations to allege that an unproven violation has in fact occurred. Being on the Watch List does not represent a higher level of concern regarding the alleged violations that were detected, but instead indicates cases requiring additional dialogue between EPA, state and local agencies - primarily because of the length of time the alleged violation has gone unaddressed or unresolved.

Date of Government Version: 08/30/2013
Date Data Arrived at EDR: 03/21/2014
Date Made Active in Reports: 06/17/2014
Number of Days to Update: 88

Source: Environmental Protection Agency
Telephone: 617-520-3000
Last EDR Contact: 01/31/2018
Next Scheduled EDR Contact: 05/21/2018
Data Release Frequency: Quarterly

2020 COR ACTION: 2020 Corrective Action Program List

The EPA has set ambitious goals for the RCRA Corrective Action program by creating the 2020 Corrective Action Universe. This RCRA cleanup baseline includes facilities expected to need corrective action. The 2020 universe contains a wide variety of sites. Some properties are heavily contaminated while others were contaminated but have since been cleaned up. Still others have not been fully investigated yet, and may require little or no remediation. Inclusion in the 2020 Universe does not necessarily imply failure on the part of a facility to meet its RCRA obligations.

Date of Government Version: 04/22/2013
Date Data Arrived at EDR: 03/03/2015
Date Made Active in Reports: 03/09/2015
Number of Days to Update: 6

Source: Environmental Protection Agency
Telephone: 703-308-4044
Last EDR Contact: 02/08/2018
Next Scheduled EDR Contact: 05/21/2018
Data Release Frequency: Varies

TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/2016
Date Data Arrived at EDR: 06/21/2017
Date Made Active in Reports: 01/05/2018
Number of Days to Update: 198

Source: EPA
Telephone: 202-260-5521
Last EDR Contact: 12/22/2017
Next Scheduled EDR Contact: 04/02/2018
Data Release Frequency: Every 4 Years

TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/2016
Date Data Arrived at EDR: 01/10/2018
Date Made Active in Reports: 01/12/2018
Number of Days to Update: 2

Source: EPA
Telephone: 202-566-0250
Last EDR Contact: 02/23/2018
Next Scheduled EDR Contact: 06/04/2018
Data Release Frequency: Annually

SSTS: Section 7 Tracking Systems

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 12/31/2009
Date Data Arrived at EDR: 12/10/2010
Date Made Active in Reports: 02/25/2011
Number of Days to Update: 77

Source: EPA
Telephone: 202-564-4203
Last EDR Contact: 01/25/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Annually

ROD: Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 12/11/2017
Date Data Arrived at EDR: 12/22/2017
Date Made Active in Reports: 01/12/2018
Number of Days to Update: 21

Source: EPA
Telephone: 703-416-0223
Last EDR Contact: 02/06/2018
Next Scheduled EDR Contact: 03/19/2018
Data Release Frequency: Annually

RMP: Risk Management Plans

When Congress passed the Clean Air Act Amendments of 1990, it required EPA to publish regulations and guidance for chemical accident prevention at facilities using extremely hazardous substances. The Risk Management Program Rule (RMP Rule) was written to implement Section 112(r) of these amendments. The rule, which built upon existing industry codes and standards, requires companies of all sizes that use certain flammable and toxic substances to develop a Risk Management Program, which includes a(n): Hazard assessment that details the potential effects of an accidental release, an accident history of the last five years, and an evaluation of worst-case and alternative accidental releases; Prevention program that includes safety precautions and maintenance, monitoring, and employee training measures; and Emergency response program that spells out emergency health care, employee training measures and procedures for informing the public and response agencies (e.g the fire department) should an accident occur.

Date of Government Version: 11/02/2017
Date Data Arrived at EDR: 11/17/2017
Date Made Active in Reports: 12/08/2017
Number of Days to Update: 21

Source: Environmental Protection Agency
Telephone: 202-564-8600
Last EDR Contact: 01/19/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Varies

RAATS: RCRA Administrative Action Tracking System

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995
Date Data Arrived at EDR: 07/03/1995
Date Made Active in Reports: 08/07/1995
Number of Days to Update: 35

Source: EPA
Telephone: 202-564-4104
Last EDR Contact: 06/02/2008
Next Scheduled EDR Contact: 09/01/2008
Data Release Frequency: No Update Planned

PRP: Potentially Responsible Parties
A listing of verified Potentially Responsible Parties

Date of Government Version: 10/25/2013
Date Data Arrived at EDR: 10/17/2014
Date Made Active in Reports: 10/20/2014
Number of Days to Update: 3
Source: EPA
Telephone: 202-564-6023
Last EDR Contact: 02/06/2018
Next Scheduled EDR Contact: 05/21/2018
Data Release Frequency: Quarterly

PADS: PCB Activity Database System
PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 06/01/2017
Date Data Arrived at EDR: 06/09/2017
Date Made Active in Reports: 10/13/2017
Number of Days to Update: 126
Source: EPA
Telephone: 202-566-0500
Last EDR Contact: 01/12/2018
Next Scheduled EDR Contact: 04/23/2018
Data Release Frequency: Annually

ICIS: Integrated Compliance Information System
The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 11/18/2016
Date Data Arrived at EDR: 11/23/2016
Date Made Active in Reports: 02/10/2017
Number of Days to Update: 79
Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 01/09/2018
Next Scheduled EDR Contact: 04/23/2018
Data Release Frequency: Quarterly

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25
Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Telephone: 202-566-1667
Last EDR Contact: 08/18/2017
Next Scheduled EDR Contact: 12/04/2017
Data Release Frequency: Quarterly

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25
Source: EPA
Telephone: 202-566-1667
Last EDR Contact: 08/18/2017
Next Scheduled EDR Contact: 12/04/2017
Data Release Frequency: Quarterly

MLTS: Material Licensing Tracking System
MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 08/30/2016
Date Data Arrived at EDR: 09/08/2016
Date Made Active in Reports: 10/21/2016
Number of Days to Update: 43
Source: Nuclear Regulatory Commission
Telephone: 301-415-7169
Last EDR Contact: 01/19/2018
Next Scheduled EDR Contact: 05/21/2018
Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

COAL ASH DOE: Steam-Electric Plant Operation Data
A listing of power plants that store ash in surface ponds.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 08/07/2009
Date Made Active in Reports: 10/22/2009
Number of Days to Update: 76
Source: Department of Energy
Telephone: 202-586-8719
Last EDR Contact: 12/05/2017
Next Scheduled EDR Contact: 03/19/2018
Data Release Frequency: Varies

COAL ASH EPA: Coal Combustion Residues Surface Impoundments List
A listing of coal combustion residues surface impoundments with high hazard potential ratings.

Date of Government Version: 07/01/2014
Date Data Arrived at EDR: 09/10/2014
Date Made Active in Reports: 10/20/2014
Number of Days to Update: 40
Source: Environmental Protection Agency
Telephone: N/A
Last EDR Contact: 12/08/2017
Next Scheduled EDR Contact: 03/19/2018
Data Release Frequency: Varies

PCB TRANSFORMER: PCB Transformer Registration Database
The database of PCB transformer registrations that includes all PCB registration submittals.

Date of Government Version: 05/24/2017
Date Data Arrived at EDR: 11/30/2017
Date Made Active in Reports: 12/15/2017
Number of Days to Update: 15
Source: Environmental Protection Agency
Telephone: 202-566-0517
Last EDR Contact: 01/26/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Varies

RADINFO: Radiation Information Database
The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

Date of Government Version: 10/02/2017
Date Data Arrived at EDR: 10/05/2017
Date Made Active in Reports: 10/13/2017
Number of Days to Update: 8
Source: Environmental Protection Agency
Telephone: 202-343-9775
Last EDR Contact: 01/04/2018
Next Scheduled EDR Contact: 04/16/2018
Data Release Frequency: Quarterly

HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing
A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40
Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2007
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

HIST FTTS INSP: FIFRA/TSCA Tracking System Inspection & Enforcement Case Listing
A complete inspection and enforcement case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2008
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

DOT OPS: Incident and Accident Data

Department of Transporation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 07/31/2012
Date Data Arrived at EDR: 08/07/2012
Date Made Active in Reports: 09/18/2012
Number of Days to Update: 42

Source: Department of Transporation, Office of Pipeline Safety
Telephone: 202-366-4595
Last EDR Contact: 01/19/2018
Next Scheduled EDR Contact: 05/14/2018
Data Release Frequency: Varies

CONSENT: Superfund (CERCLA) Consent Decrees

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 09/30/2017
Date Data Arrived at EDR: 11/10/2017
Date Made Active in Reports: 01/12/2018
Number of Days to Update: 63

Source: Department of Justice, Consent Decree Library
Telephone: Varies
Last EDR Contact: 01/04/2018
Next Scheduled EDR Contact: 04/02/2018
Data Release Frequency: Varies

BRS: Biennial Reporting System

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/2015
Date Data Arrived at EDR: 02/22/2017
Date Made Active in Reports: 09/28/2017
Number of Days to Update: 218

Source: EPA/NTIS
Telephone: 800-424-9346
Last EDR Contact: 02/23/2018
Next Scheduled EDR Contact: 06/04/2018
Data Release Frequency: Biennially

INDIAN RESERV: Indian Reservations

This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 07/14/2015
Date Made Active in Reports: 01/10/2017
Number of Days to Update: 546

Source: USGS
Telephone: 202-208-3710
Last EDR Contact: 01/09/2018
Next Scheduled EDR Contact: 04/23/2018
Data Release Frequency: Semi-Annually

FUSRAP: Formerly Utilized Sites Remedial Action Program

DOE established the Formerly Utilized Sites Remedial Action Program (FUSRAP) in 1974 to remediate sites where radioactive contamination remained from Manhattan Project and early U.S. Atomic Energy Commission (AEC) operations.

Date of Government Version: 12/23/2016
Date Data Arrived at EDR: 12/27/2016
Date Made Active in Reports: 02/17/2017
Number of Days to Update: 52

Source: Department of Energy
Telephone: 202-586-3559
Last EDR Contact: 01/19/2018
Next Scheduled EDR Contact: 05/21/2018
Data Release Frequency: Varies

UMTRA: Uranium Mill Tailings Sites

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

Date of Government Version: 06/23/2017
Date Data Arrived at EDR: 10/11/2017
Date Made Active in Reports: 11/03/2017
Number of Days to Update: 23

Source: Department of Energy
Telephone: 505-845-0011
Last EDR Contact: 02/23/2018
Next Scheduled EDR Contact: 06/04/2018
Data Release Frequency: Varies

LEAD SMELTER 1: Lead Smelter Sites

A listing of former lead smelter site locations.

Date of Government Version: 01/09/2018
Date Data Arrived at EDR: 02/06/2018
Date Made Active in Reports: 03/02/2018
Number of Days to Update: 24

Source: Environmental Protection Agency
Telephone: 703-603-8787
Last EDR Contact: 02/06/2018
Next Scheduled EDR Contact: 05/21/2018
Data Release Frequency: Varies

LEAD SMELTER 2: Lead Smelter Sites

A list of several hundred sites in the U.S. where secondary lead smelting was done from 1931and 1964. These sites may pose a threat to public health through ingestion or inhalation of contaminated soil or dust

Date of Government Version: 04/05/2001
Date Data Arrived at EDR: 10/27/2010
Date Made Active in Reports: 12/02/2010
Number of Days to Update: 36

Source: American Journal of Public Health
Telephone: 703-305-6451
Last EDR Contact: 12/02/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

US AIRS (AFS): Aerometric Information Retrieval System Facility Subsystem (AFS)

The database is a sub-system of Aerometric Information Retrieval System (AIRS). AFS contains compliance data on air pollution point sources regulated by the U.S. EPA and/or state and local air regulatory agencies. This information comes from source reports by various stationary sources of air pollution, such as electric power plants, steel mills, factories, and universities, and provides information about the air pollutants they produce. Action, air program, air program pollutant, and general level plant data. It is used to track emissions and compliance data from industrial plants.

Date of Government Version: 10/12/2016
Date Data Arrived at EDR: 10/26/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 100

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Annually

US AIRS MINOR: Air Facility System Data

A listing of minor source facilities.

Date of Government Version: 10/12/2016
Date Data Arrived at EDR: 10/26/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 100

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Annually

US MINES: Mines Master Index File

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 10/29/2017
Date Data Arrived at EDR: 11/28/2017
Date Made Active in Reports: 01/12/2018
Number of Days to Update: 45

Source: Department of Labor, Mine Safety and Health Administration
Telephone: 303-231-5959
Last EDR Contact: 02/28/2018
Next Scheduled EDR Contact: 06/11/2018
Data Release Frequency: Semi-Annually

US MINES 2: Ferrous and Nonferrous Metal Mines Database Listing

This map layer includes ferrous (ferrous metal mines are facilities that extract ferrous metals, such as iron ore or molybdenum) and nonferrous (Nonferrous metal mines are facilities that extract nonferrous metals, such as gold, silver, copper, zinc, and lead) metal mines in the United States.

Date of Government Version: 12/05/2005
Date Data Arrived at EDR: 02/29/2008
Date Made Active in Reports: 04/18/2008
Number of Days to Update: 49

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 03/02/2018
Next Scheduled EDR Contact: 06/11/2018
Data Release Frequency: Varies

US MINES 3: Active Mines & Mineral Plants Database Listing

Active Mines and Mineral Processing Plant operations for commodities monitored by the Minerals Information Team of the USGS.

Date of Government Version: 04/14/2011
Date Data Arrived at EDR: 06/08/2011
Date Made Active in Reports: 09/13/2011
Number of Days to Update: 97

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 03/02/2018
Next Scheduled EDR Contact: 06/11/2018
Data Release Frequency: Varies

ABANDONED MINES: Abandoned Mines

An inventory of land and water impacted by past mining (primarily coal mining) is maintained by OSMRE to provide information needed to implement the Surface Mining Control and Reclamation Act of 1977 (SMCRA). The inventory contains information on the location, type, and extent of AML impacts, as well as, information on the cost associated with the reclamation of those problems. The inventory is based upon field surveys by State, Tribal, and OSMRE program officials. It is dynamic to the extent that it is modified as new problems are identified and existing problems are reclaimed.

Date of Government Version: 09/25/2017
Date Data Arrived at EDR: 09/26/2017
Date Made Active in Reports: 10/20/2017
Number of Days to Update: 24

Source: Department of Interior
Telephone: 202-208-2609
Last EDR Contact: 12/19/2017
Next Scheduled EDR Contact: 03/26/2018
Data Release Frequency: Quarterly

FINDS: Facility Index System/Facility Registry System

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 07/23/2017
Date Data Arrived at EDR: 09/06/2017
Date Made Active in Reports: 09/15/2017
Number of Days to Update: 9

Source: EPA
Telephone: (415) 947-8000
Last EDR Contact: 02/23/2018
Next Scheduled EDR Contact: 06/18/2018
Data Release Frequency: Quarterly

ECHO: Enforcement & Compliance History Information

ECHO provides integrated compliance and enforcement information for about 800,000 regulated facilities nationwide.

Date of Government Version: 01/13/2018
Date Data Arrived at EDR: 01/19/2018
Date Made Active in Reports: 03/02/2018
Number of Days to Update: 42

Source: Environmental Protection Agency
Telephone: 202-564-2280
Last EDR Contact: 01/19/2018
Next Scheduled EDR Contact: 03/19/2018
Data Release Frequency: Quarterly

UXO: Unexploded Ordnance Sites

A listing of unexploded ordnance site locations

Date of Government Version: 09/30/2016
Date Data Arrived at EDR: 10/31/2017
Date Made Active in Reports: 01/12/2018
Number of Days to Update: 73

Source: Department of Defense
Telephone: 703-704-1564
Last EDR Contact: 01/02/2018
Next Scheduled EDR Contact: 04/30/2018
Data Release Frequency: Varies

DOCKET HWC: Hazardous Waste Compliance Docket Listing
A complete list of the Federal Agency Hazardous Waste Compliance Docket Facilities.

Date of Government Version: 06/27/2017
Date Data Arrived at EDR: 11/21/2017
Date Made Active in Reports: 01/12/2018
Number of Days to Update: 52
Source: Environmental Protection Agency
Telephone: 202-564-0527
Last EDR Contact: 03/02/2018
Next Scheduled EDR Contact: 06/11/2018
Data Release Frequency: Varies

FUELS PROGRAM: EPA Fuels Program Registered Listing
This listing includes facilities that are registered under the Part 80 (Code of Federal Regulations) EPA Fuels Programs. All companies now are required to submit new and updated registrations.

Date of Government Version: 11/20/2017
Date Data Arrived at EDR: 11/20/2017
Date Made Active in Reports: 01/12/2018
Number of Days to Update: 53
Source: EPA
Telephone: 800-385-6164
Last EDR Contact: 02/21/2018
Next Scheduled EDR Contact: 06/04/2018
Data Release Frequency: Quarterly

CA BOND EXP. PLAN: Bond Expenditure Plan
Department of Health Services developed a site-specific expenditure plan as the basis for an appropriation of Hazardous Substance Cleanup Bond Act funds. It is not updated.

Date of Government Version: 01/01/1989
Date Data Arrived at EDR: 07/27/1994
Date Made Active in Reports: 08/02/1994
Number of Days to Update: 6
Source: Department of Health Services
Telephone: 916-255-2118
Last EDR Contact: 05/31/1994
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

CORTESE: "Cortese" Hazardous Waste & Substances Sites List
The sites for the list are designated by the State Water Resource Control Board (LUST), the Integrated Waste Board (SWF/LS), and the Department of Toxic Substances Control (Cal-Sites).

Date of Government Version: 02/08/2018
Date Data Arrived at EDR: 02/08/2018
Date Made Active in Reports: 02/08/2018
Number of Days to Update: 0
Source: CAL EPA/Office of Emergency Information
Telephone: 916-323-3400
Last EDR Contact: 02/08/2018
Next Scheduled EDR Contact: 04/09/2018
Data Release Frequency: Quarterly

DRYCLEANERS: Cleaner Facilities
A list of drycleaner related facilities that have EPA ID numbers. These are facilities with certain SIC codes: power laundries, family and commercial; garment pressing and cleaner's agents; linen supply; coin-operated laundries and cleaning; drycleaning plants, except rugs; carpet and upholster cleaning; industrial launderers; laundry and garment services.

Date of Government Version: 08/02/2017
Date Data Arrived at EDR: 08/08/2017
Date Made Active in Reports: 10/16/2017
Number of Days to Update: 69
Source: Department of Toxic Substance Control
Telephone: 916-327-4498
Last EDR Contact: 02/28/2018
Next Scheduled EDR Contact: 06/18/2018
Data Release Frequency: Annually

EMI: Emissions Inventory Data
Toxics and criteria pollutant emissions data collected by the ARB and local air pollution agencies.

Date of Government Version: 12/31/2015
Date Data Arrived at EDR: 03/21/2017
Date Made Active in Reports: 08/15/2017
Number of Days to Update: 147
Source: California Air Resources Board
Telephone: 916-322-2990
Last EDR Contact: 12/22/2017
Next Scheduled EDR Contact: 04/02/2018
Data Release Frequency: Varies

ENF: Enforcement Action Listing

A listing of Water Board Enforcement Actions. Formal is everything except Oral/Verbal Communication, Notice of Violation, Expedited Payment Letter, and Staff Enforcement Letter.

Date of Government Version: 11/01/2017
Date Data Arrived at EDR: 11/03/2017
Date Made Active in Reports: 12/07/2017
Number of Days to Update: 34

Source: State Water Resoruces Control Board
Telephone: 916-445-9379
Last EDR Contact: 01/22/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Varies

Financial Assurance 1: Financial Assurance Information Listing

Financial Assurance information

Date of Government Version: 10/23/2017
Date Data Arrived at EDR: 10/24/2017
Date Made Active in Reports: 12/15/2017
Number of Days to Update: 52

Source: Department of Toxic Substances Control
Telephone: 916-255-3628
Last EDR Contact: 01/22/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Varies

Financial Assurance 2: Financial Assurance Information Listing

A listing of financial assurance information for solid waste facilities. Financial assurance is intended to ensure that resources are available to pay for the cost of closure, post-closure care, and corrective measures if the owner or operator of a regulated facility is unable or unwilling to pay.

Date of Government Version: 11/14/2017
Date Data Arrived at EDR: 11/17/2017
Date Made Active in Reports: 12/18/2017
Number of Days to Update: 31

Source: California Integrated Waste Management Board
Telephone: 916-341-6066
Last EDR Contact: 02/08/2018
Next Scheduled EDR Contact: 05/28/2018
Data Release Frequency: Varies

HAZNET: Facility and Manifest Data

Facility and Manifest Data. The data is extracted from the copies of hazardous waste manifests received each year by the DTSC. The annual volume of manifests is typically 700,000 - 1,000,000 annually, representing approximately 350,000 - 500,000 shipments. Data are from the manifests submitted without correction, and therefore many contain some invalid values for data elements such as generator ID, TSD ID, waste category, and disposal method. This database begins with calendar year 1993.

Date of Government Version: 12/31/2016
Date Data Arrived at EDR: 07/12/2017
Date Made Active in Reports: 10/17/2017
Number of Days to Update: 97

Source: California Environmental Protection Agency
Telephone: 916-255-1136
Last EDR Contact: 01/08/2018
Next Scheduled EDR Contact: 04/23/2018
Data Release Frequency: Annually

ICE: ICE

Contains data pertaining to the Permitted Facilities with Inspections / Enforcements sites tracked in Envirostor.

Date of Government Version: 11/20/2017
Date Data Arrived at EDR: 11/20/2017
Date Made Active in Reports: 12/27/2017
Number of Days to Update: 37

Source: Department of Toxic Subsances Control
Telephone: 877-786-9427
Last EDR Contact: 02/21/2018
Next Scheduled EDR Contact: 06/04/2018
Data Release Frequency: Quarterly

HIST CORTESE: Hazardous Waste & Substance Site List

The sites for the list are designated by the State Water Resource Control Board [LUST], the Integrated Waste Board [SWF/LS], and the Department of Toxic Substances Control [CALSITES]. This listing is no longer updated by the state agency.

Date of Government Version: 04/01/2001
Date Data Arrived at EDR: 01/22/2009
Date Made Active in Reports: 04/08/2009
Number of Days to Update: 76

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 01/22/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

HWP: EnviroStor Permitted Facilities Listing
Detailed information on permitted hazardous waste facilities and corrective action ("cleanups") tracked in EnviroStor.

Date of Government Version: 11/20/2017
Date Data Arrived at EDR: 11/20/2017
Date Made Active in Reports: 12/27/2017
Number of Days to Update: 37
Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 02/21/2018
Next Scheduled EDR Contact: 06/04/2018
Data Release Frequency: Quarterly

HWT: Registered Hazardous Waste Transporter Database
A listing of hazardous waste transporters. In California, unless specifically exempted, it is unlawful for any person to transport hazardous wastes unless the person holds a valid registration issued by DTSC. A hazardous waste transporter registration is valid for one year and is assigned a unique registration number.

Date of Government Version: 01/08/2018
Date Data Arrived at EDR: 01/09/2018
Date Made Active in Reports: 02/06/2018
Number of Days to Update: 28
Source: Department of Toxic Substances Control
Telephone: 916-440-7145
Last EDR Contact: 01/09/2018
Next Scheduled EDR Contact: 04/23/2018
Data Release Frequency: Quarterly

MINES: Mines Site Location Listing
A listing of mine site locations from the Office of Mine Reclamation.

Date of Government Version: 12/11/2017
Date Data Arrived at EDR: 12/12/2017
Date Made Active in Reports: 01/12/2018
Number of Days to Update: 31
Source: Department of Conservation
Telephone: 916-322-1080
Last EDR Contact: 12/12/2017
Next Scheduled EDR Contact: 03/26/2018
Data Release Frequency: Quarterly

MWMP: Medical Waste Management Program Listing
The Medical Waste Management Program (MWMP) ensures the proper handling and disposal of medical waste by permitting and inspecting medical waste Offsite Treatment Facilities (PDF) and Transfer Stations (PDF) throughout the state. MWMP also oversees all Medical Waste Transporters.

Date of Government Version: 11/29/2017
Date Data Arrived at EDR: 12/05/2017
Date Made Active in Reports: 01/16/2018
Number of Days to Update: 42
Source: Department of Public Health
Telephone: 916-558-1784
Last EDR Contact: 12/05/2017
Next Scheduled EDR Contact: 03/19/2018
Data Release Frequency: Varies

NPDES: NPDES Permits Listing
A listing of NPDES permits, including stormwater.

Date of Government Version: 11/13/2017
Date Data Arrived at EDR: 11/14/2017
Date Made Active in Reports: 12/07/2017
Number of Days to Update: 23
Source: State Water Resources Control Board
Telephone: 916-445-9379
Last EDR Contact: 02/14/2018
Next Scheduled EDR Contact: 05/28/2018
Data Release Frequency: Quarterly

PEST LIC: Pesticide Regulation Licenses Listing
A listing of licenses and certificates issued by the Department of Pesticide Regulation. The DPR issues licenses and/or certificates to: Persons and businesses that apply or sell pesticides; Pest control dealers and brokers; Persons who advise on agricultural pesticide applications.

Date of Government Version: 12/04/2017
Date Data Arrived at EDR: 12/05/2017
Date Made Active in Reports: 01/16/2018
Number of Days to Update: 42
Source: Department of Pesticide Regulation
Telephone: 916-445-4038
Last EDR Contact: 12/05/2017
Next Scheduled EDR Contact: 03/19/2018
Data Release Frequency: Quarterly

PROC: Certified Processors Database
A listing of certified processors.

Date of Government Version: 12/11/2017
Date Data Arrived at EDR: 12/12/2017
Date Made Active in Reports: 01/16/2018
Number of Days to Update: 35
Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 12/12/2017
Next Scheduled EDR Contact: 03/26/2018
Data Release Frequency: Quarterly

NOTIFY 65: Proposition 65 Records
Listings of all Proposition 65 incidents reported to counties by the State Water Resources Control Board and the Regional Water Quality Control Board. This database is no longer updated by the reporting agency.

Date of Government Version: 12/14/2017
Date Data Arrived at EDR: 12/15/2017
Date Made Active in Reports: 01/16/2018
Number of Days to Update: 32
Source: State Water Resources Control Board
Telephone: 916-445-3846
Last EDR Contact: 12/13/2017
Next Scheduled EDR Contact: 04/02/2018
Data Release Frequency: No Update Planned

UIC: UIC Listing
A listing of wells identified as underground injection wells, in the California Oil and Gas Wells database.

Date of Government Version: 12/11/2017
Date Data Arrived at EDR: 12/12/2017
Date Made Active in Reports: 01/17/2018
Number of Days to Update: 36
Source: Deaprtment of Conservation
Telephone: 916-445-2408
Last EDR Contact: 12/12/2017
Next Scheduled EDR Contact: 03/26/2018
Data Release Frequency: Varies

WASTEWATER PITS: Oil Wastewater Pits Listing
Water officials discovered that oil producers have been dumping chemical-laden wastewater into hundreds of unlined pits that are operating without proper permits. Inspections completed by the Central Valley Regional Water Quality Control Board revealed the existence of previously unidentified waste sites. The water board?s review found that more than one-third of the region?s active disposal pits are operating without permission.

Date of Government Version: 04/15/2015
Date Data Arrived at EDR: 04/17/2015
Date Made Active in Reports: 06/23/2015
Number of Days to Update: 67
Source: RWQCB, Central Valley Region
Telephone: 559-445-5577
Last EDR Contact: 01/12/2018
Next Scheduled EDR Contact: 04/23/2018
Data Release Frequency: Varies

WDS: Waste Discharge System
Sites which have been issued waste discharge requirements.

Date of Government Version: 06/19/2007
Date Data Arrived at EDR: 06/20/2007
Date Made Active in Reports: 06/29/2007
Number of Days to Update: 9
Source: State Water Resources Control Board
Telephone: 916-341-5227
Last EDR Contact: 02/15/2018
Next Scheduled EDR Contact: 06/04/2018
Data Release Frequency: Quarterly

WIP: Well Investigation Program Case List
Well Investigation Program case in the San Gabriel and San Fernando Valley area.

Date of Government Version: 07/03/2009
Date Data Arrived at EDR: 07/21/2009
Date Made Active in Reports: 08/03/2009
Number of Days to Update: 13
Source: Los Angeles Water Quality Control Board
Telephone: 213-576-6726
Last EDR Contact: 12/19/2017
Next Scheduled EDR Contact: 04/09/2018
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP: EDR Proprietary Manufactured Gas Plants

The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

EDR Hist Auto: EDR Exclusive Historical Auto Stations

EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR Hist Cleaner: EDR Exclusive Historical Cleaners

EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA LF: Recovered Government Archive Solid Waste Facilities List

The EDR Recovered Government Archive Landfill database provides a list of landfills derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Resources Recycling and Recovery in California.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 01/13/2014
Number of Days to Update: 196

Source: Department of Resources Recycling and Recovery
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

RGA LUST: Recovered Government Archive Leaking Underground Storage Tank

The EDR Recovered Government Archive Leaking Underground Storage Tank database provides a list of LUST incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the State Water Resources Control Board in California.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 12/30/2013
Number of Days to Update: 182

Source: State Water Resources Control Board
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

COUNTY RECORDS

ALAMEDA COUNTY:

Contaminated Sites

A listing of contaminated sites overseen by the Toxic Release Program (oil and groundwater contamination from chemical releases and spills) and the Leaking Underground Storage Tank Program (soil and ground water contamination from leaking petroleum USTs).

Date of Government Version: 01/09/2018
Date Data Arrived at EDR: 01/11/2018
Date Made Active in Reports: 02/22/2018
Number of Days to Update: 42

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 01/04/2018
Next Scheduled EDR Contact: 04/23/2018
Data Release Frequency: Semi-Annually

Underground Tanks

Underground storage tank sites located in Alameda county.

Date of Government Version: 10/11/2017
Date Data Arrived at EDR: 10/12/2017
Date Made Active in Reports: 11/08/2017
Number of Days to Update: 27

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 01/22/2018
Next Scheduled EDR Contact: 04/24/2047
Data Release Frequency: Semi-Annually

AMADOR COUNTY:

CUPA Facility List

Cupa Facility List

Date of Government Version: 12/08/2017
Date Data Arrived at EDR: 12/12/2017
Date Made Active in Reports: 12/27/2017
Number of Days to Update: 15

Source: Amador County Environmental Health
Telephone: 209-223-6439
Last EDR Contact: 02/28/2018
Next Scheduled EDR Contact: 06/18/2018
Data Release Frequency: Varies

BUTTE COUNTY:

CUPA Facility Listing

Cupa facility list.

Date of Government Version: 04/21/2017
Date Data Arrived at EDR: 04/25/2017
Date Made Active in Reports: 08/09/2017
Number of Days to Update: 106

Source: Public Health Department
Telephone: 530-538-7149
Last EDR Contact: 01/04/2018
Next Scheduled EDR Contact: 04/23/2018
Data Release Frequency: No Update Planned

CALVERAS COUNTY:

CUPA Facility Listing
Cupa Facility Listing

Date of Government Version: 08/31/2017
Date Data Arrived at EDR: 09/05/2017
Date Made Active in Reports: 11/08/2017
Number of Days to Update: 64

Source: Calveras County Environmental Health
Telephone: 209-754-6399
Last EDR Contact: 12/20/2017
Next Scheduled EDR Contact: 10/09/2017
Data Release Frequency: Quarterly

COLUSA COUNTY:

CUPA Facility List
Cupa facility list.

Date of Government Version: 08/07/2017
Date Data Arrived at EDR: 08/08/2017
Date Made Active in Reports: 10/16/2017
Number of Days to Update: 69

Source: Health & Human Services
Telephone: 530-458-0396
Last EDR Contact: 02/14/2018
Next Scheduled EDR Contact: 05/21/2018
Data Release Frequency: Semi-Annually

CONTRA COSTA COUNTY:

Site List
List includes sites from the underground tank, hazardous waste generator and business plan/2185 programs.

Date of Government Version: 11/20/2017
Date Data Arrived at EDR: 11/29/2017
Date Made Active in Reports: 01/19/2018
Number of Days to Update: 51

Source: Contra Costa Health Services Department
Telephone: 925-646-2286
Last EDR Contact: 01/29/2018
Next Scheduled EDR Contact: 05/14/2018
Data Release Frequency: Semi-Annually

DEL NORTE COUNTY:

CUPA Facility List
Cupa Facility list

Date of Government Version: 10/31/2017
Date Data Arrived at EDR: 11/01/2017
Date Made Active in Reports: 11/14/2017
Number of Days to Update: 13

Source: Del Norte County Environmental Health Division
Telephone: 707-465-0426
Last EDR Contact: 01/29/2018
Next Scheduled EDR Contact: 05/14/2018
Data Release Frequency: Varies

EL DORADO COUNTY:

CUPA Facility List
CUPA facility list.

Date of Government Version: 12/04/2017
Date Data Arrived at EDR: 12/06/2017
Date Made Active in Reports: 12/27/2017
Number of Days to Update: 21

Source: El Dorado County Environmental Management Department
Telephone: 530-621-6623
Last EDR Contact: 01/29/2018
Next Scheduled EDR Contact: 05/14/2018
Data Release Frequency: Varies

FRESNO COUNTY:

CUPA Resources List

Certified Unified Program Agency. CUPA's are responsible for implementing a unified hazardous materials and hazardous waste management regulatory program. The agency provides oversight of businesses that deal with hazardous materials, operate underground storage tanks or aboveground storage tanks.

Date of Government Version: 10/03/2017
Date Data Arrived at EDR: 10/06/2017
Date Made Active in Reports: 11/15/2017
Number of Days to Update: 40

Source: Dept. of Community Health
Telephone: 559-445-3271
Last EDR Contact: 02/22/2018
Next Scheduled EDR Contact: 04/16/2018
Data Release Frequency: Semi-Annually

GLENN COUNTY:

CUPA Facility List

Cupa facility list

Date of Government Version: 10/25/2017
Date Data Arrived at EDR: 10/27/2017
Date Made Active in Reports: 11/15/2017
Number of Days to Update: 19

Source: Glenn County Air Pollution Control District
Telephone: 830-934-6500
Last EDR Contact: 01/22/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Varies

HUMBOLDT COUNTY:

CUPA Facility List

CUPA facility list.

Date of Government Version: 08/03/2017
Date Data Arrived at EDR: 08/08/2017
Date Made Active in Reports: 10/16/2017
Number of Days to Update: 69

Source: Humboldt County Environmental Health
Telephone: N/A
Last EDR Contact: 02/05/2018
Next Scheduled EDR Contact: 06/04/2018
Data Release Frequency: Semi-Annually

IMPERIAL COUNTY:

CUPA Facility List

Cupa facility list.

Date of Government Version: 10/23/2017
Date Data Arrived at EDR: 10/24/2017
Date Made Active in Reports: 11/15/2017
Number of Days to Update: 22

Source: San Diego Border Field Office
Telephone: 760-339-2777
Last EDR Contact: 01/22/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Varies

INYO COUNTY:

CUPA Facility List
Cupa facility list.

Date of Government Version: 06/08/2017
Date Data Arrived at EDR: 06/09/2017
Date Made Active in Reports: 08/04/2017
Number of Days to Update: 56

Source: Inyo County Environmental Health Services
Telephone: 760-878-0238
Last EDR Contact: 02/14/2018
Next Scheduled EDR Contact: 06/04/2018
Data Release Frequency: Varies

KERN COUNTY:

Underground Storage Tank Sites & Tank Listing
Kern County Sites and Tanks Listing.

Date of Government Version: 11/02/2017
Date Data Arrived at EDR: 11/07/2017
Date Made Active in Reports: 12/20/2017
Number of Days to Update: 43

Source: Kern County Environment Health Services Department
Telephone: 661-862-8700
Last EDR Contact: 02/01/2018
Next Scheduled EDR Contact: 05/21/2018
Data Release Frequency: Quarterly

KINGS COUNTY:

CUPA Facility List
A listing of sites included in the county's Certified Unified Program Agency database. California's Secretary for Environmental Protection established the unified hazardous materials and hazardous waste regulatory program as required by chapter 6.11 of the California Health and Safety Code. The Unified Program consolidates the administration, permits, inspections, and enforcement activities.

Date of Government Version: 11/14/2017
Date Data Arrived at EDR: 11/17/2017
Date Made Active in Reports: 12/15/2017
Number of Days to Update: 28

Source: Kings County Department of Public Health
Telephone: 559-584-1411
Last EDR Contact: 02/28/2018
Next Scheduled EDR Contact: 06/04/2018
Data Release Frequency: Varies

LAKE COUNTY:

CUPA Facility List
Cupa facility list

Date of Government Version: 11/09/2017
Date Data Arrived at EDR: 11/10/2017
Date Made Active in Reports: 11/15/2017
Number of Days to Update: 5

Source: Lake County Environmental Health
Telephone: 707-263-1164
Last EDR Contact: 01/16/2018
Next Scheduled EDR Contact: 04/30/2018
Data Release Frequency: Varies

LASSEN COUNTY:

CUPA Facility List
Cupa facility list

Date of Government Version: 07/24/2017
Date Data Arrived at EDR: 07/26/2017
Date Made Active in Reports: 10/16/2017
Number of Days to Update: 82

Source: Lassen County Environmental Health
Telephone: 530-251-8528
Last EDR Contact: 01/22/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Varies

LOS ANGELES COUNTY:

San Gabriel Valley Areas of Concern
San Gabriel Valley areas where VOC contamination is at or above the MCL as designated by region 9 EPA office.

Date of Government Version: 03/30/2009
Date Data Arrived at EDR: 03/31/2009
Date Made Active in Reports: 10/23/2009
Number of Days to Update: 206
Source: EPA Region 9
Telephone: 415-972-3178
Last EDR Contact: 12/13/2017
Next Scheduled EDR Contact: 04/02/2018
Data Release Frequency: No Update Planned

HMS: Street Number List
Industrial Waste and Underground Storage Tank Sites.

Date of Government Version: 10/11/2017
Date Data Arrived at EDR: 10/12/2017
Date Made Active in Reports: 10/17/2017
Number of Days to Update: 5
Source: Department of Public Works
Telephone: 626-458-3517
Last EDR Contact: 01/04/2018
Next Scheduled EDR Contact: 04/23/2018
Data Release Frequency: Semi-Annually

List of Solid Waste Facilities
Solid Waste Facilities in Los Angeles County.

Date of Government Version: 01/16/2018
Date Data Arrived at EDR: 01/16/2018
Date Made Active in Reports: 02/14/2018
Number of Days to Update: 29
Source: La County Department of Public Works
Telephone: 818-458-5185
Last EDR Contact: 01/16/2018
Next Scheduled EDR Contact: 04/30/2018
Data Release Frequency: Varies

City of Los Angeles Landfills
Landfills owned and maintained by the City of Los Angeles.

Date of Government Version: 01/01/2017
Date Data Arrived at EDR: 04/21/2017
Date Made Active in Reports: 10/09/2017
Number of Days to Update: 171
Source: Engineering & Construction Division
Telephone: 213-473-7869
Last EDR Contact: 01/10/2018
Next Scheduled EDR Contact: 04/30/2018
Data Release Frequency: Varies

Site Mitigation List
Industrial sites that have had some sort of spill or complaint.

Date of Government Version: 01/01/2018
Date Data Arrived at EDR: 01/17/2018
Date Made Active in Reports: 02/14/2018
Number of Days to Update: 28
Source: Community Health Services
Telephone: 323-890-7806
Last EDR Contact: 01/17/2018
Next Scheduled EDR Contact: 04/30/2018
Data Release Frequency: Annually

City of El Segundo Underground Storage Tank
Underground storage tank sites located in El Segundo city.

Date of Government Version: 01/21/2017
Date Data Arrived at EDR: 04/19/2017
Date Made Active in Reports: 05/10/2017
Number of Days to Update: 21
Source: City of El Segundo Fire Department
Telephone: 310-524-2236
Last EDR Contact: 01/10/2018
Next Scheduled EDR Contact: 04/30/2018
Data Release Frequency: Semi-Annually

City of Long Beach Underground Storage Tank
Underground storage tank sites located in the city of Long Beach.

Date of Government Version: 03/09/2017
Date Data Arrived at EDR: 03/10/2017
Date Made Active in Reports: 05/03/2017
Number of Days to Update: 54
Source: City of Long Beach Fire Department
Telephone: 562-570-2563
Last EDR Contact: 01/22/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Annually

City of Torrance Underground Storage Tank
Underground storage tank sites located in the city of Torrance.

Date of Government Version: 01/04/2018
Date Data Arrived at EDR: 01/05/2018
Date Made Active in Reports: 01/18/2018
Number of Days to Update: 13

Source: City of Torrance Fire Department
Telephone: 310-618-2973
Last EDR Contact: 01/04/2018
Next Scheduled EDR Contact: 04/23/2018
Data Release Frequency: Semi-Annually

MADERA COUNTY:

CUPA Facility List
A listing of sites included in the county's Certified Unified Program Agency database. California's Secretary for Environmental Protection established the unified hazardous materials and hazardous waste regulatory program as required by chapter 6.11 of the California Health and Safety Code. The Unified Program consolidates the administration, permits, inspections, and enforcement activities.

Date of Government Version: 10/26/2017
Date Data Arrived at EDR: 10/27/2017
Date Made Active in Reports: 11/06/2017
Number of Days to Update: 10

Source: Madera County Environmental Health
Telephone: 559-675-7823
Last EDR Contact: 02/14/2018
Next Scheduled EDR Contact: 06/04/2018
Data Release Frequency: Varies

MARIN COUNTY:

Underground Storage Tank Sites
Currently permitted USTs in Marin County.

Date of Government Version: 01/02/2018
Date Data Arrived at EDR: 01/05/2018
Date Made Active in Reports: 01/17/2018
Number of Days to Update: 12

Source: Public Works Department Waste Management
Telephone: 415-473-6647
Last EDR Contact: 01/02/2018
Next Scheduled EDR Contact: 04/16/2018
Data Release Frequency: Semi-Annually

MERCED COUNTY:

CUPA Facility List
CUPA facility list.

Date of Government Version: 01/11/2018
Date Data Arrived at EDR: 01/12/2018
Date Made Active in Reports: 02/08/2018
Number of Days to Update: 27

Source: Merced County Environmental Health
Telephone: 209-381-1094
Last EDR Contact: 02/14/2018
Next Scheduled EDR Contact: 06/04/2018
Data Release Frequency: Varies

MONO COUNTY:

CUPA Facility List
CUPA Facility List

Date of Government Version: 11/21/2017
Date Data Arrived at EDR: 11/27/2017
Date Made Active in Reports: 12/27/2017
Number of Days to Update: 30

Source: Mono County Health Department
Telephone: 760-932-5580
Last EDR Contact: 02/22/2018
Next Scheduled EDR Contact: 06/11/2018
Data Release Frequency: Varies

MONTEREY COUNTY:

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

CUPA Facility Listing
CUPA Program listing from the Environmental Health Division.

Date of Government Version: 01/09/2018
Date Data Arrived at EDR: 01/11/2018
Date Made Active in Reports: 01/31/2018
Number of Days to Update: 20

Source: Monterey County Health Department
Telephone: 831-796-1297
Last EDR Contact: 02/20/2018
Next Scheduled EDR Contact: 06/04/2018
Data Release Frequency: Varies

NAPA COUNTY:

Sites With Reported Contamination
A listing of leaking underground storage tank sites located in Napa county.

Date of Government Version: 01/09/2017
Date Data Arrived at EDR: 01/11/2017
Date Made Active in Reports: 03/02/2017
Number of Days to Update: 50

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 02/22/2018
Next Scheduled EDR Contact: 06/11/2018
Data Release Frequency: No Update Planned

Closed and Operating Underground Storage Tank Sites
Underground storage tank sites located in Napa county.

Date of Government Version: 11/22/2017
Date Data Arrived at EDR: 11/27/2017
Date Made Active in Reports: 12/19/2017
Number of Days to Update: 22

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 02/22/2018
Next Scheduled EDR Contact: 06/11/2018
Data Release Frequency: No Update Planned

NEVADA COUNTY:

CUPA Facility List
CUPA facility list.

Date of Government Version: 11/02/2017
Date Data Arrived at EDR: 11/07/2017
Date Made Active in Reports: 11/15/2017
Number of Days to Update: 8

Source: Community Development Agency
Telephone: 530-265-1467
Last EDR Contact: 01/29/2018
Next Scheduled EDR Contact: 05/14/2018
Data Release Frequency: Varies

ORANGE COUNTY:

List of Industrial Site Cleanups
Petroleum and non-petroleum spills.

Date of Government Version: 11/02/2017
Date Data Arrived at EDR: 11/09/2017
Date Made Active in Reports: 12/07/2017
Number of Days to Update: 28

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 02/05/2018
Next Scheduled EDR Contact: 05/21/2018
Data Release Frequency: Annually

List of Underground Storage Tank Cleanups
Orange County Underground Storage Tank Cleanups (LUST).

Date of Government Version: 11/02/2017
Date Data Arrived at EDR: 11/09/2017
Date Made Active in Reports: 12/15/2017
Number of Days to Update: 36

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 02/05/2018
Next Scheduled EDR Contact: 05/21/2018
Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

List of Underground Storage Tank Facilities
Orange County Underground Storage Tank Facilities (UST).

Date of Government Version: 11/02/2017
Date Data Arrived at EDR: 11/07/2017
Date Made Active in Reports: 12/19/2017
Number of Days to Update: 42

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 02/07/2018
Next Scheduled EDR Contact: 05/21/2018
Data Release Frequency: Quarterly

PLACER COUNTY:

Master List of Facilities
List includes aboveground tanks, underground tanks and cleanup sites.

Date of Government Version: 12/08/2017
Date Data Arrived at EDR: 12/12/2017
Date Made Active in Reports: 01/31/2018
Number of Days to Update: 50

Source: Placer County Health and Human Services
Telephone: 530-745-2363
Last EDR Contact: 11/30/2017
Next Scheduled EDR Contact: 03/19/2018
Data Release Frequency: Semi-Annually

PLUMAS COUNTY:

CUPA Facility List
Plumas County CUPA Program facilities.

Date of Government Version: 10/23/2017
Date Data Arrived at EDR: 11/03/2017
Date Made Active in Reports: 11/15/2017
Number of Days to Update: 12

Source: Plumas County Environmental Health
Telephone: 530-283-6355
Last EDR Contact: 01/22/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Varies

RIVERSIDE COUNTY:

Listing of Underground Tank Cleanup Sites
Riverside County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 10/11/2017
Date Data Arrived at EDR: 10/12/2017
Date Made Active in Reports: 11/09/2017
Number of Days to Update: 28

Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 12/15/2017
Next Scheduled EDR Contact: 04/02/2018
Data Release Frequency: Quarterly

Underground Storage Tank Tank List
Underground storage tank sites located in Riverside county.

Date of Government Version: 10/12/2017
Date Data Arrived at EDR: 10/12/2017
Date Made Active in Reports: 11/08/2017
Number of Days to Update: 27

Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 12/15/2017
Next Scheduled EDR Contact: 04/02/2018
Data Release Frequency: Quarterly

SACRAMENTO COUNTY:

Toxic Site Clean-Up List
List of sites where unauthorized releases of potentially hazardous materials have occurred.

Date of Government Version: 11/02/2017
Date Data Arrived at EDR: 01/03/2018
Date Made Active in Reports: 02/05/2018
Number of Days to Update: 33

Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 01/03/2018
Next Scheduled EDR Contact: 04/16/2018
Data Release Frequency: Quarterly

Master Hazardous Materials Facility List

Any business that has hazardous materials on site - hazardous material storage sites, underground storage tanks, waste generators.

Date of Government Version: 11/02/2017
Date Data Arrived at EDR: 01/03/2018
Date Made Active in Reports: 02/14/2018
Number of Days to Update: 42

Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 01/03/2018
Next Scheduled EDR Contact: 04/16/2018
Data Release Frequency: Quarterly

SAN BENITO COUNTY:

CUPA Facility List

Cupa facility list

Date of Government Version: 11/01/2017
Date Data Arrived at EDR: 11/03/2017
Date Made Active in Reports: 11/17/2017
Number of Days to Update: 14

Source: San Benito County Environmental Health
Telephone: N/A
Last EDR Contact: 02/15/2018
Next Scheduled EDR Contact: 05/21/2018
Data Release Frequency: Varies

SAN BERNARDINO COUNTY:

Hazardous Material Permits

This listing includes underground storage tanks, medical waste handlers/generators, hazardous materials handlers, hazardous waste generators, and waste oil generators/handlers.

Date of Government Version: 11/30/2017
Date Data Arrived at EDR: 12/01/2017
Date Made Active in Reports: 01/16/2018
Number of Days to Update: 46

Source: San Bernardino County Fire Department Hazardous Materials Division
Telephone: 909-387-3041
Last EDR Contact: 02/05/2018
Next Scheduled EDR Contact: 05/21/2018
Data Release Frequency: Quarterly

SAN DIEGO COUNTY:

Hazardous Materials Management Division Database

The database includes: HE58 - This report contains the business name, site address, business phone number, establishment 'H' permit number, type of permit, and the business status. HE17 - In addition to providing the same information provided in the HE58 listing, HE17 provides inspection dates, violations received by the establishment, hazardous waste generated, the quantity, method of storage, treatment/disposal of waste and the hauler, and information on underground storage tanks. Unauthorized Release List - Includes a summary of environmental contamination cases in San Diego County (underground tank cases, non-tank cases, groundwater contamination, and soil contamination are included.)

Date of Government Version: 12/04/2017
Date Data Arrived at EDR: 12/05/2017
Date Made Active in Reports: 01/11/2018
Number of Days to Update: 37

Source: Hazardous Materials Management Division
Telephone: 619-338-2268
Last EDR Contact: 12/05/2017
Next Scheduled EDR Contact: 03/19/2018
Data Release Frequency: Quarterly

Solid Waste Facilities
San Diego County Solid Waste Facilities.

Date of Government Version: 10/31/2015
Date Data Arrived at EDR: 11/07/2015
Date Made Active in Reports: 01/04/2016
Number of Days to Update: 58

Source: Department of Health Services
Telephone: 619-338-2209
Last EDR Contact: 02/01/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Varies

Environmental Case Listing
The listing contains all underground tank release cases and projects pertaining to properties contaminated with hazardous substances that are actively under review by the Site Assessment and Mitigation Program.

Date of Government Version: 03/23/2010
Date Data Arrived at EDR: 06/15/2010
Date Made Active in Reports: 07/09/2010
Number of Days to Update: 24

Source: San Diego County Department of Environmental Health
Telephone: 619-338-2371
Last EDR Contact: 02/28/2018
Next Scheduled EDR Contact: 06/18/2018
Data Release Frequency: No Update Planned

SAN FRANCISCO COUNTY:

Local Oversite Facilities
A listing of leaking underground storage tank sites located in San Francisco county.

Date of Government Version: 09/19/2008
Date Data Arrived at EDR: 09/19/2008
Date Made Active in Reports: 09/29/2008
Number of Days to Update: 10

Source: Department Of Public Health San Francisco County
Telephone: 415-252-3920
Last EDR Contact: 02/01/2018
Next Scheduled EDR Contact: 05/21/2018
Data Release Frequency: Quarterly

Underground Storage Tank Information
Underground storage tank sites located in San Francisco county.

Date of Government Version: 11/02/2017
Date Data Arrived at EDR: 11/07/2017
Date Made Active in Reports: 12/19/2017
Number of Days to Update: 42

Source: Department of Public Health
Telephone: 415-252-3920
Last EDR Contact: 02/28/2018
Next Scheduled EDR Contact: 05/21/2018
Data Release Frequency: Quarterly

SAN JOAQUIN COUNTY:

San Joaquin Co. UST
A listing of underground storage tank locations in San Joaquin county.

Date of Government Version: 12/20/2017
Date Data Arrived at EDR: 12/21/2017
Date Made Active in Reports: 02/01/2018
Number of Days to Update: 42

Source: Environmental Health Department
Telephone: N/A
Last EDR Contact: 12/13/2017
Next Scheduled EDR Contact: 04/02/2018
Data Release Frequency: Semi-Annually

SAN LUIS OBISPO COUNTY:

CUPA Facility List
Cupa Facility List.

Date of Government Version: 11/16/2017
Date Data Arrived at EDR: 11/17/2017
Date Made Active in Reports: 12/18/2017
Number of Days to Update: 31

Source: San Luis Obispo County Public Health Department
Telephone: 805-781-5596
Last EDR Contact: 02/15/2018
Next Scheduled EDR Contact: 06/04/2018
Data Release Frequency: Varies

SAN MATEO COUNTY:

Business Inventory
List includes Hazardous Materials Business Plan, hazardous waste generators, and underground storage tanks.

Date of Government Version: 12/12/2017
Date Data Arrived at EDR: 12/14/2017
Date Made Active in Reports: 01/11/2018
Number of Days to Update: 28
Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 12/06/2017
Next Scheduled EDR Contact: 03/26/2018
Data Release Frequency: Annually

Fuel Leak List
A listing of leaking underground storage tank sites located in San Mateo county.

Date of Government Version: 12/12/2017
Date Data Arrived at EDR: 12/14/2017
Date Made Active in Reports: 01/12/2018
Number of Days to Update: 29
Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 01/22/2018
Next Scheduled EDR Contact: 03/26/2018
Data Release Frequency: Semi-Annually

SANTA BARBARA COUNTY:

CUPA Facility Listing
CUPA Program Listing from the Environmental Health Services division.

Date of Government Version: 09/08/2011
Date Data Arrived at EDR: 09/09/2011
Date Made Active in Reports: 10/07/2011
Number of Days to Update: 28
Source: Santa Barbara County Public Health Department
Telephone: 805-686-8167
Last EDR Contact: 02/15/2018
Next Scheduled EDR Contact: 06/04/2018
Data Release Frequency: Varies

SANTA CLARA COUNTY:

Cupa Facility List
Cupa facility list

Date of Government Version: 11/14/2017
Date Data Arrived at EDR: 11/16/2017
Date Made Active in Reports: 01/04/2018
Number of Days to Update: 49
Source: Department of Environmental Health
Telephone: 408-918-1973
Last EDR Contact: 02/15/2018
Next Scheduled EDR Contact: 06/04/2018
Data Release Frequency: Varies

HIST LUST - Fuel Leak Site Activity Report
A listing of open and closed leaking underground storage tanks. This listing is no longer updated by the county. Leaking underground storage tanks are now handled by the Department of Environmental Health.

Date of Government Version: 03/29/2005
Date Data Arrived at EDR: 03/30/2005
Date Made Active in Reports: 04/21/2005
Number of Days to Update: 22
Source: Santa Clara Valley Water District
Telephone: 408-265-2600
Last EDR Contact: 03/23/2009
Next Scheduled EDR Contact: 06/22/2009
Data Release Frequency: No Update Planned

LOP Listing
A listing of leaking underground storage tanks located in Santa Clara county.

Date of Government Version: 03/03/2014
Date Data Arrived at EDR: 03/05/2014
Date Made Active in Reports: 03/18/2014
Number of Days to Update: 13
Source: Department of Environmental Health
Telephone: 408-918-3417
Last EDR Contact: 02/22/2018
Next Scheduled EDR Contact: 06/11/2018
Data Release Frequency: Annually

Hazardous Material Facilities
Hazardous material facilities, including underground storage tank sites.

Date of Government Version: 11/01/2017
Date Data Arrived at EDR: 11/03/2017
Date Made Active in Reports: 12/07/2017
Number of Days to Update: 34

Source: City of San Jose Fire Department
Telephone: 408-535-7694
Last EDR Contact: 02/01/2018
Next Scheduled EDR Contact: 05/21/2018
Data Release Frequency: Annually

SANTA CRUZ COUNTY:

CUPA Facility List
CUPA facility listing.

Date of Government Version: 01/21/2017
Date Data Arrived at EDR: 02/22/2017
Date Made Active in Reports: 05/23/2017
Number of Days to Update: 90

Source: Santa Cruz County Environmental Health
Telephone: 831-464-2761
Last EDR Contact: 02/15/2018
Next Scheduled EDR Contact: 06/04/2018
Data Release Frequency: Varies

SHASTA COUNTY:

CUPA Facility List
Cupa Facility List.

Date of Government Version: 06/15/2017
Date Data Arrived at EDR: 06/19/2017
Date Made Active in Reports: 08/09/2017
Number of Days to Update: 51

Source: Shasta County Department of Resource Management
Telephone: 530-225-5789
Last EDR Contact: 02/15/2018
Next Scheduled EDR Contact: 06/04/2018
Data Release Frequency: Varies

SOLANO COUNTY:

Leaking Underground Storage Tanks
A listing of leaking underground storage tank sites located in Solano county.

Date of Government Version: 12/14/2017
Date Data Arrived at EDR: 12/15/2017
Date Made Active in Reports: 01/12/2018
Number of Days to Update: 28

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 02/28/2018
Next Scheduled EDR Contact: 06/18/2018
Data Release Frequency: Quarterly

Underground Storage Tanks
Underground storage tank sites located in Solano county.

Date of Government Version: 12/14/2017
Date Data Arrived at EDR: 12/15/2017
Date Made Active in Reports: 01/18/2018
Number of Days to Update: 34

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 02/28/2018
Next Scheduled EDR Contact: 06/18/2018
Data Release Frequency: Quarterly

SONOMA COUNTY:

Cupa Facility List
Cupa Facility list

Date of Government Version: 12/20/2017
Date Data Arrived at EDR: 12/21/2017
Date Made Active in Reports: 01/31/2018
Number of Days to Update: 41

Source: County of Sonoma Fire & Emergency Services Department
Telephone: 707-565-1174
Last EDR Contact: 12/19/2017
Next Scheduled EDR Contact: 04/09/2018
Data Release Frequency: Varies

Leaking Underground Storage Tank Sites

A listing of leaking underground storage tank sites located in Sonoma county.

Date of Government Version: 01/04/2018
Date Data Arrived at EDR: 01/09/2018
Date Made Active in Reports: 02/06/2018
Number of Days to Update: 28

Source: Department of Health Services
Telephone: 707-565-6565
Last EDR Contact: 01/04/2018
Next Scheduled EDR Contact: 04/09/2018
Data Release Frequency: Quarterly

STANISLAUS COUNTY:

CUPA Facility List

Cupa facility list

Date of Government Version: 11/01/2017
Date Data Arrived at EDR: 11/10/2017
Date Made Active in Reports: 11/16/2017
Number of Days to Update: 6

Source: Stanislaus County Department of Ennvironmental Protection
Telephone: 209-525-6751
Last EDR Contact: 01/16/2018
Next Scheduled EDR Contact: 04/30/2018
Data Release Frequency: Varies

SUTTER COUNTY:

Underground Storage Tanks

Underground storage tank sites located in Sutter county.

Date of Government Version: 12/01/2017
Date Data Arrived at EDR: 12/04/2017
Date Made Active in Reports: 12/19/2017
Number of Days to Update: 15

Source: Sutter County Department of Agriculture
Telephone: 530-822-7500
Last EDR Contact: 02/28/2018
Next Scheduled EDR Contact: 06/18/2018
Data Release Frequency: Semi-Annually

TEHAMA COUNTY:

CUPA Facility List

Cupa facilities

Date of Government Version: 11/16/2017
Date Data Arrived at EDR: 11/17/2017
Date Made Active in Reports: 12/18/2017
Number of Days to Update: 31

Source: Tehama County Department of Environmental Health
Telephone: 530-527-8020
Last EDR Contact: 02/01/2018
Next Scheduled EDR Contact: 05/21/2018
Data Release Frequency: Varies

TRINITY COUNTY:

CUPA Facility List

Cupa facility list

Date of Government Version: 10/23/2017
Date Data Arrived at EDR: 10/24/2017
Date Made Active in Reports: 11/16/2017
Number of Days to Update: 23

Source: Department of Toxic Substances Control
Telephone: 760-352-0381
Last EDR Contact: 01/22/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Varies

TULARE COUNTY:

CUPA Facility List
Cupa program facilities

Date of Government Version: 09/27/2017
Date Data Arrived at EDR: 09/28/2017
Date Made Active in Reports: 10/16/2017
Number of Days to Update: 18

Source: Tulare County Environmental Health Services Division
Telephone: 559-624-7400
Last EDR Contact: 02/15/2018
Next Scheduled EDR Contact: 05/21/2018
Data Release Frequency: Varies

TUOLUMNE COUNTY:

CUPA Facility List
Cupa facility list

Date of Government Version: 10/24/2017
Date Data Arrived at EDR: 10/25/2017
Date Made Active in Reports: 11/16/2017
Number of Days to Update: 22

Source: Divison of Environmental Health
Telephone: 209-533-5633
Last EDR Contact: 01/22/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Varies

VENTURA COUNTY:

Business Plan, Hazardous Waste Producers, and Operating Underground Tanks
The BWT list indicates by site address whether the Environmental Health Division has Business Plan (B), Waste Producer (W), and/or Underground Tank (T) information.

Date of Government Version: 09/26/2017
Date Data Arrived at EDR: 10/25/2017
Date Made Active in Reports: 12/07/2017
Number of Days to Update: 43

Source: Ventura County Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 01/22/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Quarterly

Inventory of Illegal Abandoned and Inactive Sites
Ventura County Inventory of Closed, Illegal Abandoned, and Inactive Sites.

Date of Government Version: 12/01/2011
Date Data Arrived at EDR: 12/01/2011
Date Made Active in Reports: 01/19/2012
Number of Days to Update: 49

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 12/26/2017
Next Scheduled EDR Contact: 04/16/2018
Data Release Frequency: Annually

Listing of Underground Tank Cleanup Sites
Ventura County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 05/29/2008
Date Data Arrived at EDR: 06/24/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 37

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 02/08/2018
Next Scheduled EDR Contact: 05/28/2018
Data Release Frequency: Quarterly

Medical Waste Program List
To protect public health and safety and the environment from potential exposure to disease causing agents, the Environmental Health Division Medical Waste Program regulates the generation, handling, storage, treatment and disposal of medical waste throughout the County.

Date of Government Version: 09/26/2017
Date Data Arrived at EDR: 10/25/2017
Date Made Active in Reports: 12/07/2017
Number of Days to Update: 43

Source: Ventura County Resource Management Agency
Telephone: 805-654-2813
Last EDR Contact: 01/22/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Quarterly

Underground Tank Closed Sites List
Ventura County Operating Underground Storage Tank Sites (UST)/Underground Tank Closed Sites List.

Date of Government Version: 11/27/2017
Date Data Arrived at EDR: 12/13/2017
Date Made Active in Reports: 01/19/2018
Number of Days to Update: 37
Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 12/11/2017
Next Scheduled EDR Contact: 03/26/2018
Data Release Frequency: Quarterly

YOLO COUNTY:

Underground Storage Tank Comprehensive Facility Report
Underground storage tank sites located in Yolo county.

Date of Government Version: 01/02/2018
Date Data Arrived at EDR: 01/09/2018
Date Made Active in Reports: 01/19/2018
Number of Days to Update: 10
Source: Yolo County Department of Health
Telephone: 530-666-8646
Last EDR Contact: 01/02/2018
Next Scheduled EDR Contact: 04/16/2018
Data Release Frequency: Annually

YUBA COUNTY:

CUPA Facility List
CUPA facility listing for Yuba County.

Date of Government Version: 11/08/2017
Date Data Arrived at EDR: 11/10/2017
Date Made Active in Reports: 11/16/2017
Number of Days to Update: 6
Source: Yuba County Environmental Health Department
Telephone: 530-749-7523
Last EDR Contact: 01/29/2018
Next Scheduled EDR Contact: 05/14/2018
Data Release Frequency: Varies

OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

CT MANIFEST: Hazardous Waste Manifest Data
Facility and manifest data. Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a tsd facility.

Date of Government Version: 11/11/2017
Date Data Arrived at EDR: 11/14/2017
Date Made Active in Reports: 12/18/2017
Number of Days to Update: 34
Source: Department of Energy & Environmental Protection
Telephone: 860-424-3375
Last EDR Contact: 02/14/2018
Next Scheduled EDR Contact: 05/28/2018
Data Release Frequency: No Update Planned

NJ MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2016
Date Data Arrived at EDR: 04/11/2017
Date Made Active in Reports: 07/27/2017
Number of Days to Update: 107
Source: Department of Environmental Protection
Telephone: N/A
Last EDR Contact: 01/05/2018
Next Scheduled EDR Contact: 04/23/2018
Data Release Frequency: Annually

NY MANIFEST: Facility and Manifest Data

Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

Date of Government Version: 10/01/2017
Date Data Arrived at EDR: 11/01/2017
Date Made Active in Reports: 11/13/2017
Number of Days to Update: 12

Source: Department of Environmental Conservation
Telephone: 518-402-8651
Last EDR Contact: 01/31/2018
Next Scheduled EDR Contact: 05/14/2018
Data Release Frequency: Quarterly

PA MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2016
Date Data Arrived at EDR: 07/25/2017
Date Made Active in Reports: 09/25/2017
Number of Days to Update: 62

Source: Department of Environmental Protection
Telephone: 717-783-8990
Last EDR Contact: 01/16/2018
Next Scheduled EDR Contact: 04/30/2018
Data Release Frequency: Annually

RI MANIFEST: Manifest information

Hazardous waste manifest information

Date of Government Version: 12/31/2013
Date Data Arrived at EDR: 06/19/2015
Date Made Active in Reports: 07/15/2015
Number of Days to Update: 26

Source: Department of Environmental Management
Telephone: 401-222-2797
Last EDR Contact: 02/21/2018
Next Scheduled EDR Contact: 06/04/2018
Data Release Frequency: Annually

WI MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2016
Date Data Arrived at EDR: 04/13/2017
Date Made Active in Reports: 07/14/2017
Number of Days to Update: 92

Source: Department of Natural Resources
Telephone: N/A
Last EDR Contact: 12/11/2017
Next Scheduled EDR Contact: 03/26/2018
Data Release Frequency: Annually

Oil/Gas Pipelines

Source: PennWell Corporation

Petroleum Bundle (Crude Oil, Refined Products, Petrochemicals, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)) N = Natural Gas Bundle (Natural Gas, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)). This map includes information copyrighted by PennWell Corporation. This information is provided on a best effort basis and PennWell Corporation does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of PennWell.

Electric Power Transmission Line Data

Source: PennWell Corporation

This map includes information copyrighted by PennWell Corporation. This information is provided on a best effort basis and PennWell Corporation does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of PennWell.

Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

AHA Hospitals:

Source: American Hospital Association, Inc.
Telephone: 312-280-5991
The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing

Source: Centers for Medicare & Medicaid Services
Telephone: 410-786-3000
A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

Nursing Homes
Source: National Institutes of Health
Telephone: 301-594-6248
Information on Medicare and Medicaid certified nursing homes in the United States.

Public Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

Private Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on private school locations in the United States.

Daycare Centers: Licensed Facilities
Source: Department of Social Services
Telephone: 916-657-4041

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.
Source: FEMA
Telephone: 877-336-2627
Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetland Inventory
Source: Department of Fish & Game
Telephone: 916-445-0411

Current USGS 7.5 Minute Topographic Map
Source: U.S. Geological Survey

STREET AND ADDRESS INFORMATION

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GEOCHECK ®- PHYSICAL SETTING SOURCE ADDENDUM

TARGET PROPERTY ADDRESS

SOUTH SITE
E PALM CANYON DR
CATHEDRAL CITY, CA 92234

TARGET PROPERTY COORDINATES

Latitude (North):	33.777635 - 33° 46' 39.49''
Longitude (West):	116.461405 - 116° 27' 41.06''
Universal Tranverse Mercator:	Zone 11
UTM X (Meters):	549868.7
UTM Y (Meters):	3737437.5
Elevation:	332 ft. above sea level

USGS TOPOGRAPHIC MAP

Target Property Map:	5639316 CATHEDRAL CITY, CA
Version Date:	2012

EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

Assessment of the impact of contaminant migration generally has two principal investigative components:

1. Groundwater flow direction, and
2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW DIRECTION INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

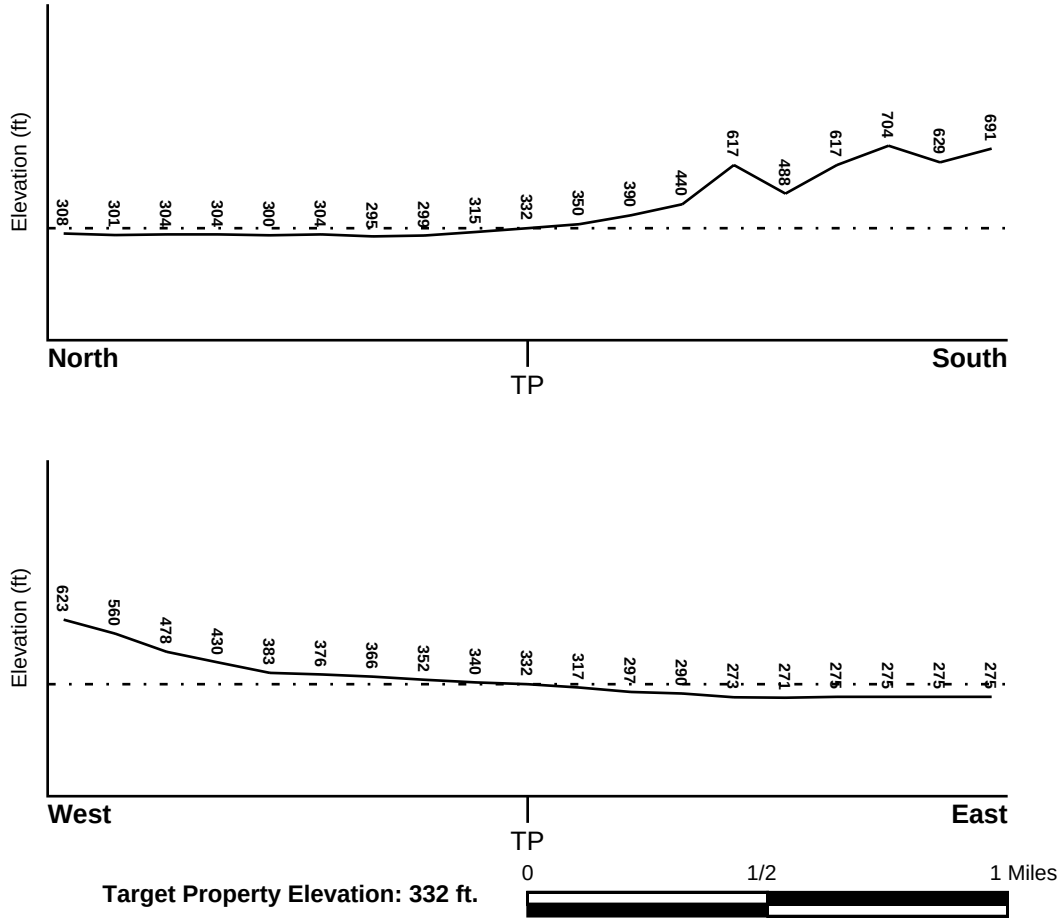
TOPOGRAPHIC INFORMATION

Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

TARGET PROPERTY TOPOGRAPHY

General Topographic Gradient: General NNE

SURROUNDING TOPOGRAPHY: ELEVATION PROFILES



Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

FEMA FLOOD ZONE

Flood Plain Panel at Target Property	FEMA Source Type
06065C1589G	FEMA FIRM Flood data

Additional Panels in search area:	FEMA Source Type
06065C1586G	FEMA FIRM Flood data
06065C1587G	FEMA FIRM Flood data
06065C1588G	FEMA FIRM Flood data

NATIONAL WETLAND INVENTORY

NWI Quad at Target Property	NWI Electronic Data Coverage
CATHEDRAL CITY	YES - refer to the Overview Map and Detail Map

HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Site-Specific Hydrogeological Data*:

Search Radius:	1.25 miles
Status:	Not found

AQUIFLOW®

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

MAP ID	LOCATION FROM TP	GENERAL DIRECTION GROUNDWATER FLOW
Not Reported		

* ©1996 Site−specific hydrogeological data gathered by CERCLIS Alerts, Inc., Bainbridge Island, WA. All rights reserved. All of the information and opinions presented are those of the cited EPA report(s), which were completed under a Comprehensive Environmental Response Compensation and Liability Information System (CERCLIS) investigation.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW VELOCITY INFORMATION

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

ROCK STRATIGRAPHIC UNIT

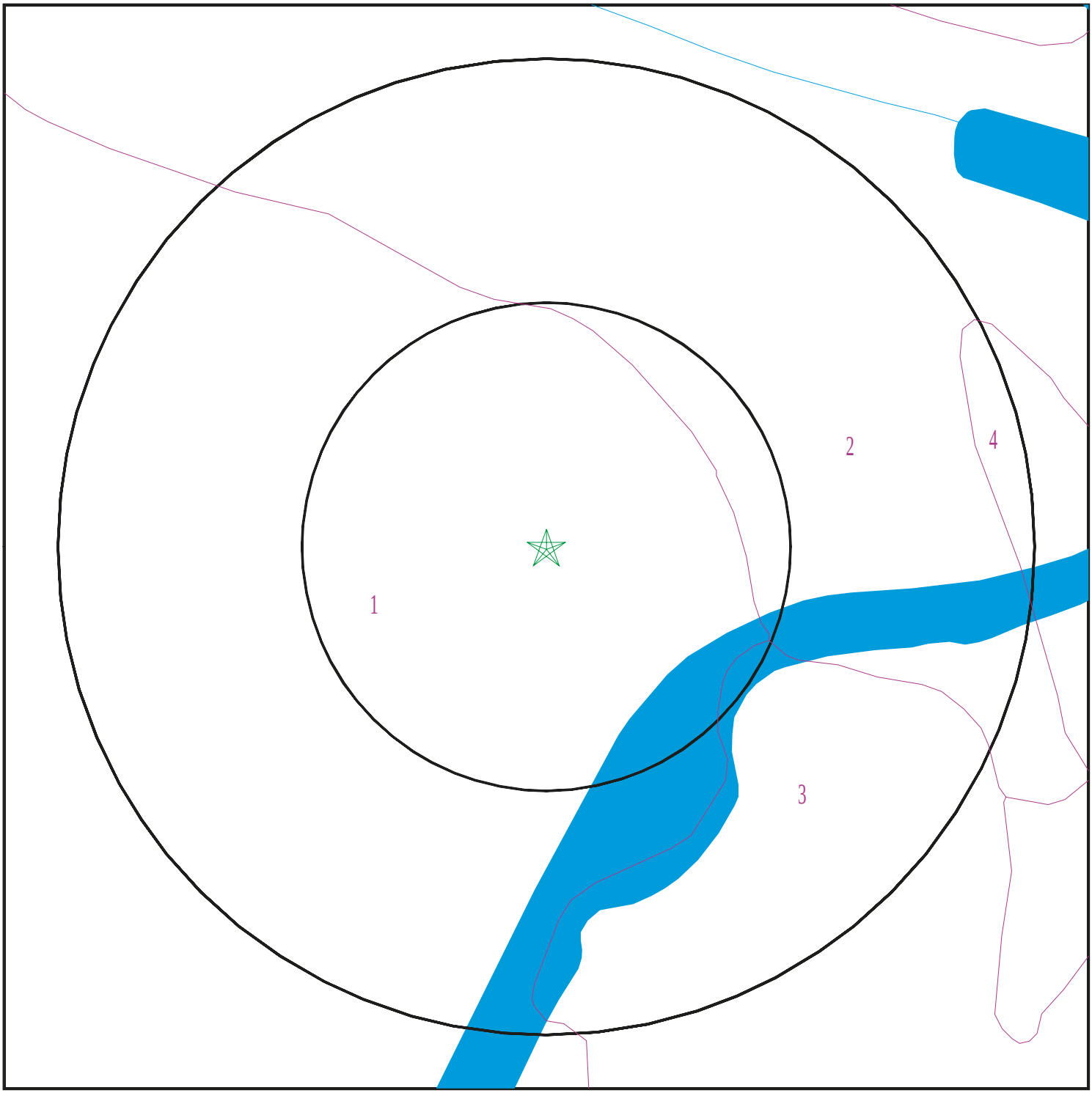
Era:	Cenozoic
System:	Quaternary
Series:	Quaternary
Code:	Q *(decoded above as Era, System & Series)*

GEOLOGIC AGE IDENTIFICATION

Category: Stratifed Sequence

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

SSURGO SOIL MAP - 5208224.2s



Target Property
SSURGO Soil
Water

0 1/16 1/8 1/4 Miles

N

SITE NAME:	South Site	CLIENT:	ANALYTICAL ENVIRONMENTAL SERVICES
ADDRESS:	E PALM CANYON DR Cathedral City CA 92234	CONTACT:	Katherine Green
LAT/LONG:	33.777635 / 116.461405	INQUIRY #:	5208224.2s
		DATE:	March 05, 2018 1:54 pm

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GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. The following information is based on Soil Conservation Service SSURGO data.

Soil Map ID: 1

Soil Component Name: Carsitas

Soil Surface Texture: cobbly sand

Hydrologic Group: Class A - High infiltration rates. Soils are deep, well drained to excessively drained sands and gravels.

Soil Drainage Class: Excessively drained

Hydric Status: Partially hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	9 inches	cobbly sand	Granular materials (35 pct. or less passing No. 200), Stone Fragments, Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Clean Sands, Poorly graded sand.	Max: 141 Min: 42	Max: 8.4 Min: 7.9
2	9 inches	59 inches	gravelly sand	Granular materials (35 pct. or less passing No. 200), Stone Fragments, Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Clean Sands, Poorly graded sand.	Max: 141 Min: 42	Max: 8.4 Min: 7.9

Soil Map ID: 2

Soil Component Name: Carsitas

Soil Surface Texture: gravelly sand

Hydrologic Group: Class A - High infiltration rates. Soils are deep, well drained to excessively drained sands and gravels.

Soil Drainage Class: Excessively drained

Hydric Status: Partially hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information

	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	9 inches	gravelly sand	Granular materials (35 pct. or less passing No. 200), Stone Fragments, Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Clean Sands, Poorly graded sand.	Max: 141 Min: 42	Max: 8.4 Min: 7.9
2	9 inches	59 inches	gravelly sand	Granular materials (35 pct. or less passing No. 200), Stone Fragments, Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Clean Sands, Poorly graded sand.	Max: 141 Min: 42	Max: 8.4 Min: 7.9

Soil Map ID: 3

Soil Component Name: Rock outcrop

Soil Surface Texture: unweathered bedrock

Hydrologic Group: Class D - Very slow infiltration rates. Soils are clayey, have a high water table, or are shallow to an impervious layer.

Soil Drainage Class:

Hydric Status: Partially hydric

Corrosion Potential - Uncoated Steel: Not Reported

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	59 inches	unweathered bedrock	Not reported	Not reported	Max: 141 Min: 0.07	Max: Min:

Soil Map ID: 4

Soil Component Name: Coachella

Soil Surface Texture: fine sand

Hydrologic Group: Class A - High infiltration rates. Soils are deep, well drained to excessively drained sands and gravels.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	11 inches	fine sand	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 14	Max: 8.4 Min: 7.9

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
2	11 inches	59 inches	sand	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 14	Max: 8.4 Min: 7.9

LOCAL / REGIONAL WATER AGENCY RECORDS

EDR Local/Regional Water Agency records provide water well information to assist the environmental professional in assessing sources that may impact ground water flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

WELL SEARCH DISTANCE INFORMATION

DATABASE	SEARCH DISTANCE (miles)
Federal USGS	1.000
Federal FRDS PWS	Nearest PWS within 0.001 miles
State Database	1.000

FEDERAL USGS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
1	USGS40000138127	1/4 - 1/2 Mile NW
B5	USGS40000138157	1/2 - 1 Mile NNW
B6	USGS40000138168	1/2 - 1 Mile NNW
C7	USGS40000138173	1/2 - 1 Mile NNW

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
No PWS System Found		

Note: PWS System location is not always the same as well location.

STATE DATABASE WELL INFORMATION

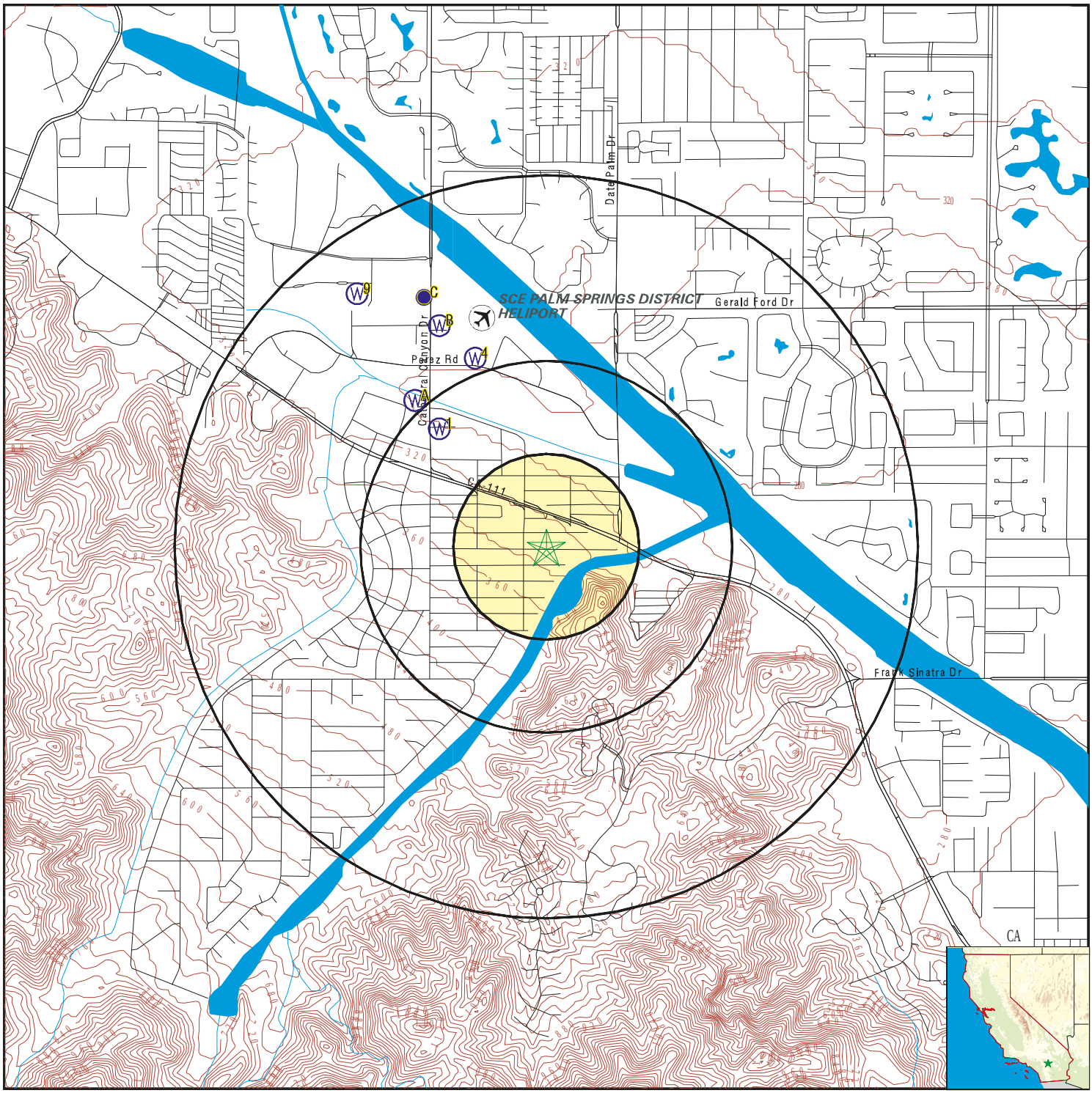
MAP ID	WELL ID	LOCATION FROM TP

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

STATE DATABASE WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
A2	4871	1/2 - 1 Mile NW
A3	4873	1/2 - 1 Mile NW
4	CADW60000005515	1/2 - 1 Mile NNW
C8	4872	1/2 - 1 Mile NNW
9	4870	1/2 - 1 Mile NW

PHYSICAL SETTING SOURCE MAP - 5208224.2s



- County Boundary
- Major Roads
- Contour Lines
- Earthquake Fault Lines
- Airports
- Earthquake epicenter, Richter 5 or greater
- Water Wells
- Public Water Supply Wells
- Cluster of Multiple Icons
- Groundwater Flow Direction
- GI Indeterminate Groundwater Flow at Location
- GV Groundwater Flow Varies at Location
- HD Closest Hydrogeological Data
- Oil, gas or related wells

SITE NAME:	South Site	CLIENT:	ANALYTICAL ENVIRONMENTAL SERVICES
ADDRESS:	E PALM CANYON DR Cathedral City CA 92234	CONTACT:	Katherine Green
LAT/LONG:	33.777635 / 116.461405	INQUIRY #:	5208224.2s
		DATE:	March 05, 2018 1:53 pm

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GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

1
NW
1/4 - 1/2 Mile
Lower

FED USGS **USGS40000138127**

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-334656116275601		
Monloc name:	004S005E33G001S		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	18100200	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	33.7822425
Longitude:	-116.4664023	Sourcemap scale:	Not Reported
Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	287.00
Vert measure units:	feet	Vertacc measure val:	20
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Basin and Range basin-fill aquifers		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	Not Reported	Welldepth:	435
Welldepth units:	ft	Wellholedepth:	494
Wellholedepth units:	ft		

Ground-water levels, Number of Measurements: 0

A2
NW
1/2 - 1 Mile
Lower

CA WELLS **4871**

Water System Information:

Prime Station Code:	04S/05E-33B01 S	User ID:	WAT
FRDS Number:	3310005035	County:	Riverside
District Number:	14	Station Type:	WELL/AMBNT/MUN/INTAKE/SUPPLY
Water Type:	Well/Groundwater	Well Status:	Abandoned
Source Lat/Long:	334700.0 1162800.0	Precision:	Undefined
Source Name:	WELL C-3 - ABANDONED		
System Number:	3310005		
System Name:	DESERT WATER AGENCY		
Organization That Operates System:			
	P.O. DRAWER 1710		
	PALM SPRINGS, CA 92263		
Pop Served:	63010	Connections:	18731
Area Served:	PALM SPRINGS AND VICINITY		

A3
NW
1/2 - 1 Mile
Lower

CA WELLS **4873**

Water System Information:

Prime Station Code:	04S/05E-33G01 S	User ID:	WAT
FRDS Number:	3310005036	County:	Riverside
District Number:	14	Station Type:	WELL/AMBNT/MUN/INTAKE/SUPPLY
Water Type:	Well/Groundwater	Well Status:	Monitoring Well
Source Lat/Long:	334700.0 1162800.0	Precision:	Undefined
Source Name:	WELL C-4 - MONITORING		
System Number:	3310005		
System Name:	DESERT WATER AGENCY		
Organization That Operates System:			
	P.O. DRAWER 1710		
	PALM SPRINGS, CA 92263		
Pop Served:	63010	Connections:	18731
Area Served:	PALM SPRINGS AND VICINITY		

4
NNW **CA WELLS** **CADW60000005515**
1/2 - 1 Mile
Lower

Objectid:	5515
Latitude:	33.785
Longitude:	-116.464722
Site code:	337850N1164647W001
State well numbe:	04S05E33B004S
Local well name:	'Well 19'
Well use id:	4
Well use descrip:	Residential
County id:	33
County name:	Riverside
Basin code:	'7-21.01'
Basin desc:	Indio
Dwr region id:	80238
Dwr region:	Southern Region Office
Site id:	CADW60000005515

B5
NNW **FED USGS** **USGS40000138157**
1/2 - 1 Mile
Lower

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-334709116275601		
Monloc name:	004S005E33B002S		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	18100200	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	33.7858535
Longitude:	-116.4664022	Sourcemap scale:	Not Reported
Horiz Acc measure:	Unknown	Horiz Acc measure units:	Unknown
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	305.00
Vert measure units:	feet	Vertacc measure val:	10
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Basin and Range basin-fill aquifers		
Formation type:	Not Reported		

Aquifer type:	Not Reported		
Construction date:	Not Reported	Welldepth:	Not Reported
Welldepth units:	Not Reported	Wellholedepth:	Not Reported
Wellholedepth units:	Not Reported		

Ground-water levels, Number of Measurements: 0

B6
NNW **FED USGS** **USGS40000138168**
1/2 - 1 Mile
Lower

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-334712116275601		
Monloc name:	004S005E33B001S		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	18100200	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	33.7866868
Longitude:	-116.4664022	Sourcemap scale:	Not Reported
Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	302.00
Vert measure units:	feet	Vertacc measure val:	20
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Basin and Range basin-fill aquifers		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	Not Reported	Welldepth:	288
Welldepth units:	ft	Wellholedepth:	342
Wellholedepth units:	ft		

Ground-water levels, Number of Measurements: 0

C7
NNW **FED USGS** **USGS40000138173**
1/2 - 1 Mile
Lower

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-334714116275701		
Monloc name:	004S005E33B004S		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	18100200	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	33.7872423
Longitude:	-116.46668	Sourcemap scale:	24000
Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	Not Reported
Vert measure units:	Not Reported	Vertacc measure val:	Not Reported
Vert accmeasure units:	Not Reported		
Vertcollection method:	Not Reported		
Vert coord refsys:	Not Reported	Countrycode:	US
Aquifername:	Basin and Range basin-fill aquifers		
Formation type:	Not Reported		

Aquifer type:	Not Reported		
Construction date:	Not Reported	Welldepth:	843
Welldepth units:	ft	Wellholedepth:	843
Wellholedepth units:	ft		

Ground-water levels, Number of Measurements: 0

C8
NNW **CA WELLS** **4872**
1/2 - 1 Mile
Lower

Water System Information:

Prime Station Code:	04S/05E-33B03 S	User ID:	WAT
FRDS Number:	3310005021	County:	Riverside
District Number:	14	Station Type:	WELL/AMBNT
Water Type:	Well/Groundwater	Well Status:	Standby Untreated
Source Lat/Long:	334715.0 1162800.0	Precision:	100 Feet (one Second)
Source Name:	WELL 19 - STANDBY		
System Number:	3310005		
System Name:	DESERT WATER AGENCY		
Organization That Operates System:			
	P.O. DRAWER 1710		
	PALM SPRINGS, CA 92263		
Pop Served:	63010	Connections:	18731
Area Served:	PALM SPRINGS AND VICINITY		
Sample Collected:	11-SEP-07	Findings:	20. C
Chemical:	SOURCE TEMPERATURE C		

9
NW **CA WELLS** **4870**
1/2 - 1 Mile
Lower

Water System Information:

Prime Station Code:	04S/05E-29R01 S	User ID:	WAT
FRDS Number:	3310005016	County:	Riverside
District Number:	14	Station Type:	WELL/AMBNT/MUN
Water Type:	Well/Groundwater	Well Status:	Destroyed
Source Lat/Long:	334715.0 1162810.0	Precision:	100 Feet (one Second)
Source Name:	WELL 12 - DESTROYED		
System Number:	3310005		
System Name:	DESERT WATER AGENCY		
Organization That Operates System:			
	P.O. DRAWER 1710		
	PALM SPRINGS, CA 92263		
Pop Served:	63010	Connections:	18731
Area Served:	PALM SPRINGS AND VICINITY		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS
RADON

AREA RADON INFORMATION

State Database: CA Radon

Radon Test Results

Zipcode	Num Tests	> 4 pCi/L
92234	11	0

Federal EPA Radon Zone for RIVERSIDE County: 2

Note: Zone 1 indoor average level > 4 pCi/L.
: Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.
: Zone 3 indoor average level < 2 pCi/L.

Federal Area Radon Information for Zip Code: 92234

Number of sites tested: 1

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	0.000 pCi/L	100%	0%	0%
Living Area - 2nd Floor	0.800 pCi/L	100%	0%	0%
Basement	Not Reported	Not Reported	Not Reported	Not Reported

PHYSICAL SETTING SOURCE RECORDS SEARCHED

TOPOGRAPHIC INFORMATION

USGS 7.5' Digital Elevation Model (DEM)
Source: United States Geologic Survey
EDR acquired the USGS 7.5' Digital Elevation Model in 2002 and updated it in 2006. The 7.5 minute DEM corresponds to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps. The DEM provides elevation data with consistent elevation units and projection.

Current USGS 7.5 Minute Topographic Map
Source: U.S. Geological Survey

HYDROLOGIC INFORMATION

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.
Source: FEMA
Telephone: 877-336-2627
Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetland Inventory
Source: Department of Fish & Game
Telephone: 916-445-0411

HYDROGEOLOGIC INFORMATION

AQUIFLOW^{R} Information System
Source: EDR proprietary database of groundwater flow information
EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

GEOLOGIC INFORMATION

Geologic Age and Rock Stratigraphic Unit
Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

STATSGO: State Soil Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)
The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

SSURGO: Soil Survey Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)
Telephone: 800-672-5559
SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Service, mapping scales generally range from 1:12,000 to 1:63,360. Field mapping methods using national standards are used to construct the soil maps in the Soil Survey Geographic (SSURGO) database. SSURGO digitizing duplicates the original soil survey maps. This level of mapping is designed for use by landowners, townships and county natural resource planning and management.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

LOCAL / REGIONAL WATER AGENCY RECORDS

FEDERAL WATER WELLS

PWS: Public Water Systems
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

PWS ENF: Public Water Systems Violation and Enforcement Data
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

USGS Water Wells: USGS National Water Inventory System (NWIS)
This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

STATE RECORDS

Water Well Database
Source: Department of Water Resources
Telephone: 916-651-9648

California Drinking Water Quality Database
Source: Department of Public Health
Telephone: 916-324-2319
The database includes all drinking water compliance and special studies monitoring for the state of California since 1984. It consists of over 3,200,000 individual analyses along with well and water system information.

OTHER STATE DATABASE INFORMATION

California Oil and Gas Well Locations
Source: Department of Conservation
Telephone: 916-323-1779
Oil and Gas well locations in the state.

RADON

State Database: CA Radon
Source: Department of Health Services
Telephone: 916-324-2208
Radon Database for California

Area Radon Information
Source: USGS
Telephone: 703-356-4020
The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

EPA Radon Zones
Source: EPA
Telephone: 703-356-4020
Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

OTHER

Airport Landing Facilities: Private and public use landing facilities
Source: Federal Aviation Administration, 800-457-6656

Epicenters: World earthquake epicenters, Richter 5 or greater
Source: Department of Commerce, National Oceanic and Atmospheric Administration

California Earthquake Fault Lines: The fault lines displayed on EDR's Topographic map are digitized quaternary fault lines, prepared in 1975 by the United State Geological Survey. Additional information (also from 1975) regarding activity at specific fault lines comes from California's Preliminary Fault Activity Map prepared by the California Division of Mines and Geology.

STREET AND ADDRESS INFORMATION

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SOUTH SITE – SANBORN MAP REPORT

South Site

E PALM CANYON DR

Cathedral City, CA 92234

Inquiry Number: 5208224.3

March 05, 2018

Certified Sanborn® Map Report

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

Certified Sanborn® Map Report

03/05/18

Site Name:

South Site
E PALM CANYON DR
Cathedral City, CA 92234
EDR Inquiry # 5208224.3

Client Name:

ANALYTICAL ENVIRONMENTAL SERVI(
1801 7th Street
Sacramento, CA 95811
Contact: Katherine Green

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PO # NA

Project Agua Caliente

UNMAPPED PROPERTY

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- ✓ Library of Congress
- ✓ University Publications of America
- ✓ EDR Private Collection

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APPENDIX N

AIR QUALITY INPUTS AND OUTPUT FILES

CalEEMod Input Tables

CalEEMod Inputs Alternative A

Agua Caliente Cathedral City FTT Casino Project

Project-Specific Inputs for the Agua Caliente Cathedral City FTT Casino Project

Input	Type of Input	Project Specific Inputs	
		Inputs	Source/Notes
Project Name	Project Name	Agua Caliente Cathedral City FTT Casino Project – Alternative A	Project Description
Project Location	County	Riverside County	Modeler, based on location
Climate zone	Climate Zone Number	10	Appendix F of CalEEMod User Guide Climate Zones Lookup
Land Use Setting	Urban or Rural	Urban	Modeler, based on proximity of project site to airport and Tulare
Start of Construction	Date	June 1, 2018	Based on an 18 month construction schedule and an opening date in 2020.
Operational Year	1st year of operation after full buildout.	2020	Appendix TIS
Utility Company	Utility Company Name	Southern California Edison	CEC, 2015
Land Use Type and Subtype	Residential, Commercial, Recreation, etc.	See **Table 1.**	See **Table 1.**
Unit Amount	Size of Buildings or Number of units for each Land Use Type.	See **Table 1.**	See **Table 1.**
Lot Acreage	Acreage of each Land Use Type	See **Table 1.**	See **Table 1.**
Population	Population based on persons/household	See **Table 1.**	See **Table 1.**
Construction Phases	Type of construction phase (Demo, Site Prep, etc.) and beginning and ending dates	See **Table 2.**	See **Table 2.**
Off-Road Equipment	Type of equipment (Excavator, Dozer, etc.) and number of units per construction phase	See **Table 2.**	See **Table 2.**
Demolition	Sq ft or tons of Demo	--	--
Construction Trip Gen Rate	Average number of one-way trips per day	See **Table 2.**	See **Table 2.**
Operational Trip Reductions	% reduction in trips.	60% internal capture rate	Traffic Impact Analysis for Agua Caliente Casino (Appendix TIS)

Input	Type of Input	Project Specific Inputs	
		Inputs	**Source/Notes**
Operational Trip Gen Rate and trip length	Trips and trip lengths	See **Table 3**.	See **Table 3**.
Area Sources	Hearths – # of wood-burning fireplaces, #of gas fireplaces, and # of units with no fireplace.	Not Applicable	No hearths are included in the project design.
	Landscape Equipment - % of equipment that is electric.	--	--
Energy Use	Project Specific Emission Factors.	See **Table 4**.	See **Table 4**.
Water and Wastewater	Indoor and outdoor water use for each Land Use Subtype in gallons per year.	See **Table 1.**	Water demand based on like projects and scaled by square footage
Solid waste	Tons of solid waste generated per year	375.95 tons/year	Section 4.9 of the EA
	Land Fill Gas Capture Rate	94%	CARB Mandatory Reporting Regulation Guidance
Operational off-road equipment	Excavator, Dozer, etc.	--	--
Stationary Sources	Emergency Generators/Fire Pumps	Three 2,923 Horsepower emergency gen/sets operating 30 hours per year Three 0.5 MMBtu/hr CNG boilers	Based on like project emergency gen/set size and use.
Land Use Change	Vegetation land use type (cropland, etc.) and initial and final acreage	--	--
Sequestration	Type and net number of new trees added	--	--

Source: CalEEMod Version 2016.3.2; AES, 2018.

Project–Mitigation Inputs for the Agua Caliente Cathedral City FTT Casino Project

Mitigation Input Category	CAPCOA Mitigation Number	Include in Model? (yes/no)	Type of Input / Unit	Project Specific Inputs	
				Inputs	Source/Notes
Off-Road Equipment	C-1	Yes	Engine Type, DPF Level, and Oxidation Catalyst	See **Table 5.**	See **Table 5.**
Soil Stabilizer for Unpaved Roads	N/A	Yes	PM10 (% Reduction)	10%	Default % Reduction.
	N/A		PM2.5 (% Reduction)	10%	Default % Reduction.
Water Exposed Area	N/A	Yes	Frequency (per day)	2 times per day	Default % Reduction
	N/A		PM10 (% Reduction)	55%	Default % Reduction.
	N/A		PM2.5 (% Reduction)	55%	Default % Reduction.
Replace Ground Cover of Area Disturbed	N/A	No	PM10 (% Reduction)	--	--
	N/A		PM2.5 (% Reduction)	--	--
Unpaved Road Mitigation	N/A	No	Moisture Content (%)	--	--
	N/A	Yes	Vehicle Speed (mph)	15 mph	--
Type of Residential	N/A	No	Type of Residential	--	--
Increased Density	LUT-1	No	Dwelling Units/Acre	--	--
			Job/Job Acre	--	--
Increased Diversity	LUT-3	No	Yes or No	--	--
Improved Walkability Design	LUT-9	No	Intersections/Square Miles	--	--
Improve Destination Accessibility	LUT-4	No	Distance to Downtown/Job Ctr	--	--
Increased Transit Accessibility	LUT-5	No	Average Distance to Transit Station (miles)	--	--
Integrated Below Market Rate Housing	LUT-6	No	# Dwelling Units Below Market Rate	--	--
Improve Pedestrian Network	SDT-1	No	Yes or No; Project Site, Project Site and Connecting off-site, and Rural	--	--

Mitigation Input Category	CAPCOA Mitigation Number	Include in Model? (yes/no)	Type of Input / Unit	Project Specific Inputs	
				Inputs	Source/Notes
Provide Traffic Calming Measures	SDT-2	No	% Streets with Improvement	--	--
		No	% Intersections with Improvement	--	--
Implement Neighborhood Electric Vehicle (NEV) Network	SDT-3	No	% of streets equipped with NEV network.	--	--
Limit Parking Supply	PDT-1	No	% Reduction in Spaces	--	--
Unbundled Parking Costs	PDT-2	No	Monthly Parking Costs ($)	--	--
On-Street Market Pricing	PDT-3	No	% Increase in Price	--	--
Provide a Bus Rapid Transit System	TST-1	No	% Lines BRT	--	--
Expand Transit Network	TST-3	No	% Increase Transit Coverage	--	--
Increase Transit Frequency	TST-4	No	Level of Implementation	--	--
		No	% Reduction in Headways	--	--
Implement Trip Reduction Program	TRT-1, TRT-2	No	% employee eligible	--	--
		No	Program Type	--	--
Transit Subsidy	TRT-4	No	% employee eligible	--	--
		No	Daily Transit Subsidy Amount ($)	--	--
Implement Employee Parking "Cash-Out"	TRT-15	No	% employee eligible	--	--
Workplace Parking Charge	TRT-14	No	% employee eligible	--	--
		No	Daily Parking Charge ($)	--	--

Mitigation Input Category	CAPCOA Mitigation Number	Include in Model? (yes/no)	Type of Input / Unit	Project Specific Inputs	
				Inputs	Source/Notes
Encourage Telecommuting and Alternative Work Schedules	TRT-6	No	% employee work 9/80	--	--
		No	% employee work 4/40	--	--
		No	% employee telecommute 1.5 days	--	--
Market Commute Trip Reduction Option	TRT-7	No	% employee eligible	--	--
Employee Vanpool/Shuttle	TRT-11	No	% employee eligible	--	--
		No	% vanpool mode share	--	--
Provide Ride Sharing Program	TRT-3	No	% employee eligible	--	--
Implement School Bus Program	TRT-13	No	% family using	--	--
Only Natural Gas Hearth	N/A	No	Yes or No	--	--
No hearth	N/A	No	Yes or No	--	--
Use of Low VOC Cleaning Supplies	N/A	No	Yes or No	--	--
Use low VOC Paint (Residential Interior)	N/A	Yes	Emission Factor (EF) (g/l)	--	--
Use low VOC Paint (Residential Exterior)	N/A	Yes	EF (g/l)	--	--
Use low VOC Paint (Non-residential Interior)	N/A	Yes	EF (g/l)	100	MDAQMD Rule 1113 Architectural Coatings (based on Nonflat Coating)

Mitigation Input Category	CAPCOA Mitigation Number	Include in Model? (yes/no)	Type of Input / Unit	Project Specific Inputs	
				Inputs	Source/Notes
Use low VOC Paint (Non-residential Exterior)	N/A	Yes	EF (g/l)	100	MDAQMD Rule 1113 Architectural Coatings (based on Nonflat Coating)
Electric Lawnmower	A-1	No	Percent of equipment type that will be electric.	--	--
Electric Leafblower	A-1	No	Percent of equipment type that will be electric.	--	--
Electric Chainsaw	A-1	No	Percent of equipment type that will be electric.	--	--
Exceed Title 24	BE-1	No	Percentage improvement selected for the Project.	--	--
Install High Efficiently Lighting	LE-1	Yes	% Lighting Energy Reduction	16	Default % reduction assuming implementation of Recommended Mitigation
On-site Renewable Energy	AE-1, AE-2, AE-3	No	kWh Generated	--	--
		No	% of Electricity Use Generated	--	--
Energy Efficient Appliances	BE-4	Yes	Appliance Type, Land Use Subtype, % Improvement	--	--
Apply Water Conservation Strategy	WUW-2	No	% Reduction Indoor	--	--
		No	% Reduction Outdoor	--	--
Use Reclaimed Water	WSW-1	No	% Indoor Water Use	--	--
		No	% Outdoor Water Use	--	--
Use Grey Water	WSW-2	No	% Indoor Water Use	--	--
		No	% Outdoor Water Use	--	--
Install Low-Flow Bathroom Faucet	WUW-1	Yes	% Reduction in flow	32%	Default % reduction assuming implementation of Recommended Mitigation
Install Low-flow Kitchen Faucet	WUW-1	Yes	% Reduction in flow	18%	Default % reduction assuming implementation of Recommended Mitigation.
Install Low-flow Toilet	WUW-1	Yes	% Reduction in flow	20%	Default % reduction assuming implementation of Recommended Mitigation

Mitigation Input Category	CAPCOA Mitigation Number	Include in Model? (yes/no)	Type of Input / Unit	Project Specific Inputs	
				Inputs	Source/Notes
Install Low-flow Shower	WUW-1	Yes	% Reduction in flow	20%	Default % reduction assuming implementation of Recommended Mitigation
Turf Reduction	WUW-5	No	Turf Reduction Area (sqft)	--	--
		No	% Reduction turf	--	--
Use Water-Efficient Irrigation Systems	WUW-4	No	% Reduction	--	--
Water Efficient Landscape	WUW-3	No	Maximum Applied Water Allowance (MAWA) (gal/yr)	--	--
		No	Estimated Total Water Use (ETWU) (gal/yr)	--	--
Institute Recycling and Composting Service	SW-1	Yes	% Reduction in Waste Disposal over State requirements	50%	The Tribe will use Salton City Landfill's facilities and will divert 50% of waste from the landfill

Source: CalEEMod Version 2016.3.2; AES, 2018.

Table 1 – Land Use Inputs Alternative A

Land Use Type	Land Use Subtype	Unit Amount	Size Metric[1]	Lot Acreage[2]	Square Feet	Population	Indoor Water Demand (gal/yr)[3]	Outdoor Water Demand (gal/yr)[3]
Recreation	User Defined Recreation (Casino - Gaming Floor)	40	TSF	13.68	40,000	0	15,931,489	6,928,889
Retail	Shopping Center	24	TSF	0	24,000	0	Default	Default
Recreational	High-Turnover Sit-Down Restaurant	14	TSF	0	14,000	0	Default	Default
Recreational	Quality Restaurant	14	TSF	0	14,000	0	Default	Default
Recreational	Fast Casual Restaurant	6	TSF	0	6,000	0	Default	Default
Recreational	Coffee/Donut Shop Without Drive-Through Window	2	TSF	0	2,000	0	Default	Default
Parking	Parking Lot	1,000	Spaces	0	Default	0	Default	Default

[1] TSF = Thousand Square Feet
[2] Development of Alternative A would occur on the 13.68-acre North Site; all Retail and Recreational land use acreages are included within the Recreation land use acreage in this analysis. The parking lot acreage is based on CalEEMod defaults for a 1000-space parking lot.
[3] Water demand is based off of similar projects and scaled by square footage.

Table 2 – Construction Equipment Usage

Equipment	Construction Phase Activities				
	Site Preparation	Grading	Construction	Paving	Architectural Coating
	1/1/2019 - 1/14/2019	1/152019 - 2/25/2019	2/26/2019 - 11/5/2019	11/6/2019 - 12/3/2019	12/4/2019 - 12/31/2019
All Equipment	Default	Default	Default	Default	Default
Material Imported[1]	0	91,933 cy	0	0	--
Worker Trips	Default	Default	Default	Default	Default
Haul Trips	Default	Default	Default	Default	Default
Vendor Trips	Default	Default	Default	Default	Default

Source: CalEEMod Version 2016.3.2; AES, 2018.
[1] Based on raw import volumes (MSA Consulting, Inc., 2018a)

Table 3 – Trip Generation Rates

Land Use	Daily Trip Generation Rate[1]	Trip Length (miles)			Trip Type (%)[2]			Trip Purpose (%)		
		C-C	C-W	C-NW	Primary	Diverted	Pass-B	C-C	C-W	C-NW
User Defined Recreation (Casino - Gaming Floor)	93	Default	Default	Default	100	0	0	80	15	5
Shopping Center	36	Default	Default	Default	100	0	0	Default	Default	Default
High-Turnover Sit-Down Restaurant	45.52	Default	Default	Default	100	0	0	Default	Default	Default
Quality Restaurant	17.18	Default	Default	Default	100	0	0	Default	Default	Default
Fast Casual Restaurant	159.63	Default	Default	Default	100	0	0	Default	Default	Default
Coffee/Donut Shop Without Drive-Through Window	287.93	Default	Default	Default	100	0	0	Default	Default	Default
Parking Lot	0	0	0	0	0	0	0	0	0	0

[1] Trip generation rates used in CalEEMod include internal capture trips between retail, restaurant, and casino uses and are based off of the TIS (Appendix TIS). Table 4 shows trip generation rates used in the TIS along with the number of internal capture trips for each land use.
[2] All trip types are assumed to be primary as internal capture trips are included within the trip generation rate.

Table 4 – Trip Generation Rates and Average Daily Trips

Land Use	Size	Units[1]	Trip Generation Rate	Trips per Day	Trip Generation Rate (w/Internal Capture)[2]	Trips per Day (w/Internal Capture)
Casino	40	TSF	93	3,720	93	3,720
Subtotal: Casino				**3,720**		**3,720**
Shopping Center (820)	24	TSF	Fitted Curve[3]	2,278	36	872
Internal Capture (Retail - Restaurant)				*98*		
Internal Capture (Retail - Casino)				*1,308*		
Subtotal: Shopping Center (820)				**872**		**872**
High-Turnover Sit-Down Restaurant (932)	14	TSF	112.18	1,571	45.52	637
Quality Restaurant (931)	14	TSF	83.84	1,174	17.18	241
Fast Casual Restaurant (930)	6	TSF	315.17	1,891	159.63	958
Coffee/Donut Shop Without Drive-Through Window (936)	2	TSF	754.55	1,509	287.93	576
Internal Capture (Restaurant - Retail)				*113*		
Internal Capture (Restaurant - Casino)				*3,620*		
Subtotal: Restaurants (932, 931, 930, 936)				**2,413**		**2,413**
Project Total				**7,005**		**7,005**

[1] TSF = Thousand Square Feet

[2] Trip Generation Rate (w/Internal Capture) indicates reduced trip generation rates that account for the internal capture trips between retail, restaurant, and casino land uses.

[3] The equation of the fitted curve line was used to determine daily trips for the Shopping Center (820) land use; the TIS determined that the fitted curve line more accurately shows the trend in shopping centers than the average rate line. The equation of the fitted curve line is: Ln(T) = 0.68LN(X) + 5.57, where T is equal to the number of trip ends and X is equal to the square feet of the shopping center.

Table 5 – Energy Use

Land Use Subtype	Title-24 Electricity Energy Intensity (KWhr/size/yr)	Nontitle-24 Electricity Energy Intensity (KWhr/size/yr)[1]	Lighting Energy Intensity (KWhr/size/yr)	Title-24 Natural Gas Intensity (KBtu/size/yr)	Non-title-24 Natural Gas Intensity (KBtu/size/yr)[1]
User Defined Recreation (Casino - Gaming Floor)	--	3.37	--	--	560.88
Shopping Center	Default	Default	Default	Default	Default
High-Turnover Sit-Down Restaurant	Default	Default	Default	Default	Default
Quality Restaurant	Default	Default	Default	Default	Default
Fast Casual Restaurant	Default	Default	Default	Default	Default
Coffee/Donut Shop Without Drive-Through Window	Default	Default	Default	Default	Default
Parking Lot	Default	Default	Default	Default	Default

[1] Electricity energy and natural gas intensity determined from similar projects and scaled by square footage.

Table 6 – Off-Road Equipment Mitigation Inputs

Equipment Type	Engine Tier	Number of Equipment Mitigated	Diesel Particulate Filter (DPF) Level 2014
All Equipment	Tier 3	All	Level 3
Scrapers	No Change	0	No Change

Mitigation Measures

- The Tribe shall use Tier 3 construction equipment (with the exception of Tier 3 Scrapers, which are not widely available), using a minimum of 90 percent of the equipment's total horsepower, as well as construction equipment with Level 3 diesel particulate filters (DPF);
- The Tribe shall use soil stabilizer on unpaved roads;
- The Tribe shall apply water to exposed construction areas twice a day;
- The Tribe shall restrict vehicle speeds on the construction site to 15 miles per hour;
- The Tribe shall use energy efficient lighting;
- The Tribe shall use low-flow faucets, toilets, and showers; and
- The Tribe shall use low VOC architectural coatings.

References

Analytical Environmental Services (AES), 2018. *Agua Caliente Cathedral City FTT and Casino Project EA.* May 2018.

California Department of Resources Recycling and Recovery (CalRecycle), 2006. Estimated Solid Waste Generation Rates. Available at: https://www2.calrecycle.ca.gov/WasteCharacterization/General/Rates. Accessed January 31, 2017.

California Energy Commission (CEC), 2015. California Electric Utility Service Areas. Available at: http://www.energy.ca.gov/maps/serviceareas/Electric_Service_Areas_Detail.pdf. Accessed January 31, 2017.

MSA Consulting, Inc, 2018a. Agua Caliente Casino Project Preliminary Earthwork Alternative 1. April 19, 2018.

CalEEMod Inputs Alternative B

Agua Caliente Cathedral City FTT Casino Project

Project-Specific Inputs for the Agua Caliente Cathedral City FTT Casino Project

Input	Type of Input	Project Specific Inputs	
		Inputs	Source/Notes
Project Name	Project Name	Agua Caliente Cathedral City FTT Casino Project – Alternative B	Project Description
Project Location	County	Riverside County	Modeler, based on location
Climate zone	Climate Zone Number	10	Appendix F of CalEEMod User Guide Climate Zones Lookup
Land Use Setting	Urban or Rural	Urban	Modeler, based on proximity of project site to airport and Tulare
Start of Construction	Date	June 1, 2018	Based on an 18 month construction schedule and an opening date in 2020.
Operational Year	1st year of operation after full buildout.	2020	Appendix TIS
Utility Company	Utility Company Name	Southern California Edison	CEC, 2015
Land Use Type and Subtype	Residential, Commercial, Recreation, etc.	See **Table 1.**	See **Table 1.**
Unit Amount	Size of Buildings or Number of units for each Land Use Type.	See **Table 1.**	See **Table 1.**
Lot Acreage	Acreage of each Land Use Type	See **Table 1.**	See **Table 1.**
Population	Population based on persons/household	See **Table 1.**	See **Table 1.**
Construction Phases	Type of construction phase (Demo, Site Prep, etc.) and beginning and ending dates	See **Table 2.**	See **Table 2.**
Off-Road Equipment	Type of equipment (Excavator, Dozer, etc.) and number of units per construction phase	See **Table 2.**	See **Table 2.**
Demolition	Sq ft or tons of Demo	--	--
Construction Trip Gen Rate	Average number of one-way trips per day	See **Table 2.**	See **Table 2.**

Input	Type of Input	Project Specific Inputs	
		Inputs	**Source/Notes**
Operational Trip Reductions	% reduction in trips.	60% internal capture rate	Traffic Impact Analysis for Agua Caliente Casino (Appendix TIS)
Operational Trip Gen Rate and trip length	Trips and trip lengths	See **Table 3**.	See **Table 3**.
Area Sources	Hearths – # of wood-burning fireplaces, #of gas fireplaces, and # of units with no fireplace.	Not Applicable	No hearths are included in the project design.
	Landscape Equipment - % of equipment that is electric.	--	--
Energy Use	Project Specific Emission Factors.	See **Table 4**.	See **Table 4**.
Water and Wastewater	Indoor and outdoor water use for each Land Use Subtype in gallons per year.	See **Table 1.**	Water demand based on like projects and scaled by square footage
Solid waste	Tons of solid waste generated per year	375.95 tons/year	Section 4.9 of the EA
	Land Fill Gas Capture Rate	94%	CARB Mandatory Reporting Regulation Guidance
Operational off-road equipment	Excavator, Dozer, etc.	--	--
Stationary Sources	Emergency Generators/Fire Pumps	Three 2,923 Horsepower emergency gen/sets operating 30 hours per year Three 0.5 MMBtu/hr boilers	Based on like project emergency gen/set size and use.
Land Use Change	Vegetation land use type (cropland, etc.) and initial and final acreage	--	--
Sequestration	Type and net number of new trees added	--	--

Source: CalEEMod Version 2016.3.2; AES, 2018.

Project–Mitigation Inputs for the Agua Caliente Cathedral City FTT Casino Project

Mitigation Input Category	CAPCOA Mitigation Number	Include in Model? (yes/no)	Type of Input / Unit	Project Specific Inputs	
				Inputs	Source/Notes
Off-Road Equipment	C-1	Yes	Engine Type, DPF Level, and Oxidation Catalyst	See **Table 5.**	See **Table 5.**
Soil Stabilizer for Unpaved Roads	N/A	Yes	PM10 (% Reduction)	10%	Default % Reduction.
	N/A		PM2.5 (% Reduction)	10%	Default % Reduction.
Water Exposed Area	N/A	Yes	Frequency (per day)	2 times per day	Default % Reduction
	N/A		PM10 (% Reduction)	55%	Default % Reduction.
	N/A		PM2.5 (% Reduction)	55%	Default % Reduction.
Replace Ground Cover of Area Disturbed	N/A	No	PM10 (% Reduction)	--	--
	N/A		PM2.5 (% Reduction)	--	--
Unpaved Road Mitigation	N/A	No	Moisture Content (%)	--	--
	N/A	Yes	Vehicle Speed (mph)	15 mph	--
Type of Residential	N/A	No	Type of Residential	--	--
Increased Density	LUT-1	No	Dwelling Units/Acre	--	--
			Job/Job Acre	--	--
Increased Diversity	LUT-3	No	Yes or No	--	--
Improved Walkability Design	LUT-9	No	Intersections/Square Miles	--	--
Improve Destination Accessibility	LUT-4	No	Distance to Downtown/Job Ctr	--	--
Increased Transit Accessibility	LUT-5	No	Average Distance to Transit Station (miles)	--	--
Integrated Below Market Rate Housing	LUT-6	No	# Dwelling Units Below Market Rate	--	--

Mitigation Input Category	CAPCOA Mitigation Number	Include in Model? (yes/no)	Type of Input / Unit	Project Specific Inputs	
				Inputs	Source/Notes
Improve Pedestrian Network	SDT-1	No	Yes or No; Project Site, Project Site and Connecting off-site, and Rural	--	--
Provide Traffic Calming Measures	SDT-2	No	% Streets with Improvement	--	--
		No	% Intersections with Improvement	--	--
Implement Neighborhood Electric Vehicle (NEV) Network	SDT-3	No	% of streets equipped with NEV network.	--	--
Limit Parking Supply	PDT-1	No	% Reduction in Spaces	--	--
Unbundled Parking Costs	PDT-2	No	Monthly Parking Costs ($)	--	--
On-Street Market Pricing	PDT-3	No	% Increase in Price	--	--
Provide a Bus Rapid Transit System	TST-1	No	% Lines BRT	--	--
Expand Transit Network	TST-3	No	% Increase Transit Coverage	--	--
Increase Transit Frequency	TST-4	No	Level of Implementation	--	--
		No	% Reduction in Headways	--	--
Implement Trip Reduction Program	TRT-1, TRT-2	No	% employee eligible	--	--
		No	Program Type	--	--
Transit Subsidy	TRT-4	No	% employee eligible	--	--
		No	Daily Transit Subsidy Amount ($)	--	--
Implement Employee Parking “Cash-Out”	TRT-15	No	% employee eligible	--	--
	TRT-14	No	% employee eligible	--	--

Mitigation Input Category	CAPCOA Mitigation Number	Include in Model? (yes/no)	Type of Input / Unit	Project Specific Inputs	
				Inputs	Source/Notes
Workplace Parking Charge		No	Daily Parking Charge ($)	--	--
Encourage Telecommuting and Alternative Work Schedules	TRT-6	No	% employee work 9/80	--	--
		No	% employee work 4/40	--	--
		No	% employee telecommute 1.5 days	--	--
Market Commute Trip Reduction Option	TRT-7	No	% employee eligible	--	--
Employee Vanpool/Shuttle	TRT-11	No	% employee eligible	--	--
		No	% vanpool mode share	--	--
Provide Ride Sharing Program	TRT-3	No	% employee eligible	--	--
Implement School Bus Program	TRT-13	No	% family using	--	--
Only Natural Gas Hearth	N/A	No	Yes or No	--	--
No hearth	N/A	No	Yes or No	--	--
Use of Low VOC Cleaning Supplies	N/A	No	Yes or No	--	--
Use low VOC Paint (Residential Interior)	N/A	Yes	Emission Factor (EF) (g/l)	--	--
Use low VOC Paint (Residential Exterior)	N/A	Yes	EF (g/l)	--	--

Mitigation Input Category	CAPCOA Mitigation Number	Include in Model? (yes/no)	Type of Input / Unit	Project Specific Inputs	
				Inputs	Source/Notes
Use low VOC Paint (Non-residential Interior)	N/A	Yes	EF (g/l)	100	MDAQMD Rule 1113 Architectural Coatings (based on Nonflat Coating)
Use low VOC Paint (Non-residential Exterior)	N/A	Yes	EF (g/l)	100	MDAQMD Rule 1113 Architectural Coatings (based on Nonflat Coating)
Electric Lawnmower	A-1	No	Percent of equipment type that will be electric.	--	--
Electric Leafblower	A-1	No	Percent of equipment type that will be electric.	--	--
Electric Chainsaw	A-1	No	Percent of equipment type that will be electric.	--	--
Exceed Title 24	BE-1	No	Percentage improvement selected for the Project.	--	--
Install High Efficiently Lighting	LE-1	Yes	% Lighting Energy Reduction	16	Default % reduction assuming implementation of Recommended Mitigation
On-site Renewable Energy	AE-1, AE-2, AE-3	No	kWh Generated	--	--
		No	% of Electricity Use Generated	--	--
Energy Efficient Appliances	BE-4	Yes	Appliance Type, Land Use Subtype, % Improvement	Use Default Values	Defaults
Apply Water Conservation Strategy	WUW-2	No	% Reduction Indoor	--	--
		No	% Reduction Outdoor	--	--
Use Reclaimed Water	WSW-1	No	% Indoor Water Use	--	--
		No	% Outdoor Water Use	--	--
Use Grey Water	WSW-2	No	% Indoor Water Use	--	--
		No	% Outdoor Water Use	--	--
Install Low-Flow Bathroom Faucet	WUW-1	Yes	% Reduction in flow	32%	Default % reduction assuming implementation of Recommended Mitigation

Mitigation Input Category	CAPCOA Mitigation Number	Include in Model? (yes/no)	Type of Input / Unit	Project Specific Inputs	
				Inputs	Source/Notes
Install Low-flow Kitchen Faucet	WUW-1	Yes	% Reduction in flow	18%	Default % reduction assuming implementation of Recommended Mitigation.
Install Low-flow Toilet	WUW-1	Yes	% Reduction in flow	20%	Default % reduction assuming implementation of Recommended Mitigation
Install Low-flow Shower	WUW-1	Yes	% Reduction in flow	20%	Default % reduction assuming implementation of Recommended Mitigation
Turf Reduction	WUW-5	No	Turf Reduction Area (sqft)	--	--
		No	% Reduction turf	--	--
Use Water-Efficient Irrigation Systems	WUW-4	No	% Reduction	--	--
Water Efficient Landscape	WUW-3	No	Maximum Applied Water Allowance (MAWA) (gal/yr)	--	--
		No	Estimated Total Water Use (ETWU) (gal/yr)	--	--
Institute Recycling and Composting Service	SW-1	Yes	% Reduction in Waste Disposal over State requirements	50%	The Tribe will use Salton City Landfill's facilities and will divert 50% of waste from the landfill

Source: CalEEMod Version 2016.3.2; AES, 2018.

Table 1 – Land Use Inputs Alternative B

Land Use Type	Land Use Subtype	Unit Amount	Size Metric[1]	Lot Acreage[2]	Square Feet	Population	Indoor Water Demand (gal/yr)[3]	Outdoor Water Demand (gal/yr)[3]
Recreational	User Defined Recreation (Casino - Gaming Floor)	40	TSF	6.03	40,000	0	15,931,489	6,928,889
Retail	Shopping Center	15.2	TSF	0	15,200	0	Default	Default
Recreational	High-Turnover Sit-Down Restaurant	8.5	TSF	0	8,500	0	Default	Default
Recreational	Quality Restaurant	8.5	TSF	0	8,500	0	Default	Default
Recreational	Fast Casual Restaurant	3.8	TSF	0	3,800	0	Default	Default
Recreational	Coffee/Donut Shop Without Drive-Through Window	2	TSF	0	2,000	0	Default	Default
Parking	Parking Lot	850	Spaces	7.65	Default	0	Default	Default

[1] TSF = Thousand Square Feet
[2] Development of Alternative B would occur on the 13.68-acre North Site; all Retail and Parking land use acreages are included within the Recreation land use acreage in this analysis. The parking lot acreage is based on CalEEMod defaults for an 850-space parking lot.
[3] Water demand is based off of similar projects and scaled by square footage.

Table 2 – Construction Equipment Usage

Equipment	Construction Phase Activities				
	Site Preparation	Grading	Construction	Paving	Architectural Coating
	1/1/2019 - 1/14/2019	1/152019 - 2/25/2019	2/26/2019 - 11/5/2019	11/6/2019 - 12/3/2019	12/4/2019 - 12/31/2019
All Equipment	Default	Default	Default	Default	Default
Material Imported[1]	0	72,653 cy	0	0	--
Worker Trips	Default	Default	Default	Default	Default
Haul Trips	Default	Default	Default	Default	Default
Vendor Trips	Default	Default	Default	Default	Default

Source: CalEEMod Version 2016.3.2; AES, 2018.
[1] Based on raw import volumes (MSA Consulting, Inc., 2018b)

Table 3 – Trip Generation Rates

Land Use	Daily Trip Generation Rate[1]	Trip Length (miles)			Trip Type (%)[2]			Trip Purpose (%)		
		C-C	C-W	C-NW	Primary	Diverted	Pass-B	C-C	C-W	C-NW
User Defined Recreation (Casino - Gaming Floor)	93	Default	Default	Default	100	0	0	80	15	5
Shopping Center	42	Default	Default	Default	100	0	0	Default	Default	Default
High-Turnover Sit-Down Restaurant	33.97	Default	Default	Default	100	0	0	Default	Default	Default
Quality Restaurant	5.63	Default	Default	Default	100	0	0	Default	Default	Default
Fast Casual Restaurant	140.24	Default	Default	Default	100	0	0	Default	Default	Default
Coffee/Donut Shop Without Drive-Through Window	422.24	Default	Default	Default	100	0	0	Default	Default	Default
Parking Lot	0	0	0	0	0	0	0	0	0	0

[1] Trip generation rates used in CalEEMod include internal capture trips between retail, restaurant, and casino uses and are based off of the TIS (Appendix TIS). Table 4 shows trip generation rates used in the TIS along with the number of internal capture trips for each land use.
[2] All trip types are assumed to be primary as internal capture trips are included within the trip generation rate.

Table 4 – Trip Generation Rates and Average Daily Trips

Land Use	Size	Units[1]	Trip Generation Rate	Trips per Day	Trip Generation Rate (w/Internal Capture)[2]	Trips per Day (w/Internal Capture)
Casino	40	TSF	93	3,720	93	3,720
Subtotal: Casino				**3,720**		**3,720**
Shopping Center (820)	15.2	TSF	Fitted Curve[3]	1,670	41.96	638
Internal Capture (Retail - Restaurant)				*75*		
Internal Capture (Retail - Casino)				*957*		
Subtotal: Shopping Center (820)				**638**		**638**
High-Turnover Sit-Down Restaurant (932)	8.5	TSF	112.18	954	34.03	289
Quality Restaurant (931)	8.5	TSF	83.84	713	5.68	48
Fast Casual Restaurant (930)	3.8	TSF	315.17	1,198	140.33	533
Coffee/Donut Shop Without Drive-Through Window (936)	2	TSF	754.55	1,510	422.63	845
Internal Capture (Restaurant - Retail)				*84*		
Internal Capture (Restaurant - Casino)				*2575*		
Subtotal: Restaurants (932, 931, 930, 936)				**1,716**		**1,716**
Project Total				**6,074**		**6,074**

[1] TSF = Thousand Square Feet

[2] Trip Generation Rate (w/Internal Capture) indicates reduced trip generation rates that account for the internal capture trips between retail, restaurant, and casino land uses.

[3] The equation of the fitted curve line was used to determine daily trips for the Shopping Center (820) land use; the TIS determined that the fitted curve line more accurately shows the trend in shopping centers than the average rate line. The equation of the fitted curve line is: Ln(T) = 0.68LN(X) + 5.57, where T is equal to the number of trip ends and X is equal to the square feet of the shopping center.

Table 5 – Energy Use

Land Use Subtype	Title-24 Electricity Energy Intensity (KWhr/size/yr)	Nontitle-24 Electricity Energy Intensity (KWhr/size/yr)[1]	Lighting Energy Intensity (KWhr/size/yr)	Title-24 Natural Gas Intensity (KBtu/size/yr)	Non-title-24 Natural Gas Intensity (KBtu/size/yr)[1]
User Defined Recreation (Casino - Gaming Floor)	--	3.37	--	--	560.88
Shopping Center	Default	Default	Default	Default	Default
High-Turnover Sit-Down Restaurant	Default	Default	Default	Default	Default
Quality Restaurant	Default	Default	Default	Default	Default
Fast Casual Restaurant	Default	Default	Default	Default	Default
Coffee/Donut Shop Without Drive-Through Window	Default	Default	Default	Default	Default
Parking Lot	Default	Default	Default	Default	Default

[1] Electricity energy and natural gas intensity determined from similar projects and scaled by square footage.

Table 6 – Off-Road Equipment Mitigation Inputs

Equipment Type	Engine Tier	Number of Equipment Mitigated	Diesel Particulate Filter (DPF) Level 2014
All Equipment	Tier 3	All	Level 3
Scrapers	No Change	0	No Change

Mitigation Measures

- The Tribe shall use Tier 3 construction equipment (with the exception of Tier 3 Scrapers, which are not widely available), using a minimum of 90 percent of the equipment's total horsepower, as well as construction equipment with Level 3 diesel particulate filters (DPF);
- The Tribe shall use soil stabilizer on unpaved roads;
- The Tribe shall apply water to exposed construction areas twice a day;
- The Tribe shall restrict vehicle speeds on the construction site to 15 miles per hour;
- The Tribe shall use energy efficient lighting;
- The Tribe shall use low-flow faucets, toilets, and showers; and
- The Tribe shall use low VOC architectural coatings.

References

Analytical Environmental Services (AES), 2018. *Agua Caliente Cathedral City FTT and Casino Project EA.* May 2018.

California Department of Resources Recycling and Recovery (CalRecycle), 2006. Estimated Solid Waste Generation Rates. Available at: https://www2.calrecycle.ca.gov/WasteCharacterization/General/Rates. Accessed January 31, 2017.

California Energy Commission (CEC), 2015. California Electric Utility Service Areas. Available at: http://www.energy.ca.gov/maps/serviceareas/Electric_Service_Areas_Detail.pdf. Accessed January 31, 2017.

MSA Consulting, Inc, 2018b. Agua Caliente Casino Project Preliminary Earthwork Alternative 2. April 19, 2018.

CalEEMod Inputs Alternative C

Agua Caliente Cathedral City FTT Casino Project

Project-Specific Inputs for the Agua Caliente Cathedral City FTT Casino Project

Input	Type of Input	Project Specific Inputs	
		Inputs	Source/Notes
Project Name	Project Name	Agua Caliente Cathedral City FTT Casino Project – Alternative C	Project Description
Project Location	County	Riverside County	Modeler, based on location
Climate zone	Climate Zone Number	10	Appendix F of CalEEMod User Guide Climate Zones Lookup
Land Use Setting	Urban or Rural	Urban	Modeler, based on proximity of project site to airport and Tulare
Start of Construction	Date	June 1, 2018	Based on an 18 month construction schedule and an opening date in 2020.
Operational Year	1st year of operation after full buildout.	2020	Appendix TIS
Utility Company	Utility Company Name	Southern California Edison	CEC, 2015
Land Use Type and Subtype	Residential, Commercial, Recreation, etc.	See **Table 1.**	See **Table 1.**
Unit Amount	Size of Buildings or Number of units for each Land Use Type.	See **Table 1.**	See **Table 1.**
Lot Acreage	Acreage of each Land Use Type	See **Table 1.**	See **Table 1.**
Population	Population based on persons/household	See **Table 1.**	See **Table 1.**
Construction Phases	Type of construction phase (Demo, Site Prep, etc.) and beginning and ending dates	See **Table 2.**	See **Table 2.**
Off-Road Equipment	Type of equipment (Excavator, Dozer, etc.) and number of units per construction phase	See **Table 2.**	See **Table 2.**
Demolition	Sq ft or tons of Demo	--	--
Construction Trip Gen Rate	Average number of one-way trips per day	See **Table 2.**	See **Table 2.**

Input	Type of Input	Project Specific Inputs	
		Inputs	Source/Notes
Operational Trip Reductions	% reduction in trips.	60% internal capture rate	Traffic Impact Analysis for Agua Caliente Casino (Appendix TIS)
Operational Trip Gen Rate and trip length	Trips and trip lengths	See **Table 3**.	See **Table 3**.
Area Sources	Hearths – # of wood-burning fireplaces, #of gas fireplaces, and # of units with no fireplace.	Not Applicable	No hearths are included in the project design.
	Landscape Equipment - % of equipment that is electric.	--	--
Energy Use	Project Specific Emission Factors.	See **Table 4**.	See **Table 4**.
Water and Wastewater	Indoor and outdoor water use for each Land Use Subtype in gallons per year.	See **Table 1.**	Water demand based on like projects and scaled by square footage
Solid waste	Tons of solid waste generated per year	375.95 tons/year	Section 4.9 of the EA
	Land Fill Gas Capture Rate	94%	CARB Mandatory Reporting Regulation Guidance
Operational off-road equipment	Excavator, Dozer, etc.	--	--
Stationary Sources	Emergency Generators/Fire Pumps	Three 2,923 Horsepower emergency gen/sets operating 30 hours per year Three 0.5 MMBtu/hr boilers	Based on like project emergency gen/set size and use.
Land Use Change	Vegetation land use type (cropland, etc.) and initial and final acreage	--	--
Sequestration	Type and net number of new trees added	--	--

Source: CalEEMod Version 2016.3.2; AES, 2018.

Project–Mitigation Inputs for the Agua Caliente Cathedral City FTT Casino Project

Mitigation Input Category	CAPCOA Mitigation Number	Include in Model? (yes/no)	Type of Input / Unit	Project Specific Inputs	
				Inputs	Source/Notes
Off-Road Equipment	C-1	Yes	Engine Type, DPF Level, and Oxidation Catalyst	See **Table 5.**	See **Table 5.**
Soil Stabilizer for Unpaved Roads	N/A	Yes	PM10 (% Reduction)	10%	Default % Reduction.
	N/A		PM2.5 (% Reduction)	10%	Default % Reduction.
Water Exposed Area	N/A	Yes	Frequency (per day)	2 times per day	Default % Reduction
	N/A		PM10 (% Reduction)	55%	Default % Reduction.
	N/A		PM2.5 (% Reduction)	55%	Default % Reduction.
Replace Ground Cover of Area Disturbed	N/A	No	PM10 (% Reduction)	--	--
	N/A		PM2.5 (% Reduction)	--	--
Unpaved Road Mitigation	N/A	No	Moisture Content (%)	--	--
	N/A	Yes	Vehicle Speed (mph)	15 mph	--
Type of Residential	N/A	No	Type of Residential	--	--
Increased Density	LUT-1	No	Dwelling Units/Acre	--	--
			Job/Job Acre	--	--
Increased Diversity	LUT-3	No	Yes or No	--	--
Improved Walkability Design	LUT-9	No	Intersections/Square Miles	--	--
Improve Destination Accessibility	LUT-4	No	Distance to Downtown/Job Ctr	--	--
Increased Transit Accessibility	LUT-5	No	Average Distance to Transit Station (miles)	--	--
Integrated Below Market Rate Housing	LUT-6	No	# Dwelling Units Below Market Rate	--	--

Mitigation Input Category	CAPCOA Mitigation Number	Include in Model? (yes/no)	Type of Input / Unit	Project Specific Inputs	
				Inputs	Source/Notes
Improve Pedestrian Network	SDT-1	No	Yes or No; Project Site, Project Site and Connecting off-site, and Rural	--	--
Provide Traffic Calming Measures	SDT-2	No	% Streets with Improvement	--	--
		No	% Intersections with Improvement	--	--
Implement Neighborhood Electric Vehicle (NEV) Network	SDT-3	No	% of streets equipped with NEV network.	--	--
Limit Parking Supply	PDT-1	No	% Reduction in Spaces	--	--
Unbundled Parking Costs	PDT-2	No	Monthly Parking Costs ($)	--	--
On-Street Market Pricing	PDT-3	No	% Increase in Price	--	--
Provide a Bus Rapid Transit System	TST-1	No	% Lines BRT	--	--
Expand Transit Network	TST-3	No	% Increase Transit Coverage	--	--
Increase Transit Frequency	TST-4	No	Level of Implementation	--	--
		No	% Reduction in Headways	--	--
Implement Trip Reduction Program	TRT-1, TRT-2	No	% employee eligible	--	--
		No	Program Type	--	--
Transit Subsidy	TRT-4	No	% employee eligible	--	--
		No	Daily Transit Subsidy Amount ($)	--	--
Implement Employee Parking “Cash-Out”	TRT-15	No	% employee eligible	--	--
	TRT-14	No	% employee eligible	--	--

Mitigation Input Category	CAPCOA Mitigation Number	Include in Model? (yes/no)	Type of Input / Unit	Project Specific Inputs	
				Inputs	Source/Notes
Workplace Parking Charge		No	Daily Parking Charge ($)	--	--
Encourage Telecommuting and Alternative Work Schedules	TRT-6	No	% employee work 9/80	--	--
		No	% employee work 4/40	--	--
		No	% employee telecommute 1.5 days	--	--
Market Commute Trip Reduction Option	TRT-7	No	% employee eligible	--	--
Employee Vanpool/Shuttle	TRT-11	No	% employee eligible	--	--
		No	% vanpool mode share	--	--
Provide Ride Sharing Program	TRT-3	No	% employee eligible	--	--
Implement School Bus Program	TRT-13	No	% family using	--	--
Only Natural Gas Hearth	N/A	No	Yes or No	--	--
No hearth	N/A	No	Yes or No	--	--
Use of Low VOC Cleaning Supplies	N/A	No	Yes or No	--	--
Use low VOC Paint (Residential Interior)	N/A	Yes	Emission Factor (EF) (g/l)	--	--
Use low VOC Paint (Residential Exterior)	N/A	Yes	EF (g/l)	--	--

Mitigation Input Category	CAPCOA Mitigation Number	Include in Model? (yes/no)	Type of Input / Unit	Project Specific Inputs	
				Inputs	Source/Notes
Use low VOC Paint (Non-residential Interior)	N/A	Yes	EF (g/l)	100	MDAQMD Rule 1113 Architectural Coatings (based on Nonflat Coating)
Use low VOC Paint (Non-residential Exterior)	N/A	Yes	EF (g/l)	100	MDAQMD Rule 1113 Architectural Coatings (based on Nonflat Coating)
Electric Lawnmower	A-1	No	Percent of equipment type that will be electric.	--	--
Electric Leafblower	A-1	No	Percent of equipment type that will be electric.	--	--
Electric Chainsaw	A-1	No	Percent of equipment type that will be electric.	--	--
Exceed Title 24	BE-1	No	Percentage improvement selected for the Project.	--	--
Install High Efficiently Lighting	LE-1	Yes	% Lighting Energy Reduction	16	Default % reduction assuming implementation of Recommended Mitigation
On-site Renewable Energy	AE-1, AE-2, AE-3	No	kWh Generated	--	--
		No	% of Electricity Use Generated	--	--
Energy Efficient Appliances	BE-4	Yes	Appliance Type, Land Use Subtype, % Improvement	Use Default Values	Defaults
Apply Water Conservation Strategy	WUW-2	No	% Reduction Indoor	--	--
		No	% Reduction Outdoor	--	--
Use Reclaimed Water	WSW-1	No	% Indoor Water Use	--	--
		No	% Outdoor Water Use	--	--
Use Grey Water	WSW-2	No	% Indoor Water Use	--	--
		No	% Outdoor Water Use	--	--
Install Low-Flow Bathroom Faucet	WUW-1	Yes	% Reduction in flow	32%	Default % reduction assuming implementation of Recommended Mitigation

Mitigation Input Category	CAPCOA Mitigation Number	Include in Model? (yes/no)	Type of Input / Unit	Project Specific Inputs	
				Inputs	Source/Notes
Install Low-flow Kitchen Faucet	WUW-1	Yes	% Reduction in flow	18%	Default % reduction assuming implementation of Recommended Mitigation.
Install Low-flow Toilet	WUW-1	Yes	% Reduction in flow	20%	Default % reduction assuming implementation of Recommended Mitigation
Install Low-flow Shower	WUW-1	Yes	% Reduction in flow	20%	Default % reduction assuming implementation of Recommended Mitigation
Turf Reduction	WUW-5	No	Turf Reduction Area (sqft)	--	--
		No	% Reduction turf	--	--
Use Water-Efficient Irrigation Systems	WUW-4	No	% Reduction	--	--
Water Efficient Landscape	WUW-3	No	Maximum Applied Water Allowance (MAWA) (gal/yr)	--	--
		No	Estimated Total Water Use (ETWU) (gal/yr)	--	--
Institute Recycling and Composting Service	SW-1	Yes	% Reduction in Waste Disposal over State requirements	50%	The Tribe will use Salton City Landfill's facilities and will divert 50% of waste from the landfill

Source: CalEEMod Version 2016.3.2; AES, 2018.

Table 1 – Land Use Inputs Alternative C

Land Use Type	Land Use Subtype	Unit Amount	Size Metric[1]	Lot Acreage[2]	Square Feet	Population	Indoor Water Demand (gal/yr)	Outdoor Water Demand (gal/yr)
Retail	Shopping Center	36	TSF	1.476	36,000	0	Default	Default
Recreational	High-Turnover Sit-Down Restaurant	22	TSF	1.476	22,000	0	Default	Default
Recreational	Quality Restaurant	22	TSF	1.476	22,000	0	Default	Default
Recreational	Fast Casual Restaurant	8	TSF	1.476	8,000	0	Default	Default
Recreational	Coffee/Donut Shop Without Drive-Through Window	2	TSF	1.476	2,000	0	Default	Default
Parking	Parking Lot	700	Spaces	6.3	Default	0	Default	Default

[1] TSF = Thousand Square Feet

[2] Development of Alternative C would occur on the 13.68-acre North Site; all Retail and Recreational land use acreages are divided into 1.476-acre allotments for the purposes of this analysis. The parking lot acreage is based on CalEEMod defaults for a 700-space parking lot.

Table 2 – Construction Equipment Usage

Equipment	Construction Phase Activities				
	Site Preparation	Grading	Construction	Paving	Architectural Coating
	1/1/2019 - 1/14/2019	1/152019 - 2/25/2019	2/26/2019 - 11/5/2019	11/6/2019 - 12/3/2019	12/4/2019 - 12/31/2019
All Equipment	Default	Default	Default	Default	Default
Material Imported[1]	0	98, 613 cy	0	0	--
Worker Trips	Default	Default	Default	Default	Default
Haul Trips	Default	Default	Default	Default	Default
Vendor Trips	Default	Default	Default	Default	Default

Source: CalEEMod Version 2016.3.2; AES, 2018.
[1] Based on raw import volumes (MSA Consulting, Inc., 2018c)

Table 3 – Trip Generation Rates

Land Use	Daily Trip Generation Rate[1]	Trip Length (miles)			Trip Type (%)[2]			Trip Purpose (%)		
		C-C	C-W	C-NW	Primary	Diverted	Pass-B	C-C	C-W	C-NW
Shopping Center	80.15	Default	Default	Default	100	0	0	Default	Default	Default
High-Turnover Sit-Down Restaurant	110.82	Default	Default	Default	100	0	0	Default	Default	Default
Quality Restaurant	82.52	Default	Default	Default	100	0	0	Default	Default	Default
Fast Casual Restaurant	311.50	Default	Default	Default	100	0	0	Default	Default	Default
Coffee/Donut Shop Without Drive-Through Window	995.50	Default	Default	Default	100	0	0	Default	Default	Default
Parking Lot	0	0	0	0	0	0	0	0	0	0

[1] Trip generation rates used in CalEEMod include internal capture trips between retail, restaurant, and casino uses and are based off of the TIS (Appendix TIS). Table 4 shows trip generation rates used in the TIS along with the number of internal capture trips for each land use.
[2] All trip types are assumed to be primary as internal capture trips are included within the trip generation rate.

Table 4 – Trip Generation Rates and Average Daily Trips

Land Use	Size	Units[1]	Trip Generation Rate	Trips per Day	Trip Generation Rate (w/Internal Capture)[2]	Trips per Day (w/Internal Capture)
Shopping Center (820)	36	TSF	Fitted Curve[3]	3,001	80.15	2,885
Retail Internal Trips				*116*		
Subtotal: Shopping Center (820)				**2,885**		**2,885**
High-Turnover Sit-Down Restaurant (932)	22	TSF	112.18	2,468	110.82	2,439
Quality Restaurant (931)	22	TSF	83.84	1,844	82.52	1,815
Fast Casual Restaurant (930)	8	TSF	315.17	2,521	311.50	2,492
Coffee/Donut Shop Without Drive-Through Window (936)	2	TSF	754.55	2,020	995.50	1,991
Internal Capture (Restaurant - Retail)				*116*		
Subtotal: Restaurants (932, 931, 930, 936)				**8,737**		**8,737**
Project Total				**11,622**		**11,622**

[1] TSF = Thousand Square Feet

[2] Trip Generation Rate (w/Internal Capture) indicates reduced trip generation rates that account for the internal capture trips between retail and restaurant land uses.

[3] The equation of the fitted curve line was used to determine daily trips for the Shopping Center (820) land use; the TIS determined that the fitted curve line more accurately shows the trend in shopping centers than the average rate line. The equation of the fitted curve line is: Ln(T) = 0.68LN(X) + 5.57, where T is equal to the number of trip ends and X is equal to the square feet of the shopping center.

Table 5 – Energy Use

Land Use Subtype	Title-24 Electricity Energy Intensity (KWhr/size/yr)	Nontitle-24 Electricity Energy Intensity (KWhr/size/yr)[1]	Lighting Energy Intensity (KWhr/size/yr)	Title-24 Natural Gas Intensity (KBtu/size/yr)	Non-title-24 Natural Gas Intensity (KBtu/size/yr)[1]
Shopping Center	Default	Default	Default	Default	Default
High-Turnover Sit-Down Restaurant	Default	Default	Default	Default	Default
Quality Restaurant	Default	Default	Default	Default	Default
Fast Casual Restaurant	Default	Default	Default	Default	Default
Coffee/Donut Shop Without Drive-Through Window	Default	Default	Default	Default	Default
Parking Lot	Default	Default	Default	Default	Default

[1] Electricity energy and natural gas intensity determined from similar projects and scaled by square footage.

Table 6 – Off-Road Equipment Mitigation Inputs

Equipment Type	Engine Tier	Number of Equipment Mitigated	Diesel Particulate Filter (DPF) Level 2014
All Equipment	Tier 3	All	Level 3
Scrapers	No Change	0	No Change

Mitigation Measures

- The Tribe shall use Tier 3 construction equipment (with the exception of Tier 3 Scrapers, which are not widely available), using a minimum of 90 percent of the equipment's total horsepower, as well as construction equipment with Level 3 diesel particulate filters (DPF);
- The Tribe shall use soil stabilizer on unpaved roads;
- The Tribe shall apply water to exposed construction areas twice a day;
- The Tribe shall restrict vehicle speeds on the construction site to 15 miles per hour;
- The Tribe shall use energy efficient lighting;
- The Tribe shall use low-flow faucets, toilets, and showers; and
- The Tribe shall use low VOC architectural coatings.

References

Analytical Environmental Services (AES), 2018. *Agua Caliente Cathedral City FTT and Casino Project EA.* May 2018.

California Department of Resources Recycling and Recovery (CalRecycle), 2006. Estimated Solid Waste Generation Rates. Available at: https://www2.calrecycle.ca.gov/WasteCharacterization/General/Rates. Accessed January 31, 2017.

California Energy Commission (CEC), 2015. California Electric Utility Service Areas. Available at: http://www.energy.ca.gov/maps/serviceareas/Electric_Service_Areas_Detail.pdf. Accessed January 31, 2017.

MSA Consulting, Inc, 2018c. Agua Caliente Casino Project Preliminary Earthwork Alternative 4. April 19, 2018.

CalEEMod Inputs Alternative D

Agua Caliente Cathedral City FTT Casino Project

Project-Specific Inputs for the Agua Caliente Cathedral City FTT Casino Project

Input	Type of Input	Project Specific Inputs	
		Inputs	Source/Notes
Project Name	Project Name	Agua Caliente Cathedral City FTT Casino Project – Alternative D	Project Description
Project Location	County	Riverside County	Modeler, based on location
Climate zone	Climate Zone Number	10	Appendix F of CalEEMod User Guide Climate Zones Lookup
Land Use Setting	Urban or Rural	Urban	Modeler, based on proximity of project site to airport and Tulare
Start of Construction	Date	June 1, 2018	Based on an 18 month construction schedule and an opening date in 2020.
Operational Year	1st year of operation after full buildout.	2020	Appendix TIS
Utility Company	Utility Company Name	Southern California Edison	CEC, 2015
Land Use Type and Subtype	Residential, Commercial, Recreation, etc.	See **Table 1.**	See **Table 1.**
Unit Amount	Size of Buildings or Number of units for each Land Use Type.	See **Table 1.**	See **Table 1.**
Lot Acreage	Acreage of each Land Use Type	See **Table 1.**	See **Table 1.**
Population	Population based on persons/household	See **Table 1.**	See **Table 1.**
Construction Phases	Type of construction phase (Demo, Site Prep, etc.) and beginning and ending dates	See **Table 2.**	See **Table 2.**
Off-Road Equipment	Type of equipment (Excavator, Dozer, etc.) and number of units per construction phase	See **Table 2.**	See **Table 2.**
Demolition	Sq ft or tons of Demo	--	--
Construction Trip Gen Rate	Average number of one-way trips per day	See **Table 2.**	See **Table 2.**

Input	Type of Input	Project Specific Inputs	
		Inputs	Source/Notes
Operational Trip Reductions	% reduction in trips.	60% internal capture rate	Traffic Impact Analysis for Agua Caliente Casino (Appendix TIS)
Operational Trip Gen Rate and trip length	Trips and trip lengths	See **Table 3**.	See **Table 3**.
Area Sources	Hearths – # of wood-burning fireplaces, #of gas fireplaces, and # of units with no fireplace.	Not Applicable	No hearths are included in the project design.
	Landscape Equipment - % of equipment that is electric.	--	--
Energy Use	Project Specific Emission Factors.	See **Table 4**.	See **Table 4**.
Water and Wastewater	Indoor and outdoor water use for each Land Use Subtype in gallons per year.	See **Table 1.**	Water demand based on like projects and scaled by square footage
Solid waste	Tons of solid waste generated per year	375.95 tons/year	Section 4.9 of the EA
	Land Fill Gas Capture Rate	94%	CARB Mandatory Reporting Regulation Guidance
Operational off-road equipment	Excavator, Dozer, etc.	--	--
Stationary Sources	Emergency Generators/Fire Pumps	Three 2,923 Horsepower emergency gen/sets operating 30 hours per year Three 0.5 MMBtu/hr boilers	Based on like project emergency gen/set size and use.
Land Use Change	Vegetation land use type (cropland, etc.) and initial and final acreage	--	--
Sequestration	Type and net number of new trees added	--	--

Source: CalEEMod Version 2016.3.2; AES, 2018.

Project–Mitigation Inputs for the Agua Caliente Cathedral City FTT Casino Project

Mitigation Input Category	CAPCOA Mitigation Number	Include in Model? (yes/no)	Type of Input / Unit	Project Specific Inputs	
				Inputs	Source/Notes
Off-Road Equipment	C-1	Yes	Engine Type, DPF Level, and Oxidation Catalyst	See **Table 5.**	See **Table 5.**
Soil Stabilizer for Unpaved Roads	N/A	Yes	PM10 (% Reduction)	10%	Default % Reduction.
	N/A		PM2.5 (% Reduction)	10%	Default % Reduction.
Water Exposed Area	N/A	Yes	Frequency (per day)	2 times per day	Default % Reduction
	N/A		PM10 (% Reduction)	55%	Default % Reduction.
	N/A		PM2.5 (% Reduction)	55%	Default % Reduction.
Replace Ground Cover of Area Disturbed	N/A	No	PM10 (% Reduction)	--	--
	N/A		PM2.5 (% Reduction)	--	--
Unpaved Road Mitigation	N/A	No	Moisture Content (%)	--	--
	N/A	Yes	Vehicle Speed (mph)	15 mph	--
Type of Residential	N/A	No	Type of Residential	--	--
Increased Density	LUT-1	No	Dwelling Units/Acre	--	--
			Job/Job Acre	--	--
Increased Diversity	LUT-3	No	Yes or No	--	--
Improved Walkability Design	LUT-9	No	Intersections/Square Miles	--	--
Improve Destination Accessibility	LUT-4	No	Distance to Downtown/Job Ctr	--	--
Increased Transit Accessibility	LUT-5	No	Average Distance to Transit Station (miles)	--	--
Integrated Below Market Rate Housing	LUT-6	No	# Dwelling Units Below Market Rate	--	--

Mitigation Input Category	CAPCOA Mitigation Number	Include in Model? (yes/no)	Type of Input / Unit	Project Specific Inputs	
				Inputs	Source/Notes
Improve Pedestrian Network	SDT-1	No	Yes or No; Project Site, Project Site and Connecting off-site, and Rural	--	--
Provide Traffic Calming Measures	SDT-2	No	% Streets with Improvement	--	--
		No	% Intersections with Improvement	--	--
Implement Neighborhood Electric Vehicle (NEV) Network	SDT-3	No	% of streets equipped with NEV network.	--	--
Limit Parking Supply	PDT-1	No	% Reduction in Spaces	--	--
Unbundled Parking Costs	PDT-2	No	Monthly Parking Costs ($)	--	--
On-Street Market Pricing	PDT-3	No	% Increase in Price	--	--
Provide a Bus Rapid Transit System	TST-1	No	% Lines BRT	--	--
Expand Transit Network	TST-3	No	% Increase Transit Coverage	--	--
Increase Transit Frequency	TST-4	No	Level of Implementation	--	--
		No	% Reduction in Headways	--	--
Implement Trip Reduction Program	TRT-1, TRT-2	No	% employee eligible	--	--
		No	Program Type	--	--
Transit Subsidy	TRT-4	No	% employee eligible	--	--
		No	Daily Transit Subsidy Amount ($)	--	--
Implement Employee Parking “Cash-Out”	TRT-15	No	% employee eligible	--	--
	TRT-14	No	% employee eligible	--	--

Mitigation Input Category	CAPCOA Mitigation Number	Include in Model? (yes/no)	Type of Input / Unit	Project Specific Inputs	
				Inputs	Source/Notes
Workplace Parking Charge		No	Daily Parking Charge ($)	--	--
Encourage Telecommuting and Alternative Work Schedules	TRT-6	No	% employee work 9/80	--	--
		No	% employee work 4/40	--	--
		No	% employee telecommute 1.5 days	--	--
Market Commute Trip Reduction Option	TRT-7	No	% employee eligible	--	--
Employee Vanpool/Shuttle	TRT-11	No	% employee eligible	--	--
		No	% vanpool mode share	--	--
Provide Ride Sharing Program	TRT-3	No	% employee eligible	--	--
Implement School Bus Program	TRT-13	No	% family using	--	--
Only Natural Gas Hearth	N/A	No	Yes or No	--	--
No hearth	N/A	No	Yes or No	--	--
Use of Low VOC Cleaning Supplies	N/A	No	Yes or No	--	--
Use low VOC Paint (Residential Interior)	N/A	Yes	Emission Factor (EF) (g/l)	--	--
Use low VOC Paint (Residential Exterior)	N/A	Yes	EF (g/l)	--	--

Mitigation Input Category	CAPCOA Mitigation Number	Include in Model? (yes/no)	Type of Input / Unit	Project Specific Inputs	
				Inputs	Source/Notes
Use low VOC Paint (Non-residential Interior)	N/A	Yes	EF (g/l)	100	MDAQMD Rule 1113 Architectural Coatings (based on Nonflat Coating)
Use low VOC Paint (Non-residential Exterior)	N/A	Yes	EF (g/l)	100	MDAQMD Rule 1113 Architectural Coatings (based on Nonflat Coating)
Electric Lawnmower	A-1	No	Percent of equipment type that will be electric.	--	--
Electric Leafblower	A-1	No	Percent of equipment type that will be electric.	--	--
Electric Chainsaw	A-1	No	Percent of equipment type that will be electric.	--	--
Exceed Title 24	BE-1	No	Percentage improvement selected for the Project.	--	--
Install High Efficiently Lighting	LE-1	Yes	% Lighting Energy Reduction	16	Default % reduction assuming implementation of Recommended Mitigation
On-site Renewable Energy	AE-1, AE-2, AE-3	No	kWh Generated	--	--
		No	% of Electricity Use Generated	--	--
Energy Efficient Appliances	BE-4	Yes	Appliance Type, Land Use Subtype, % Improvement	Use Default Values	Defaults
Apply Water Conservation Strategy	WUW-2	No	% Reduction Indoor	--	--
		No	% Reduction Outdoor	--	--
Use Reclaimed Water	WSW-1	No	% Indoor Water Use	--	--
		No	% Outdoor Water Use	--	--
Use Grey Water	WSW-2	No	% Indoor Water Use	--	--
		No	% Outdoor Water Use	--	--
Install Low-Flow Bathroom Faucet	WUW-1	Yes	% Reduction in flow	32%	Default % reduction assuming implementation of Recommended Mitigation

Mitigation Input Category	CAPCOA Mitigation Number	Include in Model? (yes/no)	Type of Input / Unit	Project Specific Inputs	
				Inputs	Source/Notes
Install Low-flow Kitchen Faucet	WUW-1	Yes	% Reduction in flow	18%	Default % reduction assuming implementation of Recommended Mitigation.
Install Low-flow Toilet	WUW-1	Yes	% Reduction in flow	20%	Default % reduction assuming implementation of Recommended Mitigation
Install Low-flow Shower	WUW-1	Yes	% Reduction in flow	20%	Default % reduction assuming implementation of Recommended Mitigation
Turf Reduction	WUW-5	No	Turf Reduction Area (sqft)	--	--
		No	% Reduction turf	--	--
Use Water-Efficient Irrigation Systems	WUW-4	No	% Reduction	--	--
Water Efficient Landscape	WUW-3	No	Maximum Applied Water Allowance (MAWA) (gal/yr)	--	--
		No	Estimated Total Water Use (ETWU) (gal/yr)	--	--
Institute Recycling and Composting Service	SW-1	Yes	% Reduction in Waste Disposal over State requirements	50%	Tribe will use County facility's which are required to divert 50 percent of waste from landfills

Source: CalEEMod Version 2016.3.2; AES, 2018.

Table 1 – Land Use Inputs Alternative D

Land Use Type	Land Use Subtype	Unit Amount	Size Metric[1]	Lot Acreage[2]	Square Feet	Population	Indoor Water Demand (gal/yr)[3]	Outdoor Water Demand (gal/yr)[3]
Recreation	User Defined Recreation (Casino - Gaming Floor)	40	TSF	14.05	40,000	0	15,931,489	6,928,889
Retail	Shopping Center	24	TSF	0	24,000	0	Default	Default
Recreational	High-Turnover Sit-Down Restaurant	14	TSF	0	14,000	0	Default	Default
Recreational	Quality Restaurant	14	TSF	0	14,000	0	Default	Default
Recreational	Fast Casual Restaurant	6	TSF	0	6,000	0	Default	Default
Recreational	Coffee/Donut Shop Without Drive-Through Window	2	TSF	0	2,000	0	Default	Default
Parking	Parking Lot	1,150	Spaces	0	Default	0	Default	Default

[1] TSF = Thousand Square Feet
[2] Development of Alternative D would occur on the 14.05-acre South Site; all Retail and Parking land use acreages are included within the Recreation land use acreage in this analysis.
[3] Water demand is based off of similar projects and scaled by square footage.

Table 2 – Construction Equipment Usage

Equipment	Construction Phase Activities				
	Site Preparation	Grading	Construction	Paving	Architectural Coating
	1/1/2019 - 1/14/2019	1/152019 - 2/25/2019	2/26/2019 - 11/5/2019	11/6/2019 - 12/3/2019	12/4/2019 - 12/31/2019
All Equipment	Default	Default	Default	Default	Default
Material Exported[1]	0	140,948 cy	0	0	--
Worker Trips	Default	Default	Default	Default	Default
Haul Trips	Default	Default	Default	Default	Default
Vendor Trips	Default	Default	Default	Default	Default

Source: CalEEMod Version 2016.3.2; AES, 2018.
[1] Based on raw export volumes (MSA Consulting, Inc., 2018d)

Table 3 – Trip Generation Rates

Land Use	Daily Trip Generation Rate[1]	Trip Length (miles)			Trip Type (%)[2]			Trip Purpose (%)		
		C-C	C-W	C-NW	Primary	Diverted	Pass-B	C-C	C-W	C-NW
User Defined Recreation (Casino - Gaming Floor)	93	Default	Default	Default	100	0	0	80	15	5
Shopping Center	36.34	Default	Default	Default	100	0	0	Default	Default	Default
High-Turnover Sit-Down Restaurant	45.55	Default	Default	Default	100	0	0	Default	Default	Default
Quality Restaurant	17.20	Default	Default	Default	100	0	0	Default	Default	Default
Fast Casual Restaurant	159.63	Default	Default	Default	100	0	0	Default	Default	Default
Coffee/Donut Shop Without Drive-Through Window	288.38	Default	Default	Default	100	0	0	Default	Default	Default
Parking Lot	0	0	0	0	0	0	0	0	0	0

[1] Trip generation rates used in CalEEMod include internal capture trips between retail, restaurant, and casino uses and are based off of the TIS (Appendix TIS). Table 4 shows trip generation rates used in the TIS along with the number of internal capture trips for each land use.
[2] All trip types are assumed to be primary as internal capture trips are included within the trip generation rate.

Table 4 – Trip Generation Rates and Average Daily Trips

Land Use	Size	Units[1]	Trip Generation Rate	Trips per Day	Trip Generation Rate (w/Internal Capture)[2]	Trips per Day (w/Internal Capture)
Casino	40	TSF	93	3,720	93	3,720
Subtotal: Casino				**3,720**		**3,720**
Shopping Center (820)	24	TSF	Fitted Curve[3]	2,278	36.34	872
Internal Capture (Retail - Restaurant)				*98*		
Internal Capture (Retail - Casino)				*1,308*		
Subtotal: Shopping Center (820)				**872**		**872**
High-Turnover Sit-Down Restaurant (932)	14	TSF	112.18	1,571	45.55	638
Quality Restaurant (931)	14	TSF	83.84	1,174	17.20	241
Fast Casual Restaurant (930)	6	TSF	315.17	1,891	159.63	958
Coffee/Donut Shop Without Drive-Through Window (936)	2	TSF	754.55	1,509	288.38	577
Internal Capture (Restaurant - Retail)				*113*		
Internal Capture (Restaurant - Casino)				*3,620*		
Subtotal: Restaurants (932, 931, 930, 936)				**2,413**		**2,413**
Project Total				**7,005**		**7,005**

[1] TSF = Thousand Square Feet

[2] Trip Generation Rate (w/Internal Capture) indicates reduced trip generation rates that account for the internal capture trips between retail, restaurant, and casino land uses.

[3] The equation of the fitted curve line was used to determine daily trips for the Shopping Center (820) land use; the TIS determined that the fitted curve line more accurately shows the trend in shopping centers than the average rate line. The equation of the fitted curve line is: Ln(T) = 0.68LN(X) + 5.57, where T is equal to the number of trip ends and X is equal to the square feet of the shopping center.

Table 5 – Energy Use

Land Use Subtype	Title-24 Electricity Energy Intensity (KWhr/size/yr)	Nontitle-24 Electricity Energy Intensity (KWhr/size/yr)[1]	Lighting Energy Intensity (KWhr/size/yr)	Title-24 Natural Gas Intensity (KBtu/size/yr)	Non-title-24 Natural Gas Intensity (KBtu/size/yr)[1]
User Defined Recreation (Casino - Gaming Floor)	--	3.37	--	--	560.88
Shopping Center	Default	Default	Default	Default	Default
High-Turnover Sit-Down Restaurant	Default	Default	Default	Default	Default
Quality Restaurant	Default	Default	Default	Default	Default
Fast Casual Restaurant	Default	Default	Default	Default	Default
Coffee/Donut Shop Without Drive-Through Window	Default	Default	Default	Default	Default
Parking Lot	Default	Default	Default	Default	Default

[1] Electricity energy and natural gas intensity determined from similar projects and scaled by square footage.

Table 6 – Off-Road Equipment Mitigation Inputs

Equipment Type	Engine Tier	Number of Equipment Mitigated	Diesel Particulate Filter (DPF) Level 2014
All Equipment	Tier 3	All	Level 3
Scrapers	No Change	0	No Change

Mitigation Measures

- The Tribe shall use Tier 3 construction equipment (with the exception of Tier 3 Scrapers, which are not widely available), using a minimum of 90 percent of the equipment's total horsepower, as well as construction equipment with Level 3 diesel particulate filters (DPF);
- The Tribe shall use soil stabilizer on unpaved roads;
- The Tribe shall apply water to exposed construction areas twice a day;
- The Tribe shall restrict vehicle speeds on the construction site to 15 miles per hour;
- The Tribe shall use energy efficient lighting;
- The Tribe shall use low-flow faucets, toilets, and showers; and
- The Tribe shall use low VOC architectural coatings.

References

Analytical Environmental Services (AES), 2018. *Agua Caliente Cathedral City FTT and Casino Project EA.* May 2018.

California Department of Resources Recycling and Recovery (CalRecycle), 2006. Estimated Solid Waste Generation Rates. Available at: https://www2.calrecycle.ca.gov/WasteCharacterization/General/Rates. Accessed January 31, 2017.

California Energy Commission (CEC), 2015. California Electric Utility Service Areas. Available at: http://www.energy.ca.gov/maps/serviceareas/Electric_Service_Areas_Detail.pdf. Accessed January 31, 2017.

MSA Consulting, Inc, 2018d. Agua Caliente Casino Project Preliminary Earthwork Alternative 1. April 19, 2018.

CalEEMod Output Files

Agua Caliente Cathedral City FTT Casino Project - Alternative A

Riverside-Salton Sea County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	1,000.00	Space	9.00	400,000.00	0
Fast Food Restaurant w/o Drive Thru	2.00	1000sqft	0.00	2,000.00	0
Fast Food Restaurant with Drive Thru	6.00	1000sqft	0.00	6,000.00	0
High Turnover (Sit Down Restaurant)	14.00	1000sqft	0.00	14,000.00	0
Quality Restaurant	14.00	1000sqft	0.00	14,000.00	0
User Defined Recreational	40.00	User Defined Unit	4.68	40,000.00	0
Regional Shopping Center	24.00	1000sqft	0.00	24,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2020
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Agua Caliente Cathedral City FTT Casino Project - Alternative A - Riverside-Salton Sea County, Annual

Project Characteristics -

Land Use - Project Description; lot acreage for all recreational and retail space is all included within the User Defined Recreational land use.

Construction Phase - Construction phasing based on a 12-month construction schedule.

Grading - MSA Consulting, Inc., 2018a (See Table 2, CalEEMod Inputs)

Vehicle Trips - See Table 3, CalEEMod Inputs. Trip generation rates are derived from the TIS (Appendix TIS).

Energy Use - Electricity energy and natural gas intensity for the user defined recretational land use determined from similar projects and scaled by square footage

Water And Wastewater - Water demand is based off of similar projects and scaled by square footage

Solid Waste - Section 4.9 of the EA

Construction Off-road Equipment Mitigation - Construction Mitigation

Area Mitigation - MDAQMD Rule 1113 Architectural Coatings (based on nonflat coating)

Energy Mitigation -

Water Mitigation -

Waste Mitigation - Tribe will use the Salton City Landfill's facilities and will divert 50 percent of waste from the landfill.

Stationary Sources - Emergency Generators and Fire Pumps - Based on like project emergency generator size and use

Stationary Sources - Process Boilers - Based on like project boiler size and use

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Parking	24,000.00	16,800.00
tblAreaCoating	Area_Parking	24000	16800
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	250	100
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	100
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3

tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	9.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3

tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	300.00	181.00
tblEnergyUse	NT24E	0.00	3.37
tblEnergyUse	NT24NG	0.00	560.88
tblGrading	AcresOfGrading	75.00	13.68
tblGrading	MaterialImported	0.00	91,933.00
tblLandUse	LandUseSquareFeet	0.00	40,000.00
tblLandUse	LotAcreage	0.05	0.00
tblLandUse	LotAcreage	0.14	0.00
tblLandUse	LotAcreage	0.32	0.00
tblLandUse	LotAcreage	0.32	0.00
tblLandUse	LotAcreage	0.00	4.68
tblLandUse	LotAcreage	0.55	0.00
tblSolidWaste	SolidWasteGenerationRate	0.00	375.95
tblStationaryBoilersUse	AnnualHeatInput	0.00	4,380.00
tblStationaryBoilersUse	BoilerRatingValue	0.00	0.50
tblStationaryBoilersUse	DailyHeatInput	0.00	12.00
tblStationaryBoilersUse	NumberOfEquipment	0.00	3.00
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	2,923.00
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	30.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	3.00
tblTripsAndVMT	VendorTripNumber	82.00	62.00

tblTripsAndVMT	WorkerTripNumber	208.00	157.00
tblTripsAndVMT	WorkerTripNumber	42.00	31.00
tblVehicleTrips	CC_TTP	0.00	80.00
tblVehicleTrips	CNW_TTP	0.00	5.00
tblVehicleTrips	CW_TTP	0.00	15.00
tblVehicleTrips	DV_TP	37.00	0.00
tblVehicleTrips	DV_TP	21.00	0.00
tblVehicleTrips	DV_TP	20.00	0.00
tblVehicleTrips	DV_TP	18.00	0.00
tblVehicleTrips	DV_TP	35.00	0.00
tblVehicleTrips	PB_TP	12.00	0.00
tblVehicleTrips	PB_TP	50.00	0.00
tblVehicleTrips	PB_TP	43.00	0.00
tblVehicleTrips	PB_TP	44.00	0.00
tblVehicleTrips	PB_TP	11.00	0.00
tblVehicleTrips	PR_TP	51.00	100.00
tblVehicleTrips	PR_TP	29.00	100.00
tblVehicleTrips	PR_TP	37.00	100.00
tblVehicleTrips	PR_TP	38.00	100.00
tblVehicleTrips	PR_TP	54.00	100.00
tblVehicleTrips	PR_TP	0.00	100.00
tblVehicleTrips	ST_TR	696.00	288.38
tblVehicleTrips	ST_TR	722.03	159.63
tblVehicleTrips	ST_TR	158.37	45.55
tblVehicleTrips	ST_TR	94.36	17.20
tblVehicleTrips	ST_TR	49.97	36.34
tblVehicleTrips	ST_TR	0.00	93.00

tblVehicleTrips	SU_TR	500.00	288.38
tblVehicleTrips	SU_TR	542.72	159.63
tblVehicleTrips	SU_TR	131.84	45.55
tblVehicleTrips	SU_TR	72.16	17.20
tblVehicleTrips	SU_TR	25.24	36.34
tblVehicleTrips	SU_TR	0.00	93.00
tblVehicleTrips	WD_TR	716.00	288.38
tblVehicleTrips	WD_TR	496.12	159.63
tblVehicleTrips	WD_TR	127.15	45.55
tblVehicleTrips	WD_TR	89.95	17.20
tblVehicleTrips	WD_TR	42.70	36.34
tblVehicleTrips	WD_TR	0.00	93.00
tblWater	IndoorWaterUseRate	0.00	15,931,489.00
tblWater	OutdoorWaterUseRate	0.00	6,928,889.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	1.7021	5.2635	3.0850	0.0106	0.4445	0.1840	0.6285	0.1691	0.1721	0.3412	0.0000	982.4914	982.4914	0.1324	0.0000	985.8011
Maximum	**1.7021**	**5.2635**	**3.0850**	**0.0106**	**0.4445**	**0.1840**	**0.6285**	**0.1691**	**0.1721**	**0.3412**	**0.0000**	**982.4914**	**982.4914**	**0.1324**	**0.0000**	**985.8011**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	1.4940	4.2696	3.2296	0.0106	0.3379	0.0409	0.3788	0.1136	0.0393	0.1528	0.0000	982.4910	982.4910	0.1324	0.0000	985.8007
Maximum	**1.4940**	**4.2696**	**3.2296**	**0.0106**	**0.3379**	**0.0409**	**0.3788**	**0.1136**	**0.0393**	**0.1528**	**0.0000**	**982.4910**	**982.4910**	**0.1324**	**0.0000**	**985.8007**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**12.23**	**18.88**	**-4.69**	**0.00**	**23.97**	**77.75**	**39.72**	**32.84**	**77.19**	**55.21**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	1-1-2019	3-31-2019	3.0364	2.5587
2	4-1-2019	6-30-2019	1.0150	0.7375
3	7-1-2019	9-30-2019	1.0262	0.7456
		Highest	3.0364	2.5587

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.5430	9.0000e-005	0.0102	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0197	0.0197	5.0000e-005	0.0000	0.0210
Energy	0.1743	1.5849	1.3313	9.5100e-003		0.1205	0.1205		0.1205	0.1205	0.0000	2,454.1267	2,454.1267	0.0632	0.0379	2,466.9868
Mobile	1.9936	16.0382	19.6606	0.0759	5.1624	0.0704	5.2328	1.3833	0.0663	1.4496	0.0000	7,032.4923	7,032.4923	0.4726	0.0000	7,044.3082
Stationary	0.2513	1.1230	1.1816	4.9000e-003		0.0807	0.0807		0.0807	0.0807	0.0000	801.3887	801.3887	0.0275	0.0000	802.0759
Waste						0.0000	0.0000		0.0000	0.0000	136.5480	0.0000	136.5480	8.0698	0.0000	338.2918
Water						0.0000	0.0000		0.0000	0.0000	9.0850	149.6595	158.7445	0.9393	0.0233	189.1737
Total	**2.9622**	**18.7462**	**22.1837**	**0.0903**	**5.1624**	**0.2716**	**5.4340**	**1.3833**	**0.2675**	**1.6508**	**145.6330**	**10,437.6868**	**10,583.3198**	**9.5724**	**0.0612**	**10,840.8573**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.4735	9.0000e-005	0.0102	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0197	0.0197	5.0000e-005	0.0000	0.0210
Energy	0.1743	1.5849	1.3313	9.5100e-003		0.1205	0.1205		0.1205	0.1205	0.0000	2,427.9762	2,427.9762	0.0621	0.0376	2,440.7429
Mobile	1.9936	16.0382	19.6606	0.0759	5.1624	0.0704	5.2328	1.3833	0.0663	1.4496	0.0000	7,032.4923	7,032.4923	0.4726	0.0000	7,044.3082
Stationary	0.2513	1.1230	1.1816	4.9000e-003		0.0807	0.0807		0.0807	0.0807	0.0000	801.3887	801.3887	0.0275	0.0000	802.0759
Waste						0.0000	0.0000		0.0000	0.0000	68.2740	0.0000	68.2740	4.0349	0.0000	169.1459
Water						0.0000	0.0000		0.0000	0.0000	7.2680	125.8983	133.1663	0.7517	0.0187	157.5317
Total	**2.8927**	**18.7462**	**22.1837**	**0.0903**	**5.1624**	**0.2716**	**5.4340**	**1.3833**	**0.2675**	**1.6508**	**75.5420**	**10,387.7752**	**10,463.3172**	**5.3488**	**0.0563**	**10,613.8255**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**2.35**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**48.13**	**0.48**	**1.13**	**44.12**	**7.91**	**2.09**

3.0 Construction Detail

Construction Phase

Agua Caliente Cathedral City FTT Casino Project - Alternative A - Riverside-Salton Sea County, Annual

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/1/2019	1/14/2019	5	10	
2	Grading	Grading	1/15/2019	2/25/2019	5	30	
3	Building Construction	Building Construction	2/26/2019	11/5/2019	5	181	
4	Paving	Paving	11/6/2019	12/3/2019	5	20	
5	Architectural Coating	Architectural Coating	12/4/2019	12/31/2019	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 13.68

Acres of Paving: 9

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 150,000; Non-Residential Outdoor: 50,000; Striped Parking Area: 16,800 (Architectural Coating – sqft)

OffRoad Equipment

Agua Caliente Cathedral City FTT Casino Project - Alternative A - Riverside-Salton Sea County, Annual

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	11,492.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	157.00	62.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	31.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use DPF for Construction Equipment

Use Soil Stabilizer

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0903	0.0000	0.0903	0.0497	0.0000	0.0497	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0217	0.2279	0.1103	1.9000e-004		0.0120	0.0120		0.0110	0.0110	0.0000	17.0843	17.0843	5.4100e-003	0.0000	17.2195
Total	**0.0217**	**0.2279**	**0.1103**	**1.9000e-004**	**0.0903**	**0.0120**	**0.1023**	**0.0497**	**0.0110**	**0.0607**	**0.0000**	**17.0843**	**17.0843**	**5.4100e-003**	**0.0000**	**17.2195**

3.2 Site Preparation - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.6000e-004	2.5000e-004	2.6700e-003	1.0000e-005	7.4000e-004	0.0000	7.5000e-004	2.0000e-004	0.0000	2.0000e-004	0.0000	0.6442	0.6442	2.0000e-005	0.0000	0.6447
Total	**3.6000e-004**	**2.5000e-004**	**2.6700e-003**	**1.0000e-005**	**7.4000e-004**	**0.0000**	**7.5000e-004**	**2.0000e-004**	**0.0000**	**2.0000e-004**	**0.0000**	**0.6442**	**0.6442**	**2.0000e-005**	**0.0000**	**0.6447**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0407	0.0000	0.0407	0.0223	0.0000	0.0223	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.6600e-003	0.0953	0.1148	1.9000e-004		7.1000e-004	7.1000e-004		7.1000e-004	7.1000e-004	0.0000	17.0843	17.0843	5.4100e-003	0.0000	17.2195
Total	**4.6600e-003**	**0.0953**	**0.1148**	**1.9000e-004**	**0.0407**	**7.1000e-004**	**0.0414**	**0.0223**	**7.1000e-004**	**0.0231**	**0.0000**	**17.0843**	**17.0843**	**5.4100e-003**	**0.0000**	**17.2195**

3.2 Site Preparation - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.6000e-004	2.5000e-004	2.6700e-003	1.0000e-005	7.4000e-004	0.0000	7.5000e-004	2.0000e-004	0.0000	2.0000e-004	0.0000	0.6442	0.6442	2.0000e-005	0.0000	0.6447
Total	**3.6000e-004**	**2.5000e-004**	**2.6700e-003**	**1.0000e-005**	**7.4000e-004**	**0.0000**	**7.5000e-004**	**2.0000e-004**	**0.0000**	**2.0000e-004**	**0.0000**	**0.6442**	**0.6442**	**2.0000e-005**	**0.0000**	**0.6447**

3.3 Grading - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1034	0.0000	0.1034	0.0513	0.0000	0.0513	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0711	0.8178	0.5007	9.3000e-004		0.0357	0.0357		0.0329	0.0329	0.0000	83.5520	83.5520	0.0264	0.0000	84.2129
Total	**0.0711**	**0.8178**	**0.5007**	**9.3000e-004**	**0.1034**	**0.0357**	**0.1392**	**0.0513**	**0.0329**	**0.0842**	**0.0000**	**83.5520**	**83.5520**	**0.0264**	**0.0000**	**84.2129**

3.3 Grading - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0330	1.5049	0.1898	4.3800e-003	0.0991	5.3400e-003	0.1044	0.0272	5.1100e-003	0.0323	0.0000	420.9205	420.9205	0.0275	0.0000	421.6082
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2100e-003	8.4000e-004	8.9100e-003	2.0000e-005	2.4700e-003	2.0000e-005	2.4800e-003	6.6000e-004	1.0000e-005	6.7000e-004	0.0000	2.1474	2.1474	6.0000e-005	0.0000	2.1489
Total	**0.0342**	**1.5057**	**0.1987**	**4.4000e-003**	**0.1015**	**5.3600e-003**	**0.1069**	**0.0279**	**5.1200e-003**	**0.0330**	**0.0000**	**423.0679**	**423.0679**	**0.0276**	**0.0000**	**423.7571**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0465	0.0000	0.0465	0.0231	0.0000	0.0231	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0436	0.6209	0.5503	9.3000e-004		0.0169	0.0169		0.0157	0.0157	0.0000	83.5519	83.5519	0.0264	0.0000	84.2128
Total	**0.0436**	**0.6209**	**0.5503**	**9.3000e-004**	**0.0465**	**0.0169**	**0.0634**	**0.0231**	**0.0157**	**0.0388**	**0.0000**	**83.5519**	**83.5519**	**0.0264**	**0.0000**	**84.2128**

3.3 Grading - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0330	1.5049	0.1898	4.3800e-003	0.0991	5.3400e-003	0.1044	0.0272	5.1100e-003	0.0323	0.0000	420.9205	420.9205	0.0275	0.0000	421.6082
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2100e-003	8.4000e-004	8.9100e-003	2.0000e-005	2.4700e-003	2.0000e-005	2.4800e-003	6.6000e-004	1.0000e-005	6.7000e-004	0.0000	2.1474	2.1474	6.0000e-005	0.0000	2.1489
Total	**0.0342**	**1.5057**	**0.1987**	**4.4000e-003**	**0.1015**	**5.3600e-003**	**0.1069**	**0.0279**	**5.1200e-003**	**0.0330**	**0.0000**	**423.0679**	**423.0679**	**0.0276**	**0.0000**	**423.7571**

3.4 Building Construction - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2137	1.9076	1.5533	2.4400e-003		0.1167	0.1167		0.1098	0.1098	0.0000	212.7693	212.7693	0.0518	0.0000	214.0651
Total	**0.2137**	**1.9076**	**1.5533**	**2.4400e-003**		**0.1167**	**0.1167**		**0.1098**	**0.1098**	**0.0000**	**212.7693**	**212.7693**	**0.0518**	**0.0000**	**214.0651**

3.4 Building Construction - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0170	0.5924	0.1185	1.2300e-003	0.0278	3.8800e-003	0.0317	8.0100e-003	3.7100e-003	0.0117	0.0000	117.3483	117.3483	0.0115	0.0000	117.6356
Worker	0.0572	0.0398	0.4220	1.1300e-003	0.1169	7.6000e-004	0.1177	0.0311	7.0000e-004	0.0317	0.0000	101.7043	101.7043	2.8500e-003	0.0000	101.7756
Total	**0.0742**	**0.6322**	**0.5405**	**2.3600e-003**	**0.1447**	**4.6400e-003**	**0.1493**	**0.0391**	**4.4100e-003**	**0.0435**	**0.0000**	**219.0526**	**219.0526**	**0.0143**	**0.0000**	**219.4112**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0610	1.2875	1.6176	2.4400e-003		0.0123	0.0123		0.0123	0.0123	0.0000	212.7690	212.7690	0.0518	0.0000	214.0649
Total	**0.0610**	**1.2875**	**1.6176**	**2.4400e-003**		**0.0123**	**0.0123**		**0.0123**	**0.0123**	**0.0000**	**212.7690**	**212.7690**	**0.0518**	**0.0000**	**214.0649**

3.4 Building Construction - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0170	0.5924	0.1185	1.2300e-003	0.0278	3.8800e-003	0.0317	8.0100e-003	3.7100e-003	0.0117	0.0000	117.3483	117.3483	0.0115	0.0000	117.6356
Worker	0.0572	0.0398	0.4220	1.1300e-003	0.1169	7.6000e-004	0.1177	0.0311	7.0000e-004	0.0317	0.0000	101.7043	101.7043	2.8500e-003	0.0000	101.7756
Total	**0.0742**	**0.6322**	**0.5405**	**2.3600e-003**	**0.1447**	**4.6400e-003**	**0.1493**	**0.0391**	**4.4100e-003**	**0.0435**	**0.0000**	**219.0526**	**219.0526**	**0.0143**	**0.0000**	**219.4112**

3.5 Paving - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0145	0.1524	0.1467	2.3000e-004		8.2500e-003	8.2500e-003		7.5900e-003	7.5900e-003	0.0000	20.4752	20.4752	6.4800e-003	0.0000	20.6371
Paving	0.0118					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0263**	**0.1524**	**0.1467**	**2.3000e-004**		**8.2500e-003**	**8.2500e-003**		**7.5900e-003**	**7.5900e-003**	**0.0000**	**20.4752**	**20.4752**	**6.4800e-003**	**0.0000**	**20.6371**

3.5 Paving - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0000e-004	4.2000e-004	4.4600e-003	1.0000e-005	1.2300e-003	1.0000e-005	1.2400e-003	3.3000e-004	1.0000e-005	3.4000e-004	0.0000	1.0737	1.0737	3.0000e-005	0.0000	1.0745
Total	**6.0000e-004**	**4.2000e-004**	**4.4600e-003**	**1.0000e-005**	**1.2300e-003**	**1.0000e-005**	**1.2400e-003**	**3.3000e-004**	**1.0000e-005**	**3.4000e-004**	**0.0000**	**1.0737**	**1.0737**	**3.0000e-005**	**0.0000**	**1.0745**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	5.6100e-003	0.1130	0.1730	2.3000e-004		9.1000e-004	9.1000e-004		9.1000e-004	9.1000e-004	0.0000	20.4752	20.4752	6.4800e-003	0.0000	20.6371
Paving	0.0118					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0174**	**0.1130**	**0.1730**	**2.3000e-004**		**9.1000e-004**	**9.1000e-004**		**9.1000e-004**	**9.1000e-004**	**0.0000**	**20.4752**	**20.4752**	**6.4800e-003**	**0.0000**	**20.6371**

3.5 Paving - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0000e-004	4.2000e-004	4.4600e-003	1.0000e-005	1.2300e-003	1.0000e-005	1.2400e-003	3.3000e-004	1.0000e-005	3.4000e-004	0.0000	1.0737	1.0737	3.0000e-005	0.0000	1.0745
Total	**6.0000e-004**	**4.2000e-004**	**4.4600e-003**	**1.0000e-005**	**1.2300e-003**	**1.0000e-005**	**1.2400e-003**	**3.3000e-004**	**1.0000e-005**	**3.4000e-004**	**0.0000**	**1.0737**	**1.0737**	**3.0000e-005**	**0.0000**	**1.0745**

3.6 Architectural Coating - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.2561					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.6600e-003	0.0184	0.0184	3.0000e-005		1.2900e-003	1.2900e-003		1.2900e-003	1.2900e-003	0.0000	2.5533	2.5533	2.2000e-004	0.0000	2.5587
Total	**1.2588**	**0.0184**	**0.0184**	**3.0000e-005**		**1.2900e-003**	**1.2900e-003**		**1.2900e-003**	**1.2900e-003**	**0.0000**	**2.5533**	**2.5533**	**2.2000e-004**	**0.0000**	**2.5587**

3.6 Architectural Coating - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2500e-003	8.7000e-004	9.2100e-003	2.0000e-005	2.5500e-003	2.0000e-005	2.5700e-003	6.8000e-004	2.0000e-005	6.9000e-004	0.0000	2.2190	2.2190	6.0000e-005	0.0000	2.2205
Total	**1.2500e-003**	**8.7000e-004**	**9.2100e-003**	**2.0000e-005**	**2.5500e-003**	**2.0000e-005**	**2.5700e-003**	**6.8000e-004**	**2.0000e-005**	**6.9000e-004**	**0.0000**	**2.2190**	**2.2190**	**6.0000e-005**	**0.0000**	**2.2205**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.2561					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.9000e-004	0.0136	0.0183	3.0000e-005		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004	0.0000	2.5533	2.5533	2.2000e-004	0.0000	2.5586
Total	**1.2567**	**0.0136**	**0.0183**	**3.0000e-005**		**1.4000e-004**	**1.4000e-004**		**1.4000e-004**	**1.4000e-004**	**0.0000**	**2.5533**	**2.5533**	**2.2000e-004**	**0.0000**	**2.5586**

3.6 Architectural Coating - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2500e-003	8.7000e-004	9.2100e-003	2.0000e-005	2.5500e-003	2.0000e-005	2.5700e-003	6.8000e-004	2.0000e-005	6.9000e-004	0.0000	2.2190	2.2190	6.0000e-005	0.0000	2.2205
Total	**1.2500e-003**	**8.7000e-004**	**9.2100e-003**	**2.0000e-005**	**2.5500e-003**	**2.0000e-005**	**2.5700e-003**	**6.8000e-004**	**2.0000e-005**	**6.9000e-004**	**0.0000**	**2.2190**	**2.2190**	**6.0000e-005**	**0.0000**	**2.2205**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.9936	16.0382	19.6606	0.0759	5.1624	0.0704	5.2328	1.3833	0.0663	1.4496	0.0000	7,032.4923	7,032.4923	0.4726	0.0000	7,044.3082
Unmitigated	1.9936	16.0382	19.6606	0.0759	5.1624	0.0704	5.2328	1.3833	0.0663	1.4496	0.0000	7,032.4923	7,032.4923	0.4726	0.0000	7,044.3082

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Fast Food Restaurant w/o Drive Thru	576.76	576.76	576.76	955,755	955,755
Fast Food Restaurant with Drive Thru	957.78	957.78	957.78	1,607,402	1,607,402
High Turnover (Sit Down Restaurant)	637.70	637.70	637.70	1,191,602	1,191,602
Parking Lot	0.00	0.00	0.00		
Quality Restaurant	240.80	240.80	240.80	475,420	475,420
Regional Shopping Center	872.16	872.16	872.16	1,835,241	1,835,241
User Defined Recreational	3,720.00	3,720.00	3720.00	7,454,210	7,454,210
Total	7,005.20	7,005.20	7,005.20	13,519,631	13,519,631

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Fast Food Restaurant w/o Drive	12.50	4.20	5.40	1.50	79.50	19.00	100	0	0
Fast Food Restaurant with Drive	12.50	4.20	5.40	2.20	78.80	19.00	100	0	0
High Turnover (Sit Down	12.50	4.20	5.40	8.50	72.50	19.00	100	0	0
Parking Lot	12.50	4.20	5.40	0.00	0.00	0.00	0	0	0
Quality Restaurant	12.50	4.20	5.40	12.00	69.00	19.00	100	0	0
Regional Shopping Center	12.50	4.20	5.40	16.30	64.70	19.00	100	0	0
User Defined Recreational	12.50	4.20	5.40	15.00	80.00	5.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Fast Food Restaurant w/o Drive Thru	0.538064	0.038449	0.184390	0.122109	0.017402	0.005339	0.017250	0.067711	0.001365	0.001213	0.004629	0.000959	0.001120
Fast Food Restaurant with Drive Thru	0.538064	0.038449	0.184390	0.122109	0.017402	0.005339	0.017250	0.067711	0.001365	0.001213	0.004629	0.000959	0.001120
High Turnover (Sit Down Restaurant)	0.538064	0.038449	0.184390	0.122109	0.017402	0.005339	0.017250	0.067711	0.001365	0.001213	0.004629	0.000959	0.001120
Parking Lot	0.538064	0.038449	0.184390	0.122109	0.017402	0.005339	0.017250	0.067711	0.001365	0.001213	0.004629	0.000959	0.001120
Quality Restaurant	0.538064	0.038449	0.184390	0.122109	0.017402	0.005339	0.017250	0.067711	0.001365	0.001213	0.004629	0.000959	0.001120
Regional Shopping Center	0.538064	0.038449	0.184390	0.122109	0.017402	0.005339	0.017250	0.067711	0.001365	0.001213	0.004629	0.000959	0.001120
User Defined Recreational	0.538064	0.038449	0.184390	0.122109	0.017402	0.005339	0.017250	0.067711	0.001365	0.001213	0.004629	0.000959	0.001120

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Install High Efficiency Lighting

Agua Caliente Cathedral City FTT Casino Project - Alternative A - Riverside-Salton Sea County, Annual

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	702.6005	702.6005	0.0290	6.0000e-003	705.1141
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	728.7509	728.7509	0.0301	6.2200e-003	731.3581
NaturalGas Mitigated	0.1743	1.5849	1.3313	9.5100e-003		0.1205	0.1205		0.1205	0.1205	0.0000	1,725.3757	1,725.3757	0.0331	0.0316	1,735.6288
NaturalGas Unmitigated	0.1743	1.5849	1.3313	9.5100e-003		0.1205	0.1205		0.1205	0.1205	0.0000	1,725.3757	1,725.3757	0.0331	0.0316	1,735.6288

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Fast Food Restaurant w/o Drive Thru	546880	2.9500e-003	0.0268	0.0225	1.6000e-004		2.0400e-003	2.0400e-003		2.0400e-003	2.0400e-003	0.0000	29.1836	29.1836	5.6000e-004	5.4000e-004	29.3570
Fast Food Restaurant with Drive Thru	1.64064e+006	8.8500e-003	0.0804	0.0676	4.8000e-004		6.1100e-003	6.1100e-003		6.1100e-003	6.1100e-003	0.0000	87.5508	87.5508	1.6800e-003	1.6100e-003	88.0711
High Turnover (Sit Down Restaurant)	3.82816e+006	0.0206	0.1877	0.1576	1.1300e-003		0.0143	0.0143		0.0143	0.0143	0.0000	204.2852	204.2852	3.9200e-003	3.7500e-003	205.4992
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	3.82816e+006	0.0206	0.1877	0.1576	1.1300e-003		0.0143	0.0143		0.0143	0.0143	0.0000	204.2852	204.2852	3.9200e-003	3.7500e-003	205.4992
Regional Shopping Center	53280	2.9000e-004	2.6100e-003	2.1900e-003	2.0000e-005		2.0000e-004	2.0000e-004		2.0000e-004	2.0000e-004	0.0000	2.8432	2.8432	5.0000e-005	5.0000e-005	2.8601
User Defined Recreational	2.24352e+007	0.1210	1.0998	0.9238	6.6000e-003		0.0836	0.0836		0.0836	0.0836	0.0000	1,197.2277	1,197.2277	0.0230	0.0220	1,204.3422
Total		**0.1743**	**1.5849**	**1.3313**	**9.5200e-003**		**0.1205**	**0.1205**		**0.1205**	**0.1205**	**0.0000**	**1,725.3757**	**1,725.3757**	**0.0331**	**0.0317**	**1,735.6288**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Fast Food Restaurant w/o Drive Thru	546880	2.9500e-003	0.0268	0.0225	1.6000e-004		2.0400e-003	2.0400e-003		2.0400e-003	2.0400e-003	0.0000	29.1836	29.1836	5.6000e-004	5.4000e-004	29.3570
Fast Food Restaurant with Drive Thru	1.64064e+006	8.8500e-003	0.0804	0.0676	4.8000e-004		6.1100e-003	6.1100e-003		6.1100e-003	6.1100e-003	0.0000	87.5508	87.5508	1.6800e-003	1.6100e-003	88.0711
High Turnover (Sit Down Restaurant)	3.82816e+006	0.0206	0.1877	0.1576	1.1300e-003		0.0143	0.0143		0.0143	0.0143	0.0000	204.2852	204.2852	3.9200e-003	3.7500e-003	205.4992
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	3.82816e+006	0.0206	0.1877	0.1576	1.1300e-003		0.0143	0.0143		0.0143	0.0143	0.0000	204.2852	204.2852	3.9200e-003	3.7500e-003	205.4992
Regional Shopping Center	53280	2.9000e-004	2.6100e-003	2.1900e-003	2.0000e-005		2.0000e-004	2.0000e-004		2.0000e-004	2.0000e-004	0.0000	2.8432	2.8432	5.0000e-005	5.0000e-005	2.8601
User Defined Recreational	2.24352e+007	0.1210	1.0998	0.9238	6.6000e-003		0.0836	0.0836		0.0836	0.0836	0.0000	1,197.2277	1,197.2277	0.0230	0.0220	1,204.3422
Total		**0.1743**	**1.5849**	**1.3313**	**9.5200e-003**		**0.1205**	**0.1205**		**0.1205**	**0.1205**	**0.0000**	**1,725.3757**	**1,725.3757**	**0.0331**	**0.0317**	**1,735.6288**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Fast Food Restaurant w/o Drive Thru	94960	30.2563	1.2500e-003	2.6000e-004	30.3645
Fast Food Restaurant with Drive Thru	284880	90.7689	3.7500e-003	7.8000e-004	91.0936
High Turnover (Sit Down Restaurant)	664720	211.7940	8.7400e-003	1.8100e-003	212.5517
Parking Lot	140000	44.6070	1.8400e-003	3.8000e-004	44.7666
Quality Restaurant	664720	211.7940	8.7400e-003	1.8100e-003	212.5517
Regional Shopping Center	303120	96.5805	3.9900e-003	8.2000e-004	96.9261
User Defined Recreational	134800	42.9502	1.7700e-003	3.7000e-004	43.1038
Total		**728.7509**	**0.0301**	**6.2300e-003**	**731.3580**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Fast Food Restaurant w/o Drive Thru	92841.6	29.5813	1.2200e-003	2.5000e-004	29.6872
Fast Food Restaurant with Drive Thru	278525	88.7440	3.6600e-003	7.6000e-004	89.0615
High Turnover (Sit Down Restaurant)	649891	207.0693	8.5500e-003	1.7700e-003	207.8101
Parking Lot	117600	37.4699	1.5500e-003	3.2000e-004	37.6039
Quality Restaurant	649891	207.0693	8.5500e-003	1.7700e-003	207.8101
Regional Shopping Center	281578	89.7167	3.7000e-003	7.7000e-004	90.0376
User Defined Recreational	134800	42.9502	1.7700e-003	3.7000e-004	43.1038
Total		**702.6005**	**0.0290**	**6.0100e-003**	**705.1141**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.4735	9.0000e-005	0.0102	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0197	0.0197	5.0000e-005	0.0000	0.0210
Unmitigated	0.5430	9.0000e-005	0.0102	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0197	0.0197	5.0000e-005	0.0000	0.0210

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1256					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.4164					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	9.6000e-004	9.0000e-005	0.0102	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0197	0.0197	5.0000e-005	0.0000	0.0210
Total	**0.5430**	**9.0000e-005**	**0.0102**	**0.0000**		**4.0000e-005**	**4.0000e-005**		**4.0000e-005**	**4.0000e-005**	**0.0000**	**0.0197**	**0.0197**	**5.0000e-005**	**0.0000**	**0.0210**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0561					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.4164					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	9.6000e-004	9.0000e-005	0.0102	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0197	0.0197	5.0000e-005	0.0000	0.0210
Total	**0.4735**	**9.0000e-005**	**0.0102**	**0.0000**		**4.0000e-005**	**4.0000e-005**		**4.0000e-005**	**4.0000e-005**	**0.0000**	**0.0197**	**0.0197**	**5.0000e-005**	**0.0000**	**0.0210**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Agua Caliente Cathedral City FTT Casino Project - Alternative A - Riverside-Salton Sea County, Annual

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	133.1663	0.7517	0.0187	157.5317
Unmitigated	158.7445	0.9393	0.0233	189.1737

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Fast Food Restaurant w/o Drive Thru	0.607067 / 0.038749	2.8483	0.0199	4.9000e-004	3.4916
Fast Food Restaurant with Drive Thru	1.8212 / 0.116247	8.5450	0.0597	1.4700e-003	10.4747
High Turnover (Sit Down Restaurant)	4.24947 / 0.271243	19.9384	0.1392	3.4300e-003	24.4410
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	4.24947 / 0.271243	19.9384	0.1392	3.4300e-003	24.4410
Regional Shopping Center	1.77774 / 1.08958	11.7964	0.0584	1.4600e-003	13.6924
User Defined Recreational	15.9315 / 6.92889	95.6779	0.5229	0.0130	112.6331
Total		**158.7445**	**0.9393**	**0.0233**	**189.1737**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Fast Food Restaurant w/o Drive Thru	0.485654 / 0.038749	2.3061	0.0159	3.9000e-004	2.8208
Fast Food Restaurant with Drive Thru	1.45696 / 0.116247	6.9183	0.0477	1.1800e-003	8.4624
High Turnover (Sit Down Restaurant)	3.39958 / 0.271243	16.1428	0.1114	2.7400e-003	19.7455
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	3.39958 / 0.271243	16.1428	0.1114	2.7400e-003	19.7455
Regional Shopping Center	1.42219 / 1.08958	10.2085	0.0467	1.1800e-003	11.7281
User Defined Recreational	12.7452 / 6.92889	81.4478	0.4185	0.0105	95.0295
Total		**133.1663**	**0.7517**	**0.0187**	**157.5317**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	68.2740	4.0349	0.0000	169.1459
Unmitigated	136.5480	8.0698	0.0000	338.2918

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Fast Food Restaurant w/o Drive Thru	23.04	4.6769	0.2764	0.0000	11.5869
Fast Food Restaurant with Drive Thru	69.11	14.0287	0.8291	0.0000	34.7555
High Turnover (Sit Down Restaurant)	166.6	33.8183	1.9986	0.0000	83.7834
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	12.78	2.5942	0.1533	0.0000	6.4271
Regional Shopping Center	25.2	5.1154	0.3023	0.0000	12.6731
User Defined Recreational	375.95	76.3145	4.5101	0.0000	189.0658
Total		**136.5480**	**8.0697**	**0.0000**	**338.2918**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Fast Food Restaurant w/o Drive Thru	11.52	2.3385	0.1382	0.0000	5.7934
Fast Food Restaurant with Drive Thru	34.555	7.0144	0.4145	0.0000	17.3778
High Turnover (Sit Down Restaurant)	83.3	16.9092	0.9993	0.0000	41.8917
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	6.39	1.2971	0.0767	0.0000	3.2135
Regional Shopping Center	12.6	2.5577	0.1512	0.0000	6.3366
User Defined Recreational	187.975	38.1572	2.2550	0.0000	94.5329
Total		**68.2740**	**4.0349**	**0.0000**	**169.1459**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Emergency Generator	3	0	30	2923	0.73	Diesel

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
Boiler	3	12	4380	0.5	CNG

User Defined Equipment

Equipment Type	Number

10.1 Stationary Sources

Unmitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	tons/yr										MT/yr					
Boiler - CNG (0 - 2 MMBTU)	0.0354	0.1577	0.6313	3.8600e-003		0.0490	0.0490		0.0490	0.0490	0.0000	701.2124	701.2124	0.0134	0.0000	701.5484
Emergency Generator - Diesel (750 - 9999 HP)	0.2159	0.9653	0.5504	1.0400e-003		0.0318	0.0318		0.0318	0.0318	0.0000	100.1763	100.1763	0.0140	0.0000	100.5274
Total	**0.2513**	**1.1230**	**1.1816**	**4.9000e-003**		**0.0807**	**0.0807**		**0.0807**	**0.0807**	**0.0000**	**801.3887**	**801.3887**	**0.0275**	**0.0000**	**802.0759**

11.0 Vegetation

Agua Caliente Cathedral City FTT Casino Project - Alternative A

Riverside-Salton Sea County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	1,000.00	Space	9.00	400,000.00	0
Fast Food Restaurant w/o Drive Thru	2.00	1000sqft	0.00	2,000.00	0
Fast Food Restaurant with Drive Thru	6.00	1000sqft	0.00	6,000.00	0
High Turnover (Sit Down Restaurant)	14.00	1000sqft	0.00	14,000.00	0
Quality Restaurant	14.00	1000sqft	0.00	14,000.00	0
User Defined Recreational	40.00	User Defined Unit	4.68	40,000.00	0
Regional Shopping Center	24.00	1000sqft	0.00	24,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2020
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Agua Caliente Cathedral City FTT Casino Project - Alternative A - Riverside-Salton Sea County, Summer

Project Characteristics -

Land Use - Project Description; lot acreage for all recreational and retail space is all included within the User Defined Recreational land use.

Construction Phase - Construction phasing based on a 12-month construction schedule.

Grading - MSA Consulting, Inc., 2018a (See Table 2, CalEEMod Inputs)

Vehicle Trips - See Table 3, CalEEMod Inputs. Trip generation rates are derived from the TIS (Appendix TIS).

Energy Use - Electricity energy and natural gas intensity for the user defined recretational land use determined from similar projects and scaled by square footage

Water And Wastewater - Water demand is based off of similar projects and scaled by square footage

Solid Waste - Section 4.9 of the EA

Construction Off-road Equipment Mitigation - Construction Mitigation

Area Mitigation - MDAQMD Rule 1113 Architectural Coatings (based on nonflat coating)

Energy Mitigation -

Water Mitigation -

Waste Mitigation - Tribe will use the Salton City Landfill's facilities and will divert 50 percent of waste from the landfill.

Stationary Sources - Emergency Generators and Fire Pumps - Based on like project emergency generator size and use

Stationary Sources - Process Boilers - Based on like project boiler size and use

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Parking	24,000.00	16,800.00
tblAreaCoating	Area_Parking	24000	16800
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	250	100
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	100
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3

tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	9.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3

tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	300.00	181.00
tblEnergyUse	NT24E	0.00	3.37
tblEnergyUse	NT24NG	0.00	560.88
tblGrading	AcresOfGrading	75.00	13.68
tblGrading	MaterialImported	0.00	91,933.00
tblLandUse	LandUseSquareFeet	0.00	40,000.00
tblLandUse	LotAcreage	0.05	0.00
tblLandUse	LotAcreage	0.14	0.00
tblLandUse	LotAcreage	0.32	0.00
tblLandUse	LotAcreage	0.32	0.00
tblLandUse	LotAcreage	0.00	4.68
tblLandUse	LotAcreage	0.55	0.00
tblSolidWaste	SolidWasteGenerationRate	0.00	375.95
tblStationaryBoilersUse	AnnualHeatInput	0.00	4,380.00
tblStationaryBoilersUse	BoilerRatingValue	0.00	0.50
tblStationaryBoilersUse	DailyHeatInput	0.00	12.00
tblStationaryBoilersUse	NumberOfEquipment	0.00	3.00
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	2,923.00
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	30.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	3.00
tblTripsAndVMT	VendorTripNumber	82.00	62.00

tblTripsAndVMT	WorkerTripNumber	208.00	157.00
tblTripsAndVMT	WorkerTripNumber	42.00	31.00
tblVehicleTrips	CC_TTP	0.00	80.00
tblVehicleTrips	CNW_TTP	0.00	5.00
tblVehicleTrips	CW_TTP	0.00	15.00
tblVehicleTrips	DV_TP	37.00	0.00
tblVehicleTrips	DV_TP	21.00	0.00
tblVehicleTrips	DV_TP	20.00	0.00
tblVehicleTrips	DV_TP	18.00	0.00
tblVehicleTrips	DV_TP	35.00	0.00
tblVehicleTrips	PB_TP	12.00	0.00
tblVehicleTrips	PB_TP	50.00	0.00
tblVehicleTrips	PB_TP	43.00	0.00
tblVehicleTrips	PB_TP	44.00	0.00
tblVehicleTrips	PB_TP	11.00	0.00
tblVehicleTrips	PR_TP	51.00	100.00
tblVehicleTrips	PR_TP	29.00	100.00
tblVehicleTrips	PR_TP	37.00	100.00
tblVehicleTrips	PR_TP	38.00	100.00
tblVehicleTrips	PR_TP	54.00	100.00
tblVehicleTrips	PR_TP	0.00	100.00
tblVehicleTrips	ST_TR	696.00	288.38
tblVehicleTrips	ST_TR	722.03	159.63
tblVehicleTrips	ST_TR	158.37	45.55
tblVehicleTrips	ST_TR	94.36	17.20
tblVehicleTrips	ST_TR	49.97	36.34
tblVehicleTrips	ST_TR	0.00	93.00

tblVehicleTrips	SU_TR	500.00	288.38
tblVehicleTrips	SU_TR	542.72	159.63
tblVehicleTrips	SU_TR	131.84	45.55
tblVehicleTrips	SU_TR	72.16	17.20
tblVehicleTrips	SU_TR	25.24	36.34
tblVehicleTrips	SU_TR	0.00	93.00
tblVehicleTrips	WD_TR	716.00	288.38
tblVehicleTrips	WD_TR	496.12	159.63
tblVehicleTrips	WD_TR	127.15	45.55
tblVehicleTrips	WD_TR	89.95	17.20
tblVehicleTrips	WD_TR	42.70	36.34
tblVehicleTrips	WD_TR	0.00	93.00
tblWater	IndoorWaterUseRate	0.00	15,931,489.00
tblWater	OutdoorWaterUseRate	0.00	6,928,889.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	126.0157	152.4308	45.8330	0.3585	18.2169	2.7374	20.6082	9.9706	2.5314	12.1706	0.0000	37,569.3638	37,569.3638	3.8896	0.0000	37,666.6028
Maximum	**126.0157**	**152.4308**	**45.8330**	**0.3585**	**18.2169**	**2.7374**	**20.6082**	**9.9706**	**2.5314**	**12.1706**	**0.0000**	**37,569.3638**	**37,569.3638**	**3.8896**	**0.0000**	**37,666.6028**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	125.8087	139.3003	49.1456	0.3585	9.9714	1.4796	11.4510	4.5088	1.3833	4.8044	0.0000	37,569.3638	37,569.3638	3.8896	0.0000	37,666.6028
Maximum	**125.8087**	**139.3003**	**49.1456**	**0.3585**	**9.9714**	**1.4796**	**11.4510**	**4.5088**	**1.3833**	**4.8044**	**0.0000**	**37,569.3638**	**37,569.3638**	**3.8896**	**0.0000**	**37,666.6028**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.16**	**8.61**	**-7.23**	**0.00**	**45.26**	**45.95**	**44.43**	**54.78**	**45.36**	**60.52**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.9806	1.0400e-003	0.1130	1.0000e-005		4.1000e-004	4.1000e-004		4.1000e-004	4.1000e-004		0.2407	0.2407	6.5000e-004		0.2569
Energy	0.9553	8.6845	7.2950	0.0521		0.6600	0.6600		0.6600	0.6600		10,421.3763	10,421.3763	0.1997	0.1911	10,483.3053
Mobile	13.1114	87.1867	117.5619	0.4418	28.8359	0.3849	29.2207	7.7162	0.3626	8.0788		45,102.0457	45,102.0457	2.8163		45,172.4529
Stationary	0.1941	0.8640	3.4589	0.0212		0.2682	0.2682		0.2682	0.2682		4,235.3665	4,235.3665	0.0812		4,237.3959
Total	**17.2414**	**96.7363**	**128.4287**	**0.5151**	**28.8359**	**1.3135**	**30.1494**	**7.7162**	**1.2913**	**9.0075**		**59,759.0292**	**59,759.0292**	**3.0979**	**0.1911**	**59,893.4110**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.5996	1.0400e-003	0.1130	1.0000e-005		4.1000e-004	4.1000e-004		4.1000e-004	4.1000e-004		0.2407	0.2407	6.5000e-004		0.2569
Energy	0.9553	8.6845	7.2950	0.0521		0.6600	0.6600		0.6600	0.6600		10,421.3763	10,421.3763	0.1997	0.1911	10,483.3053
Mobile	13.1114	87.1867	117.5619	0.4418	28.8359	0.3849	29.2207	7.7162	0.3626	8.0788		45,102.0457	45,102.0457	2.8163		45,172.4529
Stationary	0.1941	0.8640	3.4589	0.0212		0.2682	0.2682		0.2682	0.2682		4,235.3665	4,235.3665	0.0812		4,237.3959
Total	**16.8605**	**96.7363**	**128.4287**	**0.5151**	**28.8359**	**1.3135**	**30.1494**	**7.7162**	**1.2913**	**9.0075**		**59,759.0292**	**59,759.0292**	**3.0979**	**0.1911**	**59,893.4110**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**2.21**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Agua Caliente Cathedral City FTT Casino Project - Alternative A - Riverside-Salton Sea County, Summer

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/1/2019	1/14/2019	5	10	
2	Grading	Grading	1/15/2019	2/25/2019	5	30	
3	Building Construction	Building Construction	2/26/2019	11/5/2019	5	181	
4	Paving	Paving	11/6/2019	12/3/2019	5	20	
5	Architectural Coating	Architectural Coating	12/4/2019	12/31/2019	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 13.68

Acres of Paving: 9

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 150,000; Non-Residential Outdoor: 50,000; Striped Parking Area: 16,800 (Architectural Coating – sqft)

OffRoad Equipment

Agua Caliente Cathedral City FTT Casino Project - Alternative A - Riverside-Salton Sea County, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	11,492.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	157.00	62.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	31.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use DPF for Construction Equipment

Use Soil Stabilizer

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	4.3350	45.5727	22.0630	0.0380		2.3904	2.3904		2.1991	2.1991		3,766.4529	3,766.4529	1.1917		3,796.2445
Total	**4.3350**	**45.5727**	**22.0630**	**0.0380**	**18.0663**	**2.3904**	**20.4566**	**9.9307**	**2.1991**	**12.1298**		**3,766.4529**	**3,766.4529**	**1.1917**		**3,796.2445**

3.2 Site Preparation - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0817	0.0471	0.6195	1.5500e-003	0.1506	9.6000e-004	0.1516	0.0400	8.8000e-004	0.0408		154.2784	154.2784	4.4000e-003		154.3884
Total	**0.0817**	**0.0471**	**0.6195**	**1.5500e-003**	**0.1506**	**9.6000e-004**	**0.1516**	**0.0400**	**8.8000e-004**	**0.0408**		**154.2784**	**154.2784**	**4.4000e-003**		**154.3884**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.1298	0.0000	8.1298	4.4688	0.0000	4.4688			0.0000			0.0000
Off-Road	0.9312	19.0656	22.9600	0.0380		0.1419	0.1419		0.1419	0.1419	0.0000	3,766.4529	3,766.4529	1.1917		3,796.2445
Total	**0.9312**	**19.0656**	**22.9600**	**0.0380**	**8.1298**	**0.1419**	**8.2717**	**4.4688**	**0.1419**	**4.6107**	**0.0000**	**3,766.4529**	**3,766.4529**	**1.1917**		**3,796.2445**

3.2 Site Preparation - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0817	0.0471	0.6195	1.5500e-003	0.1506	9.6000e-004	0.1516	0.0400	8.8000e-004	0.0408		154.2784	154.2784	4.4000e-003		154.3884
Total	**0.0817**	**0.0471**	**0.6195**	**1.5500e-003**	**0.1506**	**9.6000e-004**	**0.1516**	**0.0400**	**8.8000e-004**	**0.0408**		**154.2784**	**154.2784**	**4.4000e-003**		**154.3884**

3.3 Grading - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.8937	0.0000	6.8937	3.4212	0.0000	3.4212			0.0000			0.0000
Off-Road	4.7389	54.5202	33.3768	0.0620		2.3827	2.3827		2.1920	2.1920		6,140.0195	6,140.0195	1.9426		6,188.5854
Total	**4.7389**	**54.5202**	**33.3768**	**0.0620**	**6.8937**	**2.3827**	**9.2764**	**3.4212**	**2.1920**	**5.6133**		**6,140.0195**	**6,140.0195**	**1.9426**		**6,188.5854**

3.3 Grading - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	2.1518	97.8582	11.7678	0.2948	6.7019	0.3536	7.0555	1.8372	0.3383	2.1756		31,257.9238	31,257.9238	1.9420		31,306.4748
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0908	0.0524	0.6883	1.7200e-003	0.1673	1.0700e-003	0.1684	0.0444	9.8000e-004	0.0454		171.4204	171.4204	4.8900e-003		171.5427
Total	**2.2426**	**97.9106**	**12.4562**	**0.2965**	**6.8692**	**0.3547**	**7.2239**	**1.8816**	**0.3393**	**2.2209**		**31,429.3443**	**31,429.3443**	**1.9469**		**31,478.0174**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.1022	0.0000	3.1022	1.5395	0.0000	1.5395			0.0000			0.0000
Off-Road	2.9080	41.3897	36.6894	0.0620		1.1249	1.1249		1.0439	1.0439	0.0000	6,140.0195	6,140.0195	1.9426		6,188.5854
Total	**2.9080**	**41.3897**	**36.6894**	**0.0620**	**3.1022**	**1.1249**	**4.2271**	**1.5395**	**1.0439**	**2.5835**	**0.0000**	**6,140.0195**	**6,140.0195**	**1.9426**		**6,188.5854**

3.3 Grading - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	2.1518	97.8582	11.7678	0.2948	6.7019	0.3536	7.0555	1.8372	0.3383	2.1756		31,257.9238	31,257.9238	1.9420		31,306.4748
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0908	0.0524	0.6883	1.7200e-003	0.1673	1.0700e-003	0.1684	0.0444	9.8000e-004	0.0454		171.4204	171.4204	4.8900e-003		171.5427
Total	**2.2426**	**97.9106**	**12.4562**	**0.2965**	**6.8692**	**0.3547**	**7.2239**	**1.8816**	**0.3393**	**2.2209**		**31,429.3443**	**31,429.3443**	**1.9469**		**31,478.0174**

3.4 Building Construction - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.3612	21.0788	17.1638	0.0269		1.2899	1.2899		1.2127	1.2127		2,591.5802	2,591.5802	0.6313		2,607.3635
Total	**2.3612**	**21.0788**	**17.1638**	**0.0269**		**1.2899**	**1.2899**		**1.2127**	**1.2127**		**2,591.5802**	**2,591.5802**	**0.6313**		**2,607.3635**

3.4 Building Construction - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1845	6.4832	1.2070	0.0138	0.3111	0.0426	0.3536	0.0896	0.0407	0.1303		1,456.3178	1,456.3178	0.1333		1,459.6506
Worker	0.7128	0.4111	5.4035	0.0135	1.3136	8.3600e-003	1.3219	0.3484	7.7000e-003	0.3561		1,345.6504	1,345.6504	0.0384		1,346.6099
Total	**0.8973**	**6.8943**	**6.6105**	**0.0273**	**1.6247**	**0.0509**	**1.6756**	**0.4380**	**0.0484**	**0.4864**		**2,801.9682**	**2,801.9682**	**0.1717**		**2,806.2605**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6739	14.2261	17.8738	0.0269		0.1355	0.1355		0.1355	0.1355	0.0000	2,591.5802	2,591.5802	0.6313		2,607.3635
Total	**0.6739**	**14.2261**	**17.8738**	**0.0269**		**0.1355**	**0.1355**		**0.1355**	**0.1355**	**0.0000**	**2,591.5802**	**2,591.5802**	**0.6313**		**2,607.3635**

3.4 Building Construction - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1845	6.4832	1.2070	0.0138	0.3111	0.0426	0.3536	0.0896	0.0407	0.1303		1,456.3178	1,456.3178	0.1333		1,459.6506
Worker	0.7128	0.4111	5.4035	0.0135	1.3136	8.3600e-003	1.3219	0.3484	7.7000e-003	0.3561		1,345.6504	1,345.6504	0.0384		1,346.6099
Total	**0.8973**	**6.8943**	**6.6105**	**0.0273**	**1.6247**	**0.0509**	**1.6756**	**0.4380**	**0.0484**	**0.4864**		**2,801.9682**	**2,801.9682**	**0.1717**		**2,806.2605**

3.5 Paving - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4544	15.2441	14.6648	0.0228		0.8246	0.8246		0.7586	0.7586		2,257.0025	2,257.0025	0.7141		2,274.8548
Paving	1.1790					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.6334**	**15.2441**	**14.6648**	**0.0228**		**0.8246**	**0.8246**		**0.7586**	**0.7586**		**2,257.0025**	**2,257.0025**	**0.7141**		**2,274.8548**

3.5 Paving - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0681	0.0393	0.5163	1.2900e-003	0.1255	8.0000e-004	0.1263	0.0333	7.4000e-004	0.0340		128.5653	128.5653	3.6700e-003		128.6570
Total	**0.0681**	**0.0393**	**0.5163**	**1.2900e-003**	**0.1255**	**8.0000e-004**	**0.1263**	**0.0333**	**7.4000e-004**	**0.0340**		**128.5653**	**128.5653**	**3.6700e-003**		**128.6570**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5609	11.2952	17.2957	0.0228		0.0914	0.0914		0.0914	0.0914	0.0000	2,257.0025	2,257.0025	0.7141		2,274.8548
Paving	1.1790					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.7399**	**11.2952**	**17.2957**	**0.0228**		**0.0914**	**0.0914**		**0.0914**	**0.0914**	**0.0000**	**2,257.0025**	**2,257.0025**	**0.7141**		**2,274.8548**

3.5 Paving - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0681	0.0393	0.5163	1.2900e-003	0.1255	8.0000e-004	0.1263	0.0333	7.4000e-004	0.0340		128.5653	128.5653	3.6700e-003		128.6570
Total	**0.0681**	**0.0393**	**0.5163**	**1.2900e-003**	**0.1255**	**8.0000e-004**	**0.1263**	**0.0333**	**7.4000e-004**	**0.0340**		**128.5653**	**128.5653**	**3.6700e-003**		**128.6570**

3.6 Architectural Coating - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	125.6085					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2664	1.8354	1.8413	2.9700e-003		0.1288	0.1288		0.1288	0.1288		281.4481	281.4481	0.0238		282.0423
Total	**125.8749**	**1.8354**	**1.8413**	**2.9700e-003**		**0.1288**	**0.1288**		**0.1288**	**0.1288**		**281.4481**	**281.4481**	**0.0238**		**282.0423**

3.6 Architectural Coating - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1407	0.0812	1.0669	2.6700e-003	0.2594	1.6500e-003	0.2610	0.0688	1.5200e-003	0.0703		265.7017	265.7017	7.5800e-003		265.8911
Total	**0.1407**	**0.0812**	**1.0669**	**2.6700e-003**	**0.2594**	**1.6500e-003**	**0.2610**	**0.0688**	**1.5200e-003**	**0.0703**		**265.7017**	**265.7017**	**7.5800e-003**		**265.8911**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	125.6085					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0594	1.3570	1.8324	2.9700e-003		0.0143	0.0143		0.0143	0.0143	0.0000	281.4481	281.4481	0.0238		282.0423
Total	**125.6679**	**1.3570**	**1.8324**	**2.9700e-003**		**0.0143**	**0.0143**		**0.0143**	**0.0143**	**0.0000**	**281.4481**	**281.4481**	**0.0238**		**282.0423**

3.6 Architectural Coating - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1407	0.0812	1.0669	2.6700e-003	0.2594	1.6500e-003	0.2610	0.0688	1.5200e-003	0.0703		265.7017	265.7017	7.5800e-003		265.8911
Total	**0.1407**	**0.0812**	**1.0669**	**2.6700e-003**	**0.2594**	**1.6500e-003**	**0.2610**	**0.0688**	**1.5200e-003**	**0.0703**		**265.7017**	**265.7017**	**7.5800e-003**		**265.8911**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	13.1114	87.1867	117.5619	0.4418	28.8359	0.3849	29.2207	7.7162	0.3626	8.0788		45,102.0457	45,102.0457	2.8163		45,172.4529
Unmitigated	13.1114	87.1867	117.5619	0.4418	28.8359	0.3849	29.2207	7.7162	0.3626	8.0788		45,102.0457	45,102.0457	2.8163		45,172.4529

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Fast Food Restaurant w/o Drive Thru	576.76	576.76	576.76	955,755	955,755
Fast Food Restaurant with Drive Thru	957.78	957.78	957.78	1,607,402	1,607,402
High Turnover (Sit Down Restaurant)	637.70	637.70	637.70	1,191,602	1,191,602
Parking Lot	0.00	0.00	0.00		
Quality Restaurant	240.80	240.80	240.80	475,420	475,420
Regional Shopping Center	872.16	872.16	872.16	1,835,241	1,835,241
User Defined Recreational	3,720.00	3,720.00	3720.00	7,454,210	7,454,210
Total	7,005.20	7,005.20	7,005.20	13,519,631	13,519,631

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Fast Food Restaurant w/o Drive	12.50	4.20	5.40	1.50	79.50	19.00	100	0	0
Fast Food Restaurant with Drive	12.50	4.20	5.40	2.20	78.80	19.00	100	0	0
High Turnover (Sit Down	12.50	4.20	5.40	8.50	72.50	19.00	100	0	0
Parking Lot	12.50	4.20	5.40	0.00	0.00	0.00	0	0	0
Quality Restaurant	12.50	4.20	5.40	12.00	69.00	19.00	100	0	0
Regional Shopping Center	12.50	4.20	5.40	16.30	64.70	19.00	100	0	0
User Defined Recreational	12.50	4.20	5.40	15.00	80.00	5.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Fast Food Restaurant w/o Drive Thru	0.538064	0.038449	0.184390	0.122109	0.017402	0.005339	0.017250	0.067711	0.001365	0.001213	0.004629	0.000959	0.001120
Fast Food Restaurant with Drive Thru	0.538064	0.038449	0.184390	0.122109	0.017402	0.005339	0.017250	0.067711	0.001365	0.001213	0.004629	0.000959	0.001120
High Turnover (Sit Down Restaurant)	0.538064	0.038449	0.184390	0.122109	0.017402	0.005339	0.017250	0.067711	0.001365	0.001213	0.004629	0.000959	0.001120
Parking Lot	0.538064	0.038449	0.184390	0.122109	0.017402	0.005339	0.017250	0.067711	0.001365	0.001213	0.004629	0.000959	0.001120
Quality Restaurant	0.538064	0.038449	0.184390	0.122109	0.017402	0.005339	0.017250	0.067711	0.001365	0.001213	0.004629	0.000959	0.001120
Regional Shopping Center	0.538064	0.038449	0.184390	0.122109	0.017402	0.005339	0.017250	0.067711	0.001365	0.001213	0.004629	0.000959	0.001120
User Defined Recreational	0.538064	0.038449	0.184390	0.122109	0.017402	0.005339	0.017250	0.067711	0.001365	0.001213	0.004629	0.000959	0.001120

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Install High Efficiency Lighting

Agua Caliente Cathedral City FTT Casino Project - Alternative A - Riverside-Salton Sea County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.9553	8.6845	7.2950	0.0521		0.6600	0.6600		0.6600	0.6600		10,421.3763	10,421.3763	0.1997	0.1911	10,483.3053
NaturalGas Unmitigated	0.9553	8.6845	7.2950	0.0521		0.6600	0.6600		0.6600	0.6600		10,421.3763	10,421.3763	0.1997	0.1911	10,483.3053

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Fast Food Restaurant w/o Drive Thru	1498.3	0.0162	0.1469	0.1234	8.8000e-004		0.0112	0.0112		0.0112	0.0112		176.2708	176.2708	3.3800e-003	3.2300e-003	177.3182
Fast Food Restaurant with Drive Thru	4494.9	0.0485	0.4407	0.3702	2.6400e-003		0.0335	0.0335		0.0335	0.0335		528.8123	528.8123	0.0101	9.6900e-003	531.9547
High Turnover (Sit Down Restaurant)	10488.1	0.1131	1.0283	0.8637	6.1700e-003		0.0782	0.0782		0.0782	0.0782		1,233.8953	1,233.8953	0.0237	0.0226	1,241.2277
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	10488.1	0.1131	1.0283	0.8637	6.1700e-003		0.0782	0.0782		0.0782	0.0782		1,233.8953	1,233.8953	0.0237	0.0226	1,241.2277
Regional Shopping Center	145.973	1.5700e-003	0.0143	0.0120	9.0000e-005		1.0900e-003	1.0900e-003		1.0900e-003	1.0900e-003		17.1733	17.1733	3.3000e-004	3.1000e-004	17.2753
User Defined Recreational	61466.3	0.6629	6.0261	5.0619	0.0362		0.4580	0.4580		0.4580	0.4580		7,231.3296	7,231.3296	0.1386	0.1326	7,274.3018
Total		**0.9553**	**8.6845**	**7.2950**	**0.0521**		**0.6600**	**0.6600**		**0.6600**	**0.6600**		**10,421.3763**	**10,421.3763**	**0.1998**	**0.1910**	**10,483.3053**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Fast Food Restaurant w/o Drive Thru	1.4983	0.0162	0.1469	0.1234	8.8000e-004		0.0112	0.0112		0.0112	0.0112		176.2708	176.2708	3.3800e-003	3.2300e-003	177.3182
Fast Food Restaurant with Drive Thru	4.4949	0.0485	0.4407	0.3702	2.6400e-003		0.0335	0.0335		0.0335	0.0335		528.8123	528.8123	0.0101	9.6900e-003	531.9547
High Turnover (Sit Down Restaurant)	10.4881	0.1131	1.0283	0.8637	6.1700e-003		0.0782	0.0782		0.0782	0.0782		1,233.8953	1,233.8953	0.0237	0.0226	1,241.2277
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	10.4881	0.1131	1.0283	0.8637	6.1700e-003		0.0782	0.0782		0.0782	0.0782		1,233.8953	1,233.8953	0.0237	0.0226	1,241.2277
Regional Shopping Center	0.145973	1.5700e-003	0.0143	0.0120	9.0000e-005		1.0900e-003	1.0900e-003		1.0900e-003	1.0900e-003		17.1733	17.1733	3.3000e-004	3.1000e-004	17.2753
User Defined Recreational	61.4663	0.6629	6.0261	5.0619	0.0362		0.4580	0.4580		0.4580	0.4580		7,231.3296	7,231.3296	0.1386	0.1326	7,274.3018
Total		**0.9553**	**8.6845**	**7.2950**	**0.0521**		**0.6600**	**0.6600**		**0.6600**	**0.6600**		**10,421.3763**	**10,421.3763**	**0.1998**	**0.1910**	**10,483.3053**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.5996	1.0400e-003	0.1130	1.0000e-005		4.1000e-004	4.1000e-004		4.1000e-004	4.1000e-004		0.2407	0.2407	6.5000e-004		0.2569
Unmitigated	2.9806	1.0400e-003	0.1130	1.0000e-005		4.1000e-004	4.1000e-004		4.1000e-004	4.1000e-004		0.2407	0.2407	6.5000e-004		0.2569

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.6883					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.2817					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0106	1.0400e-003	0.1130	1.0000e-005		4.1000e-004	4.1000e-004		4.1000e-004	4.1000e-004		0.2407	0.2407	6.5000e-004		0.2569
Total	**2.9806**	**1.0400e-003**	**0.1130**	**1.0000e-005**		**4.1000e-004**	**4.1000e-004**		**4.1000e-004**	**4.1000e-004**		**0.2407**	**0.2407**	**6.5000e-004**		**0.2569**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.3073					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.2817					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0106	1.0400e-003	0.1130	1.0000e-005		4.1000e-004	4.1000e-004		4.1000e-004	4.1000e-004		0.2407	0.2407	6.5000e-004		0.2569
Total	**2.5996**	**1.0400e-003**	**0.1130**	**1.0000e-005**		**4.1000e-004**	**4.1000e-004**		**4.1000e-004**	**4.1000e-004**		**0.2407**	**0.2407**	**6.5000e-004**		**0.2569**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Emergency Generator	3	0	30	2923	0.73	Diesel

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
Boiler	3	12	4380	0.5	CNG

User Defined Equipment

Equipment Type	Number

10.1 Stationary Sources

Unmitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	lb/day										lb/day					
Boiler - CNG (0 - 2 MMBTU)	0.1941	0.8640	3.4589	0.0212		0.2682	0.2682		0.2682	0.2682		4,235.3665	4,235.3665	0.0812		4,237.3959
Emergency Generator - Diesel (750 - 9999 HP)	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.1941**	**0.8640**	**3.4589**	**0.0212**		**0.2682**	**0.2682**		**0.2682**	**0.2682**		**4,235.3665**	**4,235.3665**	**0.0812**		**4,237.3959**

11.0 Vegetation

Agua Caliente Cathedral City FTT Casino Project - Alternative A

Riverside-Salton Sea County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	1,000.00	Space	9.00	400,000.00	0
Fast Food Restaurant w/o Drive Thru	2.00	1000sqft	0.00	2,000.00	0
Fast Food Restaurant with Drive Thru	6.00	1000sqft	0.00	6,000.00	0
High Turnover (Sit Down Restaurant)	14.00	1000sqft	0.00	14,000.00	0
Quality Restaurant	14.00	1000sqft	0.00	14,000.00	0
User Defined Recreational	40.00	User Defined Unit	4.68	40,000.00	0
Regional Shopping Center	24.00	1000sqft	0.00	24,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2020
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Agua Caliente Cathedral City FTT Casino Project - Alternative A - Riverside-Salton Sea County, Winter

Project Characteristics -

Land Use - Project Description; lot acreage for all recreational and retail space is all included within the User Defined Recreational land use.

Construction Phase - Construction phasing based on a 12-month construction schedule.

Grading - MSA Consulting, Inc., 2018a (See Table 2, CalEEMod Inputs)

Vehicle Trips - See Table 3, CalEEMod Inputs. Trip generation rates are derived from the TIS (Appendix TIS).

Energy Use - Electricity energy and natural gas intensity for the user defined recretational land use determined from similar projects and scaled by square footage

Water And Wastewater - Water demand is based off of similar projects and scaled by square footage

Solid Waste - Section 4.9 of the EA

Construction Off-road Equipment Mitigation - Construction Mitigation

Area Mitigation - MDAQMD Rule 1113 Architectural Coatings (based on nonflat coating)

Energy Mitigation -

Water Mitigation -

Waste Mitigation - Tribe will use the Salton City Landfill's facilities and will divert 50 percent of waste from the landfill.

Stationary Sources - Emergency Generators and Fire Pumps - Based on like project emergency generator size and use

Stationary Sources - Process Boilers - Based on like project boiler size and use

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Parking	24,000.00	16,800.00
tblAreaCoating	Area_Parking	24000	16800
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	250	100
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	100
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3

tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	9.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3

Agua Caliente Cathedral City FTT Casino Project - Alternative A - Riverside-Salton Sea County, Winter

tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	300.00	181.00
tblEnergyUse	NT24E	0.00	3.37
tblEnergyUse	NT24NG	0.00	560.88
tblGrading	AcresOfGrading	75.00	13.68
tblGrading	MaterialImported	0.00	91,933.00
tblLandUse	LandUseSquareFeet	0.00	40,000.00
tblLandUse	LotAcreage	0.05	0.00
tblLandUse	LotAcreage	0.14	0.00
tblLandUse	LotAcreage	0.32	0.00
tblLandUse	LotAcreage	0.32	0.00
tblLandUse	LotAcreage	0.00	4.68
tblLandUse	LotAcreage	0.55	0.00
tblSolidWaste	SolidWasteGenerationRate	0.00	375.95
tblStationaryBoilersUse	AnnualHeatInput	0.00	4,380.00
tblStationaryBoilersUse	BoilerRatingValue	0.00	0.50
tblStationaryBoilersUse	DailyHeatInput	0.00	12.00
tblStationaryBoilersUse	NumberOfEquipment	0.00	3.00
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	2,923.00
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	30.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	3.00
tblTripsAndVMT	VendorTripNumber	82.00	62.00

tblTripsAndVMT	WorkerTripNumber	208.00	157.00
tblTripsAndVMT	WorkerTripNumber	42.00	31.00
tblVehicleTrips	CC_TTP	0.00	80.00
tblVehicleTrips	CNW_TTP	0.00	5.00
tblVehicleTrips	CW_TTP	0.00	15.00
tblVehicleTrips	DV_TP	37.00	0.00
tblVehicleTrips	DV_TP	21.00	0.00
tblVehicleTrips	DV_TP	20.00	0.00
tblVehicleTrips	DV_TP	18.00	0.00
tblVehicleTrips	DV_TP	35.00	0.00
tblVehicleTrips	PB_TP	12.00	0.00
tblVehicleTrips	PB_TP	50.00	0.00
tblVehicleTrips	PB_TP	43.00	0.00
tblVehicleTrips	PB_TP	44.00	0.00
tblVehicleTrips	PB_TP	11.00	0.00
tblVehicleTrips	PR_TP	51.00	100.00
tblVehicleTrips	PR_TP	29.00	100.00
tblVehicleTrips	PR_TP	37.00	100.00
tblVehicleTrips	PR_TP	38.00	100.00
tblVehicleTrips	PR_TP	54.00	100.00
tblVehicleTrips	PR_TP	0.00	100.00
tblVehicleTrips	ST_TR	696.00	288.38
tblVehicleTrips	ST_TR	722.03	159.63
tblVehicleTrips	ST_TR	158.37	45.55
tblVehicleTrips	ST_TR	94.36	17.20
tblVehicleTrips	ST_TR	49.97	36.34
tblVehicleTrips	ST_TR	0.00	93.00

tblVehicleTrips	SU_TR	500.00	288.38
tblVehicleTrips	SU_TR	542.72	159.63
tblVehicleTrips	SU_TR	131.84	45.55
tblVehicleTrips	SU_TR	72.16	17.20
tblVehicleTrips	SU_TR	25.24	36.34
tblVehicleTrips	SU_TR	0.00	93.00
tblVehicleTrips	WD_TR	716.00	288.38
tblVehicleTrips	WD_TR	496.12	159.63
tblVehicleTrips	WD_TR	127.15	45.55
tblVehicleTrips	WD_TR	89.95	17.20
tblVehicleTrips	WD_TR	42.70	36.34
tblVehicleTrips	WD_TR	0.00	93.00
tblWater	IndoorWaterUseRate	0.00	15,931,489.00
tblWater	OutdoorWaterUseRate	0.00	6,928,889.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	126.0092	153.4185	47.7767	0.3510	18.2169	2.7437	20.6082	9.9706	2.5374	12.1706	0.0000	36,776.6567	36,776.6567	4.0733	0.0000	36,878.4896
Maximum	**126.0092**	**153.4185**	**47.7767**	**0.3510**	**18.2169**	**2.7437**	**20.6082**	**9.9706**	**2.5374**	**12.1706**	**0.0000**	**36,776.6567**	**36,776.6567**	**4.0733**	**0.0000**	**36,878.4896**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	125.8022	140.2880	51.0893	0.3510	9.9714	1.4859	11.4573	4.5088	1.3893	4.8104	0.0000	36,776.6567	36,776.6567	4.0733	0.0000	36,878.4895
Maximum	**125.8022**	**140.2880**	**51.0893**	**0.3510**	**9.9714**	**1.4859**	**11.4573**	**4.5088**	**1.3893**	**4.8104**	**0.0000**	**36,776.6567**	**36,776.6567**	**4.0733**	**0.0000**	**36,878.4895**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.16**	**8.56**	**-6.93**	**0.00**	**45.26**	**45.84**	**44.40**	**54.78**	**45.25**	**60.48**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.9806	1.0400e-003	0.1130	1.0000e-005		4.1000e-004	4.1000e-004		4.1000e-004	4.1000e-004		0.2407	0.2407	6.5000e-004		0.2569
Energy	0.9553	8.6845	7.2950	0.0521		0.6600	0.6600		0.6600	0.6600		10,421.3763	10,421.3763	0.1997	0.1911	10,483.3053
Mobile	10.9758	86.5085	106.0899	0.4061	28.8359	0.3904	29.2262	7.7162	0.3679	8.0841		41,492.3963	41,492.3963	2.9753		41,566.7775
Stationary	0.1941	0.8640	3.4589	0.0212		0.2682	0.2682		0.2682	0.2682		4,235.3665	4,235.3665	0.0812		4,237.3959
Total	**15.1058**	**96.0580**	**116.9568**	**0.4794**	**28.8359**	**1.3191**	**30.1549**	**7.7162**	**1.2966**	**9.0128**		**56,149.3799**	**56,149.3799**	**3.2568**	**0.1911**	**56,287.7357**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.5996	1.0400e-003	0.1130	1.0000e-005		4.1000e-004	4.1000e-004		4.1000e-004	4.1000e-004		0.2407	0.2407	6.5000e-004		0.2569
Energy	0.9553	8.6845	7.2950	0.0521		0.6600	0.6600		0.6600	0.6600		10,421.3763	10,421.3763	0.1997	0.1911	10,483.3053
Mobile	10.9758	86.5085	106.0899	0.4061	28.8359	0.3904	29.2262	7.7162	0.3679	8.0841		41,492.3963	41,492.3963	2.9753		41,566.7775
Stationary	0.1941	0.8640	3.4589	0.0212		0.2682	0.2682		0.2682	0.2682		4,235.3665	4,235.3665	0.0812		4,237.3959
Total	**14.7249**	**96.0580**	**116.9568**	**0.4794**	**28.8359**	**1.3191**	**30.1549**	**7.7162**	**1.2966**	**9.0128**		**56,149.3799**	**56,149.3799**	**3.2568**	**0.1911**	**56,287.7357**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**2.52**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Agua Caliente Cathedral City FTT Casino Project - Alternative A - Riverside-Salton Sea County, Winter

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/1/2019	1/14/2019	5	10	
2	Grading	Grading	1/15/2019	2/25/2019	5	30	
3	Building Construction	Building Construction	2/26/2019	11/5/2019	5	181	
4	Paving	Paving	11/6/2019	12/3/2019	5	20	
5	Architectural Coating	Architectural Coating	12/4/2019	12/31/2019	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 13.68

Acres of Paving: 9

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 150,000; Non-Residential Outdoor: 50,000; Striped Parking Area: 16,800 (Architectural Coating – sqft)

OffRoad Equipment

Agua Caliente Cathedral City FTT Casino Project - Alternative A - Riverside-Salton Sea County, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	11,492.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	157.00	62.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	31.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use DPF for Construction Equipment

Use Soil Stabilizer

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	4.3350	45.5727	22.0630	0.0380		2.3904	2.3904		2.1991	2.1991		3,766.4529	3,766.4529	1.1917		3,796.2445
Total	**4.3350**	**45.5727**	**22.0630**	**0.0380**	**18.0663**	**2.3904**	**20.4566**	**9.9307**	**2.1991**	**12.1298**		**3,766.4529**	**3,766.4529**	**1.1917**		**3,796.2445**

3.2 Site Preparation - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0780	0.0488	0.5089	1.3900e-003	0.1506	9.6000e-004	0.1516	0.0400	8.8000e-004	0.0408		138.4827	138.4827	3.8600e-003		138.5791
Total	**0.0780**	**0.0488**	**0.5089**	**1.3900e-003**	**0.1506**	**9.6000e-004**	**0.1516**	**0.0400**	**8.8000e-004**	**0.0408**		**138.4827**	**138.4827**	**3.8600e-003**		**138.5791**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.1298	0.0000	8.1298	4.4688	0.0000	4.4688			0.0000			0.0000
Off-Road	0.9312	19.0656	22.9600	0.0380		0.1419	0.1419		0.1419	0.1419	0.0000	3,766.4529	3,766.4529	1.1917		3,796.2445
Total	**0.9312**	**19.0656**	**22.9600**	**0.0380**	**8.1298**	**0.1419**	**8.2717**	**4.4688**	**0.1419**	**4.6107**	**0.0000**	**3,766.4529**	**3,766.4529**	**1.1917**		**3,796.2445**

3.2 Site Preparation - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0780	0.0488	0.5089	1.3900e-003	0.1506	9.6000e-004	0.1516	0.0400	8.8000e-004	0.0408		138.4827	138.4827	3.8600e-003		138.5791
Total	**0.0780**	**0.0488**	**0.5089**	**1.3900e-003**	**0.1506**	**9.6000e-004**	**0.1516**	**0.0400**	**8.8000e-004**	**0.0408**		**138.4827**	**138.4827**	**3.8600e-003**		**138.5791**

3.3 Grading - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.8937	0.0000	6.8937	3.4212	0.0000	3.4212			0.0000			0.0000
Off-Road	4.7389	54.5202	33.3768	0.0620		2.3827	2.3827		2.1920	2.1920		6,140.0195	6,140.0195	1.9426		6,188.5854
Total	**4.7389**	**54.5202**	**33.3768**	**0.0620**	**6.8937**	**2.3827**	**9.2764**	**3.4212**	**2.1920**	**5.6133**		**6,140.0195**	**6,140.0195**	**1.9426**		**6,188.5854**

3.3 Grading - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	2.2626	98.8441	13.8345	0.2875	6.7019	0.3600	7.0618	1.8372	0.3444	2.1816		30,482.7675	30,482.7675	2.1264		30,535.9273
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0866	0.0542	0.5655	1.5500e-003	0.1673	1.0700e-003	0.1684	0.0444	9.8000e-004	0.0454		153.8697	153.8697	4.2900e-003		153.9768
Total	**2.3492**	**98.8983**	**14.3999**	**0.2890**	**6.8692**	**0.3610**	**7.2302**	**1.8816**	**0.3454**	**2.2270**		**30,636.6372**	**30,636.6372**	**2.1307**		**30,689.9041**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.1022	0.0000	3.1022	1.5395	0.0000	1.5395			0.0000			0.0000
Off-Road	2.9080	41.3897	36.6894	0.0620		1.1249	1.1249		1.0439	1.0439	0.0000	6,140.0195	6,140.0195	1.9426		6,188.5854
Total	**2.9080**	**41.3897**	**36.6894**	**0.0620**	**3.1022**	**1.1249**	**4.2271**	**1.5395**	**1.0439**	**2.5835**	**0.0000**	**6,140.0195**	**6,140.0195**	**1.9426**		**6,188.5854**

3.3 Grading - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	2.2626	98.8441	13.8345	0.2875	6.7019	0.3600	7.0618	1.8372	0.3444	2.1816		30,482.7675	30,482.7675	2.1264		30,535.9273
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0866	0.0542	0.5655	1.5500e-003	0.1673	1.0700e-003	0.1684	0.0444	9.8000e-004	0.0454		153.8697	153.8697	4.2900e-003		153.9768
Total	**2.3492**	**98.8983**	**14.3999**	**0.2890**	**6.8692**	**0.3610**	**7.2302**	**1.8816**	**0.3454**	**2.2270**		**30,636.6372**	**30,636.6372**	**2.1307**		**30,689.9041**

3.4 Building Construction - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.3612	21.0788	17.1638	0.0269		1.2899	1.2899		1.2127	1.2127		2,591.5802	2,591.5802	0.6313		2,607.3635
Total	**2.3612**	**21.0788**	**17.1638**	**0.0269**		**1.2899**	**1.2899**		**1.2127**	**1.2127**		**2,591.5802**	**2,591.5802**	**0.6313**		**2,607.3635**

3.4 Building Construction - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1947	6.4371	1.4232	0.0132	0.3111	0.0432	0.3543	0.0896	0.0414	0.1310		1,392.0611	1,392.0611	0.1486		1,395.7757
Worker	0.6799	0.4256	4.4388	0.0121	1.3136	8.3600e-003	1.3219	0.3484	7.7000e-003	0.3561		1,207.8768	1,207.8768	0.0336		1,208.7179
Total	**0.8746**	**6.8626**	**5.8621**	**0.0253**	**1.6247**	**0.0516**	**1.6762**	**0.4380**	**0.0491**	**0.4871**		**2,599.9379**	**2,599.9379**	**0.1822**		**2,604.4936**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6739	14.2261	17.8738	0.0269		0.1355	0.1355		0.1355	0.1355	0.0000	2,591.5802	2,591.5802	0.6313		2,607.3635
Total	**0.6739**	**14.2261**	**17.8738**	**0.0269**		**0.1355**	**0.1355**		**0.1355**	**0.1355**	**0.0000**	**2,591.5802**	**2,591.5802**	**0.6313**		**2,607.3635**

3.4 Building Construction - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1947	6.4371	1.4232	0.0132	0.3111	0.0432	0.3543	0.0896	0.0414	0.1310		1,392.0611	1,392.0611	0.1486		1,395.7757
Worker	0.6799	0.4256	4.4388	0.0121	1.3136	8.3600e-003	1.3219	0.3484	7.7000e-003	0.3561		1,207.8768	1,207.8768	0.0336		1,208.7179
Total	**0.8746**	**6.8626**	**5.8621**	**0.0253**	**1.6247**	**0.0516**	**1.6762**	**0.4380**	**0.0491**	**0.4871**		**2,599.9379**	**2,599.9379**	**0.1822**		**2,604.4936**

3.5 Paving - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4544	15.2441	14.6648	0.0228		0.8246	0.8246		0.7586	0.7586		2,257.0025	2,257.0025	0.7141		2,274.8548
Paving	1.1790					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.6334**	**15.2441**	**14.6648**	**0.0228**		**0.8246**	**0.8246**		**0.7586**	**0.7586**		**2,257.0025**	**2,257.0025**	**0.7141**		**2,274.8548**

3.5 Paving - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0650	0.0407	0.4241	1.1600e-003	0.1255	8.0000e-004	0.1263	0.0333	7.4000e-004	0.0340		115.4022	115.4022	3.2100e-003		115.4826
Total	**0.0650**	**0.0407**	**0.4241**	**1.1600e-003**	**0.1255**	**8.0000e-004**	**0.1263**	**0.0333**	**7.4000e-004**	**0.0340**		**115.4022**	**115.4022**	**3.2100e-003**		**115.4826**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5609	11.2952	17.2957	0.0228		0.0914	0.0914		0.0914	0.0914	0.0000	2,257.0025	2,257.0025	0.7141		2,274.8548
Paving	1.1790					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.7399**	**11.2952**	**17.2957**	**0.0228**		**0.0914**	**0.0914**		**0.0914**	**0.0914**	**0.0000**	**2,257.0025**	**2,257.0025**	**0.7141**		**2,274.8548**

3.5 Paving - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0650	0.0407	0.4241	1.1600e-003	0.1255	8.0000e-004	0.1263	0.0333	7.4000e-004	0.0340		115.4022	115.4022	3.2100e-003		115.4826
Total	**0.0650**	**0.0407**	**0.4241**	**1.1600e-003**	**0.1255**	**8.0000e-004**	**0.1263**	**0.0333**	**7.4000e-004**	**0.0340**		**115.4022**	**115.4022**	**3.2100e-003**		**115.4826**

3.6 Architectural Coating - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	125.6085					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2664	1.8354	1.8413	2.9700e-003		0.1288	0.1288		0.1288	0.1288		281.4481	281.4481	0.0238		282.0423
Total	**125.8749**	**1.8354**	**1.8413**	**2.9700e-003**		**0.1288**	**0.1288**		**0.1288**	**0.1288**		**281.4481**	**281.4481**	**0.0238**		**282.0423**

3.6 Architectural Coating - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1343	0.0840	0.8765	2.3900e-003	0.2594	1.6500e-003	0.2610	0.0688	1.5200e-003	0.0703		238.4980	238.4980	6.6400e-003		238.6640
Total	**0.1343**	**0.0840**	**0.8765**	**2.3900e-003**	**0.2594**	**1.6500e-003**	**0.2610**	**0.0688**	**1.5200e-003**	**0.0703**		**238.4980**	**238.4980**	**6.6400e-003**		**238.6640**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	125.6085					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0594	1.3570	1.8324	2.9700e-003		0.0143	0.0143		0.0143	0.0143	0.0000	281.4481	281.4481	0.0238		282.0423
Total	**125.6679**	**1.3570**	**1.8324**	**2.9700e-003**		**0.0143**	**0.0143**		**0.0143**	**0.0143**	**0.0000**	**281.4481**	**281.4481**	**0.0238**		**282.0423**

3.6 Architectural Coating - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1343	0.0840	0.8765	2.3900e-003	0.2594	1.6500e-003	0.2610	0.0688	1.5200e-003	0.0703		238.4980	238.4980	6.6400e-003		238.6640
Total	**0.1343**	**0.0840**	**0.8765**	**2.3900e-003**	**0.2594**	**1.6500e-003**	**0.2610**	**0.0688**	**1.5200e-003**	**0.0703**		**238.4980**	**238.4980**	**6.6400e-003**		**238.6640**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	10.9758	86.5085	106.0899	0.4061	28.8359	0.3904	29.2262	7.7162	0.3679	8.0841		41,492.3963	41,492.3963	2.9753		41,566.7775
Unmitigated	10.9758	86.5085	106.0899	0.4061	28.8359	0.3904	29.2262	7.7162	0.3679	8.0841		41,492.3963	41,492.3963	2.9753		41,566.7775

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Fast Food Restaurant w/o Drive Thru	576.76	576.76	576.76	955,755	955,755
Fast Food Restaurant with Drive Thru	957.78	957.78	957.78	1,607,402	1,607,402
High Turnover (Sit Down Restaurant)	637.70	637.70	637.70	1,191,602	1,191,602
Parking Lot	0.00	0.00	0.00		
Quality Restaurant	240.80	240.80	240.80	475,420	475,420
Regional Shopping Center	872.16	872.16	872.16	1,835,241	1,835,241
User Defined Recreational	3,720.00	3,720.00	3720.00	7,454,210	7,454,210
Total	7,005.20	7,005.20	7,005.20	13,519,631	13,519,631

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Fast Food Restaurant w/o Drive	12.50	4.20	5.40	1.50	79.50	19.00	100	0	0
Fast Food Restaurant with Drive	12.50	4.20	5.40	2.20	78.80	19.00	100	0	0
High Turnover (Sit Down	12.50	4.20	5.40	8.50	72.50	19.00	100	0	0
Parking Lot	12.50	4.20	5.40	0.00	0.00	0.00	0	0	0
Quality Restaurant	12.50	4.20	5.40	12.00	69.00	19.00	100	0	0
Regional Shopping Center	12.50	4.20	5.40	16.30	64.70	19.00	100	0	0
User Defined Recreational	12.50	4.20	5.40	15.00	80.00	5.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Fast Food Restaurant w/o Drive Thru	0.538064	0.038449	0.184390	0.122109	0.017402	0.005339	0.017250	0.067711	0.001365	0.001213	0.004629	0.000959	0.001120
Fast Food Restaurant with Drive Thru	0.538064	0.038449	0.184390	0.122109	0.017402	0.005339	0.017250	0.067711	0.001365	0.001213	0.004629	0.000959	0.001120
High Turnover (Sit Down Restaurant)	0.538064	0.038449	0.184390	0.122109	0.017402	0.005339	0.017250	0.067711	0.001365	0.001213	0.004629	0.000959	0.001120
Parking Lot	0.538064	0.038449	0.184390	0.122109	0.017402	0.005339	0.017250	0.067711	0.001365	0.001213	0.004629	0.000959	0.001120
Quality Restaurant	0.538064	0.038449	0.184390	0.122109	0.017402	0.005339	0.017250	0.067711	0.001365	0.001213	0.004629	0.000959	0.001120
Regional Shopping Center	0.538064	0.038449	0.184390	0.122109	0.017402	0.005339	0.017250	0.067711	0.001365	0.001213	0.004629	0.000959	0.001120
User Defined Recreational	0.538064	0.038449	0.184390	0.122109	0.017402	0.005339	0.017250	0.067711	0.001365	0.001213	0.004629	0.000959	0.001120

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Install High Efficiency Lighting

Agua Caliente Cathedral City FTT Casino Project - Alternative A - Riverside-Salton Sea County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.9553	8.6845	7.2950	0.0521		0.6600	0.6600		0.6600	0.6600		10,421.3763	10,421.3763	0.1997	0.1911	10,483.3053
NaturalGas Unmitigated	0.9553	8.6845	7.2950	0.0521		0.6600	0.6600		0.6600	0.6600		10,421.3763	10,421.3763	0.1997	0.1911	10,483.3053

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Fast Food Restaurant w/o Drive Thru	1498.3	0.0162	0.1469	0.1234	8.8000e-004		0.0112	0.0112		0.0112	0.0112		176.2708	176.2708	3.3800e-003	3.2300e-003	177.3182
Fast Food Restaurant with Drive Thru	4494.9	0.0485	0.4407	0.3702	2.6400e-003		0.0335	0.0335		0.0335	0.0335		528.8123	528.8123	0.0101	9.6900e-003	531.9547
High Turnover (Sit Down Restaurant)	10488.1	0.1131	1.0283	0.8637	6.1700e-003		0.0782	0.0782		0.0782	0.0782		1,233.8953	1,233.8953	0.0237	0.0226	1,241.2277
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	10488.1	0.1131	1.0283	0.8637	6.1700e-003		0.0782	0.0782		0.0782	0.0782		1,233.8953	1,233.8953	0.0237	0.0226	1,241.2277
Regional Shopping Center	145.973	1.5700e-003	0.0143	0.0120	9.0000e-005		1.0900e-003	1.0900e-003		1.0900e-003	1.0900e-003		17.1733	17.1733	3.3000e-004	3.1000e-004	17.2753
User Defined Recreational	61466.3	0.6629	6.0261	5.0619	0.0362		0.4580	0.4580		0.4580	0.4580		7,231.3296	7,231.3296	0.1386	0.1326	7,274.3018
Total		**0.9553**	**8.6845**	**7.2950**	**0.0521**		**0.6600**	**0.6600**		**0.6600**	**0.6600**		**10,421.3763**	**10,421.3763**	**0.1998**	**0.1910**	**10,483.3053**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Fast Food Restaurant w/o Drive Thru	1.4983	0.0162	0.1469	0.1234	8.8000e-004		0.0112	0.0112		0.0112	0.0112		176.2708	176.2708	3.3800e-003	3.2300e-003	177.3182
Fast Food Restaurant with Drive Thru	4.4949	0.0485	0.4407	0.3702	2.6400e-003		0.0335	0.0335		0.0335	0.0335		528.8123	528.8123	0.0101	9.6900e-003	531.9547
High Turnover (Sit Down Restaurant)	10.4881	0.1131	1.0283	0.8637	6.1700e-003		0.0782	0.0782		0.0782	0.0782		1,233.8953	1,233.8953	0.0237	0.0226	1,241.2277
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	10.4881	0.1131	1.0283	0.8637	6.1700e-003		0.0782	0.0782		0.0782	0.0782		1,233.8953	1,233.8953	0.0237	0.0226	1,241.2277
Regional Shopping Center	0.145973	1.5700e-003	0.0143	0.0120	9.0000e-005		1.0900e-003	1.0900e-003		1.0900e-003	1.0900e-003		17.1733	17.1733	3.3000e-004	3.1000e-004	17.2753
User Defined Recreational	61.4663	0.6629	6.0261	5.0619	0.0362		0.4580	0.4580		0.4580	0.4580		7,231.3296	7,231.3296	0.1386	0.1326	7,274.3018
Total		**0.9553**	**8.6845**	**7.2950**	**0.0521**		**0.6600**	**0.6600**		**0.6600**	**0.6600**		**10,421.3763**	**10,421.3763**	**0.1998**	**0.1910**	**10,483.3053**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.5996	1.0400e-003	0.1130	1.0000e-005		4.1000e-004	4.1000e-004		4.1000e-004	4.1000e-004		0.2407	0.2407	6.5000e-004		0.2569
Unmitigated	2.9806	1.0400e-003	0.1130	1.0000e-005		4.1000e-004	4.1000e-004		4.1000e-004	4.1000e-004		0.2407	0.2407	6.5000e-004		0.2569

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.6883					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.2817					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0106	1.0400e-003	0.1130	1.0000e-005		4.1000e-004	4.1000e-004		4.1000e-004	4.1000e-004		0.2407	0.2407	6.5000e-004		0.2569
Total	**2.9806**	**1.0400e-003**	**0.1130**	**1.0000e-005**		**4.1000e-004**	**4.1000e-004**		**4.1000e-004**	**4.1000e-004**		**0.2407**	**0.2407**	**6.5000e-004**		**0.2569**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.3073					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.2817					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0106	1.0400e-003	0.1130	1.0000e-005		4.1000e-004	4.1000e-004		4.1000e-004	4.1000e-004		0.2407	0.2407	6.5000e-004		0.2569
Total	**2.5996**	**1.0400e-003**	**0.1130**	**1.0000e-005**		**4.1000e-004**	**4.1000e-004**		**4.1000e-004**	**4.1000e-004**		**0.2407**	**0.2407**	**6.5000e-004**		**0.2569**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Emergency Generator	3	0	30	2923	0.73	Diesel

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
Boiler	3	12	4380	0.5	CNG

User Defined Equipment

Equipment Type	Number

10.1 Stationary Sources

Unmitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	lb/day										lb/day					
Boiler - CNG (0 - 2 MMBTU)	0.1941	0.8640	3.4589	0.0212		0.2682	0.2682		0.2682	0.2682		4,235.3665	4,235.3665	0.0812		4,237.3959
Emergency Generator - Diesel (750 - 9999 HP)	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.1941**	**0.8640**	**3.4589**	**0.0212**		**0.2682**	**0.2682**		**0.2682**	**0.2682**		**4,235.3665**	**4,235.3665**	**0.0812**		**4,237.3959**

11.0 Vegetation

Agua Caliente Cathedral City FTT Casino Project - Alternative A

Riverside-Salton Sea County, Mitigation Report

Construction Mitigation Summary

Phase	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Architectural Coating	0.00	0.25	0.00	0.00	0.88	0.88	0.00	0.00	0.00	0.00	0.00	0.00
Building Construction	0.53	0.24	-0.03	0.00	0.86	0.85	0.00	0.00	0.00	0.00	0.00	0.00
Grading	0.26	0.08	-0.07	0.00	0.46	0.45	0.00	0.00	0.00	0.00	0.00	0.00
Paving	0.33	0.26	-0.17	0.00	0.89	0.88	0.00	0.00	0.00	0.00	0.00	0.00
Site Preparation	0.77	0.58	-0.04	0.00	0.94	0.94	0.00	0.00	0.00	0.00	0.00	0.00

OFFROAD Equipment Mitigation

Equipment Type	Fuel Type	Tier	Number Mitigated	Total Number of Equipment	DPF	Oxidation Catalyst
Air Compressors	Diesel	Tier 3	1	1	Level 3	0.00
Cranes	Diesel	Tier 3	1	1	Level 3	0.00
Excavators	Diesel	Tier 3	2	2	Level 3	0.00
Forklifts	Diesel	Tier 3	3	3	Level 3	0.00
Generator Sets	Diesel	Tier 3	1	1	Level 3	0.00
Graders	Diesel	Tier 3	1	1	Level 3	0.00
Pavers	Diesel	Tier 3	2	2	Level 3	0.00
Paving Equipment	Diesel	Tier 3	2	2	Level 3	0.00
Rollers	Diesel	Tier 3	2	2	Level 3	0.00
Rubber Tired Dozers	Diesel	Tier 3	4	4	Level 3	0.00
Scrapers	Diesel	No Change	2	2	No Change	0.00
Tractors/Loaders/Backhoes	Diesel	Tier 3	9	9	Level 3	0.00
Welders	Diesel	Tier 3	1	1	Level 3	0.00

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	Unmitigated tons/yr						Unmitigated mt/yr					
Air Compressors	2.66000E-003	1.83500E-002	1.84100E-002	3.00000E-005	1.29000E-003	1.29000E-003	0.00000E+000	2.55325E+000	2.55325E+000	2.20000E-004	0.00000E+000	2.55865E+000
Cranes	3.99100E-002	4.75680E-001	1.81580E-001	4.60000E-004	2.01600E-002	1.85500E-002	0.00000E+000	4.10345E+001	4.10345E+001	1.29800E-002	0.00000E+000	4.13590E+001
Excavators	7.82000E-003	8.04600E-002	9.79000E-002	1.50000E-004	3.88000E-003	3.57000E-003	0.00000E+000	1.39106E+001	1.39106E+001	4.40000E-003	0.00000E+000	1.40206E+001
Forklifts	4.34300E-002	3.87790E-001	3.24220E-001	4.10000E-004	3.00400E-002	2.76400E-002	0.00000E+000	3.72703E+001	3.72703E+001	1.17900E-002	0.00000E+000	3.75651E+001
Generator Sets	4.01800E-002	3.41900E-001	3.36940E-001	6.00000E-004	2.04400E-002	2.04400E-002	0.00000E+000	5.11513E+001	5.11513E+001	3.24000E-003	0.00000E+000	5.12323E+001
Graders	7.30000E-003	9.86900E-002	2.75700E-002	1.00000E-004	3.17000E-003	2.91000E-003	0.00000E+000	8.94884E+000	8.94884E+000	2.83000E-003	0.00000E+000	9.01962E+000
Pavers	5.75000E-003	6.24900E-002	5.80300E-002	9.00000E-005	3.06000E-003	2.82000E-003	0.00000E+000	8.44586E+000	8.44586E+000	2.67000E-003	0.00000E+000	8.51266E+000
Paving Equipment	4.26000E-003	4.51300E-002	5.04700E-002	8.00000E-005	2.24000E-003	2.06000E-003	0.00000E+000	7.31770E+000	7.31770E+000	2.32000E-003	0.00000E+000	7.37558E+000
Rollers	4.53000E-003	4.48200E-002	3.81500E-002	5.00000E-005	2.95000E-003	2.71000E-003	0.00000E+000	4.71162E+000	4.71162E+000	1.49000E-003	0.00000E+000	4.74889E+000
Rubber Tired Dozers	3.40400E-002	3.62230E-001	1.28520E-001	2.60000E-004	1.76600E-002	1.62500E-002	0.00000E+000	2.30088E+001	2.30088E+001	7.28000E-003	0.00000E+000	2.31908E+001
Scrapers	3.19600E-002	3.87420E-001	2.41840E-001	4.50000E-004	1.51800E-002	1.39700E-002	0.00000E+000	4.08183E+001	4.08183E+001	1.29100E-002	0.00000E+000	4.11411E+001
Tractors/Loaders/ Backhoes	6.69500E-002	6.72140E-001	6.62160E-001	8.90000E-004	4.48700E-002	4.12800E-002	0.00000E+000	8.02292E+001	8.02292E+001	2.53800E-002	0.00000E+000	8.08638E+001
Welders	3.48600E-002	1.47000E-001	1.63550E-001	2.30000E-004	9.02000E-003	9.02000E-003	0.00000E+000	1.70340E+001	1.70340E+001	2.85000E-003	0.00000E+000	1.71052E+001

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	Mitigated tons/yr						Mitigated mt/yr					
Air Compressors	5.90000E-004	1.35700E-002	1.83200E-002	3.00000E-005	1.40000E-004	1.40000E-004	0.00000E+000	2.55325E+000	2.55325E+000	2.20000E-004	0.00000E+000	2.55864E+000
Cranes	1.12300E-002	2.17060E-001	2.43260E-001	4.60000E-004	1.23000E-003	1.23000E-003	0.00000E+000	4.10344E+001	4.10344E+001	1.29800E-002	0.00000E+000	4.13590E+001
Excavators	3.81000E-003	7.37000E-002	1.17540E-001	1.50000E-004	5.30000E-004	5.30000E-004	0.00000E+000	1.39105E+001	1.39105E+001	4.40000E-003	0.00000E+000	1.40206E+001
Forklifts	1.02300E-002	2.33540E-001	3.15370E-001	4.10000E-004	2.45000E-003	2.45000E-003	0.00000E+000	3.72703E+001	3.72703E+001	1.17900E-002	0.00000E+000	3.75651E+001
Generator Sets	1.19100E-002	2.71850E-001	3.67100E-001	6.00000E-004	2.86000E-003	2.86000E-003	0.00000E+000	5.11512E+001	5.11512E+001	3.24000E-003	0.00000E+000	5.12322E+001
Graders	2.43000E-003	4.70600E-002	5.27400E-002	1.00000E-004	2.70000E-004	2.70000E-004	0.00000E+000	8.94883E+000	8.94883E+000	2.83000E-003	0.00000E+000	9.01961E+000
Pavers	2.31000E-003	4.46800E-002	7.12600E-002	9.00000E-005	3.20000E-004	3.20000E-004	0.00000E+000	8.44585E+000	8.44585E+000	2.67000E-003	0.00000E+000	8.51265E+000
Paving Equipment	2.01000E-003	3.88900E-002	6.20200E-002	8.00000E-005	2.80000E-004	2.80000E-004	0.00000E+000	7.31769E+000	7.31769E+000	2.32000E-003	0.00000E+000	7.37557E+000
Rollers	1.29000E-003	2.93800E-002	3.96800E-002	5.00000E-005	3.10000E-004	3.10000E-004	0.00000E+000	4.71162E+000	4.71162E+000	1.49000E-003	0.00000E+000	4.74888E+000
Rubber Tired Dozers	6.27000E-003	1.21280E-001	1.35920E-001	2.60000E-004	6.90000E-004	6.90000E-004	0.00000E+000	2.30088E+001	2.30088E+001	7.28000E-003	0.00000E+000	2.31908E+001
Scrapers	3.19600E-002	3.87410E-001	2.41840E-001	4.50000E-004	1.51800E-002	1.39700E-002	0.00000E+000	4.08182E+001	4.08182E+001	1.29100E-002	0.00000E+000	4.11411E+001
Tractors/Loaders/Backhoes	2.18400E-002	4.98750E-001	6.73490E-001	8.90000E-004	5.24000E-003	5.24000E-003	0.00000E+000	8.02291E+001	8.02291E+001	2.53800E-002	0.00000E+000	8.08637E+001
Welders	9.58000E-003	1.52980E-001	1.35460E-001	2.30000E-004	1.39000E-003	1.39000E-003	0.00000E+000	1.70340E+001	1.70340E+001	2.85000E-003	0.00000E+000	1.71051E+001

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Air Compressors	7.78195E-001	2.60490E-001	4.88865E-003	0.00000E+000	8.91473E-001	8.91473E-001	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	3.90831E-006
Cranes	7.18617E-001	5.43685E-001	-3.39685E-001	0.00000E+000	9.38988E-001	9.33693E-001	0.00000E+000	1.21849E-006	1.21849E-006	0.00000E+000	0.00000E+000	1.20893E-006
Excavators	5.12788E-001	8.40169E-002	-2.00613E-001	0.00000E+000	8.63402E-001	8.51541E-001	0.00000E+000	1.43776E-006	1.43776E-006	0.00000E+000	0.00000E+000	1.42647E-006
Forklifts	7.64449E-001	3.97767E-001	2.72963E-002	0.00000E+000	9.18442E-001	9.11360E-001	0.00000E+000	1.34155E-006	1.34155E-006	0.00000E+000	0.00000E+000	1.06482E-006
Generator Sets	7.03584E-001	2.04884E-001	-8.95115E-002	0.00000E+000	8.60078E-001	8.60078E-001	0.00000E+000	1.17299E-006	1.17299E-006	0.00000E+000	0.00000E+000	1.17114E-006
Graders	6.67123E-001	5.23153E-001	-9.12949E-001	0.00000E+000	9.14826E-001	9.07216E-001	0.00000E+000	1.11746E-006	1.11746E-006	0.00000E+000	0.00000E+000	1.10869E-006
Pavers	5.98261E-001	2.85006E-001	-2.27986E-001	0.00000E+000	8.95425E-001	8.86525E-001	0.00000E+000	1.18401E-006	1.18401E-006	0.00000E+000	0.00000E+000	1.17472E-006
Paving Equipment	5.28169E-001	1.38267E-001	-2.28849E-001	0.00000E+000	8.75000E-001	8.64078E-001	0.00000E+000	1.36655E-006	1.36655E-006	0.00000E+000	0.00000E+000	1.35583E-006
Rollers	7.15232E-001	3.44489E-001	-4.01048E-002	0.00000E+000	8.94915E-001	8.85609E-001	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	2.10576E-006
Rubber Tired Dozers	8.15805E-001	6.65185E-001	-5.75786E-002	0.00000E+000	9.60929E-001	9.57538E-001	0.00000E+000	8.69233E-007	8.69233E-007	0.00000E+000	0.00000E+000	1.29362E-006
Scrapers	0.00000E+000	2.58118E-005	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	9.79954E-007	9.79954E-007	0.00000E+000	0.00000E+000	1.21533E-006
Tractors/Loaders/Backhoes	6.73786E-001	2.57967E-001	-1.71107E-002	0.00000E+000	8.83218E-001	8.73062E-001	0.00000E+000	1.24643E-006	1.24643E-006	0.00000E+000	0.00000E+000	1.23665E-006
Welders	7.25186E-001	-4.06803E-002	1.71752E-001	0.00000E+000	8.45898E-001	8.45898E-001	0.00000E+000	1.17412E-006	1.17412E-006	0.00000E+000	0.00000E+000	1.16924E-006

Fugitive Dust Mitigation

Yes/No	Mitigation Measure	Mitigation Input		Mitigation Input		Mitigation Input	
Yes	Soil Stabilizer for unpaved Roads	PM10 Reduction	10.00	PM2.5 Reduction	10.00		
No	Replace Ground Cover of Area Disturbed	PM10 Reduction	0.00	PM2.5 Reduction	0.00		
Yes	Water Exposed Area	PM10 Reduction	55.00	PM2.5 Reduction	55.00	Frequency (per day)	2.00

No	Unpaved Road Mitigation	Moisture Content %	0.00	Vehicle Speed (mph)	15.00		
No	Clean Paved Road	% PM Reduction	0.00				

		Unmitigated		Mitigated		Percent Reduction	
Phase	Source	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5
Architectural Coating	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Architectural Coating	Roads	0.00	0.00	0.00	0.00	0.00	0.00
Building Construction	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Building Construction	Roads	0.14	0.04	0.14	0.04	0.00	0.00
Grading	Fugitive Dust	0.10	0.05	0.05	0.02	0.55	0.55
Grading	Roads	0.10	0.03	0.10	0.03	0.00	0.00
Paving	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Paving	Roads	0.00	0.00	0.00	0.00	0.00	0.00
Site Preparation	Fugitive Dust	0.09	0.05	0.04	0.02	0.55	0.55
Site Preparation	Roads	0.00	0.00	0.00	0.00	0.00	0.00

Operational Percent Reduction Summary

Category	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Architectural Coating	55.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electricity	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.59	3.59	3.62	3.53	3.59
Hearth	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Landscaping	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mobile	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Natural Gas	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Water Indoor	0.00	0.00	0.00	0.00	0.00	0.00	20.00	15.88	16.11	19.97	19.73	16.73
Water Outdoor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Operational Mobile Mitigation

Project Setting:

Mitigation	Category	Measure	% Reduction	Input Value 1	Input Value 2	Input Value
No	Land Use	Increase Density	0.00			
No	Land Use	Increase Diversity	0.12	0.34		
No	Land Use	Improve Walkability Design	0.00			
No	Land Use	Improve Destination Accessibility	0.00			
No	Land Use	Increase Transit Accessibility	0.25			
No	Land Use	Integrate Below Market Rate Housing	0.00			
	Land Use	Land Use SubTotal	0.00			

No	Neighborhood Enhancements	Improve Pedestrian Network				
No	Neighborhood Enhancements	Provide Traffic Calming Measures				
No	Neighborhood Enhancements	Implement NEV Network	0.00			
	Neighborhood Enhancements	Neighborhood Enhancements Subtotal	0.00			
No	Parking Policy Pricing	Limit Parking Supply	0.00			
No	Parking Policy Pricing	Unbundle Parking Costs	0.00			
No	Parking Policy Pricing	On-street Market Pricing	0.00			
	Parking Policy Pricing	Parking Policy Pricing Subtotal	0.00			
No	Transit Improvements	Provide BRT System	0.00			
No	Transit Improvements	Expand Transit Network	0.00			
No	Transit Improvements	Increase Transit Frequency	0.00			
	Transit Improvements	Transit Improvements Subtotal	0.00			
		Land Use and Site Enhancement Subtotal	0.00			
No	Commute	Implement Trip Reduction Program				
No	Commute	Transit Subsidy				
No	Commute	Implement Employee Parking "Cash Out"				
No	Commute	Workplace Parking Charge				
No	Commute	Encourage Telecommuting and Alternative Work Schedules	0.00			
No	Commute	Market Commute Trip Reduction Option	0.00			
No	Commute	Employee Vanpool/Shuttle	0.00		2.00	
No	Commute	Provide Ride Sharing Program				
	Commute	Commute Subtotal	0.00			

No	School Trip	Implement School Bus Program	0.00			
		Total VMT Reduction	0.00			

Area Mitigation

Measure Implemented	Mitigation Measure	Input Value
No	Only Natural Gas Hearth	
No	No Hearth	
No	Use Low VOC Cleaning Supplies	
No	Use Low VOC Paint (Residential Interior)	250.00
No	Use Low VOC Paint (Residential Exterior)	250.00
Yes	Use Low VOC Paint (Non-residential Interior)	100.00
Yes	Use Low VOC Paint (Non-residential Exterior)	100.00
No	Use Low VOC Paint (Parking)	250.00
No	% Electric Lawnmower	0.00
No	% Electric Leafblower	0.00
No	% Electric Chainsaw	0.00

Energy Mitigation Measures

Measure Implemented	Mitigation Measure	Input Value 1	Input Value 2
No	Exceed Title 24	0.00	
Yes	Install High Efficiency Lighting	16.00	
No	On-site Renewable	0.00	0.00

Appliance Type	Land Use Subtype	% Improvement
ClothWasher		30.00
DishWasher		15.00
Fan		50.00
Refrigerator		15.00

Water Mitigation Measures

Measure Implemented	Mitigation Measure	Input Value 1	Input Value 2
No	Apply Water Conservation on Strategy	0.00	0.00
No	Use Reclaimed Water	0.00	0.00
No	Use Grey Water	0.00	
Yes	Install low-flow bathroom faucet	32.00	
Yes	Install low-flow Kitchen faucet	18.00	
Yes	Install low-flow Toilet	20.00	
Yes	Install low-flow Shower	20.00	
No	Turf Reduction	0.00	
No	Use Water Efficient Irrigation Systems	6.10	
No	Water Efficient Landscape	0.00	0.00

Solid Waste Mitigation

Mitigation Measures	Input Value

Institute Recycling and Composting Services Percent Reduction in Waste Disposed	50.00

Agua Caliente Cathedral City FTT Casino Project - Alternative A Cumulative

Riverside-Salton Sea County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	1,000.00	Space	9.00	400,000.00	0
Fast Food Restaurant w/o Drive Thru	2.00	1000sqft	0.00	2,000.00	0
Fast Food Restaurant with Drive Thru	6.00	1000sqft	0.00	6,000.00	0
High Turnover (Sit Down Restaurant)	14.00	1000sqft	0.00	14,000.00	0
Quality Restaurant	14.00	1000sqft	0.00	14,000.00	0
User Defined Recreational	40.00	User Defined Unit	4.68	40,000.00	0
Regional Shopping Center	24.00	1000sqft	0.00	24,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2040
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Agua Caliente Cathedral City FTT Casino Project - Alternative A Cumulative - Riverside-Salton Sea County, Annual

Project Characteristics -

Land Use - Project Description; lot acreage for all recreational and retail space is all included within the User Defined Recreational land use.

Construction Phase - Construction phasing based on a 12-month construction schedule.

Grading - MSA Consulting, Inc., 2018a (See Table 2, CalEEMod Inputs)

Vehicle Trips - See Table 3, CalEEMod Inputs. Trip generation rates are derived from the TIS (Appendix TIS).

Energy Use - Electricity energy and natural gas intensity for the user defined recretational land use determined from similar projects and scaled by square footage

Water And Wastewater - Water demand is based off of similar projects and scaled by square footage

Solid Waste - Section 4.9 of the EA

Construction Off-road Equipment Mitigation - Construction Mitigation

Area Mitigation - MDAQMD Rule 1113 Architectural Coatings (based on nonflat coating)

Energy Mitigation -

Water Mitigation -

Waste Mitigation - Tribe will use the Salton City Landfill's facilities and will divert 50 percent of waste from the landfill.

Stationary Sources - Emergency Generators and Fire Pumps - Based on like project emergency generator size and use

Stationary Sources - Process Boilers - Based on like project boiler size and use

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_Parking	24000	16800
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	250	100
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	100
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	9.00
tblConstEquipMitigation	Tier	No Change	Tier 3

Agua Caliente Cathedral City FTT Casino Project - Alternative A Cumulative - Riverside-Salton Sea County, Annual

tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	10.00	2.00
tblEnergyUse	NT24E	0.00	3.37
tblEnergyUse	NT24NG	0.00	560.88
tblLandUse	LandUseSquareFeet	0.00	40,000.00
tblLandUse	LotAcreage	0.05	0.00
tblLandUse	LotAcreage	0.14	0.00
tblLandUse	LotAcreage	0.32	0.00
tblLandUse	LotAcreage	0.32	0.00
tblLandUse	LotAcreage	0.00	4.68
tblLandUse	LotAcreage	0.55	0.00
tblSolidWaste	SolidWasteGenerationRate	0.00	375.95
tblStationaryBoilersUse	AnnualHeatInput	0.00	4,380.00
tblStationaryBoilersUse	BoilerRatingValue	0.00	0.50
tblStationaryBoilersUse	DailyHeatInput	0.00	12.00
tblStationaryBoilersUse	NumberOfEquipment	0.00	3.00
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	2,923.00
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	30.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	3.00
tblVehicleTrips	CC_TTP	0.00	80.00
tblVehicleTrips	CNW_TTP	0.00	5.00
tblVehicleTrips	CW_TTP	0.00	15.00
tblVehicleTrips	DV_TP	37.00	0.00
tblVehicleTrips	DV_TP	21.00	0.00
tblVehicleTrips	DV_TP	20.00	0.00
tblVehicleTrips	DV_TP	18.00	0.00
tblVehicleTrips	DV_TP	35.00	0.00

tblVehicleTrips	PB_TP	12.00	0.00
tblVehicleTrips	PB_TP	50.00	0.00
tblVehicleTrips	PB_TP	43.00	0.00
tblVehicleTrips	PB_TP	44.00	0.00
tblVehicleTrips	PB_TP	11.00	0.00
tblVehicleTrips	PR_TP	51.00	100.00
tblVehicleTrips	PR_TP	29.00	100.00
tblVehicleTrips	PR_TP	37.00	100.00
tblVehicleTrips	PR_TP	38.00	100.00
tblVehicleTrips	PR_TP	54.00	100.00
tblVehicleTrips	PR_TP	0.00	100.00
tblVehicleTrips	ST_TR	696.00	288.38
tblVehicleTrips	ST_TR	722.03	159.63
tblVehicleTrips	ST_TR	158.37	45.55
tblVehicleTrips	ST_TR	94.36	17.20
tblVehicleTrips	ST_TR	49.97	36.34
tblVehicleTrips	ST_TR	0.00	93.00
tblVehicleTrips	SU_TR	500.00	288.38
tblVehicleTrips	SU_TR	542.72	159.63
tblVehicleTrips	SU_TR	131.84	45.55
tblVehicleTrips	SU_TR	72.16	17.20
tblVehicleTrips	SU_TR	25.24	36.34
tblVehicleTrips	SU_TR	0.00	93.00
tblVehicleTrips	WD_TR	716.00	288.38
tblVehicleTrips	WD_TR	496.12	159.63
tblVehicleTrips	WD_TR	127.15	45.55
tblVehicleTrips	WD_TR	89.95	17.20

tblVehicleTrips	WD_TR	42.70	36.34
tblVehicleTrips	WD_TR	0.00	93.00
tblWater	IndoorWaterUseRate	0.00	15,931,489.00
tblWater	OutdoorWaterUseRate	0.00	6,928,889.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	4.4100e-003	0.0456	0.0226	4.0000e-005	0.0182	2.3900e-003	0.0206	9.9700e-003	2.2000e-003	0.0122	0.0000	3.5457	3.5457	1.0800e-003	0.0000	3.5728
Maximum	**4.4100e-003**	**0.0456**	**0.0226**	**4.0000e-005**	**0.0182**	**2.3900e-003**	**0.0206**	**9.9700e-003**	**2.2000e-003**	**0.0122**	**0.0000**	**3.5457**	**3.5457**	**1.0800e-003**	**0.0000**	**3.5728**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	-0.0007	8.1500e-003	0.0239	4.0000e-005	8.2800e-003	-0.0011	7.1700e-003	4.5100e-003	-0.0010	3.5100e-003	0.0000	3.5457	3.5457	1.0800e-003	0.0000	3.5728
Maximum	**-0.0007**	**8.1500e-003**	**0.0239**	**4.0000e-005**	**8.2800e-003**	**-0.0011**	**7.1700e-003**	**4.5100e-003**	**-0.0010**	**3.5100e-003**	**0.0000**	**3.5457**	**3.5457**	**1.0800e-003**	**0.0000**	**3.5728**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**115.87**	**82.14**	**-5.93**	**0.00**	**54.53**	**146.44**	**65.21**	**54.76**	**145.45**	**71.16**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	1-1-2019	3-31-2019	0.0357	0.0053
		Highest	0.0357	0.0053

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.5429	9.0000e-005	0.0100	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0197	0.0197	5.0000e-005	0.0000	0.0209
Energy	0.1743	1.5849	1.3313	9.5100e-003		0.1205	0.1205		0.1205	0.1205	0.0000	2,454.1267	2,454.1267	0.0632	0.0379	2,466.9868
Mobile	0.7971	8.9544	8.1463	0.0556	5.1517	0.0189	5.1706	1.3787	0.0176	1.3963	0.0000	5,204.4919	5,204.4919	0.2192	0.0000	5,209.9706
Stationary	0.2513	1.1230	1.1816	4.9000e-003		0.0807	0.0807		0.0807	0.0807	0.0000	801.3887	801.3887	0.0275	0.0000	802.0759
Waste						0.0000	0.0000		0.0000	0.0000	136.5480	0.0000	136.5480	8.0698	0.0000	338.2918
Water						0.0000	0.0000		0.0000	0.0000	9.0850	149.6595	158.7445	0.9393	0.0233	189.1737
Total	**1.7657**	**11.6624**	**10.6693**	**0.0700**	**5.1517**	**0.2201**	**5.3718**	**1.3787**	**0.2188**	**1.5975**	**145.6330**	**8,609.6864**	**8,755.3194**	**9.3189**	**0.0612**	**9,006.5197**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.4734	9.0000e-005	0.0100	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0197	0.0197	5.0000e-005	0.0000	0.0209
Energy	0.1743	1.5849	1.3313	9.5100e-003		0.1205	0.1205		0.1205	0.1205	0.0000	2,427.9762	2,427.9762	0.0621	0.0376	2,440.7429
Mobile	0.7971	8.9544	8.1463	0.0556	5.1517	0.0189	5.1706	1.3787	0.0176	1.3963	0.0000	5,204.4919	5,204.4919	0.2192	0.0000	5,209.9706
Stationary	0.2513	1.1230	1.1816	4.9000e-003		0.0807	0.0807		0.0807	0.0807	0.0000	801.3887	801.3887	0.0275	0.0000	802.0759
Waste						0.0000	0.0000		0.0000	0.0000	68.2740	0.0000	68.2740	4.0349	0.0000	169.1459
Water						0.0000	0.0000		0.0000	0.0000	7.2680	125.8983	133.1663	0.7517	0.0187	157.5317
Total	**1.6962**	**11.6624**	**10.6693**	**0.0700**	**5.1517**	**0.2201**	**5.3718**	**1.3787**	**0.2188**	**1.5975**	**75.5420**	**8,559.7748**	**8,635.3168**	**5.0953**	**0.0563**	**8,779.4878**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**3.94**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**48.13**	**0.58**	**1.37**	**45.32**	**7.91**	**2.52**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/1/2019	1/2/2019	5	2	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 9

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use DPF for Construction Equipment

Use Soil Stabilizer

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0181	0.0000	0.0181	9.9300e-003	0.0000	9.9300e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.3400e-003	0.0456	0.0221	4.0000e-005		2.3900e-003	2.3900e-003		2.2000e-003	2.2000e-003	0.0000	3.4169	3.4169	1.0800e-003	0.0000	3.4439
Total	**4.3400e-003**	**0.0456**	**0.0221**	**4.0000e-005**	**0.0181**	**2.3900e-003**	**0.0205**	**9.9300e-003**	**2.2000e-003**	**0.0121**	**0.0000**	**3.4169**	**3.4169**	**1.0800e-003**	**0.0000**	**3.4439**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.0000e-005	5.0000e-005	5.3000e-004	0.0000	1.5000e-004	0.0000	1.5000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1288	0.1288	0.0000	0.0000	0.1289
Total	**7.0000e-005**	**5.0000e-005**	**5.3000e-004**	**0.0000**	**1.5000e-004**	**0.0000**	**1.5000e-004**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**0.0000**	**0.1288**	**0.1288**	**0.0000**	**0.0000**	**0.1289**

3.2 Site Preparation - 2019

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					8.1300e-003	0.0000	8.1300e-003	4.4700e-003	0.0000	4.4700e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	-0.0008	8.1000e-003	0.0234	4.0000e-005		-0.0011	-0.0011		-0.0010	-0.0010	0.0000	3.4169	3.4169	1.0800e-003	0.0000	3.4439
Total	**-0.0008**	**8.1000e-003**	**0.0234**	**4.0000e-005**	**8.1300e-003**	**-0.0011**	**7.0200e-003**	**4.4700e-003**	**-0.0010**	**3.4700e-003**	**0.0000**	**3.4169**	**3.4169**	**1.0800e-003**	**0.0000**	**3.4439**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.0000e-005	5.0000e-005	5.3000e-004	0.0000	1.5000e-004	0.0000	1.5000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1288	0.1288	0.0000	0.0000	0.1289
Total	**7.0000e-005**	**5.0000e-005**	**5.3000e-004**	**0.0000**	**1.5000e-004**	**0.0000**	**1.5000e-004**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**0.0000**	**0.1288**	**0.1288**	**0.0000**	**0.0000**	**0.1289**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.7971	8.9544	8.1463	0.0556	5.1517	0.0189	5.1706	1.3787	0.0176	1.3963	0.0000	5,204.4919	5,204.4919	0.2192	0.0000	5,209.9706
Unmitigated	0.7971	8.9544	8.1463	0.0556	5.1517	0.0189	5.1706	1.3787	0.0176	1.3963	0.0000	5,204.4919	5,204.4919	0.2192	0.0000	5,209.9706

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Fast Food Restaurant w/o Drive Thru	576.76	576.76	576.76	955,755	955,755
Fast Food Restaurant with Drive Thru	957.78	957.78	957.78	1,607,402	1,607,402
High Turnover (Sit Down Restaurant)	637.70	637.70	637.70	1,191,602	1,191,602
Parking Lot	0.00	0.00	0.00		
Quality Restaurant	240.80	240.80	240.80	475,420	475,420
Regional Shopping Center	872.16	872.16	872.16	1,835,241	1,835,241
User Defined Recreational	3,720.00	3,720.00	3720.00	7,454,210	7,454,210
Total	7,005.20	7,005.20	7,005.20	13,519,631	13,519,631

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Fast Food Restaurant w/o Drive	12.50	4.20	5.40	1.50	79.50	19.00	100	0	0
Fast Food Restaurant with Drive	12.50	4.20	5.40	2.20	78.80	19.00	100	0	0
High Turnover (Sit Down	12.50	4.20	5.40	8.50	72.50	19.00	100	0	0
Parking Lot	12.50	4.20	5.40	0.00	0.00	0.00	0	0	0
Quality Restaurant	12.50	4.20	5.40	12.00	69.00	19.00	100	0	0
Regional Shopping Center	12.50	4.20	5.40	16.30	64.70	19.00	100	0	0
User Defined Recreational	12.50	4.20	5.40	15.00	80.00	5.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Fast Food Restaurant w/o Drive Thru	0.566189	0.033707	0.192293	0.100413	0.008756	0.004001	0.016522	0.070107	0.001420	0.001057	0.004327	0.000696	0.000512
Fast Food Restaurant with Drive Thru	0.566189	0.033707	0.192293	0.100413	0.008756	0.004001	0.016522	0.070107	0.001420	0.001057	0.004327	0.000696	0.000512
High Turnover (Sit Down Restaurant)	0.566189	0.033707	0.192293	0.100413	0.008756	0.004001	0.016522	0.070107	0.001420	0.001057	0.004327	0.000696	0.000512
Parking Lot	0.566189	0.033707	0.192293	0.100413	0.008756	0.004001	0.016522	0.070107	0.001420	0.001057	0.004327	0.000696	0.000512
Quality Restaurant	0.566189	0.033707	0.192293	0.100413	0.008756	0.004001	0.016522	0.070107	0.001420	0.001057	0.004327	0.000696	0.000512
Regional Shopping Center	0.566189	0.033707	0.192293	0.100413	0.008756	0.004001	0.016522	0.070107	0.001420	0.001057	0.004327	0.000696	0.000512
User Defined Recreational	0.566189	0.033707	0.192293	0.100413	0.008756	0.004001	0.016522	0.070107	0.001420	0.001057	0.004327	0.000696	0.000512

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Install High Efficiency Lighting

Agua Caliente Cathedral City FTT Casino Project - Alternative A Cumulative - Riverside-Salton Sea County, Annual

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	702.6005	702.6005	0.0290	6.0000e-003	705.1141
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	728.7509	728.7509	0.0301	6.2200e-003	731.3581
NaturalGas Mitigated	0.1743	1.5849	1.3313	9.5100e-003		0.1205	0.1205		0.1205	0.1205	0.0000	1,725.3757	1,725.3757	0.0331	0.0316	1,735.6288
NaturalGas Unmitigated	0.1743	1.5849	1.3313	9.5100e-003		0.1205	0.1205		0.1205	0.1205	0.0000	1,725.3757	1,725.3757	0.0331	0.0316	1,735.6288

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Fast Food Restaurant w/o Drive Thru	546880	2.9500e-003	0.0268	0.0225	1.6000e-004		2.0400e-003	2.0400e-003		2.0400e-003	2.0400e-003	0.0000	29.1836	29.1836	5.6000e-004	5.4000e-004	29.3570
Fast Food Restaurant with Drive Thru	1.64064e+006	8.8500e-003	0.0804	0.0676	4.8000e-004		6.1100e-003	6.1100e-003		6.1100e-003	6.1100e-003	0.0000	87.5508	87.5508	1.6800e-003	1.6100e-003	88.0711
High Turnover (Sit Down Restaurant)	3.82816e+006	0.0206	0.1877	0.1576	1.1300e-003		0.0143	0.0143		0.0143	0.0143	0.0000	204.2852	204.2852	3.9200e-003	3.7500e-003	205.4992
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	3.82816e+006	0.0206	0.1877	0.1576	1.1300e-003		0.0143	0.0143		0.0143	0.0143	0.0000	204.2852	204.2852	3.9200e-003	3.7500e-003	205.4992
Regional Shopping Center	53280	2.9000e-004	2.6100e-003	2.1900e-003	2.0000e-005		2.0000e-004	2.0000e-004		2.0000e-004	2.0000e-004	0.0000	2.8432	2.8432	5.0000e-005	5.0000e-005	2.8601
User Defined Recreational	2.24352e+007	0.1210	1.0998	0.9238	6.6000e-003		0.0836	0.0836		0.0836	0.0836	0.0000	1,197.2277	1,197.2277	0.0230	0.0220	1,204.3422
Total		**0.1743**	**1.5849**	**1.3313**	**9.5200e-003**		**0.1205**	**0.1205**		**0.1205**	**0.1205**	**0.0000**	**1,725.3757**	**1,725.3757**	**0.0331**	**0.0317**	**1,735.6288**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Fast Food Restaurant w/o Drive Thru	546880	2.9500e-003	0.0268	0.0225	1.6000e-004		2.0400e-003	2.0400e-003		2.0400e-003	2.0400e-003	0.0000	29.1836	29.1836	5.6000e-004	5.4000e-004	29.3570
Fast Food Restaurant with Drive Thru	1.64064e+006	8.8500e-003	0.0804	0.0676	4.8000e-004		6.1100e-003	6.1100e-003		6.1100e-003	6.1100e-003	0.0000	87.5508	87.5508	1.6800e-003	1.6100e-003	88.0711
High Turnover (Sit Down Restaurant)	3.82816e+006	0.0206	0.1877	0.1576	1.1300e-003		0.0143	0.0143		0.0143	0.0143	0.0000	204.2852	204.2852	3.9200e-003	3.7500e-003	205.4992
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	3.82816e+006	0.0206	0.1877	0.1576	1.1300e-003		0.0143	0.0143		0.0143	0.0143	0.0000	204.2852	204.2852	3.9200e-003	3.7500e-003	205.4992
Regional Shopping Center	53280	2.9000e-004	2.6100e-003	2.1900e-003	2.0000e-005		2.0000e-004	2.0000e-004		2.0000e-004	2.0000e-004	0.0000	2.8432	2.8432	5.0000e-005	5.0000e-005	2.8601
User Defined Recreational	2.24352e+007	0.1210	1.0998	0.9238	6.6000e-003		0.0836	0.0836		0.0836	0.0836	0.0000	1,197.2277	1,197.2277	0.0230	0.0220	1,204.3422
Total		**0.1743**	**1.5849**	**1.3313**	**9.5200e-003**		**0.1205**	**0.1205**		**0.1205**	**0.1205**	**0.0000**	**1,725.3757**	**1,725.3757**	**0.0331**	**0.0317**	**1,735.6288**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Fast Food Restaurant w/o Drive Thru	94960	30.2563	1.2500e-003	2.6000e-004	30.3645
Fast Food Restaurant with Drive Thru	284880	90.7689	3.7500e-003	7.8000e-004	91.0936
High Turnover (Sit Down Restaurant)	664720	211.7940	8.7400e-003	1.8100e-003	212.5517
Parking Lot	140000	44.6070	1.8400e-003	3.8000e-004	44.7666
Quality Restaurant	664720	211.7940	8.7400e-003	1.8100e-003	212.5517
Regional Shopping Center	303120	96.5805	3.9900e-003	8.2000e-004	96.9261
User Defined Recreational	134800	42.9502	1.7700e-003	3.7000e-004	43.1038
Total		**728.7509**	**0.0301**	**6.2300e-003**	**731.3580**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Fast Food Restaurant w/o Drive Thru	92841.6	29.5813	1.2200e-003	2.5000e-004	29.6872
Fast Food Restaurant with Drive Thru	278525	88.7440	3.6600e-003	7.6000e-004	89.0615
High Turnover (Sit Down Restaurant)	649891	207.0693	8.5500e-003	1.7700e-003	207.8101
Parking Lot	117600	37.4699	1.5500e-003	3.2000e-004	37.6039
Quality Restaurant	649891	207.0693	8.5500e-003	1.7700e-003	207.8101
Regional Shopping Center	281578	89.7167	3.7000e-003	7.7000e-004	90.0376
User Defined Recreational	134800	42.9502	1.7700e-003	3.7000e-004	43.1038
Total		**702.6005**	**0.0290**	**6.0100e-003**	**705.1141**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.4734	9.0000e-005	0.0100	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0197	0.0197	5.0000e-005	0.0000	0.0209
Unmitigated	0.5429	9.0000e-005	0.0100	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0197	0.0197	5.0000e-005	0.0000	0.0209

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1256					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.4164					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	9.2000e-004	9.0000e-005	0.0100	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0197	0.0197	5.0000e-005	0.0000	0.0209
Total	**0.5429**	**9.0000e-005**	**0.0100**	**0.0000**		**4.0000e-005**	**4.0000e-005**		**4.0000e-005**	**4.0000e-005**	**0.0000**	**0.0197**	**0.0197**	**5.0000e-005**	**0.0000**	**0.0209**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0561					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.4164					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	9.2000e-004	9.0000e-005	0.0100	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0197	0.0197	5.0000e-005	0.0000	0.0209
Total	**0.4734**	**9.0000e-005**	**0.0100**	**0.0000**		**4.0000e-005**	**4.0000e-005**		**4.0000e-005**	**4.0000e-005**	**0.0000**	**0.0197**	**0.0197**	**5.0000e-005**	**0.0000**	**0.0209**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

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	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	133.1663	0.7517	0.0187	157.5317
Unmitigated	158.7445	0.9393	0.0233	189.1737

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Fast Food Restaurant w/o Drive Thru	0.607067 / 0.038749	2.8483	0.0199	4.9000e-004	3.4916
Fast Food Restaurant with Drive Thru	1.8212 / 0.116247	8.5450	0.0597	1.4700e-003	10.4747
High Turnover (Sit Down Restaurant)	4.24947 / 0.271243	19.9384	0.1392	3.4300e-003	24.4410
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	4.24947 / 0.271243	19.9384	0.1392	3.4300e-003	24.4410
Regional Shopping Center	1.77774 / 1.08958	11.7964	0.0584	1.4600e-003	13.6924
User Defined Recreational	15.9315 / 6.92889	95.6779	0.5229	0.0130	112.6331
Total		**158.7445**	**0.9393**	**0.0233**	**189.1737**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Fast Food Restaurant w/o Drive Thru	0.485654 / 0.038749	2.3061	0.0159	3.9000e-004	2.8208
Fast Food Restaurant with Drive Thru	1.45696 / 0.116247	6.9183	0.0477	1.1800e-003	8.4624
High Turnover (Sit Down Restaurant)	3.39958 / 0.271243	16.1428	0.1114	2.7400e-003	19.7455
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	3.39958 / 0.271243	16.1428	0.1114	2.7400e-003	19.7455
Regional Shopping Center	1.42219 / 1.08958	10.2085	0.0467	1.1800e-003	11.7281
User Defined Recreational	12.7452 / 6.92889	81.4478	0.4185	0.0105	95.0295
Total		**133.1663**	**0.7517**	**0.0187**	**157.5317**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	68.2740	4.0349	0.0000	169.1459
Unmitigated	136.5480	8.0698	0.0000	338.2918

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Fast Food Restaurant w/o Drive Thru	23.04	4.6769	0.2764	0.0000	11.5869
Fast Food Restaurant with Drive Thru	69.11	14.0287	0.8291	0.0000	34.7555
High Turnover (Sit Down Restaurant)	166.6	33.8183	1.9986	0.0000	83.7834
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	12.78	2.5942	0.1533	0.0000	6.4271
Regional Shopping Center	25.2	5.1154	0.3023	0.0000	12.6731
User Defined Recreational	375.95	76.3145	4.5101	0.0000	189.0658
Total		**136.5480**	**8.0697**	**0.0000**	**338.2918**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Fast Food Restaurant w/o Drive Thru	11.52	2.3385	0.1382	0.0000	5.7934
Fast Food Restaurant with Drive Thru	34.555	7.0144	0.4145	0.0000	17.3778
High Turnover (Sit Down Restaurant)	83.3	16.9092	0.9993	0.0000	41.8917
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	6.39	1.2971	0.0767	0.0000	3.2135
Regional Shopping Center	12.6	2.5577	0.1512	0.0000	6.3366
User Defined Recreational	187.975	38.1572	2.2550	0.0000	94.5329
Total		**68.2740**	**4.0349**	**0.0000**	**169.1459**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Emergency Generator	3	0	30	2923	0.73	Diesel

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
Boiler	3	12	4380	0.5	CNG

User Defined Equipment

Equipment Type	Number

10.1 Stationary Sources

Unmitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	tons/yr										MT/yr					
Boiler - CNG (0 - 2 MMBTU)	0.0354	0.1577	0.6313	3.8600e-003		0.0490	0.0490		0.0490	0.0490	0.0000	701.2124	701.2124	0.0134	0.0000	701.5484
Emergency Generator - Diesel (750 - 9999 HP)	0.2159	0.9653	0.5504	1.0400e-003		0.0318	0.0318		0.0318	0.0318	0.0000	100.1763	100.1763	0.0140	0.0000	100.5274
Total	**0.2513**	**1.1230**	**1.1816**	**4.9000e-003**		**0.0807**	**0.0807**		**0.0807**	**0.0807**	**0.0000**	**801.3887**	**801.3887**	**0.0275**	**0.0000**	**802.0759**

11.0 Vegetation

Agua Caliente Cathedral City FTT Casino Project - Alternative A Cumulative

Riverside-Salton Sea County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	1,000.00	Space	9.00	400,000.00	0
Fast Food Restaurant w/o Drive Thru	2.00	1000sqft	0.00	2,000.00	0
Fast Food Restaurant with Drive Thru	6.00	1000sqft	0.00	6,000.00	0
High Turnover (Sit Down Restaurant)	14.00	1000sqft	0.00	14,000.00	0
Quality Restaurant	14.00	1000sqft	0.00	14,000.00	0
User Defined Recreational	40.00	User Defined Unit	4.68	40,000.00	0
Regional Shopping Center	24.00	1000sqft	0.00	24,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2040
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Agua Caliente Cathedral City FTT Casino Project - Alternative A Cumulative - Riverside-Salton Sea County, Summer

Project Characteristics -

Land Use - Project Description; lot acreage for all recreational and retail space is all included within the User Defined Recreational land use.

Construction Phase - Construction phasing based on a 12-month construction schedule.

Grading - MSA Consulting, Inc., 2018a (See Table 2, CalEEMod Inputs)

Vehicle Trips - See Table 3, CalEEMod Inputs. Trip generation rates are derived from the TIS (Appendix TIS).

Energy Use - Electricity energy and natural gas intensity for the user defined recretational land use determined from similar projects and scaled by square footage

Water And Wastewater - Water demand is based off of similar projects and scaled by square footage

Solid Waste - Section 4.9 of the EA

Construction Off-road Equipment Mitigation - Construction Mitigation

Area Mitigation - MDAQMD Rule 1113 Architectural Coatings (based on nonflat coating)

Energy Mitigation -

Water Mitigation -

Waste Mitigation - Tribe will use the Salton City Landfill's facilities and will divert 50 percent of waste from the landfill.

Stationary Sources - Emergency Generators and Fire Pumps - Based on like project emergency generator size and use

Stationary Sources - Process Boilers - Based on like project boiler size and use

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_Parking	24000	16800
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	250	100
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	100
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	9.00
tblConstEquipMitigation	Tier	No Change	Tier 3

Agua Caliente Cathedral City FTT Casino Project - Alternative A Cumulative - Riverside-Salton Sea County, Summer

tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	10.00	2.00
tblEnergyUse	NT24E	0.00	3.37
tblEnergyUse	NT24NG	0.00	560.88
tblLandUse	LandUseSquareFeet	0.00	40,000.00
tblLandUse	LotAcreage	0.05	0.00
tblLandUse	LotAcreage	0.14	0.00
tblLandUse	LotAcreage	0.32	0.00
tblLandUse	LotAcreage	0.32	0.00
tblLandUse	LotAcreage	0.00	4.68
tblLandUse	LotAcreage	0.55	0.00
tblSolidWaste	SolidWasteGenerationRate	0.00	375.95
tblStationaryBoilersUse	AnnualHeatInput	0.00	4,380.00
tblStationaryBoilersUse	BoilerRatingValue	0.00	0.50
tblStationaryBoilersUse	DailyHeatInput	0.00	12.00
tblStationaryBoilersUse	NumberOfEquipment	0.00	3.00
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	2,923.00
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	30.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	3.00
tblVehicleTrips	CC_TTP	0.00	80.00
tblVehicleTrips	CNW_TTP	0.00	5.00
tblVehicleTrips	CW_TTP	0.00	15.00
tblVehicleTrips	DV_TP	37.00	0.00
tblVehicleTrips	DV_TP	21.00	0.00
tblVehicleTrips	DV_TP	20.00	0.00
tblVehicleTrips	DV_TP	18.00	0.00
tblVehicleTrips	DV_TP	35.00	0.00

tblVehicleTrips	PB_TP	12.00	0.00
tblVehicleTrips	PB_TP	50.00	0.00
tblVehicleTrips	PB_TP	43.00	0.00
tblVehicleTrips	PB_TP	44.00	0.00
tblVehicleTrips	PB_TP	11.00	0.00
tblVehicleTrips	PR_TP	51.00	100.00
tblVehicleTrips	PR_TP	29.00	100.00
tblVehicleTrips	PR_TP	37.00	100.00
tblVehicleTrips	PR_TP	38.00	100.00
tblVehicleTrips	PR_TP	54.00	100.00
tblVehicleTrips	PR_TP	0.00	100.00
tblVehicleTrips	ST_TR	696.00	288.38
tblVehicleTrips	ST_TR	722.03	159.63
tblVehicleTrips	ST_TR	158.37	45.55
tblVehicleTrips	ST_TR	94.36	17.20
tblVehicleTrips	ST_TR	49.97	36.34
tblVehicleTrips	ST_TR	0.00	93.00
tblVehicleTrips	SU_TR	500.00	288.38
tblVehicleTrips	SU_TR	542.72	159.63
tblVehicleTrips	SU_TR	131.84	45.55
tblVehicleTrips	SU_TR	72.16	17.20
tblVehicleTrips	SU_TR	25.24	36.34
tblVehicleTrips	SU_TR	0.00	93.00
tblVehicleTrips	WD_TR	716.00	288.38
tblVehicleTrips	WD_TR	496.12	159.63
tblVehicleTrips	WD_TR	127.15	45.55
tblVehicleTrips	WD_TR	89.95	17.20

tblVehicleTrips	WD_TR	42.70	36.34
tblVehicleTrips	WD_TR	0.00	93.00
tblWater	IndoorWaterUseRate	0.00	15,931,489.00
tblWater	OutdoorWaterUseRate	0.00	6,928,889.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	4.4167	45.6199	22.6825	0.0396	18.2169	2.3913	20.6082	9.9706	2.2000	12.1706	0.0000	3,920.7313	3,920.7313	1.1961	0.0000	3,950.6329
Maximum	**4.4167**	**45.6199**	**22.6825**	**0.0396**	**18.2169**	**2.3913**	**20.6082**	**9.9706**	**2.2000**	**12.1706**	**0.0000**	**3,920.7313**	**3,920.7313**	**1.1961**	**0.0000**	**3,950.6329**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	0.0000	8.1465	24.0205	0.0396	8.2804	-1.1062	7.1742	4.5088	-0.9973	3.5115	0.0000	3,920.7313	3,920.7313	1.1961	0.0000	3,950.6329
Maximum	**0.0000**	**8.1465**	**24.0205**	**0.0396**	**8.2804**	**-1.1062**	**7.1742**	**4.5088**	**-0.9973**	**3.5115**	**0.0000**	**3,920.7313**	**3,920.7313**	**1.1961**	**0.0000**	**3,950.6329**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**100.00**	**82.14**	**-5.90**	**0.00**	**54.55**	**146.26**	**65.19**	**54.78**	**145.33**	**71.15**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.9802	1.0000e-003	0.1116	1.0000e-005		4.0000e-004	4.0000e-004		4.0000e-004	4.0000e-004		0.2407	0.2407	6.2000e-004		0.2562
Energy	0.9553	8.6845	7.2950	0.0521		0.6600	0.6600		0.6600	0.6600		10,421.3763	10,421.3763	0.1997	0.1911	10,483.3053
Mobile	5.2285	49.3817	48.9163	0.3222	28.7771	0.1036	28.8807	7.6906	0.0966	7.7872		33,209.4457	33,209.4457	1.2997		33,241.9387
Stationary	0.1941	0.8640	3.4589	0.0212		0.2682	0.2682		0.2682	0.2682		4,235.3665	4,235.3665	0.0812		4,237.3959
Total	**9.3581**	**58.9312**	**59.7817**	**0.3955**	**28.7771**	**1.0322**	**29.8094**	**7.6906**	**1.0253**	**8.7159**		**47,866.4292**	**47,866.4292**	**1.5813**	**0.1911**	**47,962.8962**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.5992	1.0000e-003	0.1116	1.0000e-005		4.0000e-004	4.0000e-004		4.0000e-004	4.0000e-004		0.2407	0.2407	6.2000e-004		0.2562
Energy	0.9553	8.6845	7.2950	0.0521		0.6600	0.6600		0.6600	0.6600		10,421.3763	10,421.3763	0.1997	0.1911	10,483.3053
Mobile	5.2285	49.3817	48.9163	0.3222	28.7771	0.1036	28.8807	7.6906	0.0966	7.7872		33,209.4457	33,209.4457	1.2997		33,241.9387
Stationary	0.1941	0.8640	3.4589	0.0212		0.2682	0.2682		0.2682	0.2682		4,235.3665	4,235.3665	0.0812		4,237.3959
Total	**8.9772**	**58.9312**	**59.7817**	**0.3955**	**28.7771**	**1.0322**	**29.8094**	**7.6906**	**1.0253**	**8.7159**		**47,866.4292**	**47,866.4292**	**1.5813**	**0.1911**	**47,962.8962**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**4.07**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/1/2019	1/2/2019	5	2	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 9

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use DPF for Construction Equipment

Use Soil Stabilizer

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	4.3350	45.5727	22.0630	0.0380		2.3904	2.3904		2.1991	2.1991		3,766.4529	3,766.4529	1.1917		3,796.2445
Total	**4.3350**	**45.5727**	**22.0630**	**0.0380**	**18.0663**	**2.3904**	**20.4566**	**9.9307**	**2.1991**	**12.1298**		**3,766.4529**	**3,766.4529**	**1.1917**		**3,796.2445**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0817	0.0471	0.6195	1.5500e-003	0.1506	9.6000e-004	0.1516	0.0400	8.8000e-004	0.0408		154.2784	154.2784	4.4000e-003		154.3884
Total	**0.0817**	**0.0471**	**0.6195**	**1.5500e-003**	**0.1506**	**9.6000e-004**	**0.1516**	**0.0400**	**8.8000e-004**	**0.0408**		**154.2784**	**154.2784**	**4.4000e-003**		**154.3884**

3.2 Site Preparation - 2019

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.1298	0.0000	8.1298	4.4688	0.0000	4.4688			0.0000			0.0000
Off-Road	-0.7693	8.0993	23.4010	0.0380		-1.1072	-1.1072		-0.9982	-0.9982	0.0000	3,766.4529	3,766.4529	1.1917		3,796.2445
Total	**-0.7693**	**8.0993**	**23.4010**	**0.0380**	**8.1298**	**-1.1072**	**7.0226**	**4.4688**	**-0.9982**	**3.4707**	**0.0000**	**3,766.4529**	**3,766.4529**	**1.1917**		**3,796.2445**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0817	0.0471	0.6195	1.5500e-003	0.1506	9.6000e-004	0.1516	0.0400	8.8000e-004	0.0408		154.2784	154.2784	4.4000e-003		154.3884
Total	**0.0817**	**0.0471**	**0.6195**	**1.5500e-003**	**0.1506**	**9.6000e-004**	**0.1516**	**0.0400**	**8.8000e-004**	**0.0408**		**154.2784**	**154.2784**	**4.4000e-003**		**154.3884**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	5.2285	49.3817	48.9163	0.3222	28.7771	0.1036	28.8807	7.6906	0.0966	7.7872		33,209.4457	33,209.4457	1.2997		33,241.9387
Unmitigated	5.2285	49.3817	48.9163	0.3222	28.7771	0.1036	28.8807	7.6906	0.0966	7.7872		33,209.4457	33,209.4457	1.2997		33,241.9387

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Fast Food Restaurant w/o Drive Thru	576.76	576.76	576.76	955,755	955,755
Fast Food Restaurant with Drive Thru	957.78	957.78	957.78	1,607,402	1,607,402
High Turnover (Sit Down Restaurant)	637.70	637.70	637.70	1,191,602	1,191,602
Parking Lot	0.00	0.00	0.00		
Quality Restaurant	240.80	240.80	240.80	475,420	475,420
Regional Shopping Center	872.16	872.16	872.16	1,835,241	1,835,241
User Defined Recreational	3,720.00	3,720.00	3720.00	7,454,210	7,454,210
Total	7,005.20	7,005.20	7,005.20	13,519,631	13,519,631

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Fast Food Restaurant w/o Drive	12.50	4.20	5.40	1.50	79.50	19.00	100	0	0
Fast Food Restaurant with Drive	12.50	4.20	5.40	2.20	78.80	19.00	100	0	0
High Turnover (Sit Down	12.50	4.20	5.40	8.50	72.50	19.00	100	0	0
Parking Lot	12.50	4.20	5.40	0.00	0.00	0.00	0	0	0
Quality Restaurant	12.50	4.20	5.40	12.00	69.00	19.00	100	0	0
Regional Shopping Center	12.50	4.20	5.40	16.30	64.70	19.00	100	0	0
User Defined Recreational	12.50	4.20	5.40	15.00	80.00	5.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Fast Food Restaurant w/o Drive Thru	0.566189	0.033707	0.192293	0.100413	0.008756	0.004001	0.016522	0.070107	0.001420	0.001057	0.004327	0.000696	0.000512
Fast Food Restaurant with Drive Thru	0.566189	0.033707	0.192293	0.100413	0.008756	0.004001	0.016522	0.070107	0.001420	0.001057	0.004327	0.000696	0.000512
High Turnover (Sit Down Restaurant)	0.566189	0.033707	0.192293	0.100413	0.008756	0.004001	0.016522	0.070107	0.001420	0.001057	0.004327	0.000696	0.000512
Parking Lot	0.566189	0.033707	0.192293	0.100413	0.008756	0.004001	0.016522	0.070107	0.001420	0.001057	0.004327	0.000696	0.000512
Quality Restaurant	0.566189	0.033707	0.192293	0.100413	0.008756	0.004001	0.016522	0.070107	0.001420	0.001057	0.004327	0.000696	0.000512
Regional Shopping Center	0.566189	0.033707	0.192293	0.100413	0.008756	0.004001	0.016522	0.070107	0.001420	0.001057	0.004327	0.000696	0.000512
User Defined Recreational	0.566189	0.033707	0.192293	0.100413	0.008756	0.004001	0.016522	0.070107	0.001420	0.001057	0.004327	0.000696	0.000512

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Install High Efficiency Lighting

Agua Caliente Cathedral City FTT Casino Project - Alternative A Cumulative - Riverside-Salton Sea County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.9553	8.6845	7.2950	0.0521		0.6600	0.6600		0.6600	0.6600		10,421.3763	10,421.3763	0.1997	0.1911	10,483.3053
NaturalGas Unmitigated	0.9553	8.6845	7.2950	0.0521		0.6600	0.6600		0.6600	0.6600		10,421.3763	10,421.3763	0.1997	0.1911	10,483.3053

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Fast Food Restaurant w/o Drive Thru	1498.3	0.0162	0.1469	0.1234	8.8000e-004		0.0112	0.0112		0.0112	0.0112		176.2708	176.2708	3.3800e-003	3.2300e-003	177.3182
Fast Food Restaurant with Drive Thru	4494.9	0.0485	0.4407	0.3702	2.6400e-003		0.0335	0.0335		0.0335	0.0335		528.8123	528.8123	0.0101	9.6900e-003	531.9547
High Turnover (Sit Down Restaurant)	10488.1	0.1131	1.0283	0.8637	6.1700e-003		0.0782	0.0782		0.0782	0.0782		1,233.8953	1,233.8953	0.0237	0.0226	1,241.2277
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	10488.1	0.1131	1.0283	0.8637	6.1700e-003		0.0782	0.0782		0.0782	0.0782		1,233.8953	1,233.8953	0.0237	0.0226	1,241.2277
Regional Shopping Center	145.973	1.5700e-003	0.0143	0.0120	9.0000e-005		1.0900e-003	1.0900e-003		1.0900e-003	1.0900e-003		17.1733	17.1733	3.3000e-004	3.1000e-004	17.2753
User Defined Recreational	61466.3	0.6629	6.0261	5.0619	0.0362		0.4580	0.4580		0.4580	0.4580		7,231.3296	7,231.3296	0.1386	0.1326	7,274.3018
Total		**0.9553**	**8.6845**	**7.2950**	**0.0521**		**0.6600**	**0.6600**		**0.6600**	**0.6600**		**10,421.3763**	**10,421.3763**	**0.1998**	**0.1910**	**10,483.3053**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Fast Food Restaurant w/o Drive Thru	1.4983	0.0162	0.1469	0.1234	8.8000e-004		0.0112	0.0112		0.0112	0.0112		176.2708	176.2708	3.3800e-003	3.2300e-003	177.3182
Fast Food Restaurant with Drive Thru	4.4949	0.0485	0.4407	0.3702	2.6400e-003		0.0335	0.0335		0.0335	0.0335		528.8123	528.8123	0.0101	9.6900e-003	531.9547
High Turnover (Sit Down Restaurant)	10.4881	0.1131	1.0283	0.8637	6.1700e-003		0.0782	0.0782		0.0782	0.0782		1,233.8953	1,233.8953	0.0237	0.0226	1,241.2277
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	10.4881	0.1131	1.0283	0.8637	6.1700e-003		0.0782	0.0782		0.0782	0.0782		1,233.8953	1,233.8953	0.0237	0.0226	1,241.2277
Regional Shopping Center	0.145973	1.5700e-003	0.0143	0.0120	9.0000e-005		1.0900e-003	1.0900e-003		1.0900e-003	1.0900e-003		17.1733	17.1733	3.3000e-004	3.1000e-004	17.2753
User Defined Recreational	61.4663	0.6629	6.0261	5.0619	0.0362		0.4580	0.4580		0.4580	0.4580		7,231.3296	7,231.3296	0.1386	0.1326	7,274.3018
Total		**0.9553**	**8.6845**	**7.2950**	**0.0521**		**0.6600**	**0.6600**		**0.6600**	**0.6600**		**10,421.3763**	**10,421.3763**	**0.1998**	**0.1910**	**10,483.3053**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.5992	1.0000e-003	0.1116	1.0000e-005		4.0000e-004	4.0000e-004		4.0000e-004	4.0000e-004		0.2407	0.2407	6.2000e-004		0.2562
Unmitigated	2.9802	1.0000e-003	0.1116	1.0000e-005		4.0000e-004	4.0000e-004		4.0000e-004	4.0000e-004		0.2407	0.2407	6.2000e-004		0.2562

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.6883					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.2817					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0102	1.0000e-003	0.1116	1.0000e-005		4.0000e-004	4.0000e-004		4.0000e-004	4.0000e-004		0.2407	0.2407	6.2000e-004		0.2562
Total	**2.9802**	**1.0000e-003**	**0.1116**	**1.0000e-005**		**4.0000e-004**	**4.0000e-004**		**4.0000e-004**	**4.0000e-004**		**0.2407**	**0.2407**	**6.2000e-004**		**0.2562**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.3073					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.2817					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0102	1.0000e-003	0.1116	1.0000e-005		4.0000e-004	4.0000e-004		4.0000e-004	4.0000e-004		0.2407	0.2407	6.2000e-004		0.2562
Total	**2.5992**	**1.0000e-003**	**0.1116**	**1.0000e-005**		**4.0000e-004**	**4.0000e-004**		**4.0000e-004**	**4.0000e-004**		**0.2407**	**0.2407**	**6.2000e-004**		**0.2562**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Emergency Generator	3	0	30	2923	0.73	Diesel

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
Boiler	3	12	4380	0.5	CNG

User Defined Equipment

Equipment Type	Number

10.1 Stationary Sources

Unmitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	lb/day										lb/day					
Boiler - CNG (0 - 2 MMBTU)	0.1941	0.8640	3.4589	0.0212		0.2682	0.2682		0.2682	0.2682		4,235.3665	4,235.3665	0.0812		4,237.3959
Emergency Generator - Diesel (750 - 9999 HP)	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.1941**	**0.8640**	**3.4589**	**0.0212**		**0.2682**	**0.2682**		**0.2682**	**0.2682**		**4,235.3665**	**4,235.3665**	**0.0812**		**4,237.3959**

11.0 Vegetation

Agua Caliente Cathedral City FTT Casino Project - Alternative A Cumulative

Riverside-Salton Sea County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	1,000.00	Space	9.00	400,000.00	0
Fast Food Restaurant w/o Drive Thru	2.00	1000sqft	0.00	2,000.00	0
Fast Food Restaurant with Drive Thru	6.00	1000sqft	0.00	6,000.00	0
High Turnover (Sit Down Restaurant)	14.00	1000sqft	0.00	14,000.00	0
Quality Restaurant	14.00	1000sqft	0.00	14,000.00	0
User Defined Recreational	40.00	User Defined Unit	4.68	40,000.00	0
Regional Shopping Center	24.00	1000sqft	0.00	24,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2040
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Agua Caliente Cathedral City FTT Casino Project - Alternative A Cumulative - Riverside-Salton Sea County, Winter

Project Characteristics -

Land Use - Project Description; lot acreage for all recreational and retail space is all included within the User Defined Recreational land use.

Construction Phase - Construction phasing based on a 12-month construction schedule.

Grading - MSA Consulting, Inc., 2018a (See Table 2, CalEEMod Inputs)

Vehicle Trips - See Table 3, CalEEMod Inputs. Trip generation rates are derived from the TIS (Appendix TIS).

Energy Use - Electricity energy and natural gas intensity for the user defined recretational land use determined from similar projects and scaled by square footage

Water And Wastewater - Water demand is based off of similar projects and scaled by square footage

Solid Waste - Section 4.9 of the EA

Construction Off-road Equipment Mitigation - Construction Mitigation

Area Mitigation - MDAQMD Rule 1113 Architectural Coatings (based on nonflat coating)

Energy Mitigation -

Water Mitigation -

Waste Mitigation - Tribe will use the Salton City Landfill's facilities and will divert 50 percent of waste from the landfill.

Stationary Sources - Emergency Generators and Fire Pumps - Based on like project emergency generator size and use

Stationary Sources - Process Boilers - Based on like project boiler size and use

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_Parking	24000	16800
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	250	100
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	100
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	9.00
tblConstEquipMitigation	Tier	No Change	Tier 3

Agua Caliente Cathedral City FTT Casino Project - Alternative A Cumulative - Riverside-Salton Sea County, Winter

tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	10.00	2.00
tblEnergyUse	NT24E	0.00	3.37
tblEnergyUse	NT24NG	0.00	560.88
tblLandUse	LandUseSquareFeet	0.00	40,000.00
tblLandUse	LotAcreage	0.05	0.00
tblLandUse	LotAcreage	0.14	0.00
tblLandUse	LotAcreage	0.32	0.00
tblLandUse	LotAcreage	0.32	0.00
tblLandUse	LotAcreage	0.00	4.68
tblLandUse	LotAcreage	0.55	0.00
tblSolidWaste	SolidWasteGenerationRate	0.00	375.95
tblStationaryBoilersUse	AnnualHeatInput	0.00	4,380.00
tblStationaryBoilersUse	BoilerRatingValue	0.00	0.50
tblStationaryBoilersUse	DailyHeatInput	0.00	12.00
tblStationaryBoilersUse	NumberOfEquipment	0.00	3.00
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	2,923.00
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	30.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	3.00
tblVehicleTrips	CC_TTP	0.00	80.00
tblVehicleTrips	CNW_TTP	0.00	5.00
tblVehicleTrips	CW_TTP	0.00	15.00
tblVehicleTrips	DV_TP	37.00	0.00
tblVehicleTrips	DV_TP	21.00	0.00
tblVehicleTrips	DV_TP	20.00	0.00
tblVehicleTrips	DV_TP	18.00	0.00
tblVehicleTrips	DV_TP	35.00	0.00

tblVehicleTrips	PB_TP	12.00	0.00
tblVehicleTrips	PB_TP	50.00	0.00
tblVehicleTrips	PB_TP	43.00	0.00
tblVehicleTrips	PB_TP	44.00	0.00
tblVehicleTrips	PB_TP	11.00	0.00
tblVehicleTrips	PR_TP	51.00	100.00
tblVehicleTrips	PR_TP	29.00	100.00
tblVehicleTrips	PR_TP	37.00	100.00
tblVehicleTrips	PR_TP	38.00	100.00
tblVehicleTrips	PR_TP	54.00	100.00
tblVehicleTrips	PR_TP	0.00	100.00
tblVehicleTrips	ST_TR	696.00	288.38
tblVehicleTrips	ST_TR	722.03	159.63
tblVehicleTrips	ST_TR	158.37	45.55
tblVehicleTrips	ST_TR	94.36	17.20
tblVehicleTrips	ST_TR	49.97	36.34
tblVehicleTrips	ST_TR	0.00	93.00
tblVehicleTrips	SU_TR	500.00	288.38
tblVehicleTrips	SU_TR	542.72	159.63
tblVehicleTrips	SU_TR	131.84	45.55
tblVehicleTrips	SU_TR	72.16	17.20
tblVehicleTrips	SU_TR	25.24	36.34
tblVehicleTrips	SU_TR	0.00	93.00
tblVehicleTrips	WD_TR	716.00	288.38
tblVehicleTrips	WD_TR	496.12	159.63
tblVehicleTrips	WD_TR	127.15	45.55
tblVehicleTrips	WD_TR	89.95	17.20

tblVehicleTrips	WD_TR	42.70	36.34
tblVehicleTrips	WD_TR	0.00	93.00
tblWater	IndoorWaterUseRate	0.00	15,931,489.00
tblWater	OutdoorWaterUseRate	0.00	6,928,889.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	4.4130	45.6215	22.5719	0.0394	18.2169	2.3913	20.6082	9.9706	2.2000	12.1706	0.0000	3,904.9356	3,904.9356	1.1955	0.0000	3,934.8237
Maximum	**4.4130**	**45.6215**	**22.5719**	**0.0394**	**18.2169**	**2.3913**	**20.6082**	**9.9706**	**2.2000**	**12.1706**	**0.0000**	**3,904.9356**	**3,904.9356**	**1.1955**	**0.0000**	**3,934.8237**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	0.0000	8.1481	23.9099	0.0394	8.2804	-1.1062	7.1742	4.5088	-0.9973	3.5115	0.0000	3,904.9356	3,904.9356	1.1955	0.0000	3,934.8237
Maximum	**0.0000**	**8.1481**	**23.9099**	**0.0394**	**8.2804**	**-1.1062**	**7.1742**	**4.5088**	**-0.9973**	**3.5115**	**0.0000**	**3,904.9356**	**3,904.9356**	**1.1955**	**0.0000**	**3,934.8237**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**100.00**	**82.14**	**-5.93**	**0.00**	**54.55**	**146.26**	**65.19**	**54.78**	**145.33**	**71.15**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.9802	1.0000e-003	0.1116	1.0000e-005		4.0000e-004	4.0000e-004		4.0000e-004	4.0000e-004		0.2407	0.2407	6.2000e-004		0.2562
Energy	0.9553	8.6845	7.2950	0.0521		0.6600	0.6600		0.6600	0.6600		10,421.3763	10,421.3763	0.1997	0.1911	10,483.3053
Mobile	4.3726	48.3959	44.1740	0.2972	28.7771	0.1043	28.8815	7.6906	0.0973	7.7879		30,671.5735	30,671.5735	1.3800		30,706.0738
Stationary	0.1941	0.8640	3.4589	0.0212		0.2682	0.2682		0.2682	0.2682		4,235.3665	4,235.3665	0.0812		4,237.3959
Total	**8.5022**	**57.9454**	**55.0394**	**0.3705**	**28.7771**	**1.0330**	**29.8101**	**7.6906**	**1.0260**	**8.7166**		**45,328.5570**	**45,328.5570**	**1.6616**	**0.1911**	**45,427.0313**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.5992	1.0000e-003	0.1116	1.0000e-005		4.0000e-004	4.0000e-004		4.0000e-004	4.0000e-004		0.2407	0.2407	6.2000e-004		0.2562
Energy	0.9553	8.6845	7.2950	0.0521		0.6600	0.6600		0.6600	0.6600		10,421.3763	10,421.3763	0.1997	0.1911	10,483.3053
Mobile	4.3726	48.3959	44.1740	0.2972	28.7771	0.1043	28.8815	7.6906	0.0973	7.7879		30,671.5735	30,671.5735	1.3800		30,706.0738
Stationary	0.1941	0.8640	3.4589	0.0212		0.2682	0.2682		0.2682	0.2682		4,235.3665	4,235.3665	0.0812		4,237.3959
Total	**8.1212**	**57.9454**	**55.0394**	**0.3705**	**28.7771**	**1.0330**	**29.8101**	**7.6906**	**1.0260**	**8.7166**		**45,328.5570**	**45,328.5570**	**1.6616**	**0.1911**	**45,427.0313**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**4.48**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/1/2019	1/2/2019	5	2	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 9

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use DPF for Construction Equipment

Use Soil Stabilizer

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	4.3350	45.5727	22.0630	0.0380		2.3904	2.3904		2.1991	2.1991		3,766.4529	3,766.4529	1.1917		3,796.2445
Total	**4.3350**	**45.5727**	**22.0630**	**0.0380**	**18.0663**	**2.3904**	**20.4566**	**9.9307**	**2.1991**	**12.1298**		**3,766.4529**	**3,766.4529**	**1.1917**		**3,796.2445**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0780	0.0488	0.5089	1.3900e-003	0.1506	9.6000e-004	0.1516	0.0400	8.8000e-004	0.0408		138.4827	138.4827	3.8600e-003		138.5791
Total	**0.0780**	**0.0488**	**0.5089**	**1.3900e-003**	**0.1506**	**9.6000e-004**	**0.1516**	**0.0400**	**8.8000e-004**	**0.0408**		**138.4827**	**138.4827**	**3.8600e-003**		**138.5791**

3.2 Site Preparation - 2019

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.1298	0.0000	8.1298	4.4688	0.0000	4.4688			0.0000			0.0000
Off-Road	-0.7693	8.0993	23.4010	0.0380		-1.1072	-1.1072		-0.9982	-0.9982	0.0000	3,766.4529	3,766.4529	1.1917		3,796.2445
Total	**-0.7693**	**8.0993**	**23.4010**	**0.0380**	**8.1298**	**-1.1072**	**7.0226**	**4.4688**	**-0.9982**	**3.4707**	**0.0000**	**3,766.4529**	**3,766.4529**	**1.1917**		**3,796.2445**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0780	0.0488	0.5089	1.3900e-003	0.1506	9.6000e-004	0.1516	0.0400	8.8000e-004	0.0408		138.4827	138.4827	3.8600e-003		138.5791
Total	**0.0780**	**0.0488**	**0.5089**	**1.3900e-003**	**0.1506**	**9.6000e-004**	**0.1516**	**0.0400**	**8.8000e-004**	**0.0408**		**138.4827**	**138.4827**	**3.8600e-003**		**138.5791**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	4.3726	48.3959	44.1740	0.2972	28.7771	0.1043	28.8815	7.6906	0.0973	7.7879		30,671.5735	30,671.5735	1.3800		30,706.0738
Unmitigated	4.3726	48.3959	44.1740	0.2972	28.7771	0.1043	28.8815	7.6906	0.0973	7.7879		30,671.5735	30,671.5735	1.3800		30,706.0738

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Fast Food Restaurant w/o Drive Thru	576.76	576.76	576.76	955,755	955,755
Fast Food Restaurant with Drive Thru	957.78	957.78	957.78	1,607,402	1,607,402
High Turnover (Sit Down Restaurant)	637.70	637.70	637.70	1,191,602	1,191,602
Parking Lot	0.00	0.00	0.00		
Quality Restaurant	240.80	240.80	240.80	475,420	475,420
Regional Shopping Center	872.16	872.16	872.16	1,835,241	1,835,241
User Defined Recreational	3,720.00	3,720.00	3720.00	7,454,210	7,454,210
Total	7,005.20	7,005.20	7,005.20	13,519,631	13,519,631

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Fast Food Restaurant w/o Drive	12.50	4.20	5.40	1.50	79.50	19.00	100	0	0
Fast Food Restaurant with Drive	12.50	4.20	5.40	2.20	78.80	19.00	100	0	0
High Turnover (Sit Down	12.50	4.20	5.40	8.50	72.50	19.00	100	0	0
Parking Lot	12.50	4.20	5.40	0.00	0.00	0.00	0	0	0
Quality Restaurant	12.50	4.20	5.40	12.00	69.00	19.00	100	0	0
Regional Shopping Center	12.50	4.20	5.40	16.30	64.70	19.00	100	0	0
User Defined Recreational	12.50	4.20	5.40	15.00	80.00	5.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Fast Food Restaurant w/o Drive Thru	0.566189	0.033707	0.192293	0.100413	0.008756	0.004001	0.016522	0.070107	0.001420	0.001057	0.004327	0.000696	0.000512
Fast Food Restaurant with Drive Thru	0.566189	0.033707	0.192293	0.100413	0.008756	0.004001	0.016522	0.070107	0.001420	0.001057	0.004327	0.000696	0.000512
High Turnover (Sit Down Restaurant)	0.566189	0.033707	0.192293	0.100413	0.008756	0.004001	0.016522	0.070107	0.001420	0.001057	0.004327	0.000696	0.000512
Parking Lot	0.566189	0.033707	0.192293	0.100413	0.008756	0.004001	0.016522	0.070107	0.001420	0.001057	0.004327	0.000696	0.000512
Quality Restaurant	0.566189	0.033707	0.192293	0.100413	0.008756	0.004001	0.016522	0.070107	0.001420	0.001057	0.004327	0.000696	0.000512
Regional Shopping Center	0.566189	0.033707	0.192293	0.100413	0.008756	0.004001	0.016522	0.070107	0.001420	0.001057	0.004327	0.000696	0.000512
User Defined Recreational	0.566189	0.033707	0.192293	0.100413	0.008756	0.004001	0.016522	0.070107	0.001420	0.001057	0.004327	0.000696	0.000512

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Install High Efficiency Lighting

Agua Caliente Cathedral City FTT Casino Project - Alternative A Cumulative - Riverside-Salton Sea County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.9553	8.6845	7.2950	0.0521		0.6600	0.6600		0.6600	0.6600		10,421.3763	10,421.3763	0.1997	0.1911	10,483.3053
NaturalGas Unmitigated	0.9553	8.6845	7.2950	0.0521		0.6600	0.6600		0.6600	0.6600		10,421.3763	10,421.3763	0.1997	0.1911	10,483.3053

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Fast Food Restaurant w/o Drive Thru	1498.3	0.0162	0.1469	0.1234	8.8000e-004		0.0112	0.0112		0.0112	0.0112		176.2708	176.2708	3.3800e-003	3.2300e-003	177.3182
Fast Food Restaurant with Drive Thru	4494.9	0.0485	0.4407	0.3702	2.6400e-003		0.0335	0.0335		0.0335	0.0335		528.8123	528.8123	0.0101	9.6900e-003	531.9547
High Turnover (Sit Down Restaurant)	10488.1	0.1131	1.0283	0.8637	6.1700e-003		0.0782	0.0782		0.0782	0.0782		1,233.8953	1,233.8953	0.0237	0.0226	1,241.2277
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	10488.1	0.1131	1.0283	0.8637	6.1700e-003		0.0782	0.0782		0.0782	0.0782		1,233.8953	1,233.8953	0.0237	0.0226	1,241.2277
Regional Shopping Center	145.973	1.5700e-003	0.0143	0.0120	9.0000e-005		1.0900e-003	1.0900e-003		1.0900e-003	1.0900e-003		17.1733	17.1733	3.3000e-004	3.1000e-004	17.2753
User Defined Recreational	61466.3	0.6629	6.0261	5.0619	0.0362		0.4580	0.4580		0.4580	0.4580		7,231.3296	7,231.3296	0.1386	0.1326	7,274.3018
Total		**0.9553**	**8.6845**	**7.2950**	**0.0521**		**0.6600**	**0.6600**		**0.6600**	**0.6600**		**10,421.3763**	**10,421.3763**	**0.1998**	**0.1910**	**10,483.3053**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Fast Food Restaurant w/o Drive Thru	1.4983	0.0162	0.1469	0.1234	8.8000e-004		0.0112	0.0112		0.0112	0.0112		176.2708	176.2708	3.3800e-003	3.2300e-003	177.3182
Fast Food Restaurant with Drive Thru	4.4949	0.0485	0.4407	0.3702	2.6400e-003		0.0335	0.0335		0.0335	0.0335		528.8123	528.8123	0.0101	9.6900e-003	531.9547
High Turnover (Sit Down Restaurant)	10.4881	0.1131	1.0283	0.8637	6.1700e-003		0.0782	0.0782		0.0782	0.0782		1,233.8953	1,233.8953	0.0237	0.0226	1,241.2277
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	10.4881	0.1131	1.0283	0.8637	6.1700e-003		0.0782	0.0782		0.0782	0.0782		1,233.8953	1,233.8953	0.0237	0.0226	1,241.2277
Regional Shopping Center	0.145973	1.5700e-003	0.0143	0.0120	9.0000e-005		1.0900e-003	1.0900e-003		1.0900e-003	1.0900e-003		17.1733	17.1733	3.3000e-004	3.1000e-004	17.2753
User Defined Recreational	61.4663	0.6629	6.0261	5.0619	0.0362		0.4580	0.4580		0.4580	0.4580		7,231.3296	7,231.3296	0.1386	0.1326	7,274.3018
Total		**0.9553**	**8.6845**	**7.2950**	**0.0521**		**0.6600**	**0.6600**		**0.6600**	**0.6600**		**10,421.3763**	**10,421.3763**	**0.1998**	**0.1910**	**10,483.3053**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.5992	1.0000e-003	0.1116	1.0000e-005		4.0000e-004	4.0000e-004		4.0000e-004	4.0000e-004		0.2407	0.2407	6.2000e-004		0.2562
Unmitigated	2.9802	1.0000e-003	0.1116	1.0000e-005		4.0000e-004	4.0000e-004		4.0000e-004	4.0000e-004		0.2407	0.2407	6.2000e-004		0.2562

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.6883					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.2817					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0102	1.0000e-003	0.1116	1.0000e-005		4.0000e-004	4.0000e-004		4.0000e-004	4.0000e-004		0.2407	0.2407	6.2000e-004		0.2562
Total	**2.9802**	**1.0000e-003**	**0.1116**	**1.0000e-005**		**4.0000e-004**	**4.0000e-004**		**4.0000e-004**	**4.0000e-004**		**0.2407**	**0.2407**	**6.2000e-004**		**0.2562**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.3073					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.2817					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0102	1.0000e-003	0.1116	1.0000e-005		4.0000e-004	4.0000e-004		4.0000e-004	4.0000e-004		0.2407	0.2407	6.2000e-004		0.2562
Total	**2.5992**	**1.0000e-003**	**0.1116**	**1.0000e-005**		**4.0000e-004**	**4.0000e-004**		**4.0000e-004**	**4.0000e-004**		**0.2407**	**0.2407**	**6.2000e-004**		**0.2562**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Emergency Generator	3	0	30	2923	0.73	Diesel

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
Boiler	3	12	4380	0.5	CNG

User Defined Equipment

Equipment Type	Number

10.1 Stationary Sources

Unmitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	lb/day										lb/day					
Boiler - CNG (0 - 2 MMBTU)	0.1941	0.8640	3.4589	0.0212		0.2682	0.2682		0.2682	0.2682		4,235.3665	4,235.3665	0.0812		4,237.3959
Emergency Generator - Diesel (750 - 9999 HP)	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.1941**	**0.8640**	**3.4589**	**0.0212**		**0.2682**	**0.2682**		**0.2682**	**0.2682**		**4,235.3665**	**4,235.3665**	**0.0812**		**4,237.3959**

11.0 Vegetation

Agua Caliente Cathedral City FTT Casino Project - Alternative A Cumulative

Riverside-Salton Sea County, Mitigation Report

Construction Mitigation Summary

Phase	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Site Preparation	1.16	0.82	-0.06	0.00	1.46	1.45	0.00	0.00	0.00	0.00	0.00	0.00

OFFROAD Equipment Mitigation

Equipment Type	Fuel Type	Tier	Number Mitigated	Total Number of Equipment	DPF	Oxidation Catalyst
Rubber Tired Dozers	Diesel	Tier 3	4	3	Level 3	0.00
Tractors/Loaders/Backhoes	Diesel	Tier 3	9	4	Level 3	0.00

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	Unmitigated tons/yr						Unmitigated mt/yr					
Rubber Tired Dozers	3.40000E-003	3.62200E-002	1.28500E-002	3.00000E-005	1.77000E-003	1.62000E-003	0.00000E+000	2.30088E+000	2.30088E+000	7.30000E-004	0.00000E+000	2.31908E+000
Tractors/Loaders/Backhoes	9.30000E-004	9.35000E-003	9.21000E-003	1.00000E-005	6.20000E-004	5.70000E-004	0.00000E+000	1.11599E+000	1.11599E+000	3.50000E-004	0.00000E+000	1.12482E+000

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	Mitigated tons/yr						Mitigated mt/yr					
Rubber Tired Dozers	-2.90000E-004	4.18000E-003	1.38400E-002	3.00000E-005	-4.90000E-004	-4.40000E-004	0.00000E+000	2.30088E+000	2.30088E+000	7.30000E-004	0.00000E+000	2.31908E+000
Tractors/Loaders/Backhoes	-4.80000E-004	3.92000E-003	9.57000E-003	1.00000E-005	-6.20000E-004	-5.50000E-004	0.00000E+000	1.11599E+000	1.11599E+000	3.50000E-004	0.00000E+000	1.12481E+000

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Rubber Tired Dozers	1.08529E+000	8.84594E-001	-7.70428E-002	0.00000E+000	1.27684E+000	1.27160E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Tractors/Loaders/Backhoes	1.51613E+000	5.80749E-001	-3.90879E-002	0.00000E+000	2.00000E+000	1.96491E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	8.89031E-006

Fugitive Dust Mitigation

Yes/No	Mitigation Measure	Mitigation Input		Mitigation Input		Mitigation Input	
Yes	Soil Stabilizer for unpaved Roads	PM10 Reduction	10.00	PM2.5 Reduction	10.00		
No	Replace Ground Cover of Area Disturbed	PM10 Reduction	0.00	PM2.5 Reduction	0.00		
Yes	Water Exposed Area	PM10 Reduction	55.00	PM2.5 Reduction	55.00	Frequency (per day)	2.00
No	Unpaved Road Mitigation	Moisture Content %	0.00	Vehicle Speed (mph)	15.00		
No	Clean Paved Road	% PM Reduction	0.00				

		Unmitigated		Mitigated		Percent Reduction	
Phase	Source	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5
Site Preparation	Fugitive Dust	0.02	0.01	0.01	0.00	0.55	0.55
Site Preparation	Roads	0.00	0.00	0.00	0.00	0.00	0.00

Operational Percent Reduction Summary

Category	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Architectural Coating	55.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electricity	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.59	3.59	3.62	3.53	3.59
Hearth	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Landscaping	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mobile	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Natural Gas	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Water Indoor	0.00	0.00	0.00	0.00	0.00	0.00	20.00	15.88	16.11	19.97	19.73	16.73
Water Outdoor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Operational Mobile Mitigation

Project Setting:

Mitigation	Category	Measure	% Reduction	Input Value 1	Input Value 2	Input Value
No	Land Use	Increase Density	0.00			
No	Land Use	Increase Diversity	0.12	0.34		
No	Land Use	Improve Walkability Design	0.00			
No	Land Use	Improve Destination Accessibility	0.00			
No	Land Use	Increase Transit Accessibility	0.25			
No	Land Use	Integrate Below Market Rate Housing	0.00			
	Land Use	Land Use SubTotal	0.00			

No	Neighborhood Enhancements	Improve Pedestrian Network				
No	Neighborhood Enhancements	Provide Traffic Calming Measures				
No	Neighborhood Enhancements	Implement NEV Network	0.00			
	Neighborhood Enhancements	Neighborhood Enhancements Subtotal	0.00			
No	Parking Policy Pricing	Limit Parking Supply	0.00			
No	Parking Policy Pricing	Unbundle Parking Costs	0.00			
No	Parking Policy Pricing	On-street Market Pricing	0.00			
	Parking Policy Pricing	Parking Policy Pricing Subtotal	0.00			
No	Transit Improvements	Provide BRT System	0.00			
No	Transit Improvements	Expand Transit Network	0.00			
No	Transit Improvements	Increase Transit Frequency	0.00			
	Transit Improvements	Transit Improvements Subtotal	0.00			
		Land Use and Site Enhancement Subtotal	0.00			
No	Commute	Implement Trip Reduction Program				
No	Commute	Transit Subsidy				
No	Commute	Implement Employee Parking "Cash Out"				
No	Commute	Workplace Parking Charge				
No	Commute	Encourage Telecommuting and Alternative Work Schedules	0.00			
No	Commute	Market Commute Trip Reduction Option	0.00			
No	Commute	Employee Vanpool/Shuttle	0.00		2.00	
No	Commute	Provide Ride Sharing Program				
	Commute	Commute Subtotal	0.00			

No	School Trip	Implement School Bus Program	0.00			
		Total VMT Reduction	0.00			

Area Mitigation

Measure Implemented	Mitigation Measure	Input Value
No	Only Natural Gas Hearth	
No	No Hearth	
No	Use Low VOC Cleaning Supplies	
No	Use Low VOC Paint (Residential Interior)	250.00
No	Use Low VOC Paint (Residential Exterior)	250.00
Yes	Use Low VOC Paint (Non-residential Interior)	100.00
Yes	Use Low VOC Paint (Non-residential Exterior)	100.00
No	Use Low VOC Paint (Parking)	250.00
No	% Electric Lawnmower	0.00
No	% Electric Leafblower	0.00
No	% Electric Chainsaw	0.00

Energy Mitigation Measures

Measure Implemented	Mitigation Measure	Input Value 1	Input Value 2
No	Exceed Title 24	0.00	
Yes	Install High Efficiency Lighting	16.00	
No	On-site Renewable	0.00	0.00

Appliance Type	Land Use Subtype	% Improvement
ClothWasher		30.00
DishWasher		15.00
Fan		50.00
Refrigerator		15.00

Water Mitigation Measures

Measure Implemented	Mitigation Measure	Input Value 1	Input Value 2
No	Apply Water Conservation on Strategy	0.00	0.00
No	Use Reclaimed Water	0.00	0.00
No	Use Grey Water	0.00	
Yes	Install low-flow bathroom faucet	32.00	
Yes	Install low-flow Kitchen faucet	18.00	
Yes	Install low-flow Toilet	20.00	
Yes	Install low-flow Shower	20.00	
No	Turf Reduction	0.00	
No	Use Water Efficient Irrigation Systems	6.10	
No	Water Efficient Landscape	0.00	0.00

Solid Waste Mitigation

Mitigation Measures	Input Value

Institute Recycling and Composting Services Percent Reduction in Waste Disposed	50.00

Agua Caliente Cathedral City FTT Casino Project - Alternative B

Riverside-Salton Sea County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	850.00	Space	7.65	340,000.00	0
Fast Food Restaurant w/o Drive Thru	2.00	1000sqft	0.00	2,000.00	0
Fast Food Restaurant with Drive Thru	3.80	1000sqft	0.00	3,800.00	0
High Turnover (Sit Down Restaurant)	8.50	1000sqft	0.00	8,500.00	0
Quality Restaurant	8.50	1000sqft	0.00	8,500.00	0
User Defined Recreational	40.00	User Defined Unit	6.03	40,000.00	0
Regional Shopping Center	15.20	1000sqft	0.00	15,200.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2020
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Agua Caliente Cathedral City FTT Casino Project - Alternative B - Riverside-Salton Sea County, Annual

Project Characteristics -

Land Use - Project Description; lot acreage for all recreational and retail space is all included within the User Defined Recreational land use.

Construction Phase - Construction phasing based on a 12-month construction schedule.

Grading - MSA Consulting, Inc., 2018a (See Table 2, CalEEMod Inputs)

Vehicle Trips - See Table 3, CalEEMod Inputs. Trip generation rates are derived from the TIS (Appendix TIS).

Energy Use - Electricity energy and natural gas intensity for the user defined recretational land use determined from similar projects and scaled by square footage

Water And Wastewater - Water demand is based off of similar projects and scaled by square footage

Solid Waste - Section 4.9 of the EA

Construction Off-road Equipment Mitigation - Construction Mitigation

Area Mitigation - MDAQMD Rule 1113 Architectural Coatings (based on nonflat coating)

Energy Mitigation -

Water Mitigation -

Waste Mitigation - Tribe will use the Salton City Landfill's facilities and will divert 50 percent of waste from the landfill.

Stationary Sources - Emergency Generators and Fire Pumps - Based on like project emergency generator size and use

Stationary Sources - Process Boilers - Based on like project boiler size and use

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	250	100
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	100
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3

tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	9.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3

Agua Caliente Cathedral City FTT Casino Project - Alternative B - Riverside-Salton Sea County, Annual

tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	300.00	181.00
tblEnergyUse	NT24E	0.00	3.37
tblEnergyUse	NT24NG	0.00	560.88
tblGrading	AcresOfGrading	75.00	13.68
tblGrading	MaterialImported	0.00	72,653.00
tblLandUse	LandUseSquareFeet	0.00	40,000.00
tblLandUse	LotAcreage	0.05	0.00
tblLandUse	LotAcreage	0.09	0.00
tblLandUse	LotAcreage	0.20	0.00
tblLandUse	LotAcreage	0.20	0.00
tblLandUse	LotAcreage	0.00	6.03
tblLandUse	LotAcreage	0.35	0.00
tblSolidWaste	SolidWasteGenerationRate	0.00	375.95
tblStationaryBoilersUse	AnnualHeatInput	0.00	4,380.00
tblStationaryBoilersUse	BoilerRatingValue	0.00	0.50
tblStationaryBoilersUse	DailyHeatInput	0.00	12.00
tblStationaryBoilersUse	NumberOfEquipment	0.00	3.00
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	2,923.00
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	30.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	3.00
tblVehicleTrips	CC_TTP	0.00	80.00
tblVehicleTrips	CNW_TTP	0.00	5.00
tblVehicleTrips	CW_TTP	0.00	15.00
tblVehicleTrips	DV_TP	37.00	0.00

tblVehicleTrips	DV_TP	21.00	0.00
tblVehicleTrips	DV_TP	20.00	0.00
tblVehicleTrips	DV_TP	18.00	0.00
tblVehicleTrips	DV_TP	35.00	0.00
tblVehicleTrips	PB_TP	12.00	0.00
tblVehicleTrips	PB_TP	50.00	0.00
tblVehicleTrips	PB_TP	43.00	0.00
tblVehicleTrips	PB_TP	44.00	0.00
tblVehicleTrips	PB_TP	11.00	0.00
tblVehicleTrips	PR_TP	51.00	100.00
tblVehicleTrips	PR_TP	29.00	100.00
tblVehicleTrips	PR_TP	37.00	100.00
tblVehicleTrips	PR_TP	38.00	100.00
tblVehicleTrips	PR_TP	54.00	100.00
tblVehicleTrips	PR_TP	0.00	100.00
tblVehicleTrips	ST_TR	696.00	422.63
tblVehicleTrips	ST_TR	722.03	140.33
tblVehicleTrips	ST_TR	158.37	34.03
tblVehicleTrips	ST_TR	94.36	5.68
tblVehicleTrips	ST_TR	49.97	41.96
tblVehicleTrips	ST_TR	0.00	93.00
tblVehicleTrips	SU_TR	500.00	422.63
tblVehicleTrips	SU_TR	542.72	140.33
tblVehicleTrips	SU_TR	131.84	34.03
tblVehicleTrips	SU_TR	72.16	5.68
tblVehicleTrips	SU_TR	25.24	41.96
tblVehicleTrips	SU_TR	0.00	93.00

tblVehicleTrips	WD_TR	716.00	422.63
tblVehicleTrips	WD_TR	496.12	140.33
tblVehicleTrips	WD_TR	127.15	34.03
tblVehicleTrips	WD_TR	89.95	5.68
tblVehicleTrips	WD_TR	42.70	41.96
tblVehicleTrips	WD_TR	0.00	93.00
tblWater	IndoorWaterUseRate	0.00	15,931,489.00
tblWater	OutdoorWaterUseRate	0.00	6,928,889.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	1.4677	5.0192	3.1054	9.9600e-003	0.4386	0.1834	0.6220	0.1676	0.1715	0.3390	0.0000	918.7676	918.7676	0.1282	0.0000	921.9735
Maximum	**1.4677**	**5.0192**	**3.1054**	**9.9600e-003**	**0.4386**	**0.1834**	**0.6220**	**0.1676**	**0.1715**	**0.3390**	**0.0000**	**918.7676**	**918.7676**	**0.1282**	**0.0000**	**921.9735**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	1.2595	4.0253	3.2501	9.9600e-003	0.3327	0.0403	0.3730	0.1121	0.0387	0.1508	0.0000	918.7672	918.7672	0.1282	0.0000	921.9731
Maximum	**1.2595**	**4.0253**	**3.2501**	**9.9600e-003**	**0.3327**	**0.0403**	**0.3730**	**0.1121**	**0.0387**	**0.1508**	**0.0000**	**918.7672**	**918.7672**	**0.1282**	**0.0000**	**921.9731**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**14.18**	**19.80**	**-4.66**	**0.00**	**24.14**	**78.01**	**40.02**	**33.08**	**77.44**	**55.52**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	1-1-2019	3-31-2019	2.7288	2.2512
2	4-1-2019	6-30-2019	1.0434	0.7659
3	7-1-2019	9-30-2019	1.0549	0.7743
		Highest	2.7288	2.2512

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.4296	8.0000e-005	8.5800e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0166	0.0166	4.0000e-005	0.0000	0.0177
Energy	0.1548	1.4070	1.1819	8.4400e-003		0.1069	0.1069		0.1069	0.1069	0.0000	2,018.6770	2,018.6770	0.0495	0.0322	2,029.5213
Mobile	1.7287	13.9082	17.0522	0.0658	4.4782	0.0611	4.5393	1.2000	0.0575	1.2575	0.0000	6,099.8608	6,099.8608	0.4099	0.0000	6,110.1074
Stationary	0.2513	1.1230	1.1816	4.9000e-003		0.0807	0.0807		0.0807	0.0807	0.0000	801.3887	801.3887	0.0275	0.0000	802.0759
Waste						0.0000	0.0000		0.0000	0.0000	115.2238	0.0000	115.2238	6.8095	0.0000	285.4620
Water						0.0000	0.0000		0.0000	0.0000	7.6071	128.0130	135.6201	0.7866	0.0195	161.1088
Total	**2.5644**	**16.4383**	**19.4244**	**0.0791**	**4.4782**	**0.2487**	**4.7269**	**1.2000**	**0.2452**	**1.4452**	**122.8309**	**9,047.9561**	**9,170.7869**	**8.0830**	**0.0518**	**9,388.2931**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.3754	8.0000e-005	8.5800e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0166	0.0166	4.0000e-005	0.0000	0.0177
Energy	0.1548	1.4070	1.1819	8.4400e-003		0.1069	0.1069		0.1069	0.1069	0.0000	2,000.5687	2,000.5687	0.0487	0.0321	2,011.3482
Mobile	1.7287	13.9082	17.0522	0.0658	4.4782	0.0611	4.5393	1.2000	0.0575	1.2575	0.0000	6,099.8608	6,099.8608	0.4099	0.0000	6,110.1074
Stationary	0.2513	1.1230	1.1816	4.9000e-003		0.0807	0.0807		0.0807	0.0807	0.0000	801.3887	801.3887	0.0275	0.0000	802.0759
Waste						0.0000	0.0000		0.0000	0.0000	57.6119	0.0000	57.6119	3.4048	0.0000	142.7310
Water						0.0000	0.0000		0.0000	0.0000	6.0857	108.1172	114.2028	0.6295	0.0157	134.6142
Total	**2.5102**	**16.4383**	**19.4244**	**0.0791**	**4.4782**	**0.2487**	**4.7269**	**1.2000**	**0.2452**	**1.4452**	**63.6976**	**9,009.9520**	**9,073.6495**	**4.5204**	**0.0478**	**9,200.8944**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**2.11**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**48.14**	**0.42**	**1.06**	**44.08**	**7.74**	**2.00**

3.0 Construction Detail

Construction Phase

Agua Caliente Cathedral City FTT Casino Project - Alternative B - Riverside-Salton Sea County, Annual

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/1/2019	1/14/2019	5	10	
2	Grading	Grading	1/15/2019	2/25/2019	5	30	
3	Building Construction	Building Construction	2/26/2019	11/5/2019	5	181	
4	Paving	Paving	11/6/2019	12/3/2019	5	20	
5	Architectural Coating	Architectural Coating	12/4/2019	12/31/2019	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 13.68

Acres of Paving: 7.65

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 117,000; Non-Residential Outdoor: 39,000; Striped Parking Area: 20,400 (Architectural Coating – sqft)

OffRoad Equipment

Agua Caliente Cathedral City FTT Casino Project - Alternative B - Riverside-Salton Sea County, Annual

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	9,082.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	174.00	69.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	35.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use DPF for Construction Equipment

Use Soil Stabilizer

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0903	0.0000	0.0903	0.0497	0.0000	0.0497	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0217	0.2279	0.1103	1.9000e-004		0.0120	0.0120		0.0110	0.0110	0.0000	17.0843	17.0843	5.4100e-003	0.0000	17.2195
Total	**0.0217**	**0.2279**	**0.1103**	**1.9000e-004**	**0.0903**	**0.0120**	**0.1023**	**0.0497**	**0.0110**	**0.0607**	**0.0000**	**17.0843**	**17.0843**	**5.4100e-003**	**0.0000**	**17.2195**

3.2 Site Preparation - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.6000e-004	2.5000e-004	2.6700e-003	1.0000e-005	7.4000e-004	0.0000	7.5000e-004	2.0000e-004	0.0000	2.0000e-004	0.0000	0.6442	0.6442	2.0000e-005	0.0000	0.6447
Total	**3.6000e-004**	**2.5000e-004**	**2.6700e-003**	**1.0000e-005**	**7.4000e-004**	**0.0000**	**7.5000e-004**	**2.0000e-004**	**0.0000**	**2.0000e-004**	**0.0000**	**0.6442**	**0.6442**	**2.0000e-005**	**0.0000**	**0.6447**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0407	0.0000	0.0407	0.0223	0.0000	0.0223	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.6600e-003	0.0953	0.1148	1.9000e-004		7.1000e-004	7.1000e-004		7.1000e-004	7.1000e-004	0.0000	17.0843	17.0843	5.4100e-003	0.0000	17.2195
Total	**4.6600e-003**	**0.0953**	**0.1148**	**1.9000e-004**	**0.0407**	**7.1000e-004**	**0.0414**	**0.0223**	**7.1000e-004**	**0.0231**	**0.0000**	**17.0843**	**17.0843**	**5.4100e-003**	**0.0000**	**17.2195**

3.2 Site Preparation - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.6000e-004	2.5000e-004	2.6700e-003	1.0000e-005	7.4000e-004	0.0000	7.5000e-004	2.0000e-004	0.0000	2.0000e-004	0.0000	0.6442	0.6442	2.0000e-005	0.0000	0.6447
Total	**3.6000e-004**	**2.5000e-004**	**2.6700e-003**	**1.0000e-005**	**7.4000e-004**	**0.0000**	**7.5000e-004**	**2.0000e-004**	**0.0000**	**2.0000e-004**	**0.0000**	**0.6442**	**0.6442**	**2.0000e-005**	**0.0000**	**0.6447**

3.3 Grading - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1022	0.0000	0.1022	0.0511	0.0000	0.0511	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0711	0.8178	0.5007	9.3000e-004		0.0357	0.0357		0.0329	0.0329	0.0000	83.5520	83.5520	0.0264	0.0000	84.2129
Total	**0.0711**	**0.8178**	**0.5007**	**9.3000e-004**	**0.1022**	**0.0357**	**0.1379**	**0.0511**	**0.0329**	**0.0840**	**0.0000**	**83.5520**	**83.5520**	**0.0264**	**0.0000**	**84.2129**

3.3 Grading - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0261	1.1893	0.1500	3.4600e-003	0.0783	4.2200e-003	0.0825	0.0215	4.0400e-003	0.0255	0.0000	332.6488	332.6488	0.0217	0.0000	333.1922
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2100e-003	8.4000e-004	8.9100e-003	2.0000e-005	2.4700e-003	2.0000e-005	2.4800e-003	6.6000e-004	1.0000e-005	6.7000e-004	0.0000	2.1474	2.1474	6.0000e-005	0.0000	2.1489
Total	**0.0273**	**1.1901**	**0.1589**	**3.4800e-003**	**0.0808**	**4.2400e-003**	**0.0850**	**0.0222**	**4.0500e-003**	**0.0262**	**0.0000**	**334.7962**	**334.7962**	**0.0218**	**0.0000**	**335.3411**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0460	0.0000	0.0460	0.0230	0.0000	0.0230	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0436	0.6209	0.5503	9.3000e-004		0.0169	0.0169		0.0157	0.0157	0.0000	83.5519	83.5519	0.0264	0.0000	84.2128
Total	**0.0436**	**0.6209**	**0.5503**	**9.3000e-004**	**0.0460**	**0.0169**	**0.0629**	**0.0230**	**0.0157**	**0.0387**	**0.0000**	**83.5519**	**83.5519**	**0.0264**	**0.0000**	**84.2128**

3.3 Grading - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0261	1.1893	0.1500	3.4600e-003	0.0783	4.2200e-003	0.0825	0.0215	4.0400e-003	0.0255	0.0000	332.6488	332.6488	0.0217	0.0000	333.1922
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2100e-003	8.4000e-004	8.9100e-003	2.0000e-005	2.4700e-003	2.0000e-005	2.4800e-003	6.6000e-004	1.0000e-005	6.7000e-004	0.0000	2.1474	2.1474	6.0000e-005	0.0000	2.1489
Total	**0.0273**	**1.1901**	**0.1589**	**3.4800e-003**	**0.0808**	**4.2400e-003**	**0.0850**	**0.0222**	**4.0500e-003**	**0.0262**	**0.0000**	**334.7962**	**334.7962**	**0.0218**	**0.0000**	**335.3411**

3.4 Building Construction - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2137	1.9076	1.5533	2.4400e-003		0.1167	0.1167		0.1098	0.1098	0.0000	212.7693	212.7693	0.0518	0.0000	214.0651
Total	**0.2137**	**1.9076**	**1.5533**	**2.4400e-003**		**0.1167**	**0.1167**		**0.1098**	**0.1098**	**0.0000**	**212.7693**	**212.7693**	**0.0518**	**0.0000**	**214.0651**

3.4 Building Construction - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0190	0.6593	0.1319	1.3700e-003	0.0309	4.3100e-003	0.0352	8.9200e-003	4.1300e-003	0.0131	0.0000	130.5973	130.5973	0.0128	0.0000	130.9170
Worker	0.0634	0.0441	0.4677	1.2500e-003	0.1296	8.4000e-004	0.1304	0.0344	7.7000e-004	0.0352	0.0000	112.7169	112.7169	3.1600e-003	0.0000	112.7959
Total	**0.0823**	**0.7034**	**0.5996**	**2.6200e-003**	**0.1605**	**5.1500e-003**	**0.1656**	**0.0433**	**4.9000e-003**	**0.0482**	**0.0000**	**243.3142**	**243.3142**	**0.0160**	**0.0000**	**243.7129**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0610	1.2875	1.6176	2.4400e-003		0.0123	0.0123		0.0123	0.0123	0.0000	212.7690	212.7690	0.0518	0.0000	214.0649
Total	**0.0610**	**1.2875**	**1.6176**	**2.4400e-003**		**0.0123**	**0.0123**		**0.0123**	**0.0123**	**0.0000**	**212.7690**	**212.7690**	**0.0518**	**0.0000**	**214.0649**

3.4 Building Construction - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0190	0.6593	0.1319	1.3700e-003	0.0309	4.3100e-003	0.0352	8.9200e-003	4.1300e-003	0.0131	0.0000	130.5973	130.5973	0.0128	0.0000	130.9170
Worker	0.0634	0.0441	0.4677	1.2500e-003	0.1296	8.4000e-004	0.1304	0.0344	7.7000e-004	0.0352	0.0000	112.7169	112.7169	3.1600e-003	0.0000	112.7959
Total	**0.0823**	**0.7034**	**0.5996**	**2.6200e-003**	**0.1605**	**5.1500e-003**	**0.1656**	**0.0433**	**4.9000e-003**	**0.0482**	**0.0000**	**243.3142**	**243.3142**	**0.0160**	**0.0000**	**243.7129**

3.5 Paving - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0145	0.1524	0.1467	2.3000e-004		8.2500e-003	8.2500e-003		7.5900e-003	7.5900e-003	0.0000	20.4752	20.4752	6.4800e-003	0.0000	20.6371
Paving	0.0100					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0246**	**0.1524**	**0.1467**	**2.3000e-004**		**8.2500e-003**	**8.2500e-003**		**7.5900e-003**	**7.5900e-003**	**0.0000**	**20.4752**	**20.4752**	**6.4800e-003**	**0.0000**	**20.6371**

3.5 Paving - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0000e-004	4.2000e-004	4.4600e-003	1.0000e-005	1.2300e-003	1.0000e-005	1.2400e-003	3.3000e-004	1.0000e-005	3.4000e-004	0.0000	1.0737	1.0737	3.0000e-005	0.0000	1.0745
Total	**6.0000e-004**	**4.2000e-004**	**4.4600e-003**	**1.0000e-005**	**1.2300e-003**	**1.0000e-005**	**1.2400e-003**	**3.3000e-004**	**1.0000e-005**	**3.4000e-004**	**0.0000**	**1.0737**	**1.0737**	**3.0000e-005**	**0.0000**	**1.0745**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	5.6100e-003	0.1130	0.1730	2.3000e-004		9.1000e-004	9.1000e-004		9.1000e-004	9.1000e-004	0.0000	20.4752	20.4752	6.4800e-003	0.0000	20.6371
Paving	0.0100					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0156**	**0.1130**	**0.1730**	**2.3000e-004**		**9.1000e-004**	**9.1000e-004**		**9.1000e-004**	**9.1000e-004**	**0.0000**	**20.4752**	**20.4752**	**6.4800e-003**	**0.0000**	**20.6371**

3.5 Paving - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0000e-004	4.2000e-004	4.4600e-003	1.0000e-005	1.2300e-003	1.0000e-005	1.2400e-003	3.3000e-004	1.0000e-005	3.4000e-004	0.0000	1.0737	1.0737	3.0000e-005	0.0000	1.0745
Total	**6.0000e-004**	**4.2000e-004**	**4.4600e-003**	**1.0000e-005**	**1.2300e-003**	**1.0000e-005**	**1.2400e-003**	**3.3000e-004**	**1.0000e-005**	**3.4000e-004**	**0.0000**	**1.0737**	**1.0737**	**3.0000e-005**	**0.0000**	**1.0745**

3.6 Architectural Coating - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.0220					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.6600e-003	0.0184	0.0184	3.0000e-005		1.2900e-003	1.2900e-003		1.2900e-003	1.2900e-003	0.0000	2.5533	2.5533	2.2000e-004	0.0000	2.5587
Total	**1.0247**	**0.0184**	**0.0184**	**3.0000e-005**		**1.2900e-003**	**1.2900e-003**		**1.2900e-003**	**1.2900e-003**	**0.0000**	**2.5533**	**2.5533**	**2.2000e-004**	**0.0000**	**2.5587**

3.6 Architectural Coating - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.4100e-003	9.8000e-004	0.0104	3.0000e-005	2.8800e-003	2.0000e-005	2.9000e-003	7.6000e-004	2.0000e-005	7.8000e-004	0.0000	2.5053	2.5053	7.0000e-005	0.0000	2.5071
Total	**1.4100e-003**	**9.8000e-004**	**0.0104**	**3.0000e-005**	**2.8800e-003**	**2.0000e-005**	**2.9000e-003**	**7.6000e-004**	**2.0000e-005**	**7.8000e-004**	**0.0000**	**2.5053**	**2.5053**	**7.0000e-005**	**0.0000**	**2.5071**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.0220					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.9000e-004	0.0136	0.0183	3.0000e-005		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004	0.0000	2.5533	2.5533	2.2000e-004	0.0000	2.5586
Total	**1.0226**	**0.0136**	**0.0183**	**3.0000e-005**		**1.4000e-004**	**1.4000e-004**		**1.4000e-004**	**1.4000e-004**	**0.0000**	**2.5533**	**2.5533**	**2.2000e-004**	**0.0000**	**2.5586**

3.6 Architectural Coating - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.4100e-003	9.8000e-004	0.0104	3.0000e-005	2.8800e-003	2.0000e-005	2.9000e-003	7.6000e-004	2.0000e-005	7.8000e-004	0.0000	2.5053	2.5053	7.0000e-005	0.0000	2.5071
Total	**1.4100e-003**	**9.8000e-004**	**0.0104**	**3.0000e-005**	**2.8800e-003**	**2.0000e-005**	**2.9000e-003**	**7.6000e-004**	**2.0000e-005**	**7.8000e-004**	**0.0000**	**2.5053**	**2.5053**	**7.0000e-005**	**0.0000**	**2.5071**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.7287	13.9082	17.0522	0.0658	4.4782	0.0611	4.5393	1.2000	0.0575	1.2575	0.0000	6,099.8608	6,099.8608	0.4099	0.0000	6,110.1074
Unmitigated	1.7287	13.9082	17.0522	0.0658	4.4782	0.0611	4.5393	1.2000	0.0575	1.2575	0.0000	6,099.8608	6,099.8608	0.4099	0.0000	6,110.1074

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Fast Food Restaurant w/o Drive Thru	845.26	845.26	845.26	1,400,689	1,400,689
Fast Food Restaurant with Drive Thru	533.25	533.25	533.25	894,938	894,938
High Turnover (Sit Down Restaurant)	289.26	289.26	289.26	540,500	540,500
Parking Lot	0.00	0.00	0.00		
Quality Restaurant	48.28	48.28	48.28	95,321	95,321
Regional Shopping Center	637.79	637.79	637.79	1,342,072	1,342,072
User Defined Recreational	3,720.00	3,720.00	3720.00	7,454,210	7,454,210
Total	6,073.84	6,073.84	6,073.84	11,727,731	11,727,731

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Fast Food Restaurant w/o Drive	12.50	4.20	5.40	1.50	79.50	19.00	100	0	0
Fast Food Restaurant with Drive	12.50	4.20	5.40	2.20	78.80	19.00	100	0	0
High Turnover (Sit Down	12.50	4.20	5.40	8.50	72.50	19.00	100	0	0
Parking Lot	12.50	4.20	5.40	0.00	0.00	0.00	0	0	0
Quality Restaurant	12.50	4.20	5.40	12.00	69.00	19.00	100	0	0
Regional Shopping Center	12.50	4.20	5.40	16.30	64.70	19.00	100	0	0
User Defined Recreational	12.50	4.20	5.40	15.00	80.00	5.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Fast Food Restaurant w/o Drive Thru	0.538064	0.038449	0.184390	0.122109	0.017402	0.005339	0.017250	0.067711	0.001365	0.001213	0.004629	0.000959	0.001120
Fast Food Restaurant with Drive Thru	0.538064	0.038449	0.184390	0.122109	0.017402	0.005339	0.017250	0.067711	0.001365	0.001213	0.004629	0.000959	0.001120
High Turnover (Sit Down Restaurant)	0.538064	0.038449	0.184390	0.122109	0.017402	0.005339	0.017250	0.067711	0.001365	0.001213	0.004629	0.000959	0.001120
Parking Lot	0.538064	0.038449	0.184390	0.122109	0.017402	0.005339	0.017250	0.067711	0.001365	0.001213	0.004629	0.000959	0.001120
Quality Restaurant	0.538064	0.038449	0.184390	0.122109	0.017402	0.005339	0.017250	0.067711	0.001365	0.001213	0.004629	0.000959	0.001120
Regional Shopping Center	0.538064	0.038449	0.184390	0.122109	0.017402	0.005339	0.017250	0.067711	0.001365	0.001213	0.004629	0.000959	0.001120
User Defined Recreational	0.538064	0.038449	0.184390	0.122109	0.017402	0.005339	0.017250	0.067711	0.001365	0.001213	0.004629	0.000959	0.001120

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Install High Efficiency Lighting

Agua Caliente Cathedral City FTT Casino Project - Alternative B - Riverside-Salton Sea County, Annual

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	468.8472	468.8472	0.0194	4.0000e-003	470.5245
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	486.9555	486.9555	0.0201	4.1600e-003	488.6976
NaturalGas Mitigated	0.1548	1.4070	1.1819	8.4400e-003		0.1069	0.1069		0.1069	0.1069	0.0000	1,531.7215	1,531.7215	0.0294	0.0281	1,540.8237
NaturalGas Unmitigated	0.1548	1.4070	1.1819	8.4400e-003		0.1069	0.1069		0.1069	0.1069	0.0000	1,531.7215	1,531.7215	0.0294	0.0281	1,540.8237

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Fast Food Restaurant w/o Drive Thru	546880	2.9500e-003	0.0268	0.0225	1.6000e-004		2.0400e-003	2.0400e-003		2.0400e-003	2.0400e-003	0.0000	29.1836	29.1836	5.6000e-004	5.4000e-004	29.3570
Fast Food Restaurant with Drive Thru	1.03907e+006	5.6000e-003	0.0509	0.0428	3.1000e-004		3.8700e-003	3.8700e-003		3.8700e-003	3.8700e-003	0.0000	55.4488	55.4488	1.0600e-003	1.0200e-003	55.7783
High Turnover (Sit Down Restaurant)	2.32424e+006	0.0125	0.1139	0.0957	6.8000e-004		8.6600e-003	8.6600e-003		8.6600e-003	8.6600e-003	0.0000	124.0303	124.0303	2.3800e-003	2.2700e-003	124.7674
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	2.32424e+006	0.0125	0.1139	0.0957	6.8000e-004		8.6600e-003	8.6600e-003		8.6600e-003	8.6600e-003	0.0000	124.0303	124.0303	2.3800e-003	2.2700e-003	124.7674
Regional Shopping Center	33744	1.8000e-004	1.6500e-003	1.3900e-003	1.0000e-005		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004	0.0000	1.8007	1.8007	3.0000e-005	3.0000e-005	1.8114
User Defined Recreational	2.24352e+007	0.1210	1.0998	0.9238	6.6000e-003		0.0836	0.0836		0.0836	0.0836	0.0000	1,197.2277	1,197.2277	0.0230	0.0220	1,204.3422
Total		**0.1548**	**1.4070**	**1.1819**	**8.4400e-003**		**0.1069**	**0.1069**		**0.1069**	**0.1069**	**0.0000**	**1,531.7215**	**1,531.7215**	**0.0294**	**0.0281**	**1,540.8237**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Fast Food Restaurant w/o Drive Thru	546880	2.9500e-003	0.0268	0.0225	1.6000e-004		2.0400e-003	2.0400e-003		2.0400e-003	2.0400e-003	0.0000	29.1836	29.1836	5.6000e-004	5.4000e-004	29.3570
Fast Food Restaurant with Drive Thru	1.03907e+006	5.6000e-003	0.0509	0.0428	3.1000e-004		3.8700e-003	3.8700e-003		3.8700e-003	3.8700e-003	0.0000	55.4488	55.4488	1.0600e-003	1.0200e-003	55.7783
High Turnover (Sit Down Restaurant)	2.32424e+006	0.0125	0.1139	0.0957	6.8000e-004		8.6600e-003	8.6600e-003		8.6600e-003	8.6600e-003	0.0000	124.0303	124.0303	2.3800e-003	2.2700e-003	124.7674
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	2.32424e+006	0.0125	0.1139	0.0957	6.8000e-004		8.6600e-003	8.6600e-003		8.6600e-003	8.6600e-003	0.0000	124.0303	124.0303	2.3800e-003	2.2700e-003	124.7674
Regional Shopping Center	33744	1.8000e-004	1.6500e-003	1.3900e-003	1.0000e-005		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004	0.0000	1.8007	1.8007	3.0000e-005	3.0000e-005	1.8114
User Defined Recreational	2.24352e+007	0.1210	1.0998	0.9238	6.6000e-003		0.0836	0.0836		0.0836	0.0836	0.0000	1,197.2277	1,197.2277	0.0230	0.0220	1,204.3422
Total		**0.1548**	**1.4070**	**1.1819**	**8.4400e-003**		**0.1069**	**0.1069**		**0.1069**	**0.1069**	**0.0000**	**1,531.7215**	**1,531.7215**	**0.0294**	**0.0281**	**1,540.8237**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Fast Food Restaurant w/o Drive Thru	94960	30.2563	1.2500e-003	2.6000e-004	30.3645
Fast Food Restaurant with Drive Thru	180424	57.4870	2.3700e-003	4.9000e-004	57.6926
High Turnover (Sit Down Restaurant)	403580	128.5892	5.3100e-003	1.1000e-003	129.0493
Parking Lot	119000	37.9160	1.5700e-003	3.2000e-004	38.0516
Quality Restaurant	403580	128.5892	5.3100e-003	1.1000e-003	129.0493
Regional Shopping Center	191976	61.1677	2.5300e-003	5.2000e-004	61.3865
User Defined Recreational	134800	42.9502	1.7700e-003	3.7000e-004	43.1038
Total		**486.9555**	**0.0201**	**4.1600e-003**	**488.6976**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Fast Food Restaurant w/o Drive Thru	92841.6	29.5813	1.2200e-003	2.5000e-004	29.6872
Fast Food Restaurant with Drive Thru	176399	56.2045	2.3200e-003	4.8000e-004	56.4056
High Turnover (Sit Down Restaurant)	394577	125.7206	5.1900e-003	1.0700e-003	126.1704
Parking Lot	99960	31.8494	1.3100e-003	2.7000e-004	31.9633
Quality Restaurant	394577	125.7206	5.1900e-003	1.0700e-003	126.1704
Regional Shopping Center	178332	56.8206	2.3500e-003	4.9000e-004	57.0238
User Defined Recreational	134800	42.9502	1.7700e-003	3.7000e-004	43.1038
Total		**468.8472**	**0.0194**	**4.0000e-003**	**470.5245**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.3754	8.0000e-005	8.5800e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0166	0.0166	4.0000e-005	0.0000	0.0177
Unmitigated	0.4296	8.0000e-005	8.5800e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0166	0.0166	4.0000e-005	0.0000	0.0177

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1022					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.3266					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	8.1000e-004	8.0000e-005	8.5800e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0166	0.0166	4.0000e-005	0.0000	0.0177
Total	**0.4296**	**8.0000e-005**	**8.5800e-003**	**0.0000**		**3.0000e-005**	**3.0000e-005**		**3.0000e-005**	**3.0000e-005**	**0.0000**	**0.0166**	**0.0166**	**4.0000e-005**	**0.0000**	**0.0177**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0480					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.3266					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	8.1000e-004	8.0000e-005	8.5800e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0166	0.0166	4.0000e-005	0.0000	0.0177
Total	**0.3754**	**8.0000e-005**	**8.5800e-003**	**0.0000**		**3.0000e-005**	**3.0000e-005**		**3.0000e-005**	**3.0000e-005**	**0.0000**	**0.0166**	**0.0166**	**4.0000e-005**	**0.0000**	**0.0177**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Agua Caliente Cathedral City FTT Casino Project - Alternative B - Riverside-Salton Sea County, Annual

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	114.2028	0.6295	0.0157	134.6142
Unmitigated	135.6201	0.7866	0.0195	161.1088

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Fast Food Restaurant w/o Drive Thru	0.607067 / 0.038749	2.8483	0.0199	4.9000e-004	3.4916
Fast Food Restaurant with Drive Thru	1.15343 / 0.0736231	5.4119	0.0378	9.3000e-004	6.6340
High Turnover (Sit Down Restaurant)	2.58004 / 0.164683	12.1055	0.0845	2.0800e-003	14.8392
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	2.58004 / 0.164683	12.1055	0.0845	2.0800e-003	14.8392
Regional Shopping Center	1.1259 / 0.690069	7.4711	0.0370	9.3000e-004	8.6719
User Defined Recreational	15.9315 / 6.92889	95.6779	0.5229	0.0130	112.6331
Total		**135.6201**	**0.7866**	**0.0195**	**161.1088**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Fast Food Restaurant w/o Drive Thru	0.485654 / 0.038749	2.3061	0.0159	3.9000e-004	2.8208
Fast Food Restaurant with Drive Thru	0.922742 / 0.0736231	4.3816	0.0302	7.4000e-004	5.3595
High Turnover (Sit Down Restaurant)	2.06403 / 0.164683	9.8010	0.0676	1.6700e-003	11.9883
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	2.06403 / 0.164683	9.8010	0.0676	1.6700e-003	11.9883
Regional Shopping Center	0.900722 / 0.690069	6.4654	0.0296	7.5000e-004	7.4278
User Defined Recreational	12.7452 / 6.92889	81.4478	0.4185	0.0105	95.0295
Total		**114.2028**	**0.6295**	**0.0157**	**134.6143**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	57.6119	3.4048	0.0000	142.7310
Unmitigated	115.2238	6.8095	0.0000	285.4620

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Fast Food Restaurant w/o Drive Thru	23.04	4.6769	0.2764	0.0000	11.5869
Fast Food Restaurant with Drive Thru	43.77	8.8849	0.5251	0.0000	22.0120
High Turnover (Sit Down Restaurant)	101.15	20.5325	1.2134	0.0000	50.8685
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	7.76	1.5752	0.0931	0.0000	3.9025
Regional Shopping Center	15.96	3.2397	0.1915	0.0000	8.0263
User Defined Recreational	375.95	76.3145	4.5101	0.0000	189.0658
Total		**115.2238**	**6.8095**	**0.0000**	**285.4620**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Fast Food Restaurant w/o Drive Thru	11.52	2.3385	0.1382	0.0000	5.7934
Fast Food Restaurant with Drive Thru	21.885	4.4425	0.2625	0.0000	11.0060
High Turnover (Sit Down Restaurant)	50.575	10.2663	0.6067	0.0000	25.4342
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	3.88	0.7876	0.0466	0.0000	1.9513
Regional Shopping Center	7.98	1.6199	0.0957	0.0000	4.0132
User Defined Recreational	187.975	38.1572	2.2550	0.0000	94.5329
Total		**57.6119**	**3.4048**	**0.0000**	**142.7310**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Emergency Generator	3	0	30	2923	0.73	Diesel

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
Boiler	3	12	4380	0.5	CNG

User Defined Equipment

Equipment Type	Number

10.1 Stationary Sources

Unmitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	tons/yr										MT/yr					
Boiler - CNG (0 - 2 MMBTU)	0.0354	0.1577	0.6313	3.8600e-003		0.0490	0.0490		0.0490	0.0490	0.0000	701.2124	701.2124	0.0134	0.0000	701.5484
Emergency Generator - Diesel (750 - 9999 HP)	0.2159	0.9653	0.5504	1.0400e-003		0.0318	0.0318		0.0318	0.0318	0.0000	100.1763	100.1763	0.0140	0.0000	100.5274
Total	**0.2513**	**1.1230**	**1.1816**	**4.9000e-003**		**0.0807**	**0.0807**		**0.0807**	**0.0807**	**0.0000**	**801.3887**	**801.3887**	**0.0275**	**0.0000**	**802.0759**

11.0 Vegetation

Agua Caliente Cathedral City FTT Casino Project - Alternative B

Riverside-Salton Sea County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	850.00	Space	7.65	340,000.00	0
Fast Food Restaurant w/o Drive Thru	2.00	1000sqft	0.00	2,000.00	0
Fast Food Restaurant with Drive Thru	3.80	1000sqft	0.00	3,800.00	0
High Turnover (Sit Down Restaurant)	8.50	1000sqft	0.00	8,500.00	0
Quality Restaurant	8.50	1000sqft	0.00	8,500.00	0
User Defined Recreational	40.00	User Defined Unit	6.03	40,000.00	0
Regional Shopping Center	15.20	1000sqft	0.00	15,200.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2020
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Agua Caliente Cathedral City FTT Casino Project - Alternative B - Riverside-Salton Sea County, Summer

Project Characteristics -

Land Use - Project Description; lot acreage for all recreational and retail space is all included within the User Defined Recreational land use.

Construction Phase - Construction phasing based on a 12-month construction schedule.

Grading - MSA Consulting, Inc., 2018a (See Table 2, CalEEMod Inputs)

Vehicle Trips - See Table 3, CalEEMod Inputs. Trip generation rates are derived from the TIS (Appendix TIS).

Energy Use - Electricity energy and natural gas intensity for the user defined recretational land use determined from similar projects and scaled by square footage

Water And Wastewater - Water demand is based off of similar projects and scaled by square footage

Solid Waste - Section 4.9 of the EA

Construction Off-road Equipment Mitigation - Construction Mitigation

Area Mitigation - MDAQMD Rule 1113 Architectural Coatings (based on nonflat coating)

Energy Mitigation -

Water Mitigation -

Waste Mitigation - Tribe will use the Salton City Landfill's facilities and will divert 50 percent of waste from the landfill.

Stationary Sources - Emergency Generators and Fire Pumps - Based on like project emergency generator size and use

Stationary Sources - Process Boilers - Based on like project boiler size and use

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	250	100
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	100
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3

tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	9.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3

Agua Caliente Cathedral City FTT Casino Project - Alternative B - Riverside-Salton Sea County, Summer

tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	300.00	181.00
tblEnergyUse	NT24E	0.00	3.37
tblEnergyUse	NT24NG	0.00	560.88
tblGrading	AcresOfGrading	75.00	13.68
tblGrading	MaterialImported	0.00	72,653.00
tblLandUse	LandUseSquareFeet	0.00	40,000.00
tblLandUse	LotAcreage	0.05	0.00
tblLandUse	LotAcreage	0.09	0.00
tblLandUse	LotAcreage	0.20	0.00
tblLandUse	LotAcreage	0.20	0.00
tblLandUse	LotAcreage	0.00	6.03
tblLandUse	LotAcreage	0.35	0.00
tblSolidWaste	SolidWasteGenerationRate	0.00	375.95
tblStationaryBoilersUse	AnnualHeatInput	0.00	4,380.00
tblStationaryBoilersUse	BoilerRatingValue	0.00	0.50
tblStationaryBoilersUse	DailyHeatInput	0.00	12.00
tblStationaryBoilersUse	NumberOfEquipment	0.00	3.00
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	2,923.00
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	30.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	3.00
tblVehicleTrips	CC_TTP	0.00	80.00
tblVehicleTrips	CNW_TTP	0.00	5.00
tblVehicleTrips	CW_TTP	0.00	15.00
tblVehicleTrips	DV_TP	37.00	0.00

tblVehicleTrips	DV_TP	21.00	0.00
tblVehicleTrips	DV_TP	20.00	0.00
tblVehicleTrips	DV_TP	18.00	0.00
tblVehicleTrips	DV_TP	35.00	0.00
tblVehicleTrips	PB_TP	12.00	0.00
tblVehicleTrips	PB_TP	50.00	0.00
tblVehicleTrips	PB_TP	43.00	0.00
tblVehicleTrips	PB_TP	44.00	0.00
tblVehicleTrips	PB_TP	11.00	0.00
tblVehicleTrips	PR_TP	51.00	100.00
tblVehicleTrips	PR_TP	29.00	100.00
tblVehicleTrips	PR_TP	37.00	100.00
tblVehicleTrips	PR_TP	38.00	100.00
tblVehicleTrips	PR_TP	54.00	100.00
tblVehicleTrips	PR_TP	0.00	100.00
tblVehicleTrips	ST_TR	696.00	422.63
tblVehicleTrips	ST_TR	722.03	140.33
tblVehicleTrips	ST_TR	158.37	34.03
tblVehicleTrips	ST_TR	94.36	5.68
tblVehicleTrips	ST_TR	49.97	41.96
tblVehicleTrips	ST_TR	0.00	93.00
tblVehicleTrips	SU_TR	500.00	422.63
tblVehicleTrips	SU_TR	542.72	140.33
tblVehicleTrips	SU_TR	131.84	34.03
tblVehicleTrips	SU_TR	72.16	5.68
tblVehicleTrips	SU_TR	25.24	41.96
tblVehicleTrips	SU_TR	0.00	93.00

tblVehicleTrips	WD_TR	716.00	422.63
tblVehicleTrips	WD_TR	496.12	140.33
tblVehicleTrips	WD_TR	127.15	34.03
tblVehicleTrips	WD_TR	89.95	5.68
tblVehicleTrips	WD_TR	42.70	41.96
tblVehicleTrips	WD_TR	0.00	93.00
tblWater	IndoorWaterUseRate	0.00	15,931,489.00
tblWater	OutdoorWaterUseRate	0.00	6,928,889.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	102.6271	131.9088	43.3651	0.2967	18.2169	2.6632	20.6082	9.9706	2.4604	12.1706	0.0000	31,014.2301	31,014.2301	3.4823	0.0000	31,101.2875
Maximum	**102.6271**	**131.9088**	**43.3651**	**0.2967**	**18.2169**	**2.6632**	**20.6082**	**9.9706**	**2.4604**	**12.1706**	**0.0000**	**31,014.2301**	**31,014.2301**	**3.4823**	**0.0000**	**31,101.2875**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	102.4201	118.7784	46.6777	0.2967	8.5293	1.4054	9.9348	4.5088	1.3123	4.6516	0.0000	31,014.2301	31,014.2301	3.4823	0.0000	31,101.2875
Maximum	**102.4201**	**118.7784**	**46.6777**	**0.2967**	**8.5293**	**1.4054**	**9.9348**	**4.5088**	**1.3123**	**4.6516**	**0.0000**	**31,014.2301**	**31,014.2301**	**3.4823**	**0.0000**	**31,101.2875**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.20**	**9.95**	**-7.64**	**0.00**	**53.18**	**47.23**	**51.79**	**54.78**	**46.66**	**61.78**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.3586	8.8000e-004	0.0954	1.0000e-005		3.4000e-004	3.4000e-004		3.4000e-004	3.4000e-004		0.2031	0.2031	5.4000e-004		0.2167
Energy	0.8481	7.7097	6.4762	0.0463		0.5859	0.5859		0.5859	0.5859		9,251.6925	9,251.6925	0.1773	0.1696	9,306.6707
Mobile	11.3694	75.6072	101.9680	0.3832	25.0139	0.3338	25.3478	6.6935	0.3145	7.0080		39,120.7473	39,120.7473	2.4423		39,181.8046
Stationary	0.1941	0.8640	3.4589	0.0212		0.2682	0.2682		0.2682	0.2682		4,235.3665	4,235.3665	0.0812		4,237.3959
Total	**14.7702**	**84.1818**	**111.9984**	**0.4507**	**25.0139**	**1.1883**	**26.2023**	**6.6935**	**1.1690**	**7.8626**		**52,608.0094**	**52,608.0094**	**2.7013**	**0.1696**	**52,726.0879**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.0615	8.8000e-004	0.0954	1.0000e-005		3.4000e-004	3.4000e-004		3.4000e-004	3.4000e-004		0.2031	0.2031	5.4000e-004		0.2167
Energy	0.8481	7.7097	6.4762	0.0463		0.5859	0.5859		0.5859	0.5859		9,251.6925	9,251.6925	0.1773	0.1696	9,306.6707
Mobile	11.3694	75.6072	101.9680	0.3832	25.0139	0.3338	25.3478	6.6935	0.3145	7.0080		39,120.7473	39,120.7473	2.4423		39,181.8046
Stationary	0.1941	0.8640	3.4589	0.0212		0.2682	0.2682		0.2682	0.2682		4,235.3665	4,235.3665	0.0812		4,237.3959
Total	**14.4731**	**84.1818**	**111.9984**	**0.4507**	**25.0139**	**1.1883**	**26.2023**	**6.6935**	**1.1690**	**7.8626**		**52,608.0094**	**52,608.0094**	**2.7013**	**0.1696**	**52,726.0879**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**2.01**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Agua Caliente Cathedral City FTT Casino Project - Alternative B - Riverside-Salton Sea County, Summer

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/1/2019	1/14/2019	5	10	
2	Grading	Grading	1/15/2019	2/25/2019	5	30	
3	Building Construction	Building Construction	2/26/2019	11/5/2019	5	181	
4	Paving	Paving	11/6/2019	12/3/2019	5	20	
5	Architectural Coating	Architectural Coating	12/4/2019	12/31/2019	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 13.68

Acres of Paving: 7.65

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 117,000; Non-Residential Outdoor: 39,000; Striped Parking Area: 20,400 (Architectural Coating – sqft)

OffRoad Equipment

Agua Caliente Cathedral City FTT Casino Project - Alternative B - Riverside-Salton Sea County, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	9,082.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	174.00	69.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	35.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use DPF for Construction Equipment

Use Soil Stabilizer

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	4.3350	45.5727	22.0630	0.0380		2.3904	2.3904		2.1991	2.1991		3,766.4529	3,766.4529	1.1917		3,796.2445
Total	**4.3350**	**45.5727**	**22.0630**	**0.0380**	**18.0663**	**2.3904**	**20.4566**	**9.9307**	**2.1991**	**12.1298**		**3,766.4529**	**3,766.4529**	**1.1917**		**3,796.2445**

3.2 Site Preparation - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0817	0.0471	0.6195	1.5500e-003	0.1506	9.6000e-004	0.1516	0.0400	8.8000e-004	0.0408		154.2784	154.2784	4.4000e-003		154.3884
Total	**0.0817**	**0.0471**	**0.6195**	**1.5500e-003**	**0.1506**	**9.6000e-004**	**0.1516**	**0.0400**	**8.8000e-004**	**0.0408**		**154.2784**	**154.2784**	**4.4000e-003**		**154.3884**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.1298	0.0000	8.1298	4.4688	0.0000	4.4688			0.0000			0.0000
Off-Road	0.9312	19.0656	22.9600	0.0380		0.1419	0.1419		0.1419	0.1419	0.0000	3,766.4529	3,766.4529	1.1917		3,796.2445
Total	**0.9312**	**19.0656**	**22.9600**	**0.0380**	**8.1298**	**0.1419**	**8.2717**	**4.4688**	**0.1419**	**4.6107**	**0.0000**	**3,766.4529**	**3,766.4529**	**1.1917**		**3,796.2445**

3.2 Site Preparation - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0817	0.0471	0.6195	1.5500e-003	0.1506	9.6000e-004	0.1516	0.0400	8.8000e-004	0.0408		154.2784	154.2784	4.4000e-003		154.3884
Total	**0.0817**	**0.0471**	**0.6195**	**1.5500e-003**	**0.1506**	**9.6000e-004**	**0.1516**	**0.0400**	**8.8000e-004**	**0.0408**		**154.2784**	**154.2784**	**4.4000e-003**		**154.3884**

3.3 Grading - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.8124	0.0000	6.8124	3.4089	0.0000	3.4089			0.0000			0.0000
Off-Road	4.7389	54.5202	33.3768	0.0620		2.3827	2.3827		2.1920	2.1920		6,140.0195	6,140.0195	1.9426		6,188.5854
Total	**4.7389**	**54.5202**	**33.3768**	**0.0620**	**6.8124**	**2.3827**	**9.1950**	**3.4089**	**2.1920**	**5.6009**		**6,140.0195**	**6,140.0195**	**1.9426**		**6,188.5854**

3.3 Grading - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.7006	77.3363	9.3000	0.2330	5.2964	0.2795	5.5759	1.4519	0.2674	1.7193		24,702.7901	24,702.7901	1.5348		24,741.1594
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0908	0.0524	0.6883	1.7200e-003	0.1673	1.0700e-003	0.1684	0.0444	9.8000e-004	0.0454		171.4204	171.4204	4.8900e-003		171.5427
Total	**1.7914**	**77.3886**	**9.9883**	**0.2347**	**5.4638**	**0.2806**	**5.7443**	**1.4963**	**0.2684**	**1.7647**		**24,874.2106**	**24,874.2106**	**1.5397**		**24,912.7021**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.0656	0.0000	3.0656	1.5340	0.0000	1.5340			0.0000			0.0000
Off-Road	2.9080	41.3897	36.6894	0.0620		1.1249	1.1249		1.0439	1.0439	0.0000	6,140.0195	6,140.0195	1.9426		6,188.5854
Total	**2.9080**	**41.3897**	**36.6894**	**0.0620**	**3.0656**	**1.1249**	**4.1905**	**1.5340**	**1.0439**	**2.5779**	**0.0000**	**6,140.0195**	**6,140.0195**	**1.9426**		**6,188.5854**

3.3 Grading - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.7006	77.3363	9.3000	0.2330	5.2964	0.2795	5.5759	1.4519	0.2674	1.7193		24,702.7901	24,702.7901	1.5348		24,741.1594
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0908	0.0524	0.6883	1.7200e-003	0.1673	1.0700e-003	0.1684	0.0444	9.8000e-004	0.0454		171.4204	171.4204	4.8900e-003		171.5427
Total	**1.7914**	**77.3886**	**9.9883**	**0.2347**	**5.4638**	**0.2806**	**5.7443**	**1.4963**	**0.2684**	**1.7647**		**24,874.2106**	**24,874.2106**	**1.5397**		**24,912.7021**

3.4 Building Construction - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.3612	21.0788	17.1638	0.0269		1.2899	1.2899		1.2127	1.2127		2,591.5802	2,591.5802	0.6313		2,607.3635
Total	**2.3612**	**21.0788**	**17.1638**	**0.0269**		**1.2899**	**1.2899**		**1.2127**	**1.2127**		**2,591.5802**	**2,591.5802**	**0.6313**		**2,607.3635**

3.4 Building Construction - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.2053	7.2152	1.3432	0.0154	0.3462	0.0474	0.3936	0.0997	0.0453	0.1450		1,620.7408	1,620.7408	0.1484		1,624.4498
Worker	0.7900	0.4556	5.9886	0.0150	1.4558	9.2700e-003	1.4651	0.3861	8.5300e-003	0.3947		1,491.3578	1,491.3578	0.0425		1,492.4211
Total	**0.9953**	**7.6708**	**7.3318**	**0.0304**	**1.8020**	**0.0566**	**1.8586**	**0.4859**	**0.0538**	**0.5397**		**3,112.0985**	**3,112.0985**	**0.1909**		**3,116.8710**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6739	14.2261	17.8738	0.0269		0.1355	0.1355		0.1355	0.1355	0.0000	2,591.5802	2,591.5802	0.6313		2,607.3635
Total	**0.6739**	**14.2261**	**17.8738**	**0.0269**		**0.1355**	**0.1355**		**0.1355**	**0.1355**	**0.0000**	**2,591.5802**	**2,591.5802**	**0.6313**		**2,607.3635**

3.4 Building Construction - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.2053	7.2152	1.3432	0.0154	0.3462	0.0474	0.3936	0.0997	0.0453	0.1450		1,620.7408	1,620.7408	0.1484		1,624.4498
Worker	0.7900	0.4556	5.9886	0.0150	1.4558	9.2700e-003	1.4651	0.3861	8.5300e-003	0.3947		1,491.3578	1,491.3578	0.0425		1,492.4211
Total	**0.9953**	**7.6708**	**7.3318**	**0.0304**	**1.8020**	**0.0566**	**1.8586**	**0.4859**	**0.0538**	**0.5397**		**3,112.0985**	**3,112.0985**	**0.1909**		**3,116.8710**

3.5 Paving - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4544	15.2441	14.6648	0.0228		0.8246	0.8246		0.7586	0.7586		2,257.0025	2,257.0025	0.7141		2,274.8548
Paving	1.0022					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.4566**	**15.2441**	**14.6648**	**0.0228**		**0.8246**	**0.8246**		**0.7586**	**0.7586**		**2,257.0025**	**2,257.0025**	**0.7141**		**2,274.8548**

3.5 Paving - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0681	0.0393	0.5163	1.2900e-003	0.1255	8.0000e-004	0.1263	0.0333	7.4000e-004	0.0340		128.5653	128.5653	3.6700e-003		128.6570
Total	**0.0681**	**0.0393**	**0.5163**	**1.2900e-003**	**0.1255**	**8.0000e-004**	**0.1263**	**0.0333**	**7.4000e-004**	**0.0340**		**128.5653**	**128.5653**	**3.6700e-003**		**128.6570**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5609	11.2952	17.2957	0.0228		0.0914	0.0914		0.0914	0.0914	0.0000	2,257.0025	2,257.0025	0.7141		2,274.8548
Paving	1.0022					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.5631**	**11.2952**	**17.2957**	**0.0228**		**0.0914**	**0.0914**		**0.0914**	**0.0914**	**0.0000**	**2,257.0025**	**2,257.0025**	**0.7141**		**2,274.8548**

3.5 Paving - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0681	0.0393	0.5163	1.2900e-003	0.1255	8.0000e-004	0.1263	0.0333	7.4000e-004	0.0340		128.5653	128.5653	3.6700e-003		128.6570
Total	**0.0681**	**0.0393**	**0.5163**	**1.2900e-003**	**0.1255**	**8.0000e-004**	**0.1263**	**0.0333**	**7.4000e-004**	**0.0340**		**128.5653**	**128.5653**	**3.6700e-003**		**128.6570**

3.6 Architectural Coating - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	102.2018					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2664	1.8354	1.8413	2.9700e-003		0.1288	0.1288		0.1288	0.1288		281.4481	281.4481	0.0238		282.0423
Total	**102.4682**	**1.8354**	**1.8413**	**2.9700e-003**		**0.1288**	**0.1288**		**0.1288**	**0.1288**		**281.4481**	**281.4481**	**0.0238**		**282.0423**

3.6 Architectural Coating - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1589	0.0916	1.2046	3.0100e-003	0.2928	1.8600e-003	0.2947	0.0777	1.7200e-003	0.0794		299.9858	299.9858	8.5600e-003		300.1997
Total	**0.1589**	**0.0916**	**1.2046**	**3.0100e-003**	**0.2928**	**1.8600e-003**	**0.2947**	**0.0777**	**1.7200e-003**	**0.0794**		**299.9858**	**299.9858**	**8.5600e-003**		**300.1997**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	102.2018					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0594	1.3570	1.8324	2.9700e-003		0.0143	0.0143		0.0143	0.0143	0.0000	281.4481	281.4481	0.0238		282.0423
Total	**102.2612**	**1.3570**	**1.8324**	**2.9700e-003**		**0.0143**	**0.0143**		**0.0143**	**0.0143**	**0.0000**	**281.4481**	**281.4481**	**0.0238**		**282.0423**

3.6 Architectural Coating - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1589	0.0916	1.2046	3.0100e-003	0.2928	1.8600e-003	0.2947	0.0777	1.7200e-003	0.0794		299.9858	299.9858	8.5600e-003		300.1997
Total	**0.1589**	**0.0916**	**1.2046**	**3.0100e-003**	**0.2928**	**1.8600e-003**	**0.2947**	**0.0777**	**1.7200e-003**	**0.0794**		**299.9858**	**299.9858**	**8.5600e-003**		**300.1997**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	11.3694	75.6072	101.9680	0.3832	25.0139	0.3338	25.3478	6.6935	0.3145	7.0080		39,120.7473	39,120.7473	2.4423		39,181.8046
Unmitigated	11.3694	75.6072	101.9680	0.3832	25.0139	0.3338	25.3478	6.6935	0.3145	7.0080		39,120.7473	39,120.7473	2.4423		39,181.8046

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Fast Food Restaurant w/o Drive Thru	845.26	845.26	845.26	1,400,689	1,400,689
Fast Food Restaurant with Drive Thru	533.25	533.25	533.25	894,938	894,938
High Turnover (Sit Down Restaurant)	289.26	289.26	289.26	540,500	540,500
Parking Lot	0.00	0.00	0.00		
Quality Restaurant	48.28	48.28	48.28	95,321	95,321
Regional Shopping Center	637.79	637.79	637.79	1,342,072	1,342,072
User Defined Recreational	3,720.00	3,720.00	3720.00	7,454,210	7,454,210
Total	6,073.84	6,073.84	6,073.84	11,727,731	11,727,731

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Fast Food Restaurant w/o Drive	12.50	4.20	5.40	1.50	79.50	19.00	100	0	0
Fast Food Restaurant with Drive	12.50	4.20	5.40	2.20	78.80	19.00	100	0	0
High Turnover (Sit Down	12.50	4.20	5.40	8.50	72.50	19.00	100	0	0
Parking Lot	12.50	4.20	5.40	0.00	0.00	0.00	0	0	0
Quality Restaurant	12.50	4.20	5.40	12.00	69.00	19.00	100	0	0
Regional Shopping Center	12.50	4.20	5.40	16.30	64.70	19.00	100	0	0
User Defined Recreational	12.50	4.20	5.40	15.00	80.00	5.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Fast Food Restaurant w/o Drive Thru	0.538064	0.038449	0.184390	0.122109	0.017402	0.005339	0.017250	0.067711	0.001365	0.001213	0.004629	0.000959	0.001120
Fast Food Restaurant with Drive Thru	0.538064	0.038449	0.184390	0.122109	0.017402	0.005339	0.017250	0.067711	0.001365	0.001213	0.004629	0.000959	0.001120
High Turnover (Sit Down Restaurant)	0.538064	0.038449	0.184390	0.122109	0.017402	0.005339	0.017250	0.067711	0.001365	0.001213	0.004629	0.000959	0.001120
Parking Lot	0.538064	0.038449	0.184390	0.122109	0.017402	0.005339	0.017250	0.067711	0.001365	0.001213	0.004629	0.000959	0.001120
Quality Restaurant	0.538064	0.038449	0.184390	0.122109	0.017402	0.005339	0.017250	0.067711	0.001365	0.001213	0.004629	0.000959	0.001120
Regional Shopping Center	0.538064	0.038449	0.184390	0.122109	0.017402	0.005339	0.017250	0.067711	0.001365	0.001213	0.004629	0.000959	0.001120
User Defined Recreational	0.538064	0.038449	0.184390	0.122109	0.017402	0.005339	0.017250	0.067711	0.001365	0.001213	0.004629	0.000959	0.001120

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Install High Efficiency Lighting

Agua Caliente Cathedral City FTT Casino Project - Alternative B - Riverside-Salton Sea County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.8481	7.7097	6.4762	0.0463		0.5859	0.5859		0.5859	0.5859		9,251.6925	9,251.6925	0.1773	0.1696	9,306.6707
NaturalGas Unmitigated	0.8481	7.7097	6.4762	0.0463		0.5859	0.5859		0.5859	0.5859		9,251.6925	9,251.6925	0.1773	0.1696	9,306.6707

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Fast Food Restaurant w/o Drive Thru	1498.3	0.0162	0.1469	0.1234	8.8000e-004		0.0112	0.0112		0.0112	0.0112		176.2708	176.2708	3.3800e-003	3.2300e-003	177.3182
Fast Food Restaurant with Drive Thru	2846.77	0.0307	0.2791	0.2344	1.6700e-003		0.0212	0.0212		0.0212	0.0212		334.9144	334.9144	6.4200e-003	6.1400e-003	336.9047
High Turnover (Sit Down Restaurant)	6367.78	0.0687	0.6243	0.5244	3.7500e-003		0.0475	0.0475		0.0475	0.0475		749.1507	749.1507	0.0144	0.0137	753.6025
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	6367.78	0.0687	0.6243	0.5244	3.7500e-003		0.0475	0.0475		0.0475	0.0475		749.1507	749.1507	0.0144	0.0137	753.6025
Regional Shopping Center	92.4493	1.0000e-003	9.0600e-003	7.6100e-003	5.0000e-005		6.9000e-004	6.9000e-004		6.9000e-004	6.9000e-004		10.8764	10.8764	2.1000e-004	2.0000e-004	10.9410
User Defined Recreational	61466.3	0.6629	6.0261	5.0619	0.0362		0.4580	0.4580		0.4580	0.4580		7,231.3296	7,231.3296	0.1386	0.1326	7,274.3018
Total		**0.8481**	**7.7097**	**6.4762**	**0.0463**		**0.5859**	**0.5859**		**0.5859**	**0.5859**		**9,251.6925**	**9,251.6925**	**0.1773**	**0.1696**	**9,306.6707**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Fast Food Restaurant w/o Drive Thru	1.4983	0.0162	0.1469	0.1234	8.8000e-004		0.0112	0.0112		0.0112	0.0112		176.2708	176.2708	3.3800e-003	3.2300e-003	177.3182
Fast Food Restaurant with Drive Thru	2.84677	0.0307	0.2791	0.2344	1.6700e-003		0.0212	0.0212		0.0212	0.0212		334.9144	334.9144	6.4200e-003	6.1400e-003	336.9047
High Turnover (Sit Down Restaurant)	6.36778	0.0687	0.6243	0.5244	3.7500e-003		0.0475	0.0475		0.0475	0.0475		749.1507	749.1507	0.0144	0.0137	753.6025
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	6.36778	0.0687	0.6243	0.5244	3.7500e-003		0.0475	0.0475		0.0475	0.0475		749.1507	749.1507	0.0144	0.0137	753.6025
Regional Shopping Center	0.0924493	1.0000e-003	9.0600e-003	7.6100e-003	5.0000e-005		6.9000e-004	6.9000e-004		6.9000e-004	6.9000e-004		10.8764	10.8764	2.1000e-004	2.0000e-004	10.9410
User Defined Recreational	61.4663	0.6629	6.0261	5.0619	0.0362		0.4580	0.4580		0.4580	0.4580		7,231.3296	7,231.3296	0.1386	0.1326	7,274.3018
Total		**0.8481**	**7.7097**	**6.4762**	**0.0463**		**0.5859**	**0.5859**		**0.5859**	**0.5859**		**9,251.6925**	**9,251.6925**	**0.1773**	**0.1696**	**9,306.6707**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.0615	8.8000e-004	0.0954	1.0000e-005		3.4000e-004	3.4000e-004		3.4000e-004	3.4000e-004		0.2031	0.2031	5.4000e-004		0.2167
Unmitigated	2.3586	8.8000e-004	0.0954	1.0000e-005		3.4000e-004	3.4000e-004		3.4000e-004	3.4000e-004		0.2031	0.2031	5.4000e-004		0.2167

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.5600					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.7896					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	8.9700e-003	8.8000e-004	0.0954	1.0000e-005		3.4000e-004	3.4000e-004		3.4000e-004	3.4000e-004		0.2031	0.2031	5.4000e-004		0.2167
Total	**2.3586**	**8.8000e-004**	**0.0954**	**1.0000e-005**		**3.4000e-004**	**3.4000e-004**		**3.4000e-004**	**3.4000e-004**		**0.2031**	**0.2031**	**5.4000e-004**		**0.2167**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.2629					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.7896					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	8.9700e-003	8.8000e-004	0.0954	1.0000e-005		3.4000e-004	3.4000e-004		3.4000e-004	3.4000e-004		0.2031	0.2031	5.4000e-004		0.2167
Total	**2.0615**	**8.8000e-004**	**0.0954**	**1.0000e-005**		**3.4000e-004**	**3.4000e-004**		**3.4000e-004**	**3.4000e-004**		**0.2031**	**0.2031**	**5.4000e-004**		**0.2167**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Emergency Generator	3	0	30	2923	0.73	Diesel

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
Boiler	3	12	4380	0.5	CNG

User Defined Equipment

Equipment Type	Number

10.1 Stationary Sources

Unmitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	lb/day										lb/day					
Boiler - CNG (0 - 2 MMBTU)	0.1941	0.8640	3.4589	0.0212		0.2682	0.2682		0.2682	0.2682		4,235.3665	4,235.3665	0.0812		4,237.3959
Emergency Generator - Diesel (750 - 9999 HP)	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.1941**	**0.8640**	**3.4589**	**0.0212**		**0.2682**	**0.2682**		**0.2682**	**0.2682**		**4,235.3665**	**4,235.3665**	**0.0812**		**4,237.3959**

11.0 Vegetation

Agua Caliente Cathedral City FTT Casino Project - Alternative B

Riverside-Salton Sea County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	850.00	Space	7.65	340,000.00	0
Fast Food Restaurant w/o Drive Thru	2.00	1000sqft	0.00	2,000.00	0
Fast Food Restaurant with Drive Thru	3.80	1000sqft	0.00	3,800.00	0
High Turnover (Sit Down Restaurant)	8.50	1000sqft	0.00	8,500.00	0
Quality Restaurant	8.50	1000sqft	0.00	8,500.00	0
User Defined Recreational	40.00	User Defined Unit	6.03	40,000.00	0
Regional Shopping Center	15.20	1000sqft	0.00	15,200.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2020
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Agua Caliente Cathedral City FTT Casino Project - Alternative B - Riverside-Salton Sea County, Winter

Project Characteristics -

Land Use - Project Description; lot acreage for all recreational and retail space is all included within the User Defined Recreational land use.

Construction Phase - Construction phasing based on a 12-month construction schedule.

Grading - MSA Consulting, Inc., 2018a (See Table 2, CalEEMod Inputs)

Vehicle Trips - See Table 3, CalEEMod Inputs. Trip generation rates are derived from the TIS (Appendix TIS).

Energy Use - Electricity energy and natural gas intensity for the user defined recretational land use determined from similar projects and scaled by square footage

Water And Wastewater - Water demand is based off of similar projects and scaled by square footage

Solid Waste - Section 4.9 of the EA

Construction Off-road Equipment Mitigation - Construction Mitigation

Area Mitigation - MDAQMD Rule 1113 Architectural Coatings (based on nonflat coating)

Energy Mitigation -

Water Mitigation -

Waste Mitigation - Tribe will use the Salton City Landfill's facilities and will divert 50 percent of waste from the landfill.

Stationary Sources - Emergency Generators and Fire Pumps - Based on like project emergency generator size and use

Stationary Sources - Process Boilers - Based on like project boiler size and use

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	250	100
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	100
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3

tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	9.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3

Agua Caliente Cathedral City FTT Casino Project - Alternative B - Riverside-Salton Sea County, Winter

tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	300.00	181.00
tblEnergyUse	NT24E	0.00	3.37
tblEnergyUse	NT24NG	0.00	560.88
tblGrading	AcresOfGrading	75.00	13.68
tblGrading	MaterialImported	0.00	72,653.00
tblLandUse	LandUseSquareFeet	0.00	40,000.00
tblLandUse	LotAcreage	0.05	0.00
tblLandUse	LotAcreage	0.09	0.00
tblLandUse	LotAcreage	0.20	0.00
tblLandUse	LotAcreage	0.20	0.00
tblLandUse	LotAcreage	0.00	6.03
tblLandUse	LotAcreage	0.35	0.00
tblSolidWaste	SolidWasteGenerationRate	0.00	375.95
tblStationaryBoilersUse	AnnualHeatInput	0.00	4,380.00
tblStationaryBoilersUse	BoilerRatingValue	0.00	0.50
tblStationaryBoilersUse	DailyHeatInput	0.00	12.00
tblStationaryBoilersUse	NumberOfEquipment	0.00	3.00
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	2,923.00
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	30.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	3.00
tblVehicleTrips	CC_TTP	0.00	80.00
tblVehicleTrips	CNW_TTP	0.00	5.00
tblVehicleTrips	CW_TTP	0.00	15.00
tblVehicleTrips	DV_TP	37.00	0.00

tblVehicleTrips	DV_TP	21.00	0.00
tblVehicleTrips	DV_TP	20.00	0.00
tblVehicleTrips	DV_TP	18.00	0.00
tblVehicleTrips	DV_TP	35.00	0.00
tblVehicleTrips	PB_TP	12.00	0.00
tblVehicleTrips	PB_TP	50.00	0.00
tblVehicleTrips	PB_TP	43.00	0.00
tblVehicleTrips	PB_TP	44.00	0.00
tblVehicleTrips	PB_TP	11.00	0.00
tblVehicleTrips	PR_TP	51.00	100.00
tblVehicleTrips	PR_TP	29.00	100.00
tblVehicleTrips	PR_TP	37.00	100.00
tblVehicleTrips	PR_TP	38.00	100.00
tblVehicleTrips	PR_TP	54.00	100.00
tblVehicleTrips	PR_TP	0.00	100.00
tblVehicleTrips	ST_TR	696.00	422.63
tblVehicleTrips	ST_TR	722.03	140.33
tblVehicleTrips	ST_TR	158.37	34.03
tblVehicleTrips	ST_TR	94.36	5.68
tblVehicleTrips	ST_TR	49.97	41.96
tblVehicleTrips	ST_TR	0.00	93.00
tblVehicleTrips	SU_TR	500.00	422.63
tblVehicleTrips	SU_TR	542.72	140.33
tblVehicleTrips	SU_TR	131.84	34.03
tblVehicleTrips	SU_TR	72.16	5.68
tblVehicleTrips	SU_TR	25.24	41.96
tblVehicleTrips	SU_TR	0.00	93.00

tblVehicleTrips	WD_TR	716.00	422.63
tblVehicleTrips	WD_TR	496.12	140.33
tblVehicleTrips	WD_TR	127.15	34.03
tblVehicleTrips	WD_TR	89.95	5.68
tblVehicleTrips	WD_TR	42.70	41.96
tblVehicleTrips	WD_TR	0.00	93.00
tblWater	IndoorWaterUseRate	0.00	15,931,489.00
tblWater	OutdoorWaterUseRate	0.00	6,928,889.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	102.6198	132.6898	44.8755	0.2907	18.2169	2.6682	20.6082	9.9706	2.4652	12.1706	0.0000	30,384.0819	30,384.0819	3.6274	0.0000	30,474.7665
Maximum	**102.6198**	**132.6898**	**44.8755**	**0.2907**	**18.2169**	**2.6682**	**20.6082**	**9.9706**	**2.4652**	**12.1706**	**0.0000**	**30,384.0819**	**30,384.0819**	**3.6274**	**0.0000**	**30,474.7665**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	102.4128	119.5593	48.1881	0.2907	8.5293	1.4104	9.9397	4.5088	1.3171	4.6516	0.0000	30,384.0819	30,384.0819	3.6274	0.0000	30,474.7665
Maximum	**102.4128**	**119.5593**	**48.1881**	**0.2907**	**8.5293**	**1.4104**	**9.9397**	**4.5088**	**1.3171**	**4.6516**	**0.0000**	**30,384.0819**	**30,384.0819**	**3.6274**	**0.0000**	**30,474.7665**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.20**	**9.90**	**-7.38**	**0.00**	**53.18**	**47.14**	**51.77**	**54.78**	**46.57**	**61.78**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.3586	8.8000e-004	0.0954	1.0000e-005		3.4000e-004	3.4000e-004		3.4000e-004	3.4000e-004		0.2031	0.2031	5.4000e-004		0.2167
Energy	0.8481	7.7097	6.4762	0.0463		0.5859	0.5859		0.5859	0.5859		9,251.6925	9,251.6925	0.1773	0.1696	9,306.6707
Mobile	9.5177	75.0197	92.0140	0.3522	25.0139	0.3386	25.3526	6.6935	0.3191	7.0126		35,989.9212	35,989.9212	2.5801		36,054.4233
Stationary	0.1941	0.8640	3.4589	0.0212		0.2682	0.2682		0.2682	0.2682		4,235.3665	4,235.3665	0.0812		4,237.3959
Total	**12.9185**	**83.5943**	**102.0444**	**0.4197**	**25.0139**	**1.1931**	**26.2071**	**6.6935**	**1.1736**	**7.8671**		**49,477.1833**	**49,477.1833**	**2.8391**	**0.1696**	**49,598.7066**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.0615	8.8000e-004	0.0954	1.0000e-005		3.4000e-004	3.4000e-004		3.4000e-004	3.4000e-004		0.2031	0.2031	5.4000e-004		0.2167
Energy	0.8481	7.7097	6.4762	0.0463		0.5859	0.5859		0.5859	0.5859		9,251.6925	9,251.6925	0.1773	0.1696	9,306.6707
Mobile	9.5177	75.0197	92.0140	0.3522	25.0139	0.3386	25.3526	6.6935	0.3191	7.0126		35,989.9212	35,989.9212	2.5801		36,054.4233
Stationary	0.1941	0.8640	3.4589	0.0212		0.2682	0.2682		0.2682	0.2682		4,235.3665	4,235.3665	0.0812		4,237.3959
Total	**12.6213**	**83.5943**	**102.0444**	**0.4197**	**25.0139**	**1.1931**	**26.2071**	**6.6935**	**1.1736**	**7.8671**		**49,477.1833**	**49,477.1833**	**2.8391**	**0.1696**	**49,598.7066**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**2.30**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Agua Caliente Cathedral City FTT Casino Project - Alternative B - Riverside-Salton Sea County, Winter

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/1/2019	1/14/2019	5	10	
2	Grading	Grading	1/15/2019	2/25/2019	5	30	
3	Building Construction	Building Construction	2/26/2019	11/5/2019	5	181	
4	Paving	Paving	11/6/2019	12/3/2019	5	20	
5	Architectural Coating	Architectural Coating	12/4/2019	12/31/2019	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 13.68

Acres of Paving: 7.65

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 117,000; Non-Residential Outdoor: 39,000; Striped Parking Area: 20,400 (Architectural Coating – sqft)

OffRoad Equipment

Agua Caliente Cathedral City FTT Casino Project - Alternative B - Riverside-Salton Sea County, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	9,082.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	174.00	69.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	35.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use DPF for Construction Equipment

Use Soil Stabilizer

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	4.3350	45.5727	22.0630	0.0380		2.3904	2.3904		2.1991	2.1991		3,766.4529	3,766.4529	1.1917		3,796.2445
Total	**4.3350**	**45.5727**	**22.0630**	**0.0380**	**18.0663**	**2.3904**	**20.4566**	**9.9307**	**2.1991**	**12.1298**		**3,766.4529**	**3,766.4529**	**1.1917**		**3,796.2445**

3.2 Site Preparation - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0780	0.0488	0.5089	1.3900e-003	0.1506	9.6000e-004	0.1516	0.0400	8.8000e-004	0.0408		138.4827	138.4827	3.8600e-003		138.5791
Total	**0.0780**	**0.0488**	**0.5089**	**1.3900e-003**	**0.1506**	**9.6000e-004**	**0.1516**	**0.0400**	**8.8000e-004**	**0.0408**		**138.4827**	**138.4827**	**3.8600e-003**		**138.5791**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.1298	0.0000	8.1298	4.4688	0.0000	4.4688			0.0000			0.0000
Off-Road	0.9312	19.0656	22.9600	0.0380		0.1419	0.1419		0.1419	0.1419	0.0000	3,766.4529	3,766.4529	1.1917		3,796.2445
Total	**0.9312**	**19.0656**	**22.9600**	**0.0380**	**8.1298**	**0.1419**	**8.2717**	**4.4688**	**0.1419**	**4.6107**	**0.0000**	**3,766.4529**	**3,766.4529**	**1.1917**		**3,796.2445**

3.2 Site Preparation - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0780	0.0488	0.5089	1.3900e-003	0.1506	9.6000e-004	0.1516	0.0400	8.8000e-004	0.0408		138.4827	138.4827	3.8600e-003		138.5791
Total	**0.0780**	**0.0488**	**0.5089**	**1.3900e-003**	**0.1506**	**9.6000e-004**	**0.1516**	**0.0400**	**8.8000e-004**	**0.0408**		**138.4827**	**138.4827**	**3.8600e-003**		**138.5791**

3.3 Grading - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.8124	0.0000	6.8124	3.4089	0.0000	3.4089			0.0000			0.0000
Off-Road	4.7389	54.5202	33.3768	0.0620		2.3827	2.3827		2.1920	2.1920		6,140.0195	6,140.0195	1.9426		6,188.5854
Total	**4.7389**	**54.5202**	**33.3768**	**0.0620**	**6.8124**	**2.3827**	**9.1950**	**3.4089**	**2.1920**	**5.6009**		**6,140.0195**	**6,140.0195**	**1.9426**		**6,188.5854**

3.3 Grading - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.7881	78.1154	10.9332	0.2272	5.2964	0.2845	5.5809	1.4519	0.2722	1.7241		24,090.1927	24,090.1927	1.6805		24,132.2043
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0866	0.0542	0.5655	1.5500e-003	0.1673	1.0700e-003	0.1684	0.0444	9.8000e-004	0.0454		153.8697	153.8697	4.2900e-003		153.9768
Total	**1.8747**	**78.1696**	**11.4987**	**0.2287**	**5.4638**	**0.2855**	**5.7493**	**1.4963**	**0.2731**	**1.7695**		**24,244.0624**	**24,244.0624**	**1.6848**		**24,286.1811**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.0656	0.0000	3.0656	1.5340	0.0000	1.5340			0.0000			0.0000
Off-Road	2.9080	41.3897	36.6894	0.0620		1.1249	1.1249		1.0439	1.0439	0.0000	6,140.0195	6,140.0195	1.9426		6,188.5854
Total	**2.9080**	**41.3897**	**36.6894**	**0.0620**	**3.0656**	**1.1249**	**4.1905**	**1.5340**	**1.0439**	**2.5779**	**0.0000**	**6,140.0195**	**6,140.0195**	**1.9426**		**6,188.5854**

3.3 Grading - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.7881	78.1154	10.9332	0.2272	5.2964	0.2845	5.5809	1.4519	0.2722	1.7241		24,090.1927	24,090.1927	1.6805		24,132.2043
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0866	0.0542	0.5655	1.5500e-003	0.1673	1.0700e-003	0.1684	0.0444	9.8000e-004	0.0454		153.8697	153.8697	4.2900e-003		153.9768
Total	**1.8747**	**78.1696**	**11.4987**	**0.2287**	**5.4638**	**0.2855**	**5.7493**	**1.4963**	**0.2731**	**1.7695**		**24,244.0624**	**24,244.0624**	**1.6848**		**24,286.1811**

3.4 Building Construction - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.3612	21.0788	17.1638	0.0269		1.2899	1.2899		1.2127	1.2127		2,591.5802	2,591.5802	0.6313		2,607.3635
Total	**2.3612**	**21.0788**	**17.1638**	**0.0269**		**1.2899**	**1.2899**		**1.2127**	**1.2127**		**2,591.5802**	**2,591.5802**	**0.6313**		**2,607.3635**

3.4 Building Construction - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.2166	7.1638	1.5839	0.0147	0.3462	0.0481	0.3943	0.0997	0.0460	0.1457		1,549.2293	1,549.2293	0.1654		1,553.3633
Worker	0.7536	0.4716	4.9194	0.0134	1.4558	9.2700e-003	1.4651	0.3861	8.5300e-003	0.3947		1,338.6660	1,338.6660	0.0373		1,339.5982
Total	**0.9702**	**7.6355**	**6.5034**	**0.0281**	**1.8020**	**0.0574**	**1.8594**	**0.4859**	**0.0546**	**0.5404**		**2,887.8954**	**2,887.8954**	**0.2027**		**2,892.9615**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6739	14.2261	17.8738	0.0269		0.1355	0.1355		0.1355	0.1355	0.0000	2,591.5802	2,591.5802	0.6313		2,607.3635
Total	**0.6739**	**14.2261**	**17.8738**	**0.0269**		**0.1355**	**0.1355**		**0.1355**	**0.1355**	**0.0000**	**2,591.5802**	**2,591.5802**	**0.6313**		**2,607.3635**

3.4 Building Construction - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.2166	7.1638	1.5839	0.0147	0.3462	0.0481	0.3943	0.0997	0.0460	0.1457		1,549.2293	1,549.2293	0.1654		1,553.3633
Worker	0.7536	0.4716	4.9194	0.0134	1.4558	9.2700e-003	1.4651	0.3861	8.5300e-003	0.3947		1,338.6660	1,338.6660	0.0373		1,339.5982
Total	**0.9702**	**7.6355**	**6.5034**	**0.0281**	**1.8020**	**0.0574**	**1.8594**	**0.4859**	**0.0546**	**0.5404**		**2,887.8954**	**2,887.8954**	**0.2027**		**2,892.9615**

3.5 Paving - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4544	15.2441	14.6648	0.0228		0.8246	0.8246		0.7586	0.7586		2,257.0025	2,257.0025	0.7141		2,274.8548
Paving	1.0022					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.4566**	**15.2441**	**14.6648**	**0.0228**		**0.8246**	**0.8246**		**0.7586**	**0.7586**		**2,257.0025**	**2,257.0025**	**0.7141**		**2,274.8548**

3.5 Paving - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0650	0.0407	0.4241	1.1600e-003	0.1255	8.0000e-004	0.1263	0.0333	7.4000e-004	0.0340		115.4022	115.4022	3.2100e-003		115.4826
Total	**0.0650**	**0.0407**	**0.4241**	**1.1600e-003**	**0.1255**	**8.0000e-004**	**0.1263**	**0.0333**	**7.4000e-004**	**0.0340**		**115.4022**	**115.4022**	**3.2100e-003**		**115.4826**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5609	11.2952	17.2957	0.0228		0.0914	0.0914		0.0914	0.0914	0.0000	2,257.0025	2,257.0025	0.7141		2,274.8548
Paving	1.0022					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.5631**	**11.2952**	**17.2957**	**0.0228**		**0.0914**	**0.0914**		**0.0914**	**0.0914**	**0.0000**	**2,257.0025**	**2,257.0025**	**0.7141**		**2,274.8548**

3.5 Paving - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0650	0.0407	0.4241	1.1600e-003	0.1255	8.0000e-004	0.1263	0.0333	7.4000e-004	0.0340		115.4022	115.4022	3.2100e-003		115.4826
Total	**0.0650**	**0.0407**	**0.4241**	**1.1600e-003**	**0.1255**	**8.0000e-004**	**0.1263**	**0.0333**	**7.4000e-004**	**0.0340**		**115.4022**	**115.4022**	**3.2100e-003**		**115.4826**

3.6 Architectural Coating - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	102.2018					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2664	1.8354	1.8413	2.9700e-003		0.1288	0.1288		0.1288	0.1288		281.4481	281.4481	0.0238		282.0423
Total	**102.4682**	**1.8354**	**1.8413**	**2.9700e-003**		**0.1288**	**0.1288**		**0.1288**	**0.1288**		**281.4481**	**281.4481**	**0.0238**		**282.0423**

3.6 Architectural Coating - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1516	0.0949	0.9895	2.7000e-003	0.2928	1.8600e-003	0.2947	0.0777	1.7200e-003	0.0794		269.2719	269.2719	7.5000e-003		269.4594
Total	**0.1516**	**0.0949**	**0.9895**	**2.7000e-003**	**0.2928**	**1.8600e-003**	**0.2947**	**0.0777**	**1.7200e-003**	**0.0794**		**269.2719**	**269.2719**	**7.5000e-003**		**269.4594**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	102.2018					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0594	1.3570	1.8324	2.9700e-003		0.0143	0.0143		0.0143	0.0143	0.0000	281.4481	281.4481	0.0238		282.0423
Total	**102.2612**	**1.3570**	**1.8324**	**2.9700e-003**		**0.0143**	**0.0143**		**0.0143**	**0.0143**	**0.0000**	**281.4481**	**281.4481**	**0.0238**		**282.0423**

3.6 Architectural Coating - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1516	0.0949	0.9895	2.7000e-003	0.2928	1.8600e-003	0.2947	0.0777	1.7200e-003	0.0794		269.2719	269.2719	7.5000e-003		269.4594
Total	**0.1516**	**0.0949**	**0.9895**	**2.7000e-003**	**0.2928**	**1.8600e-003**	**0.2947**	**0.0777**	**1.7200e-003**	**0.0794**		**269.2719**	**269.2719**	**7.5000e-003**		**269.4594**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	9.5177	75.0197	92.0140	0.3522	25.0139	0.3386	25.3526	6.6935	0.3191	7.0126		35,989.9212	35,989.9212	2.5801		36,054.4233
Unmitigated	9.5177	75.0197	92.0140	0.3522	25.0139	0.3386	25.3526	6.6935	0.3191	7.0126		35,989.9212	35,989.9212	2.5801		36,054.4233

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Fast Food Restaurant w/o Drive Thru	845.26	845.26	845.26	1,400,689	1,400,689
Fast Food Restaurant with Drive Thru	533.25	533.25	533.25	894,938	894,938
High Turnover (Sit Down Restaurant)	289.26	289.26	289.26	540,500	540,500
Parking Lot	0.00	0.00	0.00		
Quality Restaurant	48.28	48.28	48.28	95,321	95,321
Regional Shopping Center	637.79	637.79	637.79	1,342,072	1,342,072
User Defined Recreational	3,720.00	3,720.00	3720.00	7,454,210	7,454,210
Total	6,073.84	6,073.84	6,073.84	11,727,731	11,727,731

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Fast Food Restaurant w/o Drive	12.50	4.20	5.40	1.50	79.50	19.00	100	0	0
Fast Food Restaurant with Drive	12.50	4.20	5.40	2.20	78.80	19.00	100	0	0
High Turnover (Sit Down	12.50	4.20	5.40	8.50	72.50	19.00	100	0	0
Parking Lot	12.50	4.20	5.40	0.00	0.00	0.00	0	0	0
Quality Restaurant	12.50	4.20	5.40	12.00	69.00	19.00	100	0	0
Regional Shopping Center	12.50	4.20	5.40	16.30	64.70	19.00	100	0	0
User Defined Recreational	12.50	4.20	5.40	15.00	80.00	5.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Fast Food Restaurant w/o Drive Thru	0.538064	0.038449	0.184390	0.122109	0.017402	0.005339	0.017250	0.067711	0.001365	0.001213	0.004629	0.000959	0.001120
Fast Food Restaurant with Drive Thru	0.538064	0.038449	0.184390	0.122109	0.017402	0.005339	0.017250	0.067711	0.001365	0.001213	0.004629	0.000959	0.001120
High Turnover (Sit Down Restaurant)	0.538064	0.038449	0.184390	0.122109	0.017402	0.005339	0.017250	0.067711	0.001365	0.001213	0.004629	0.000959	0.001120
Parking Lot	0.538064	0.038449	0.184390	0.122109	0.017402	0.005339	0.017250	0.067711	0.001365	0.001213	0.004629	0.000959	0.001120
Quality Restaurant	0.538064	0.038449	0.184390	0.122109	0.017402	0.005339	0.017250	0.067711	0.001365	0.001213	0.004629	0.000959	0.001120
Regional Shopping Center	0.538064	0.038449	0.184390	0.122109	0.017402	0.005339	0.017250	0.067711	0.001365	0.001213	0.004629	0.000959	0.001120
User Defined Recreational	0.538064	0.038449	0.184390	0.122109	0.017402	0.005339	0.017250	0.067711	0.001365	0.001213	0.004629	0.000959	0.001120

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Install High Efficiency Lighting

Agua Caliente Cathedral City FTT Casino Project - Alternative B - Riverside-Salton Sea County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.8481	7.7097	6.4762	0.0463		0.5859	0.5859		0.5859	0.5859		9,251.6925	9,251.6925	0.1773	0.1696	9,306.6707
NaturalGas Unmitigated	0.8481	7.7097	6.4762	0.0463		0.5859	0.5859		0.5859	0.5859		9,251.6925	9,251.6925	0.1773	0.1696	9,306.6707

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Fast Food Restaurant w/o Drive Thru	1498.3	0.0162	0.1469	0.1234	8.8000e-004		0.0112	0.0112		0.0112	0.0112		176.2708	176.2708	3.3800e-003	3.2300e-003	177.3182
Fast Food Restaurant with Drive Thru	2846.77	0.0307	0.2791	0.2344	1.6700e-003		0.0212	0.0212		0.0212	0.0212		334.9144	334.9144	6.4200e-003	6.1400e-003	336.9047
High Turnover (Sit Down Restaurant)	6367.78	0.0687	0.6243	0.5244	3.7500e-003		0.0475	0.0475		0.0475	0.0475		749.1507	749.1507	0.0144	0.0137	753.6025
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	6367.78	0.0687	0.6243	0.5244	3.7500e-003		0.0475	0.0475		0.0475	0.0475		749.1507	749.1507	0.0144	0.0137	753.6025
Regional Shopping Center	92.4493	1.0000e-003	9.0600e-003	7.6100e-003	5.0000e-005		6.9000e-004	6.9000e-004		6.9000e-004	6.9000e-004		10.8764	10.8764	2.1000e-004	2.0000e-004	10.9410
User Defined Recreational	61466.3	0.6629	6.0261	5.0619	0.0362		0.4580	0.4580		0.4580	0.4580		7,231.3296	7,231.3296	0.1386	0.1326	7,274.3018
Total		**0.8481**	**7.7097**	**6.4762**	**0.0463**		**0.5859**	**0.5859**		**0.5859**	**0.5859**		**9,251.6925**	**9,251.6925**	**0.1773**	**0.1696**	**9,306.6707**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Fast Food Restaurant w/o Drive Thru	1.4983	0.0162	0.1469	0.1234	8.8000e-004		0.0112	0.0112		0.0112	0.0112		176.2708	176.2708	3.3800e-003	3.2300e-003	177.3182
Fast Food Restaurant with Drive Thru	2.84677	0.0307	0.2791	0.2344	1.6700e-003		0.0212	0.0212		0.0212	0.0212		334.9144	334.9144	6.4200e-003	6.1400e-003	336.9047
High Turnover (Sit Down Restaurant)	6.36778	0.0687	0.6243	0.5244	3.7500e-003		0.0475	0.0475		0.0475	0.0475		749.1507	749.1507	0.0144	0.0137	753.6025
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	6.36778	0.0687	0.6243	0.5244	3.7500e-003		0.0475	0.0475		0.0475	0.0475		749.1507	749.1507	0.0144	0.0137	753.6025
Regional Shopping Center	0.0924493	1.0000e-003	9.0600e-003	7.6100e-003	5.0000e-005		6.9000e-004	6.9000e-004		6.9000e-004	6.9000e-004		10.8764	10.8764	2.1000e-004	2.0000e-004	10.9410
User Defined Recreational	61.4663	0.6629	6.0261	5.0619	0.0362		0.4580	0.4580		0.4580	0.4580		7,231.3296	7,231.3296	0.1386	0.1326	7,274.3018
Total		**0.8481**	**7.7097**	**6.4762**	**0.0463**		**0.5859**	**0.5859**		**0.5859**	**0.5859**		**9,251.6925**	**9,251.6925**	**0.1773**	**0.1696**	**9,306.6707**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.0615	8.8000e-004	0.0954	1.0000e-005		3.4000e-004	3.4000e-004		3.4000e-004	3.4000e-004		0.2031	0.2031	5.4000e-004		0.2167
Unmitigated	2.3586	8.8000e-004	0.0954	1.0000e-005		3.4000e-004	3.4000e-004		3.4000e-004	3.4000e-004		0.2031	0.2031	5.4000e-004		0.2167

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.5600					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.7896					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	8.9700e-003	8.8000e-004	0.0954	1.0000e-005		3.4000e-004	3.4000e-004		3.4000e-004	3.4000e-004		0.2031	0.2031	5.4000e-004		0.2167
Total	**2.3586**	**8.8000e-004**	**0.0954**	**1.0000e-005**		**3.4000e-004**	**3.4000e-004**		**3.4000e-004**	**3.4000e-004**		**0.2031**	**0.2031**	**5.4000e-004**		**0.2167**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.2629					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.7896					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	8.9700e-003	8.8000e-004	0.0954	1.0000e-005		3.4000e-004	3.4000e-004		3.4000e-004	3.4000e-004		0.2031	0.2031	5.4000e-004		0.2167
Total	**2.0615**	**8.8000e-004**	**0.0954**	**1.0000e-005**		**3.4000e-004**	**3.4000e-004**		**3.4000e-004**	**3.4000e-004**		**0.2031**	**0.2031**	**5.4000e-004**		**0.2167**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Emergency Generator	3	0	30	2923	0.73	Diesel

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
Boiler	3	12	4380	0.5	CNG

User Defined Equipment

Equipment Type	Number

10.1 Stationary Sources

Unmitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	lb/day										lb/day					
Boiler - CNG (0 - 2 MMBTU)	0.1941	0.8640	3.4589	0.0212		0.2682	0.2682		0.2682	0.2682		4,235.3665	4,235.3665	0.0812		4,237.3959
Emergency Generator - Diesel (750 - 9999 HP)	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.1941**	**0.8640**	**3.4589**	**0.0212**		**0.2682**	**0.2682**		**0.2682**	**0.2682**		**4,235.3665**	**4,235.3665**	**0.0812**		**4,237.3959**

11.0 Vegetation

Agua Caliente Cathedral City FTT Casino Project - Alternative B

Riverside-Salton Sea County, Mitigation Report

Construction Mitigation Summary

Phase	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Architectural Coating	0.00	0.25	0.00	0.00	0.88	0.88	0.00	0.00	0.00	0.00	0.00	0.00
Building Construction	0.52	0.24	-0.03	0.00	0.86	0.85	0.00	0.00	0.00	0.00	0.00	0.00
Grading	0.28	0.10	-0.08	0.00	0.47	0.47	0.00	0.00	0.00	0.00	0.00	0.00
Paving	0.35	0.26	-0.17	0.00	0.89	0.88	0.00	0.00	0.00	0.00	0.00	0.00
Site Preparation	0.77	0.58	-0.04	0.00	0.94	0.94	0.00	0.00	0.00	0.00	0.00	0.00

OFFROAD Equipment Mitigation

Equipment Type	Fuel Type	Tier	Number Mitigated	Total Number of Equipment	DPF	Oxidation Catalyst
Air Compressors	Diesel	Tier 3	1	1	Level 3	0.00
Cranes	Diesel	Tier 3	1	1	Level 3	0.00
Excavators	Diesel	Tier 3	2	2	Level 3	0.00
Forklifts	Diesel	Tier 3	3	3	Level 3	0.00
Generator Sets	Diesel	Tier 3	1	1	Level 3	0.00
Graders	Diesel	Tier 3	1	1	Level 3	0.00
Pavers	Diesel	Tier 3	2	2	Level 3	0.00
Paving Equipment	Diesel	Tier 3	2	2	Level 3	0.00
Rollers	Diesel	Tier 3	2	2	Level 3	0.00
Rubber Tired Dozers	Diesel	Tier 3	4	4	Level 3	0.00
Scrapers	Diesel	No Change	0	2	No Change	0.00
Tractors/Loaders/Backhoes	Diesel	Tier 3	9	9	Level 3	0.00
Welders	Diesel	Tier 3	1	1	Level 3	0.00

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	Unmitigated tons/yr						Unmitigated mt/yr					
Air Compressors	2.66000E-003	1.83500E-002	1.84100E-002	3.00000E-005	1.29000E-003	1.29000E-003	0.00000E+000	2.55325E+000	2.55325E+000	2.20000E-004	0.00000E+000	2.55865E+000
Cranes	3.99100E-002	4.75680E-001	1.81580E-001	4.60000E-004	2.01600E-002	1.85500E-002	0.00000E+000	4.10345E+001	4.10345E+001	1.29800E-002	0.00000E+000	4.13590E+001
Excavators	7.82000E-003	8.04600E-002	9.79000E-002	1.50000E-004	3.88000E-003	3.57000E-003	0.00000E+000	1.39106E+001	1.39106E+001	4.40000E-003	0.00000E+000	1.40206E+001
Forklifts	4.34300E-002	3.87790E-001	3.24220E-001	4.10000E-004	3.00400E-002	2.76400E-002	0.00000E+000	3.72703E+001	3.72703E+001	1.17900E-002	0.00000E+000	3.75651E+001
Generator Sets	4.01800E-002	3.41900E-001	3.36940E-001	6.00000E-004	2.04400E-002	2.04400E-002	0.00000E+000	5.11513E+001	5.11513E+001	3.24000E-003	0.00000E+000	5.12323E+001
Graders	7.30000E-003	9.86900E-002	2.75700E-002	1.00000E-004	3.17000E-003	2.91000E-003	0.00000E+000	8.94884E+000	8.94884E+000	2.83000E-003	0.00000E+000	9.01962E+000
Pavers	5.75000E-003	6.24900E-002	5.80300E-002	9.00000E-005	3.06000E-003	2.82000E-003	0.00000E+000	8.44586E+000	8.44586E+000	2.67000E-003	0.00000E+000	8.51266E+000
Paving Equipment	4.26000E-003	4.51300E-002	5.04700E-002	8.00000E-005	2.24000E-003	2.06000E-003	0.00000E+000	7.31770E+000	7.31770E+000	2.32000E-003	0.00000E+000	7.37558E+000
Rollers	4.53000E-003	4.48200E-002	3.81500E-002	5.00000E-005	2.95000E-003	2.71000E-003	0.00000E+000	4.71162E+000	4.71162E+000	1.49000E-003	0.00000E+000	4.74889E+000
Rubber Tired Dozers	3.40400E-002	3.62230E-001	1.28520E-001	2.60000E-004	1.76600E-002	1.62500E-002	0.00000E+000	2.30088E+001	2.30088E+001	7.28000E-003	0.00000E+000	2.31908E+001
Scrapers	3.19600E-002	3.87420E-001	2.41840E-001	4.50000E-004	1.51800E-002	1.39700E-002	0.00000E+000	4.08183E+001	4.08183E+001	1.29100E-002	0.00000E+000	4.11411E+001
Tractors/Loaders/ Backhoes	6.69500E-002	6.72140E-001	6.62160E-001	8.90000E-004	4.48700E-002	4.12800E-002	0.00000E+000	8.02292E+001	8.02292E+001	2.53800E-002	0.00000E+000	8.08638E+001
Welders	3.48600E-002	1.47000E-001	1.63550E-001	2.30000E-004	9.02000E-003	9.02000E-003	0.00000E+000	1.70340E+001	1.70340E+001	2.85000E-003	0.00000E+000	1.71052E+001

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	Mitigated tons/yr						Mitigated mt/yr					
Air Compressors	5.90000E-004	1.35700E-002	1.83200E-002	3.00000E-005	1.40000E-004	1.40000E-004	0.00000E+000	2.55325E+000	2.55325E+000	2.20000E-004	0.00000E+000	2.55864E+000
Cranes	1.12300E-002	2.17060E-001	2.43260E-001	4.60000E-004	1.23000E-003	1.23000E-003	0.00000E+000	4.10344E+001	4.10344E+001	1.29800E-002	0.00000E+000	4.13590E+001
Excavators	3.81000E-003	7.37000E-002	1.17540E-001	1.50000E-004	5.30000E-004	5.30000E-004	0.00000E+000	1.39105E+001	1.39105E+001	4.40000E-003	0.00000E+000	1.40206E+001
Forklifts	1.02300E-002	2.33540E-001	3.15370E-001	4.10000E-004	2.45000E-003	2.45000E-003	0.00000E+000	3.72703E+001	3.72703E+001	1.17900E-002	0.00000E+000	3.75651E+001
Generator Sets	1.19100E-002	2.71850E-001	3.67100E-001	6.00000E-004	2.86000E-003	2.86000E-003	0.00000E+000	5.11512E+001	5.11512E+001	3.24000E-003	0.00000E+000	5.12322E+001
Graders	2.43000E-003	4.70600E-002	5.27400E-002	1.00000E-004	2.70000E-004	2.70000E-004	0.00000E+000	8.94883E+000	8.94883E+000	2.83000E-003	0.00000E+000	9.01961E+000
Pavers	2.31000E-003	4.46800E-002	7.12600E-002	9.00000E-005	3.20000E-004	3.20000E-004	0.00000E+000	8.44585E+000	8.44585E+000	2.67000E-003	0.00000E+000	8.51265E+000
Paving Equipment	2.01000E-003	3.88900E-002	6.20200E-002	8.00000E-005	2.80000E-004	2.80000E-004	0.00000E+000	7.31769E+000	7.31769E+000	2.32000E-003	0.00000E+000	7.37557E+000
Rollers	1.29000E-003	2.93800E-002	3.96800E-002	5.00000E-005	3.10000E-004	3.10000E-004	0.00000E+000	4.71162E+000	4.71162E+000	1.49000E-003	0.00000E+000	4.74888E+000
Rubber Tired Dozers	6.27000E-003	1.21280E-001	1.35920E-001	2.60000E-004	6.90000E-004	6.90000E-004	0.00000E+000	2.30088E+001	2.30088E+001	7.28000E-003	0.00000E+000	2.31908E+001
Scrapers	3.19600E-002	3.87410E-001	2.41840E-001	4.50000E-004	1.51800E-002	1.39700E-002	0.00000E+000	4.08182E+001	4.08182E+001	1.29100E-002	0.00000E+000	4.11411E+001
Tractors/Loaders/Backhoes	2.18400E-002	4.98750E-001	6.73490E-001	8.90000E-004	5.24000E-003	5.24000E-003	0.00000E+000	8.02291E+001	8.02291E+001	2.53800E-002	0.00000E+000	8.08637E+001
Welders	9.58000E-003	1.52980E-001	1.35460E-001	2.30000E-004	1.39000E-003	1.39000E-003	0.00000E+000	1.70340E+001	1.70340E+001	2.85000E-003	0.00000E+000	1.71051E+001

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Air Compressors	7.78195E-001	2.60490E-001	4.88865E-003	0.00000E+000	8.91473E-001	8.91473E-001	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	3.90831E-006
Cranes	7.18617E-001	5.43685E-001	-3.39685E-001	0.00000E+000	9.38988E-001	9.33693E-001	0.00000E+000	1.21849E-006	1.21849E-006	0.00000E+000	0.00000E+000	1.20893E-006
Excavators	5.12788E-001	8.40169E-002	-2.00613E-001	0.00000E+000	8.63402E-001	8.51541E-001	0.00000E+000	1.43776E-006	1.43776E-006	0.00000E+000	0.00000E+000	1.42647E-006
Forklifts	7.64449E-001	3.97767E-001	2.72963E-002	0.00000E+000	9.18442E-001	9.11360E-001	0.00000E+000	1.34155E-006	1.34155E-006	0.00000E+000	0.00000E+000	1.06482E-006
Generator Sets	7.03584E-001	2.04884E-001	-8.95115E-002	0.00000E+000	8.60078E-001	8.60078E-001	0.00000E+000	1.17299E-006	1.17299E-006	0.00000E+000	0.00000E+000	1.17114E-006
Graders	6.67123E-001	5.23153E-001	-9.12949E-001	0.00000E+000	9.14826E-001	9.07216E-001	0.00000E+000	1.11746E-006	1.11746E-006	0.00000E+000	0.00000E+000	1.10869E-006
Pavers	5.98261E-001	2.85006E-001	-2.27986E-001	0.00000E+000	8.95425E-001	8.86525E-001	0.00000E+000	1.18401E-006	1.18401E-006	0.00000E+000	0.00000E+000	1.17472E-006
Paving Equipment	5.28169E-001	1.38267E-001	-2.28849E-001	0.00000E+000	8.75000E-001	8.64078E-001	0.00000E+000	1.36655E-006	1.36655E-006	0.00000E+000	0.00000E+000	1.35583E-006
Rollers	7.15232E-001	3.44489E-001	-4.01048E-002	0.00000E+000	8.94915E-001	8.85609E-001	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	2.10576E-006
Rubber Tired Dozers	8.15805E-001	6.65185E-001	-5.75786E-002	0.00000E+000	9.60929E-001	9.57538E-001	0.00000E+000	8.69233E-007	8.69233E-007	0.00000E+000	0.00000E+000	1.29362E-006
Scrapers	0.00000E+000	2.58118E-005	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	9.79954E-007	9.79954E-007	0.00000E+000	0.00000E+000	1.21533E-006
Tractors/Loaders/Backhoes	6.73786E-001	2.57967E-001	-1.71107E-002	0.00000E+000	8.83218E-001	8.73062E-001	0.00000E+000	1.24643E-006	1.24643E-006	0.00000E+000	0.00000E+000	1.23665E-006
Welders	7.25186E-001	-4.06803E-002	1.71752E-001	0.00000E+000	8.45898E-001	8.45898E-001	0.00000E+000	1.17412E-006	1.17412E-006	0.00000E+000	0.00000E+000	1.16924E-006

Fugitive Dust Mitigation

Yes/No	Mitigation Measure	Mitigation Input		Mitigation Input		Mitigation Input	
Yes	Soil Stabilizer for unpaved Roads	PM10 Reduction	10.00	PM2.5 Reduction	10.00		
No	Replace Ground Cover of Area Disturbed	PM10 Reduction	0.00	PM2.5 Reduction	0.00		
Yes	Water Exposed Area	PM10 Reduction	55.00	PM2.5 Reduction	55.00	Frequency (per day)	2.00

No	Unpaved Road Mitigation	Moisture Content %	0.00	Vehicle Speed (mph)	15.00		
No	Clean Paved Road	% PM Reduction	0.00				

		Unmitigated		Mitigated		Percent Reduction	
Phase	Source	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5
Architectural Coating	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Architectural Coating	Roads	0.00	0.00	0.00	0.00	0.00	0.00
Building Construction	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Building Construction	Roads	0.16	0.04	0.16	0.04	0.00	0.00
Grading	Fugitive Dust	0.10	0.05	0.05	0.02	0.55	0.55
Grading	Roads	0.08	0.02	0.08	0.02	0.00	0.00
Paving	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Paving	Roads	0.00	0.00	0.00	0.00	0.00	0.00
Site Preparation	Fugitive Dust	0.09	0.05	0.04	0.02	0.55	0.55
Site Preparation	Roads	0.00	0.00	0.00	0.00	0.00	0.00

Operational Percent Reduction Summary

Category	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Architectural Coating	53.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electricity	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.72	3.72	3.78	3.61	3.72
Hearth	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Landscaping	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mobile	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Natural Gas	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Water Indoor	0.00	0.00	0.00	0.00	0.00	0.00	20.00	15.54	15.79	19.97	19.75	16.45
Water Outdoor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Operational Mobile Mitigation

Project Setting:

Mitigation	Category	Measure	% Reduction	Input Value 1	Input Value 2	Input Value
No	Land Use	Increase Density	0.00			
No	Land Use	Increase Diversity	0.11	0.33		
No	Land Use	Improve Walkability Design	0.00			
No	Land Use	Improve Destination Accessibility	0.00			
No	Land Use	Increase Transit Accessibility	0.25			
No	Land Use	Integrate Below Market Rate Housing	0.00			
	Land Use	Land Use SubTotal	0.00			

No	Neighborhood Enhancements	Improve Pedestrian Network				
No	Neighborhood Enhancements	Provide Traffic Calming Measures				
No	Neighborhood Enhancements	Implement NEV Network	0.00			
	Neighborhood Enhancements	Neighborhood Enhancements Subtotal	0.00			
No	Parking Policy Pricing	Limit Parking Supply	0.00			
No	Parking Policy Pricing	Unbundle Parking Costs	0.00			
No	Parking Policy Pricing	On-street Market Pricing	0.00			
	Parking Policy Pricing	Parking Policy Pricing Subtotal	0.00			
No	Transit Improvements	Provide BRT System	0.00			
No	Transit Improvements	Expand Transit Network	0.00			
No	Transit Improvements	Increase Transit Frequency	0.00			
	Transit Improvements	Transit Improvements Subtotal	0.00			
		Land Use and Site Enhancement Subtotal	0.00			
No	Commute	Implement Trip Reduction Program				
No	Commute	Transit Subsidy				
No	Commute	Implement Employee Parking "Cash Out"				
No	Commute	Workplace Parking Charge				
No	Commute	Encourage Telecommuting and Alternative Work Schedules	0.00			
No	Commute	Market Commute Trip Reduction Option	0.00			
No	Commute	Employee Vanpool/Shuttle	0.00		2.00	
No	Commute	Provide Ride Sharing Program				
	Commute	Commute Subtotal	0.00			

No	School Trip	Implement School Bus Program	0.00			
		Total VMT Reduction	0.00			

Area Mitigation

Measure Implemented	Mitigation Measure	Input Value
No	Only Natural Gas Hearth	
No	No Hearth	
No	Use Low VOC Cleaning Supplies	
No	Use Low VOC Paint (Residential Interior)	250.00
No	Use Low VOC Paint (Residential Exterior)	250.00
Yes	Use Low VOC Paint (Non-residential Interior)	100.00
Yes	Use Low VOC Paint (Non-residential Exterior)	100.00
No	Use Low VOC Paint (Parking)	250.00
No	% Electric Lawnmower	0.00
No	% Electric Leafblower	0.00
No	% Electric Chainsaw	0.00

Energy Mitigation Measures

Measure Implemented	Mitigation Measure	Input Value 1	Input Value 2
No	Exceed Title 24	0.00	
Yes	Install High Efficiency Lighting	16.00	
No	On-site Renewable	0.00	0.00

Appliance Type	Land Use Subtype	% Improvement
ClothWasher		30.00
DishWasher		15.00
Fan		50.00
Refrigerator		15.00

Water Mitigation Measures

Measure Implemented	Mitigation Measure	Input Value 1	Input Value 2
No	Apply Water Conservation on Strategy	0.00	0.00
No	Use Reclaimed Water	0.00	0.00
No	Use Grey Water	0.00	
Yes	Install low-flow bathroom faucet	32.00	
Yes	Install low-flow Kitchen faucet	18.00	
Yes	Install low-flow Toilet	20.00	
Yes	Install low-flow Shower	20.00	
No	Turf Reduction	0.00	
No	Use Water Efficient Irrigation Systems	6.10	
No	Water Efficient Landscape	0.00	0.00

Solid Waste Mitigation

Mitigation Measures	Input Value

Institute Recycling and Composting Services Percent Reduction in Waste Disposed	50.00

Agua Caliente Cathedral City FTT Casino Project - Alternative B Cumulative

Riverside-Salton Sea County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	850.00	Space	7.65	340,000.00	0
Fast Food Restaurant w/o Drive Thru	2.00	1000sqft	0.00	2,000.00	0
Fast Food Restaurant with Drive Thru	3.80	1000sqft	0.00	3,800.00	0
High Turnover (Sit Down Restaurant)	8.50	1000sqft	0.00	8,500.00	0
Quality Restaurant	8.50	1000sqft	0.00	8,500.00	0
User Defined Recreational	40.00	User Defined Unit	6.03	40,000.00	0
Regional Shopping Center	15.20	1000sqft	0.00	15,200.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2040
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Project Description; lot acreage for all recreational and retail space is all included within the User Defined Recreational land use.

Construction Phase - Construction phasing based on a 12-month construction schedule.

Grading - MSA Consulting, Inc., 2018a (See Table 2, CalEEMod Inputs)

Vehicle Trips - See Table 3, CalEEMod Inputs. Trip generation rates are derived from the TIS (Appendix TIS).

Energy Use - Electricity energy and natural gas intensity for the user defined recretational land use determined from similar projects and scaled by square footage

Water And Wastewater - Water demand is based off of similar projects and scaled by square footage

Solid Waste - Section 4.9 of the EA

Construction Off-road Equipment Mitigation - Construction Mitigation

Area Mitigation - MDAQMD Rule 1113 Architectural Coatings (based on nonflat coating)

Energy Mitigation -

Water Mitigation -

Waste Mitigation - Tribe will use the Salton City Landfill's facilities and will divert 50 percent of waste from the landfill.

Stationary Sources - Emergency Generators and Fire Pumps - Based on like project emergency generator size and use

Stationary Sources - Process Boilers - Based on like project boiler size and use

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	250	100
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	100
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	9.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3

Agua Caliente Cathedral City FTT Casino Project - Alternative B Cumulative - Riverside-Salton Sea County, Annual

tblConstructionPhase	NumDays	10.00	2.00
tblEnergyUse	NT24E	0.00	3.37
tblEnergyUse	NT24NG	0.00	560.88
tblLandUse	LandUseSquareFeet	0.00	40,000.00
tblLandUse	LotAcreage	0.05	0.00
tblLandUse	LotAcreage	0.09	0.00
tblLandUse	LotAcreage	0.20	0.00
tblLandUse	LotAcreage	0.20	0.00
tblLandUse	LotAcreage	0.00	6.03
tblLandUse	LotAcreage	0.35	0.00
tblSolidWaste	SolidWasteGenerationRate	0.00	375.95
tblStationaryBoilersUse	AnnualHeatInput	0.00	4,380.00
tblStationaryBoilersUse	BoilerRatingValue	0.00	0.50
tblStationaryBoilersUse	DailyHeatInput	0.00	12.00
tblStationaryBoilersUse	NumberOfEquipment	0.00	3.00
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	2,923.00
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	30.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	3.00
tblVehicleTrips	CC_TTP	0.00	80.00
tblVehicleTrips	CNW_TTP	0.00	5.00
tblVehicleTrips	CW_TTP	0.00	15.00
tblVehicleTrips	DV_TP	37.00	0.00
tblVehicleTrips	DV_TP	21.00	0.00
tblVehicleTrips	DV_TP	20.00	0.00
tblVehicleTrips	DV_TP	18.00	0.00
tblVehicleTrips	DV_TP	35.00	0.00
tblVehicleTrips	PB_TP	12.00	0.00

tblVehicleTrips	PB_TP	50.00	0.00
tblVehicleTrips	PB_TP	43.00	0.00
tblVehicleTrips	PB_TP	44.00	0.00
tblVehicleTrips	PB_TP	11.00	0.00
tblVehicleTrips	PR_TP	51.00	100.00
tblVehicleTrips	PR_TP	29.00	100.00
tblVehicleTrips	PR_TP	37.00	100.00
tblVehicleTrips	PR_TP	38.00	100.00
tblVehicleTrips	PR_TP	54.00	100.00
tblVehicleTrips	PR_TP	0.00	100.00
tblVehicleTrips	ST_TR	696.00	422.63
tblVehicleTrips	ST_TR	722.03	140.33
tblVehicleTrips	ST_TR	158.37	34.03
tblVehicleTrips	ST_TR	94.36	5.68
tblVehicleTrips	ST_TR	49.97	41.96
tblVehicleTrips	ST_TR	0.00	93.00
tblVehicleTrips	SU_TR	500.00	422.63
tblVehicleTrips	SU_TR	542.72	140.33
tblVehicleTrips	SU_TR	131.84	34.03
tblVehicleTrips	SU_TR	72.16	5.68
tblVehicleTrips	SU_TR	25.24	41.96
tblVehicleTrips	SU_TR	0.00	93.00
tblVehicleTrips	WD_TR	716.00	422.63
tblVehicleTrips	WD_TR	496.12	140.33
tblVehicleTrips	WD_TR	127.15	34.03
tblVehicleTrips	WD_TR	89.95	5.68
tblVehicleTrips	WD_TR	42.70	41.96

tblVehicleTrips	WD_TR	0.00	93.00
tblWater	IndoorWaterUseRate	0.00	15,931,489.00
tblWater	OutdoorWaterUseRate	0.00	6,928,889.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	4.4100e-003	0.0456	0.0226	4.0000e-005	0.0182	2.3900e-003	0.0206	9.9700e-003	2.2000e-003	0.0122	0.0000	3.5457	3.5457	1.0800e-003	0.0000	3.5728
Maximum	**4.4100e-003**	**0.0456**	**0.0226**	**4.0000e-005**	**0.0182**	**2.3900e-003**	**0.0206**	**9.9700e-003**	**2.2000e-003**	**0.0122**	**0.0000**	**3.5457**	**3.5457**	**1.0800e-003**	**0.0000**	**3.5728**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	-0.0007	8.1500e-003	0.0239	4.0000e-005	8.2800e-003	-0.0011	7.1700e-003	4.5100e-003	-0.0010	3.5100e-003	0.0000	3.5457	3.5457	1.0800e-003	0.0000	3.5728
Maximum	**-0.0007**	**8.1500e-003**	**0.0239**	**4.0000e-005**	**8.2800e-003**	**-0.0011**	**7.1700e-003**	**4.5100e-003**	**-0.0010**	**3.5100e-003**	**0.0000**	**3.5457**	**3.5457**	**1.0800e-003**	**0.0000**	**3.5728**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**115.87**	**82.14**	**-5.93**	**0.00**	**54.53**	**146.44**	**65.21**	**54.76**	**145.45**	**71.16**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	1-1-2019	3-31-2019	0.0357	0.0053
		Highest	0.0357	0.0053

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.4296	8.0000e-005	8.4700e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0166	0.0166	4.0000e-005	0.0000	0.0177
Energy	0.1548	1.4070	1.1819	8.4400e-003		0.1069	0.1069		0.1069	0.1069	0.0000	2,018.6770	2,018.6770	0.0495	0.0322	2,029.5213
Mobile	0.6913	7.7644	7.0657	0.0482	4.4689	0.0164	4.4853	1.1959	0.0153	1.2112	0.0000	4,514.2170	4,514.2170	0.1901	0.0000	4,518.9682
Stationary	0.2513	1.1230	1.1816	4.9000e-003		0.0807	0.0807		0.0807	0.0807	0.0000	801.3887	801.3887	0.0275	0.0000	802.0759
Waste						0.0000	0.0000		0.0000	0.0000	115.2238	0.0000	115.2238	6.8095	0.0000	285.4620
Water						0.0000	0.0000		0.0000	0.0000	7.6071	128.0130	135.6201	0.7866	0.0195	161.1088
Total	**1.5269**	**10.2945**	**9.4377**	**0.0616**	**4.4689**	**0.2041**	**4.6730**	**1.1959**	**0.2030**	**1.3989**	**122.8309**	**7,462.3123**	**7,585.1431**	**7.8632**	**0.0518**	**7,797.1538**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.3754	8.0000e-005	8.4700e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0166	0.0166	4.0000e-005	0.0000	0.0177
Energy	0.1548	1.4070	1.1819	8.4400e-003		0.1069	0.1069		0.1069	0.1069	0.0000	2,000.5687	2,000.5687	0.0487	0.0321	2,011.3482
Mobile	0.6913	7.7644	7.0657	0.0482	4.4689	0.0164	4.4853	1.1959	0.0153	1.2112	0.0000	4,514.2170	4,514.2170	0.1901	0.0000	4,518.9682
Stationary	0.2513	1.1230	1.1816	4.9000e-003		0.0807	0.0807		0.0807	0.0807	0.0000	801.3887	801.3887	0.0275	0.0000	802.0759
Waste						0.0000	0.0000		0.0000	0.0000	57.6119	0.0000	57.6119	3.4048	0.0000	142.7310
Water						0.0000	0.0000		0.0000	0.0000	6.0857	108.1172	114.2028	0.6295	0.0157	134.6142
Total	**1.4727**	**10.2945**	**9.4377**	**0.0616**	**4.4689**	**0.2041**	**4.6730**	**1.1959**	**0.2030**	**1.3989**	**63.6976**	**7,424.3082**	**7,488.0057**	**4.3006**	**0.0478**	**7,609.7552**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**3.55**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**48.14**	**0.51**	**1.28**	**45.31**	**7.74**	**2.40**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/1/2019	1/2/2019	5	2	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 7.65

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use DPF for Construction Equipment

Use Soil Stabilizer

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0181	0.0000	0.0181	9.9300e-003	0.0000	9.9300e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.3400e-003	0.0456	0.0221	4.0000e-005		2.3900e-003	2.3900e-003		2.2000e-003	2.2000e-003	0.0000	3.4169	3.4169	1.0800e-003	0.0000	3.4439
Total	**4.3400e-003**	**0.0456**	**0.0221**	**4.0000e-005**	**0.0181**	**2.3900e-003**	**0.0205**	**9.9300e-003**	**2.2000e-003**	**0.0121**	**0.0000**	**3.4169**	**3.4169**	**1.0800e-003**	**0.0000**	**3.4439**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.0000e-005	5.0000e-005	5.3000e-004	0.0000	1.5000e-004	0.0000	1.5000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1288	0.1288	0.0000	0.0000	0.1289
Total	**7.0000e-005**	**5.0000e-005**	**5.3000e-004**	**0.0000**	**1.5000e-004**	**0.0000**	**1.5000e-004**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**0.0000**	**0.1288**	**0.1288**	**0.0000**	**0.0000**	**0.1289**

3.2 Site Preparation - 2019

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					8.1300e-003	0.0000	8.1300e-003	4.4700e-003	0.0000	4.4700e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	-0.0008	8.1000e-003	0.0234	4.0000e-005		-0.0011	-0.0011		-0.0010	-0.0010	0.0000	3.4169	3.4169	1.0800e-003	0.0000	3.4439
Total	**-0.0008**	**8.1000e-003**	**0.0234**	**4.0000e-005**	**8.1300e-003**	**-0.0011**	**7.0200e-003**	**4.4700e-003**	**-0.0010**	**3.4700e-003**	**0.0000**	**3.4169**	**3.4169**	**1.0800e-003**	**0.0000**	**3.4439**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.0000e-005	5.0000e-005	5.3000e-004	0.0000	1.5000e-004	0.0000	1.5000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1288	0.1288	0.0000	0.0000	0.1289
Total	**7.0000e-005**	**5.0000e-005**	**5.3000e-004**	**0.0000**	**1.5000e-004**	**0.0000**	**1.5000e-004**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**0.0000**	**0.1288**	**0.1288**	**0.0000**	**0.0000**	**0.1289**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.6913	7.7644	7.0657	0.0482	4.4689	0.0164	4.4853	1.1959	0.0153	1.2112	0.0000	4,514.2170	4,514.2170	0.1901	0.0000	4,518.9682
Unmitigated	0.6913	7.7644	7.0657	0.0482	4.4689	0.0164	4.4853	1.1959	0.0153	1.2112	0.0000	4,514.2170	4,514.2170	0.1901	0.0000	4,518.9682

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Fast Food Restaurant w/o Drive Thru	845.26	845.26	845.26	1,400,689	1,400,689
Fast Food Restaurant with Drive Thru	533.25	533.25	533.25	894,938	894,938
High Turnover (Sit Down Restaurant)	289.26	289.26	289.26	540,500	540,500
Parking Lot	0.00	0.00	0.00		
Quality Restaurant	48.28	48.28	48.28	95,321	95,321
Regional Shopping Center	637.79	637.79	637.79	1,342,072	1,342,072
User Defined Recreational	3,720.00	3,720.00	3720.00	7,454,210	7,454,210
Total	6,073.84	6,073.84	6,073.84	11,727,731	11,727,731

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Fast Food Restaurant w/o Drive	12.50	4.20	5.40	1.50	79.50	19.00	100	0	0
Fast Food Restaurant with Drive	12.50	4.20	5.40	2.20	78.80	19.00	100	0	0
High Turnover (Sit Down	12.50	4.20	5.40	8.50	72.50	19.00	100	0	0
Parking Lot	12.50	4.20	5.40	0.00	0.00	0.00	0	0	0
Quality Restaurant	12.50	4.20	5.40	12.00	69.00	19.00	100	0	0
Regional Shopping Center	12.50	4.20	5.40	16.30	64.70	19.00	100	0	0
User Defined Recreational	12.50	4.20	5.40	15.00	80.00	5.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Fast Food Restaurant w/o Drive Thru	0.566189	0.033707	0.192293	0.100413	0.008756	0.004001	0.016522	0.070107	0.001420	0.001057	0.004327	0.000696	0.000512
Fast Food Restaurant with Drive Thru	0.566189	0.033707	0.192293	0.100413	0.008756	0.004001	0.016522	0.070107	0.001420	0.001057	0.004327	0.000696	0.000512
High Turnover (Sit Down Restaurant)	0.566189	0.033707	0.192293	0.100413	0.008756	0.004001	0.016522	0.070107	0.001420	0.001057	0.004327	0.000696	0.000512
Parking Lot	0.566189	0.033707	0.192293	0.100413	0.008756	0.004001	0.016522	0.070107	0.001420	0.001057	0.004327	0.000696	0.000512
Quality Restaurant	0.566189	0.033707	0.192293	0.100413	0.008756	0.004001	0.016522	0.070107	0.001420	0.001057	0.004327	0.000696	0.000512
Regional Shopping Center	0.566189	0.033707	0.192293	0.100413	0.008756	0.004001	0.016522	0.070107	0.001420	0.001057	0.004327	0.000696	0.000512
User Defined Recreational	0.566189	0.033707	0.192293	0.100413	0.008756	0.004001	0.016522	0.070107	0.001420	0.001057	0.004327	0.000696	0.000512

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Install High Efficiency Lighting

Agua Caliente Cathedral City FTT Casino Project - Alternative B Cumulative - Riverside-Salton Sea County, Annual

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	468.8472	468.8472	0.0194	4.0000e-003	470.5245
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	486.9555	486.9555	0.0201	4.1600e-003	488.6976
NaturalGas Mitigated	0.1548	1.4070	1.1819	8.4400e-003		0.1069	0.1069		0.1069	0.1069	0.0000	1,531.7215	1,531.7215	0.0294	0.0281	1,540.8237
NaturalGas Unmitigated	0.1548	1.4070	1.1819	8.4400e-003		0.1069	0.1069		0.1069	0.1069	0.0000	1,531.7215	1,531.7215	0.0294	0.0281	1,540.8237

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Fast Food Restaurant w/o Drive Thru	546880	2.9500e-003	0.0268	0.0225	1.6000e-004		2.0400e-003	2.0400e-003		2.0400e-003	2.0400e-003	0.0000	29.1836	29.1836	5.6000e-004	5.4000e-004	29.3570
Fast Food Restaurant with Drive Thru	1.03907e+006	5.6000e-003	0.0509	0.0428	3.1000e-004		3.8700e-003	3.8700e-003		3.8700e-003	3.8700e-003	0.0000	55.4488	55.4488	1.0600e-003	1.0200e-003	55.7783
High Turnover (Sit Down Restaurant)	2.32424e+006	0.0125	0.1139	0.0957	6.8000e-004		8.6600e-003	8.6600e-003		8.6600e-003	8.6600e-003	0.0000	124.0303	124.0303	2.3800e-003	2.2700e-003	124.7674
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	2.32424e+006	0.0125	0.1139	0.0957	6.8000e-004		8.6600e-003	8.6600e-003		8.6600e-003	8.6600e-003	0.0000	124.0303	124.0303	2.3800e-003	2.2700e-003	124.7674
Regional Shopping Center	33744	1.8000e-004	1.6500e-003	1.3900e-003	1.0000e-005		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004	0.0000	1.8007	1.8007	3.0000e-005	3.0000e-005	1.8114
User Defined Recreational	2.24352e+007	0.1210	1.0998	0.9238	6.6000e-003		0.0836	0.0836		0.0836	0.0836	0.0000	1,197.2277	1,197.2277	0.0230	0.0220	1,204.3422
Total		**0.1548**	**1.4070**	**1.1819**	**8.4400e-003**		**0.1069**	**0.1069**		**0.1069**	**0.1069**	**0.0000**	**1,531.7215**	**1,531.7215**	**0.0294**	**0.0281**	**1,540.8237**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Fast Food Restaurant w/o Drive Thru	546880	2.9500e-003	0.0268	0.0225	1.6000e-004		2.0400e-003	2.0400e-003		2.0400e-003	2.0400e-003	0.0000	29.1836	29.1836	5.6000e-004	5.4000e-004	29.3570
Fast Food Restaurant with Drive Thru	1.03907e+006	5.6000e-003	0.0509	0.0428	3.1000e-004		3.8700e-003	3.8700e-003		3.8700e-003	3.8700e-003	0.0000	55.4488	55.4488	1.0600e-003	1.0200e-003	55.7783
High Turnover (Sit Down Restaurant)	2.32424e+006	0.0125	0.1139	0.0957	6.8000e-004		8.6600e-003	8.6600e-003		8.6600e-003	8.6600e-003	0.0000	124.0303	124.0303	2.3800e-003	2.2700e-003	124.7674
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	2.32424e+006	0.0125	0.1139	0.0957	6.8000e-004		8.6600e-003	8.6600e-003		8.6600e-003	8.6600e-003	0.0000	124.0303	124.0303	2.3800e-003	2.2700e-003	124.7674
Regional Shopping Center	33744	1.8000e-004	1.6500e-003	1.3900e-003	1.0000e-005		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004	0.0000	1.8007	1.8007	3.0000e-005	3.0000e-005	1.8114
User Defined Recreational	2.24352e+007	0.1210	1.0998	0.9238	6.6000e-003		0.0836	0.0836		0.0836	0.0836	0.0000	1,197.2277	1,197.2277	0.0230	0.0220	1,204.3422
Total		**0.1548**	**1.4070**	**1.1819**	**8.4400e-003**		**0.1069**	**0.1069**		**0.1069**	**0.1069**	**0.0000**	**1,531.7215**	**1,531.7215**	**0.0294**	**0.0281**	**1,540.8237**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Fast Food Restaurant w/o Drive Thru	94960	30.2563	1.2500e-003	2.6000e-004	30.3645
Fast Food Restaurant with Drive Thru	180424	57.4870	2.3700e-003	4.9000e-004	57.6926
High Turnover (Sit Down Restaurant)	403580	128.5892	5.3100e-003	1.1000e-003	129.0493
Parking Lot	119000	37.9160	1.5700e-003	3.2000e-004	38.0516
Quality Restaurant	403580	128.5892	5.3100e-003	1.1000e-003	129.0493
Regional Shopping Center	191976	61.1677	2.5300e-003	5.2000e-004	61.3865
User Defined Recreational	134800	42.9502	1.7700e-003	3.7000e-004	43.1038
Total		**486.9555**	**0.0201**	**4.1600e-003**	**488.6976**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Fast Food Restaurant w/o Drive Thru	92841.6	29.5813	1.2200e-003	2.5000e-004	29.6872
Fast Food Restaurant with Drive Thru	176399	56.2045	2.3200e-003	4.8000e-004	56.4056
High Turnover (Sit Down Restaurant)	394577	125.7206	5.1900e-003	1.0700e-003	126.1704
Parking Lot	99960	31.8494	1.3100e-003	2.7000e-004	31.9633
Quality Restaurant	394577	125.7206	5.1900e-003	1.0700e-003	126.1704
Regional Shopping Center	178332	56.8206	2.3500e-003	4.9000e-004	57.0238
User Defined Recreational	134800	42.9502	1.7700e-003	3.7000e-004	43.1038
Total		**468.8472**	**0.0194**	**4.0000e-003**	**470.5245**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.3754	8.0000e-005	8.4700e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0166	0.0166	4.0000e-005	0.0000	0.0177
Unmitigated	0.4296	8.0000e-005	8.4700e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0166	0.0166	4.0000e-005	0.0000	0.0177

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1022					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.3266					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	7.8000e-004	8.0000e-005	8.4700e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0166	0.0166	4.0000e-005	0.0000	0.0177
Total	**0.4296**	**8.0000e-005**	**8.4700e-003**	**0.0000**		**3.0000e-005**	**3.0000e-005**		**3.0000e-005**	**3.0000e-005**	**0.0000**	**0.0166**	**0.0166**	**4.0000e-005**	**0.0000**	**0.0177**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0480					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.3266					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	7.8000e-004	8.0000e-005	8.4700e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0166	0.0166	4.0000e-005	0.0000	0.0177
Total	**0.3754**	**8.0000e-005**	**8.4700e-003**	**0.0000**		**3.0000e-005**	**3.0000e-005**		**3.0000e-005**	**3.0000e-005**	**0.0000**	**0.0166**	**0.0166**	**4.0000e-005**	**0.0000**	**0.0177**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Agua Caliente Cathedral City FTT Casino Project - Alternative B Cumulative - Riverside-Salton Sea County, Annual

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	114.2028	0.6295	0.0157	134.6142
Unmitigated	135.6201	0.7866	0.0195	161.1088

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Fast Food Restaurant w/o Drive Thru	0.607067 / 0.038749	2.8483	0.0199	4.9000e-004	3.4916
Fast Food Restaurant with Drive Thru	1.15343 / 0.0736231	5.4119	0.0378	9.3000e-004	6.6340
High Turnover (Sit Down Restaurant)	2.58004 / 0.164683	12.1055	0.0845	2.0800e-003	14.8392
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	2.58004 / 0.164683	12.1055	0.0845	2.0800e-003	14.8392
Regional Shopping Center	1.1259 / 0.690069	7.4711	0.0370	9.3000e-004	8.6719
User Defined Recreational	15.9315 / 6.92889	95.6779	0.5229	0.0130	112.6331
Total		**135.6201**	**0.7866**	**0.0195**	**161.1088**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Fast Food Restaurant w/o Drive Thru	0.485654 / 0.038749	2.3061	0.0159	3.9000e-004	2.8208
Fast Food Restaurant with Drive Thru	0.922742 / 0.0736231	4.3816	0.0302	7.4000e-004	5.3595
High Turnover (Sit Down Restaurant)	2.06403 / 0.164683	9.8010	0.0676	1.6700e-003	11.9883
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	2.06403 / 0.164683	9.8010	0.0676	1.6700e-003	11.9883
Regional Shopping Center	0.900722 / 0.690069	6.4654	0.0296	7.5000e-004	7.4278
User Defined Recreational	12.7452 / 6.92889	81.4478	0.4185	0.0105	95.0295
Total		**114.2028**	**0.6295**	**0.0157**	**134.6143**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	57.6119	3.4048	0.0000	142.7310
Unmitigated	115.2238	6.8095	0.0000	285.4620

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Fast Food Restaurant w/o Drive Thru	23.04	4.6769	0.2764	0.0000	11.5869
Fast Food Restaurant with Drive Thru	43.77	8.8849	0.5251	0.0000	22.0120
High Turnover (Sit Down Restaurant)	101.15	20.5325	1.2134	0.0000	50.8685
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	7.76	1.5752	0.0931	0.0000	3.9025
Regional Shopping Center	15.96	3.2397	0.1915	0.0000	8.0263
User Defined Recreational	375.95	76.3145	4.5101	0.0000	189.0658
Total		**115.2238**	**6.8095**	**0.0000**	**285.4620**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Fast Food Restaurant w/o Drive Thru	11.52	2.3385	0.1382	0.0000	5.7934
Fast Food Restaurant with Drive Thru	21.885	4.4425	0.2625	0.0000	11.0060
High Turnover (Sit Down Restaurant)	50.575	10.2663	0.6067	0.0000	25.4342
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	3.88	0.7876	0.0466	0.0000	1.9513
Regional Shopping Center	7.98	1.6199	0.0957	0.0000	4.0132
User Defined Recreational	187.975	38.1572	2.2550	0.0000	94.5329
Total		**57.6119**	**3.4048**	**0.0000**	**142.7310**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Emergency Generator	3	0	30	2923	0.73	Diesel

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
Boiler	3	12	4380	0.5	CNG

User Defined Equipment

Equipment Type	Number

10.1 Stationary Sources

Unmitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	tons/yr										MT/yr					
Boiler - CNG (0 - 2 MMBTU)	0.0354	0.1577	0.6313	3.8600e-003		0.0490	0.0490		0.0490	0.0490	0.0000	701.2124	701.2124	0.0134	0.0000	701.5484
Emergency Generator - Diesel (750 - 9999 HP)	0.2159	0.9653	0.5504	1.0400e-003		0.0318	0.0318		0.0318	0.0318	0.0000	100.1763	100.1763	0.0140	0.0000	100.5274
Total	**0.2513**	**1.1230**	**1.1816**	**4.9000e-003**		**0.0807**	**0.0807**		**0.0807**	**0.0807**	**0.0000**	**801.3887**	**801.3887**	**0.0275**	**0.0000**	**802.0759**

11.0 Vegetation

Agua Caliente Cathedral City FTT Casino Project - Alternative B Cumulative

Riverside-Salton Sea County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	850.00	Space	7.65	340,000.00	0
Fast Food Restaurant w/o Drive Thru	2.00	1000sqft	0.00	2,000.00	0
Fast Food Restaurant with Drive Thru	3.80	1000sqft	0.00	3,800.00	0
High Turnover (Sit Down Restaurant)	8.50	1000sqft	0.00	8,500.00	0
Quality Restaurant	8.50	1000sqft	0.00	8,500.00	0
User Defined Recreational	40.00	User Defined Unit	6.03	40,000.00	0
Regional Shopping Center	15.20	1000sqft	0.00	15,200.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2040
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Agua Caliente Cathedral City FTT Casino Project - Alternative B Cumulative - Riverside-Salton Sea County, Summer

Project Characteristics -

Land Use - Project Description; lot acreage for all recreational and retail space is all included within the User Defined Recreational land use.

Construction Phase - Construction phasing based on a 12-month construction schedule.

Grading - MSA Consulting, Inc., 2018a (See Table 2, CalEEMod Inputs)

Vehicle Trips - See Table 3, CalEEMod Inputs. Trip generation rates are derived from the TIS (Appendix TIS).

Energy Use - Electricity energy and natural gas intensity for the user defined recretational land use determined from similar projects and scaled by square footage

Water And Wastewater - Water demand is based off of similar projects and scaled by square footage

Solid Waste - Section 4.9 of the EA

Construction Off-road Equipment Mitigation - Construction Mitigation

Area Mitigation - MDAQMD Rule 1113 Architectural Coatings (based on nonflat coating)

Energy Mitigation -

Water Mitigation -

Waste Mitigation - Tribe will use the Salton City Landfill's facilities and will divert 50 percent of waste from the landfill.

Stationary Sources - Emergency Generators and Fire Pumps - Based on like project emergency generator size and use

Stationary Sources - Process Boilers - Based on like project boiler size and use

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	250	100
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	100
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	9.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3

Agua Caliente Cathedral City FTT Casino Project - Alternative B Cumulative - Riverside-Salton Sea County, Summer

tblConstructionPhase	NumDays	10.00	2.00
tblEnergyUse	NT24E	0.00	3.37
tblEnergyUse	NT24NG	0.00	560.88
tblLandUse	LandUseSquareFeet	0.00	40,000.00
tblLandUse	LotAcreage	0.05	0.00
tblLandUse	LotAcreage	0.09	0.00
tblLandUse	LotAcreage	0.20	0.00
tblLandUse	LotAcreage	0.20	0.00
tblLandUse	LotAcreage	0.00	6.03
tblLandUse	LotAcreage	0.35	0.00
tblSolidWaste	SolidWasteGenerationRate	0.00	375.95
tblStationaryBoilersUse	AnnualHeatInput	0.00	4,380.00
tblStationaryBoilersUse	BoilerRatingValue	0.00	0.50
tblStationaryBoilersUse	DailyHeatInput	0.00	12.00
tblStationaryBoilersUse	NumberOfEquipment	0.00	3.00
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	2,923.00
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	30.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	3.00
tblVehicleTrips	CC_TTP	0.00	80.00
tblVehicleTrips	CNW_TTP	0.00	5.00
tblVehicleTrips	CW_TTP	0.00	15.00
tblVehicleTrips	DV_TP	37.00	0.00
tblVehicleTrips	DV_TP	21.00	0.00
tblVehicleTrips	DV_TP	20.00	0.00
tblVehicleTrips	DV_TP	18.00	0.00
tblVehicleTrips	DV_TP	35.00	0.00
tblVehicleTrips	PB_TP	12.00	0.00

tblVehicleTrips	PB_TP	50.00	0.00
tblVehicleTrips	PB_TP	43.00	0.00
tblVehicleTrips	PB_TP	44.00	0.00
tblVehicleTrips	PB_TP	11.00	0.00
tblVehicleTrips	PR_TP	51.00	100.00
tblVehicleTrips	PR_TP	29.00	100.00
tblVehicleTrips	PR_TP	37.00	100.00
tblVehicleTrips	PR_TP	38.00	100.00
tblVehicleTrips	PR_TP	54.00	100.00
tblVehicleTrips	PR_TP	0.00	100.00
tblVehicleTrips	ST_TR	696.00	422.63
tblVehicleTrips	ST_TR	722.03	140.33
tblVehicleTrips	ST_TR	158.37	34.03
tblVehicleTrips	ST_TR	94.36	5.68
tblVehicleTrips	ST_TR	49.97	41.96
tblVehicleTrips	ST_TR	0.00	93.00
tblVehicleTrips	SU_TR	500.00	422.63
tblVehicleTrips	SU_TR	542.72	140.33
tblVehicleTrips	SU_TR	131.84	34.03
tblVehicleTrips	SU_TR	72.16	5.68
tblVehicleTrips	SU_TR	25.24	41.96
tblVehicleTrips	SU_TR	0.00	93.00
tblVehicleTrips	WD_TR	716.00	422.63
tblVehicleTrips	WD_TR	496.12	140.33
tblVehicleTrips	WD_TR	127.15	34.03
tblVehicleTrips	WD_TR	89.95	5.68
tblVehicleTrips	WD_TR	42.70	41.96

tblVehicleTrips	WD_TR	0.00	93.00
tblWater	IndoorWaterUseRate	0.00	15,931,489.00
tblWater	OutdoorWaterUseRate	0.00	6,928,889.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	4.4167	45.6199	22.6825	0.0396	18.2169	2.3913	20.6082	9.9706	2.2000	12.1706	0.0000	3,920.7313	3,920.7313	1.1961	0.0000	3,950.6329
Maximum	**4.4167**	**45.6199**	**22.6825**	**0.0396**	**18.2169**	**2.3913**	**20.6082**	**9.9706**	**2.2000**	**12.1706**	**0.0000**	**3,920.7313**	**3,920.7313**	**1.1961**	**0.0000**	**3,950.6329**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	0.0000	8.1465	24.0205	0.0396	8.2804	-1.1062	7.1742	4.5088	-0.9973	3.5115	0.0000	3,920.7313	3,920.7313	1.1961	0.0000	3,950.6329
Maximum	**0.0000**	**8.1465**	**24.0205**	**0.0396**	**8.2804**	**-1.1062**	**7.1742**	**4.5088**	**-0.9973**	**3.5115**	**0.0000**	**3,920.7313**	**3,920.7313**	**1.1961**	**0.0000**	**3,950.6329**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**100.00**	**82.14**	**-5.90**	**0.00**	**54.55**	**146.26**	**65.19**	**54.78**	**145.33**	**71.15**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.3583	8.5000e-004	0.0941	1.0000e-005		3.3000e-004	3.3000e-004		3.3000e-004	3.3000e-004		0.2031	0.2031	5.2000e-004		0.2162
Energy	0.8481	7.7097	6.4762	0.0463		0.5859	0.5859		0.5859	0.5859		9,251.6925	9,251.6925	0.1773	0.1696	9,306.6707
Mobile	4.5340	42.8188	42.4285	0.2794	24.9630	0.0898	25.0528	6.6713	0.0838	6.7551		28,804.8525	28,804.8525	1.1272		28,833.0312
Stationary	0.1941	0.8640	3.4589	0.0212		0.2682	0.2682		0.2682	0.2682		4,235.3665	4,235.3665	0.0812		4,237.3959
Total	**7.9344**	**51.3934**	**52.4577**	**0.3469**	**24.9630**	**0.9444**	**25.9074**	**6.6713**	**0.9383**	**7.6096**		**42,292.1146**	**42,292.1146**	**1.3862**	**0.1696**	**42,377.3140**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.0611	8.5000e-004	0.0941	1.0000e-005		3.3000e-004	3.3000e-004		3.3000e-004	3.3000e-004		0.2031	0.2031	5.2000e-004		0.2162
Energy	0.8481	7.7097	6.4762	0.0463		0.5859	0.5859		0.5859	0.5859		9,251.6925	9,251.6925	0.1773	0.1696	9,306.6707
Mobile	4.5340	42.8188	42.4285	0.2794	24.9630	0.0898	25.0528	6.6713	0.0838	6.7551		28,804.8525	28,804.8525	1.1272		28,833.0312
Stationary	0.1941	0.8640	3.4589	0.0212		0.2682	0.2682		0.2682	0.2682		4,235.3665	4,235.3665	0.0812		4,237.3959
Total	**7.6373**	**51.3934**	**52.4577**	**0.3469**	**24.9630**	**0.9444**	**25.9074**	**6.6713**	**0.9383**	**7.6096**		**42,292.1146**	**42,292.1146**	**1.3862**	**0.1696**	**42,377.3140**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**3.75**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/1/2019	1/2/2019	5	2	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 7.65

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use DPF for Construction Equipment

Use Soil Stabilizer

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	4.3350	45.5727	22.0630	0.0380		2.3904	2.3904		2.1991	2.1991		3,766.4529	3,766.4529	1.1917		3,796.2445
Total	**4.3350**	**45.5727**	**22.0630**	**0.0380**	**18.0663**	**2.3904**	**20.4566**	**9.9307**	**2.1991**	**12.1298**		**3,766.4529**	**3,766.4529**	**1.1917**		**3,796.2445**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0817	0.0471	0.6195	1.5500e-003	0.1506	9.6000e-004	0.1516	0.0400	8.8000e-004	0.0408		154.2784	154.2784	4.4000e-003		154.3884
Total	**0.0817**	**0.0471**	**0.6195**	**1.5500e-003**	**0.1506**	**9.6000e-004**	**0.1516**	**0.0400**	**8.8000e-004**	**0.0408**		**154.2784**	**154.2784**	**4.4000e-003**		**154.3884**

3.2 Site Preparation - 2019

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.1298	0.0000	8.1298	4.4688	0.0000	4.4688			0.0000			0.0000
Off-Road	-0.7693	8.0993	23.4010	0.0380		-1.1072	-1.1072		-0.9982	-0.9982	0.0000	3,766.4529	3,766.4529	1.1917		3,796.2445
Total	**-0.7693**	**8.0993**	**23.4010**	**0.0380**	**8.1298**	**-1.1072**	**7.0226**	**4.4688**	**-0.9982**	**3.4707**	**0.0000**	**3,766.4529**	**3,766.4529**	**1.1917**		**3,796.2445**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0817	0.0471	0.6195	1.5500e-003	0.1506	9.6000e-004	0.1516	0.0400	8.8000e-004	0.0408		154.2784	154.2784	4.4000e-003		154.3884
Total	**0.0817**	**0.0471**	**0.6195**	**1.5500e-003**	**0.1506**	**9.6000e-004**	**0.1516**	**0.0400**	**8.8000e-004**	**0.0408**		**154.2784**	**154.2784**	**4.4000e-003**		**154.3884**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	4.5340	42.8188	42.4285	0.2794	24.9630	0.0898	25.0528	6.6713	0.0838	6.7551		28,804.8525	28,804.8525	1.1272		28,833.0312
Unmitigated	4.5340	42.8188	42.4285	0.2794	24.9630	0.0898	25.0528	6.6713	0.0838	6.7551		28,804.8525	28,804.8525	1.1272		28,833.0312

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Fast Food Restaurant w/o Drive Thru	845.26	845.26	845.26	1,400,689	1,400,689
Fast Food Restaurant with Drive Thru	533.25	533.25	533.25	894,938	894,938
High Turnover (Sit Down Restaurant)	289.26	289.26	289.26	540,500	540,500
Parking Lot	0.00	0.00	0.00		
Quality Restaurant	48.28	48.28	48.28	95,321	95,321
Regional Shopping Center	637.79	637.79	637.79	1,342,072	1,342,072
User Defined Recreational	3,720.00	3,720.00	3720.00	7,454,210	7,454,210
Total	6,073.84	6,073.84	6,073.84	11,727,731	11,727,731

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Fast Food Restaurant w/o Drive	12.50	4.20	5.40	1.50	79.50	19.00	100	0	0
Fast Food Restaurant with Drive	12.50	4.20	5.40	2.20	78.80	19.00	100	0	0
High Turnover (Sit Down	12.50	4.20	5.40	8.50	72.50	19.00	100	0	0
Parking Lot	12.50	4.20	5.40	0.00	0.00	0.00	0	0	0
Quality Restaurant	12.50	4.20	5.40	12.00	69.00	19.00	100	0	0
Regional Shopping Center	12.50	4.20	5.40	16.30	64.70	19.00	100	0	0
User Defined Recreational	12.50	4.20	5.40	15.00	80.00	5.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Fast Food Restaurant w/o Drive Thru	0.566189	0.033707	0.192293	0.100413	0.008756	0.004001	0.016522	0.070107	0.001420	0.001057	0.004327	0.000696	0.000512
Fast Food Restaurant with Drive Thru	0.566189	0.033707	0.192293	0.100413	0.008756	0.004001	0.016522	0.070107	0.001420	0.001057	0.004327	0.000696	0.000512
High Turnover (Sit Down Restaurant)	0.566189	0.033707	0.192293	0.100413	0.008756	0.004001	0.016522	0.070107	0.001420	0.001057	0.004327	0.000696	0.000512
Parking Lot	0.566189	0.033707	0.192293	0.100413	0.008756	0.004001	0.016522	0.070107	0.001420	0.001057	0.004327	0.000696	0.000512
Quality Restaurant	0.566189	0.033707	0.192293	0.100413	0.008756	0.004001	0.016522	0.070107	0.001420	0.001057	0.004327	0.000696	0.000512
Regional Shopping Center	0.566189	0.033707	0.192293	0.100413	0.008756	0.004001	0.016522	0.070107	0.001420	0.001057	0.004327	0.000696	0.000512
User Defined Recreational	0.566189	0.033707	0.192293	0.100413	0.008756	0.004001	0.016522	0.070107	0.001420	0.001057	0.004327	0.000696	0.000512

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Install High Efficiency Lighting

Agua Caliente Cathedral City FTT Casino Project - Alternative B Cumulative - Riverside-Salton Sea County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.8481	7.7097	6.4762	0.0463		0.5859	0.5859		0.5859	0.5859		9,251.6925	9,251.6925	0.1773	0.1696	9,306.6707
NaturalGas Unmitigated	0.8481	7.7097	6.4762	0.0463		0.5859	0.5859		0.5859	0.5859		9,251.6925	9,251.6925	0.1773	0.1696	9,306.6707

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Fast Food Restaurant w/o Drive Thru	1498.3	0.0162	0.1469	0.1234	8.8000e-004		0.0112	0.0112		0.0112	0.0112		176.2708	176.2708	3.3800e-003	3.2300e-003	177.3182
Fast Food Restaurant with Drive Thru	2846.77	0.0307	0.2791	0.2344	1.6700e-003		0.0212	0.0212		0.0212	0.0212		334.9144	334.9144	6.4200e-003	6.1400e-003	336.9047
High Turnover (Sit Down Restaurant)	6367.78	0.0687	0.6243	0.5244	3.7500e-003		0.0475	0.0475		0.0475	0.0475		749.1507	749.1507	0.0144	0.0137	753.6025
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	6367.78	0.0687	0.6243	0.5244	3.7500e-003		0.0475	0.0475		0.0475	0.0475		749.1507	749.1507	0.0144	0.0137	753.6025
Regional Shopping Center	92.4493	1.0000e-003	9.0600e-003	7.6100e-003	5.0000e-005		6.9000e-004	6.9000e-004		6.9000e-004	6.9000e-004		10.8764	10.8764	2.1000e-004	2.0000e-004	10.9410
User Defined Recreational	61466.3	0.6629	6.0261	5.0619	0.0362		0.4580	0.4580		0.4580	0.4580		7,231.3296	7,231.3296	0.1386	0.1326	7,274.3018
Total		**0.8481**	**7.7097**	**6.4762**	**0.0463**		**0.5859**	**0.5859**		**0.5859**	**0.5859**		**9,251.6925**	**9,251.6925**	**0.1773**	**0.1696**	**9,306.6707**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Fast Food Restaurant w/o Drive Thru	1.4983	0.0162	0.1469	0.1234	8.8000e-004		0.0112	0.0112		0.0112	0.0112		176.2708	176.2708	3.3800e-003	3.2300e-003	177.3182
Fast Food Restaurant with Drive Thru	2.84677	0.0307	0.2791	0.2344	1.6700e-003		0.0212	0.0212		0.0212	0.0212		334.9144	334.9144	6.4200e-003	6.1400e-003	336.9047
High Turnover (Sit Down Restaurant)	6.36778	0.0687	0.6243	0.5244	3.7500e-003		0.0475	0.0475		0.0475	0.0475		749.1507	749.1507	0.0144	0.0137	753.6025
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	6.36778	0.0687	0.6243	0.5244	3.7500e-003		0.0475	0.0475		0.0475	0.0475		749.1507	749.1507	0.0144	0.0137	753.6025
Regional Shopping Center	0.0924493	1.0000e-003	9.0600e-003	7.6100e-003	5.0000e-005		6.9000e-004	6.9000e-004		6.9000e-004	6.9000e-004		10.8764	10.8764	2.1000e-004	2.0000e-004	10.9410
User Defined Recreational	61.4663	0.6629	6.0261	5.0619	0.0362		0.4580	0.4580		0.4580	0.4580		7,231.3296	7,231.3296	0.1386	0.1326	7,274.3018
Total		**0.8481**	**7.7097**	**6.4762**	**0.0463**		**0.5859**	**0.5859**		**0.5859**	**0.5859**		**9,251.6925**	**9,251.6925**	**0.1773**	**0.1696**	**9,306.6707**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.0611	8.5000e-004	0.0941	1.0000e-005		3.3000e-004	3.3000e-004		3.3000e-004	3.3000e-004		0.2031	0.2031	5.2000e-004		0.2162
Unmitigated	2.3583	8.5000e-004	0.0941	1.0000e-005		3.3000e-004	3.3000e-004		3.3000e-004	3.3000e-004		0.2031	0.2031	5.2000e-004		0.2162

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.5600					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.7896					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	8.6100e-003	8.5000e-004	0.0941	1.0000e-005		3.3000e-004	3.3000e-004		3.3000e-004	3.3000e-004		0.2031	0.2031	5.2000e-004		0.2162
Total	**2.3583**	**8.5000e-004**	**0.0941**	**1.0000e-005**		**3.3000e-004**	**3.3000e-004**		**3.3000e-004**	**3.3000e-004**		**0.2031**	**0.2031**	**5.2000e-004**		**0.2162**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.2629					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.7896					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	8.6100e-003	8.5000e-004	0.0941	1.0000e-005		3.3000e-004	3.3000e-004		3.3000e-004	3.3000e-004		0.2031	0.2031	5.2000e-004		0.2162
Total	**2.0611**	**8.5000e-004**	**0.0941**	**1.0000e-005**		**3.3000e-004**	**3.3000e-004**		**3.3000e-004**	**3.3000e-004**		**0.2031**	**0.2031**	**5.2000e-004**		**0.2162**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Emergency Generator	3	0	30	2923	0.73	Diesel

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
Boiler	3	12	4380	0.5	CNG

User Defined Equipment

Equipment Type	Number

10.1 Stationary Sources

Unmitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	lb/day										lb/day					
Boiler - CNG (0 - 2 MMBTU)	0.1941	0.8640	3.4589	0.0212		0.2682	0.2682		0.2682	0.2682		4,235.3665	4,235.3665	0.0812		4,237.3959
Emergency Generator - Diesel (750 - 9999 HP)	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.1941**	**0.8640**	**3.4589**	**0.0212**		**0.2682**	**0.2682**		**0.2682**	**0.2682**		**4,235.3665**	**4,235.3665**	**0.0812**		**4,237.3959**

11.0 Vegetation

Agua Caliente Cathedral City FTT Casino Project - Alternative B Cumulative

Riverside-Salton Sea County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	850.00	Space	7.65	340,000.00	0
Fast Food Restaurant w/o Drive Thru	2.00	1000sqft	0.00	2,000.00	0
Fast Food Restaurant with Drive Thru	3.80	1000sqft	0.00	3,800.00	0
High Turnover (Sit Down Restaurant)	8.50	1000sqft	0.00	8,500.00	0
Quality Restaurant	8.50	1000sqft	0.00	8,500.00	0
User Defined Recreational	40.00	User Defined Unit	6.03	40,000.00	0
Regional Shopping Center	15.20	1000sqft	0.00	15,200.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2040
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Agua Caliente Cathedral City FTT Casino Project - Alternative B Cumulative - Riverside-Salton Sea County, Winter

Project Characteristics -

Land Use - Project Description; lot acreage for all recreational and retail space is all included within the User Defined Recreational land use.

Construction Phase - Construction phasing based on a 12-month construction schedule.

Grading - MSA Consulting, Inc., 2018a (See Table 2, CalEEMod Inputs)

Vehicle Trips - See Table 3, CalEEMod Inputs. Trip generation rates are derived from the TIS (Appendix TIS).

Energy Use - Electricity energy and natural gas intensity for the user defined recretational land use determined from similar projects and scaled by square footage

Water And Wastewater - Water demand is based off of similar projects and scaled by square footage

Solid Waste - Section 4.9 of the EA

Construction Off-road Equipment Mitigation - Construction Mitigation

Area Mitigation - MDAQMD Rule 1113 Architectural Coatings (based on nonflat coating)

Energy Mitigation -

Water Mitigation -

Waste Mitigation - Tribe will use the Salton City Landfill's facilities and will divert 50 percent of waste from the landfill.

Stationary Sources - Emergency Generators and Fire Pumps - Based on like project emergency generator size and use

Stationary Sources - Process Boilers - Based on like project boiler size and use

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	250	100
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	100
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	9.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3

Agua Caliente Cathedral City FTT Casino Project - Alternative B Cumulative - Riverside-Salton Sea County, Winter

tblConstructionPhase	NumDays	10.00	2.00
tblEnergyUse	NT24E	0.00	3.37
tblEnergyUse	NT24NG	0.00	560.88
tblLandUse	LandUseSquareFeet	0.00	40,000.00
tblLandUse	LotAcreage	0.05	0.00
tblLandUse	LotAcreage	0.09	0.00
tblLandUse	LotAcreage	0.20	0.00
tblLandUse	LotAcreage	0.20	0.00
tblLandUse	LotAcreage	0.00	6.03
tblLandUse	LotAcreage	0.35	0.00
tblSolidWaste	SolidWasteGenerationRate	0.00	375.95
tblStationaryBoilersUse	AnnualHeatInput	0.00	4,380.00
tblStationaryBoilersUse	BoilerRatingValue	0.00	0.50
tblStationaryBoilersUse	DailyHeatInput	0.00	12.00
tblStationaryBoilersUse	NumberOfEquipment	0.00	3.00
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	2,923.00
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	30.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	3.00
tblVehicleTrips	CC_TTP	0.00	80.00
tblVehicleTrips	CNW_TTP	0.00	5.00
tblVehicleTrips	CW_TTP	0.00	15.00
tblVehicleTrips	DV_TP	37.00	0.00
tblVehicleTrips	DV_TP	21.00	0.00
tblVehicleTrips	DV_TP	20.00	0.00
tblVehicleTrips	DV_TP	18.00	0.00
tblVehicleTrips	DV_TP	35.00	0.00
tblVehicleTrips	PB_TP	12.00	0.00

tblVehicleTrips	PB_TP	50.00	0.00
tblVehicleTrips	PB_TP	43.00	0.00
tblVehicleTrips	PB_TP	44.00	0.00
tblVehicleTrips	PB_TP	11.00	0.00
tblVehicleTrips	PR_TP	51.00	100.00
tblVehicleTrips	PR_TP	29.00	100.00
tblVehicleTrips	PR_TP	37.00	100.00
tblVehicleTrips	PR_TP	38.00	100.00
tblVehicleTrips	PR_TP	54.00	100.00
tblVehicleTrips	PR_TP	0.00	100.00
tblVehicleTrips	ST_TR	696.00	422.63
tblVehicleTrips	ST_TR	722.03	140.33
tblVehicleTrips	ST_TR	158.37	34.03
tblVehicleTrips	ST_TR	94.36	5.68
tblVehicleTrips	ST_TR	49.97	41.96
tblVehicleTrips	ST_TR	0.00	93.00
tblVehicleTrips	SU_TR	500.00	422.63
tblVehicleTrips	SU_TR	542.72	140.33
tblVehicleTrips	SU_TR	131.84	34.03
tblVehicleTrips	SU_TR	72.16	5.68
tblVehicleTrips	SU_TR	25.24	41.96
tblVehicleTrips	SU_TR	0.00	93.00
tblVehicleTrips	WD_TR	716.00	422.63
tblVehicleTrips	WD_TR	496.12	140.33
tblVehicleTrips	WD_TR	127.15	34.03
tblVehicleTrips	WD_TR	89.95	5.68
tblVehicleTrips	WD_TR	42.70	41.96

tblVehicleTrips	WD_TR	0.00	93.00
tblWater	IndoorWaterUseRate	0.00	15,931,489.00
tblWater	OutdoorWaterUseRate	0.00	6,928,889.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	4.4130	45.6215	22.5719	0.0394	18.2169	2.3913	20.6082	9.9706	2.2000	12.1706	0.0000	3,904.9356	3,904.9356	1.1955	0.0000	3,934.8237
Maximum	**4.4130**	**45.6215**	**22.5719**	**0.0394**	**18.2169**	**2.3913**	**20.6082**	**9.9706**	**2.2000**	**12.1706**	**0.0000**	**3,904.9356**	**3,904.9356**	**1.1955**	**0.0000**	**3,934.8237**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	0.0000	8.1481	23.9099	0.0394	8.2804	-1.1062	7.1742	4.5088	-0.9973	3.5115	0.0000	3,904.9356	3,904.9356	1.1955	0.0000	3,934.8237
Maximum	**0.0000**	**8.1481**	**23.9099**	**0.0394**	**8.2804**	**-1.1062**	**7.1742**	**4.5088**	**-0.9973**	**3.5115**	**0.0000**	**3,904.9356**	**3,904.9356**	**1.1955**	**0.0000**	**3,934.8237**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**100.00**	**82.14**	**-5.93**	**0.00**	**54.55**	**146.26**	**65.19**	**54.78**	**145.33**	**71.15**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.3583	8.5000e-004	0.0941	1.0000e-005		3.3000e-004	3.3000e-004		3.3000e-004	3.3000e-004		0.2031	0.2031	5.2000e-004		0.2162
Energy	0.8481	7.7097	6.4762	0.0463		0.5859	0.5859		0.5859	0.5859		9,251.6925	9,251.6925	0.1773	0.1696	9,306.6707
Mobile	3.7918	41.9643	38.3137	0.2578	24.9630	0.0905	25.0535	6.6713	0.0844	6.7557		26,603.7160	26,603.7160	1.1968		26,633.6349
Stationary	0.1941	0.8640	3.4589	0.0212		0.2682	0.2682		0.2682	0.2682		4,235.3665	4,235.3665	0.0812		4,237.3959
Total	**7.1922**	**50.5389**	**48.3429**	**0.3253**	**24.9630**	**0.9450**	**25.9080**	**6.6713**	**0.9389**	**7.6102**		**40,090.9781**	**40,090.9781**	**1.4558**	**0.1696**	**40,177.9177**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.0611	8.5000e-004	0.0941	1.0000e-005		3.3000e-004	3.3000e-004		3.3000e-004	3.3000e-004		0.2031	0.2031	5.2000e-004		0.2162
Energy	0.8481	7.7097	6.4762	0.0463		0.5859	0.5859		0.5859	0.5859		9,251.6925	9,251.6925	0.1773	0.1696	9,306.6707
Mobile	3.7918	41.9643	38.3137	0.2578	24.9630	0.0905	25.0535	6.6713	0.0844	6.7557		26,603.7160	26,603.7160	1.1968		26,633.6349
Stationary	0.1941	0.8640	3.4589	0.0212		0.2682	0.2682		0.2682	0.2682		4,235.3665	4,235.3665	0.0812		4,237.3959
Total	**6.8951**	**50.5389**	**48.3429**	**0.3253**	**24.9630**	**0.9450**	**25.9080**	**6.6713**	**0.9389**	**7.6102**		**40,090.9781**	**40,090.9781**	**1.4558**	**0.1696**	**40,177.9177**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**4.13**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/1/2019	1/2/2019	5	2	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 7.65

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use DPF for Construction Equipment

Use Soil Stabilizer

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	4.3350	45.5727	22.0630	0.0380		2.3904	2.3904		2.1991	2.1991		3,766.4529	3,766.4529	1.1917		3,796.2445
Total	**4.3350**	**45.5727**	**22.0630**	**0.0380**	**18.0663**	**2.3904**	**20.4566**	**9.9307**	**2.1991**	**12.1298**		**3,766.4529**	**3,766.4529**	**1.1917**		**3,796.2445**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0780	0.0488	0.5089	1.3900e-003	0.1506	9.6000e-004	0.1516	0.0400	8.8000e-004	0.0408		138.4827	138.4827	3.8600e-003		138.5791
Total	**0.0780**	**0.0488**	**0.5089**	**1.3900e-003**	**0.1506**	**9.6000e-004**	**0.1516**	**0.0400**	**8.8000e-004**	**0.0408**		**138.4827**	**138.4827**	**3.8600e-003**		**138.5791**

3.2 Site Preparation - 2019

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.1298	0.0000	8.1298	4.4688	0.0000	4.4688			0.0000			0.0000
Off-Road	-0.7693	8.0993	23.4010	0.0380		-1.1072	-1.1072		-0.9982	-0.9982	0.0000	3,766.4529	3,766.4529	1.1917		3,796.2445
Total	**-0.7693**	**8.0993**	**23.4010**	**0.0380**	**8.1298**	**-1.1072**	**7.0226**	**4.4688**	**-0.9982**	**3.4707**	**0.0000**	**3,766.4529**	**3,766.4529**	**1.1917**		**3,796.2445**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0780	0.0488	0.5089	1.3900e-003	0.1506	9.6000e-004	0.1516	0.0400	8.8000e-004	0.0408		138.4827	138.4827	3.8600e-003		138.5791
Total	**0.0780**	**0.0488**	**0.5089**	**1.3900e-003**	**0.1506**	**9.6000e-004**	**0.1516**	**0.0400**	**8.8000e-004**	**0.0408**		**138.4827**	**138.4827**	**3.8600e-003**		**138.5791**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	3.7918	41.9643	38.3137	0.2578	24.9630	0.0905	25.0535	6.6713	0.0844	6.7557		26,603.7160	26,603.7160	1.1968		26,633.6349
Unmitigated	3.7918	41.9643	38.3137	0.2578	24.9630	0.0905	25.0535	6.6713	0.0844	6.7557		26,603.7160	26,603.7160	1.1968		26,633.6349

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Fast Food Restaurant w/o Drive Thru	845.26	845.26	845.26	1,400,689	1,400,689
Fast Food Restaurant with Drive Thru	533.25	533.25	533.25	894,938	894,938
High Turnover (Sit Down Restaurant)	289.26	289.26	289.26	540,500	540,500
Parking Lot	0.00	0.00	0.00		
Quality Restaurant	48.28	48.28	48.28	95,321	95,321
Regional Shopping Center	637.79	637.79	637.79	1,342,072	1,342,072
User Defined Recreational	3,720.00	3,720.00	3720.00	7,454,210	7,454,210
Total	6,073.84	6,073.84	6,073.84	11,727,731	11,727,731

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Fast Food Restaurant w/o Drive	12.50	4.20	5.40	1.50	79.50	19.00	100	0	0
Fast Food Restaurant with Drive	12.50	4.20	5.40	2.20	78.80	19.00	100	0	0
High Turnover (Sit Down	12.50	4.20	5.40	8.50	72.50	19.00	100	0	0
Parking Lot	12.50	4.20	5.40	0.00	0.00	0.00	0	0	0
Quality Restaurant	12.50	4.20	5.40	12.00	69.00	19.00	100	0	0
Regional Shopping Center	12.50	4.20	5.40	16.30	64.70	19.00	100	0	0
User Defined Recreational	12.50	4.20	5.40	15.00	80.00	5.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Fast Food Restaurant w/o Drive Thru	0.566189	0.033707	0.192293	0.100413	0.008756	0.004001	0.016522	0.070107	0.001420	0.001057	0.004327	0.000696	0.000512
Fast Food Restaurant with Drive Thru	0.566189	0.033707	0.192293	0.100413	0.008756	0.004001	0.016522	0.070107	0.001420	0.001057	0.004327	0.000696	0.000512
High Turnover (Sit Down Restaurant)	0.566189	0.033707	0.192293	0.100413	0.008756	0.004001	0.016522	0.070107	0.001420	0.001057	0.004327	0.000696	0.000512
Parking Lot	0.566189	0.033707	0.192293	0.100413	0.008756	0.004001	0.016522	0.070107	0.001420	0.001057	0.004327	0.000696	0.000512
Quality Restaurant	0.566189	0.033707	0.192293	0.100413	0.008756	0.004001	0.016522	0.070107	0.001420	0.001057	0.004327	0.000696	0.000512
Regional Shopping Center	0.566189	0.033707	0.192293	0.100413	0.008756	0.004001	0.016522	0.070107	0.001420	0.001057	0.004327	0.000696	0.000512
User Defined Recreational	0.566189	0.033707	0.192293	0.100413	0.008756	0.004001	0.016522	0.070107	0.001420	0.001057	0.004327	0.000696	0.000512

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Install High Efficiency Lighting

Agua Caliente Cathedral City FTT Casino Project - Alternative B Cumulative - Riverside-Salton Sea County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.8481	7.7097	6.4762	0.0463		0.5859	0.5859		0.5859	0.5859		9,251.6925	9,251.6925	0.1773	0.1696	9,306.6707
NaturalGas Unmitigated	0.8481	7.7097	6.4762	0.0463		0.5859	0.5859		0.5859	0.5859		9,251.6925	9,251.6925	0.1773	0.1696	9,306.6707

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Fast Food Restaurant w/o Drive Thru	1498.3	0.0162	0.1469	0.1234	8.8000e-004		0.0112	0.0112		0.0112	0.0112		176.2708	176.2708	3.3800e-003	3.2300e-003	177.3182
Fast Food Restaurant with Drive Thru	2846.77	0.0307	0.2791	0.2344	1.6700e-003		0.0212	0.0212		0.0212	0.0212		334.9144	334.9144	6.4200e-003	6.1400e-003	336.9047
High Turnover (Sit Down Restaurant)	6367.78	0.0687	0.6243	0.5244	3.7500e-003		0.0475	0.0475		0.0475	0.0475		749.1507	749.1507	0.0144	0.0137	753.6025
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	6367.78	0.0687	0.6243	0.5244	3.7500e-003		0.0475	0.0475		0.0475	0.0475		749.1507	749.1507	0.0144	0.0137	753.6025
Regional Shopping Center	92.4493	1.0000e-003	9.0600e-003	7.6100e-003	5.0000e-005		6.9000e-004	6.9000e-004		6.9000e-004	6.9000e-004		10.8764	10.8764	2.1000e-004	2.0000e-004	10.9410
User Defined Recreational	61466.3	0.6629	6.0261	5.0619	0.0362		0.4580	0.4580		0.4580	0.4580		7,231.3296	7,231.3296	0.1386	0.1326	7,274.3018
Total		**0.8481**	**7.7097**	**6.4762**	**0.0463**		**0.5859**	**0.5859**		**0.5859**	**0.5859**		**9,251.6925**	**9,251.6925**	**0.1773**	**0.1696**	**9,306.6707**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Fast Food Restaurant w/o Drive Thru	1.4983	0.0162	0.1469	0.1234	8.8000e-004		0.0112	0.0112		0.0112	0.0112		176.2708	176.2708	3.3800e-003	3.2300e-003	177.3182
Fast Food Restaurant with Drive Thru	2.84677	0.0307	0.2791	0.2344	1.6700e-003		0.0212	0.0212		0.0212	0.0212		334.9144	334.9144	6.4200e-003	6.1400e-003	336.9047
High Turnover (Sit Down Restaurant)	6.36778	0.0687	0.6243	0.5244	3.7500e-003		0.0475	0.0475		0.0475	0.0475		749.1507	749.1507	0.0144	0.0137	753.6025
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	6.36778	0.0687	0.6243	0.5244	3.7500e-003		0.0475	0.0475		0.0475	0.0475		749.1507	749.1507	0.0144	0.0137	753.6025
Regional Shopping Center	0.0924493	1.0000e-003	9.0600e-003	7.6100e-003	5.0000e-005		6.9000e-004	6.9000e-004		6.9000e-004	6.9000e-004		10.8764	10.8764	2.1000e-004	2.0000e-004	10.9410
User Defined Recreational	61.4663	0.6629	6.0261	5.0619	0.0362		0.4580	0.4580		0.4580	0.4580		7,231.3296	7,231.3296	0.1386	0.1326	7,274.3018
Total		**0.8481**	**7.7097**	**6.4762**	**0.0463**		**0.5859**	**0.5859**		**0.5859**	**0.5859**		**9,251.6925**	**9,251.6925**	**0.1773**	**0.1696**	**9,306.6707**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.0611	8.5000e-004	0.0941	1.0000e-005		3.3000e-004	3.3000e-004		3.3000e-004	3.3000e-004		0.2031	0.2031	5.2000e-004		0.2162
Unmitigated	2.3583	8.5000e-004	0.0941	1.0000e-005		3.3000e-004	3.3000e-004		3.3000e-004	3.3000e-004		0.2031	0.2031	5.2000e-004		0.2162

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.5600					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.7896					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	8.6100e-003	8.5000e-004	0.0941	1.0000e-005		3.3000e-004	3.3000e-004		3.3000e-004	3.3000e-004		0.2031	0.2031	5.2000e-004		0.2162
Total	**2.3583**	**8.5000e-004**	**0.0941**	**1.0000e-005**		**3.3000e-004**	**3.3000e-004**		**3.3000e-004**	**3.3000e-004**		**0.2031**	**0.2031**	**5.2000e-004**		**0.2162**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.2629					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.7896					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	8.6100e-003	8.5000e-004	0.0941	1.0000e-005		3.3000e-004	3.3000e-004		3.3000e-004	3.3000e-004		0.2031	0.2031	5.2000e-004		0.2162
Total	**2.0611**	**8.5000e-004**	**0.0941**	**1.0000e-005**		**3.3000e-004**	**3.3000e-004**		**3.3000e-004**	**3.3000e-004**		**0.2031**	**0.2031**	**5.2000e-004**		**0.2162**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Emergency Generator	3	0	30	2923	0.73	Diesel

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
Boiler	3	12	4380	0.5	CNG

User Defined Equipment

Equipment Type	Number

10.1 Stationary Sources

Unmitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	lb/day										lb/day					
Boiler - CNG (0 - 2 MMBTU)	0.1941	0.8640	3.4589	0.0212		0.2682	0.2682		0.2682	0.2682		4,235.3665	4,235.3665	0.0812		4,237.3959
Emergency Generator - Diesel (750 - 9999 HP)	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.1941**	**0.8640**	**3.4589**	**0.0212**		**0.2682**	**0.2682**		**0.2682**	**0.2682**		**4,235.3665**	**4,235.3665**	**0.0812**		**4,237.3959**

11.0 Vegetation

Agua Caliente Cathedral City FTT Casino Project - Alternative B Cumulative

Riverside-Salton Sea County, Mitigation Report

Construction Mitigation Summary

Phase	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Site Preparation	1.16	0.82	-0.06	0.00	1.46	1.45	0.00	0.00	0.00	0.00	0.00	0.00

OFFROAD Equipment Mitigation

Equipment Type	Fuel Type	Tier	Number Mitigated	Total Number of Equipment	DPF	Oxidation Catalyst
Rubber Tired Dozers	Diesel	Tier 3	4	3	Level 3	0.00
Tractors/Loaders/Backhoes	Diesel	Tier 3	9	4	Level 3	0.00

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	Unmitigated tons/yr						Unmitigated mt/yr					
Rubber Tired Dozers	3.40000E-003	3.62200E-002	1.28500E-002	3.00000E-005	1.77000E-003	1.62000E-003	0.00000E+000	2.30088E+000	2.30088E+000	7.30000E-004	0.00000E+000	2.31908E+000
Tractors/Loaders/Backhoes	9.30000E-004	9.35000E-003	9.21000E-003	1.00000E-005	6.20000E-004	5.70000E-004	0.00000E+000	1.11599E+000	1.11599E+000	3.50000E-004	0.00000E+000	1.12482E+000

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	Mitigated tons/yr						Mitigated mt/yr					
Rubber Tired Dozers	-2.90000E-004	4.18000E-003	1.38400E-002	3.00000E-005	-4.90000E-004	-4.40000E-004	0.00000E+000	2.30088E+000	2.30088E+000	7.30000E-004	0.00000E+000	2.31908E+000
Tractors/Loaders/Backhoes	-4.80000E-004	3.92000E-003	9.57000E-003	1.00000E-005	-6.20000E-004	-5.50000E-004	0.00000E+000	1.11599E+000	1.11599E+000	3.50000E-004	0.00000E+000	1.12481E+000

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Rubber Tired Dozers	1.08529E+000	8.84594E-001	-7.70428E-002	0.00000E+000	1.27684E+000	1.27160E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Tractors/Loaders/Backhoes	1.51613E+000	5.80749E-001	-3.90879E-002	0.00000E+000	2.00000E+000	1.96491E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	8.89031E-006

Fugitive Dust Mitigation

Yes/No	Mitigation Measure	Mitigation Input		Mitigation Input		Mitigation Input	
Yes	Soil Stabilizer for unpaved Roads	PM10 Reduction	10.00	PM2.5 Reduction	10.00		
No	Replace Ground Cover of Area Disturbed	PM10 Reduction	0.00	PM2.5 Reduction	0.00		
Yes	Water Exposed Area	PM10 Reduction	55.00	PM2.5 Reduction	55.00	Frequency (per day)	2.00
No	Unpaved Road Mitigation	Moisture Content %	0.00	Vehicle Speed (mph)	15.00		
No	Clean Paved Road	% PM Reduction	0.00				

		Unmitigated		Mitigated		Percent Reduction	
Phase	Source	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5
Site Preparation	Fugitive Dust	0.02	0.01	0.01	0.00	0.55	0.55
Site Preparation	Roads	0.00	0.00	0.00	0.00	0.00	0.00

Operational Percent Reduction Summary

Category	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Architectural Coating	53.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electricity	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.72	3.72	3.78	3.61	3.72
Hearth	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Landscaping	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mobile	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Natural Gas	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Water Indoor	0.00	0.00	0.00	0.00	0.00	0.00	20.00	15.54	15.79	19.97	19.75	16.45
Water Outdoor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Operational Mobile Mitigation

Project Setting:

Mitigation	Category	Measure	% Reduction	Input Value 1	Input Value 2	Input Value
No	Land Use	Increase Density	0.00			
No	Land Use	Increase Diversity	0.11	0.33		
No	Land Use	Improve Walkability Design	0.00			
No	Land Use	Improve Destination Accessibility	0.00			
No	Land Use	Increase Transit Accessibility	0.25			
No	Land Use	Integrate Below Market Rate Housing	0.00			
	Land Use	Land Use SubTotal	0.00			

No	Neighborhood Enhancements	Improve Pedestrian Network				
No	Neighborhood Enhancements	Provide Traffic Calming Measures				
No	Neighborhood Enhancements	Implement NEV Network	0.00			
	Neighborhood Enhancements	Neighborhood Enhancements Subtotal	0.00			
No	Parking Policy Pricing	Limit Parking Supply	0.00			
No	Parking Policy Pricing	Unbundle Parking Costs	0.00			
No	Parking Policy Pricing	On-street Market Pricing	0.00			
	Parking Policy Pricing	Parking Policy Pricing Subtotal	0.00			
No	Transit Improvements	Provide BRT System	0.00			
No	Transit Improvements	Expand Transit Network	0.00			
No	Transit Improvements	Increase Transit Frequency	0.00			
	Transit Improvements	Transit Improvements Subtotal	0.00			
		Land Use and Site Enhancement Subtotal	0.00			
No	Commute	Implement Trip Reduction Program				
No	Commute	Transit Subsidy				
No	Commute	Implement Employee Parking "Cash Out"				
No	Commute	Workplace Parking Charge				
No	Commute	Encourage Telecommuting and Alternative Work Schedules	0.00			
No	Commute	Market Commute Trip Reduction Option	0.00			
No	Commute	Employee Vanpool/Shuttle	0.00		2.00	
No	Commute	Provide Ride Sharing Program				
	Commute	Commute Subtotal	0.00			

No	School Trip	Implement School Bus Program	0.00			
		Total VMT Reduction	0.00			

Area Mitigation

Measure Implemented	Mitigation Measure	Input Value
No	Only Natural Gas Hearth	
No	No Hearth	
No	Use Low VOC Cleaning Supplies	
No	Use Low VOC Paint (Residential Interior)	250.00
No	Use Low VOC Paint (Residential Exterior)	250.00
Yes	Use Low VOC Paint (Non-residential Interior)	100.00
Yes	Use Low VOC Paint (Non-residential Exterior)	100.00
No	Use Low VOC Paint (Parking)	250.00
No	% Electric Lawnmower	0.00
No	% Electric Leafblower	0.00
No	% Electric Chainsaw	0.00

Energy Mitigation Measures

Measure Implemented	Mitigation Measure	Input Value 1	Input Value 2
No	Exceed Title 24	0.00	
Yes	Install High Efficiency Lighting	16.00	
No	On-site Renewable	0.00	0.00

Appliance Type	Land Use Subtype	% Improvement
ClothWasher		30.00
DishWasher		15.00
Fan		50.00
Refrigerator		15.00

Water Mitigation Measures

Measure Implemented	Mitigation Measure	Input Value 1	Input Value 2
No	Apply Water Conservation on Strategy	0.00	0.00
No	Use Reclaimed Water	0.00	0.00
No	Use Grey Water	0.00	
Yes	Install low-flow bathroom faucet	32.00	
Yes	Install low-flow Kitchen faucet	18.00	
Yes	Install low-flow Toilet	20.00	
Yes	Install low-flow Shower	20.00	
No	Turf Reduction	0.00	
No	Use Water Efficient Irrigation Systems	6.10	
No	Water Efficient Landscape	0.00	0.00

Solid Waste Mitigation

Mitigation Measures	Input Value

Institute Recycling and Composting Services Percent Reduction in Waste Disposed	50.00

Agua Caliente Cathedral City FTT Casino Project - Alternative C

Riverside-Salton Sea County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	700.00	Space	6.30	280,000.00	0
Fast Food Restaurant w/o Drive Thru	2.00	1000sqft	1.48	2,000.00	0
Fast Food Restaurant with Drive Thru	8.00	1000sqft	1.48	8,000.00	0
High Turnover (Sit Down Restaurant)	22.00	1000sqft	1.48	22,000.00	0
Quality Restaurant	22.00	1000sqft	1.48	22,000.00	0
Regional Shopping Center	36.00	1000sqft	1.48	36,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2020
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Agua Caliente Cathedral City FTT Casino Project - Alternative C - Riverside-Salton Sea County, Annual

Project Characteristics -

Land Use - Project Description; all Retail and Recreational land use acreages are divided into 1.476-acre allotments for the purposes of this analysis.

Construction Phase - Construction phasing based on a 12-month construction schedule.

Grading - MSA Consulting, Inc., 2018c (See Table 2, CalEEMod Inputs)

Vehicle Trips - See Table 3, CalEEMod Inputs. Trip generation rates are derived from the TIS (Appendix TIS).

Energy Use - Electricity energy and natural gas intensity for the user defined recretational land use determined from similar projects and scaled by square footage

Water And Wastewater - Water demand is based off of similar projects and scaled by square footage

Solid Waste -

Construction Off-road Equipment Mitigation - Construction Mitigation

Area Mitigation - MDAQMD Rule 1113 Architectural Coatings (based on nonflat coating)

Energy Mitigation -

Water Mitigation -

Waste Mitigation - Tribe will use the Salton City Landfill's facilities and will divert 50 percent of waste from the landfill.

Stationary Sources - Emergency Generators and Fire Pumps - Based on like project emergency generator size and use

Stationary Sources - Process Boilers - Based on like project boiler size and use

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	250	100
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	100
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3

tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	9.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3

Agua Caliente Cathedral City FTT Casino Project - Alternative C - Riverside-Salton Sea County, Annual

tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	300.00	181.00
tblGrading	AcresOfGrading	75.00	13.68
tblGrading	MaterialImported	0.00	98,613.00
tblLandUse	LotAcreage	0.05	1.48
tblLandUse	LotAcreage	0.18	1.48
tblLandUse	LotAcreage	0.51	1.48
tblLandUse	LotAcreage	0.51	1.48
tblLandUse	LotAcreage	0.83	1.48
tblStationaryBoilersUse	AnnualHeatInput	0.00	4,380.00
tblStationaryBoilersUse	BoilerRatingValue	0.00	0.50
tblStationaryBoilersUse	DailyHeatInput	0.00	12.00
tblStationaryBoilersUse	NumberOfEquipment	0.00	3.00
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	2,923.00
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	30.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	3.00
tblVehicleTrips	DV_TP	37.00	0.00
tblVehicleTrips	DV_TP	21.00	0.00
tblVehicleTrips	DV_TP	20.00	0.00
tblVehicleTrips	DV_TP	18.00	0.00
tblVehicleTrips	DV_TP	35.00	0.00
tblVehicleTrips	PB_TP	12.00	0.00
tblVehicleTrips	PB_TP	50.00	0.00
tblVehicleTrips	PB_TP	43.00	0.00
tblVehicleTrips	PB_TP	44.00	0.00

tblVehicleTrips	PB_TP	11.00	0.00
tblVehicleTrips	PR_TP	51.00	100.00
tblVehicleTrips	PR_TP	29.00	100.00
tblVehicleTrips	PR_TP	37.00	100.00
tblVehicleTrips	PR_TP	38.00	100.00
tblVehicleTrips	PR_TP	54.00	100.00
tblVehicleTrips	ST_TR	696.00	995.50
tblVehicleTrips	ST_TR	722.03	311.50
tblVehicleTrips	ST_TR	158.37	110.82
tblVehicleTrips	ST_TR	94.36	82.52
tblVehicleTrips	ST_TR	49.97	80.15
tblVehicleTrips	SU_TR	500.00	995.50
tblVehicleTrips	SU_TR	542.72	311.50
tblVehicleTrips	SU_TR	131.84	110.82
tblVehicleTrips	SU_TR	72.16	82.52
tblVehicleTrips	SU_TR	25.24	80.15
tblVehicleTrips	WD_TR	716.00	995.50
tblVehicleTrips	WD_TR	496.12	311.50
tblVehicleTrips	WD_TR	127.15	110.82
tblVehicleTrips	WD_TR	89.95	82.52
tblVehicleTrips	WD_TR	42.70	80.15

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	1.5830	5.3620	3.0831	0.0109	0.4478	0.1843	0.6321	0.1700	0.1724	0.3423	0.0000	1,007.8719	1,007.8719	0.1341	0.0000	1,011.2246
Maximum	**1.5830**	**5.3620**	**3.0831**	**0.0109**	**0.4478**	**0.1843**	**0.6321**	**0.1700**	**0.1724**	**0.3423**	**0.0000**	**1,007.8719**	**1,007.8719**	**0.1341**	**0.0000**	**1,011.2246**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	1.3748	4.3681	3.2278	0.0109	0.3411	0.0412	0.3823	0.1144	0.0395	0.1540	0.0000	1,007.8715	1,007.8715	0.1341	0.0000	1,011.2242
Maximum	**1.3748**	**4.3681**	**3.2278**	**0.0109**	**0.3411**	**0.0412**	**0.3823**	**0.1144**	**0.0395**	**0.1540**	**0.0000**	**1,007.8715**	**1,007.8715**	**0.1341**	**0.0000**	**1,011.2242**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**13.15**	**18.54**	**-4.69**	**0.00**	**23.85**	**77.63**	**39.52**	**32.69**	**77.06**	**55.03**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	1-1-2019	3-31-2019	3.1448	2.6671
2	4-1-2019	6-30-2019	1.0104	0.7328
3	7-1-2019	9-30-2019	1.0215	0.7409
		Highest	3.1448	2.6671

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.4843	7.0000e-005	7.3100e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0141	0.0141	4.0000e-005	0.0000	0.0151
Energy	0.0801	0.7277	0.6113	4.3700e-003		0.0553	0.0553		0.0553	0.0553	0.0000	1,785.2376	1,785.2376	0.0562	0.0230	1,793.4979
Mobile	3.2800	26.2970	31.8809	0.1225	8.2835	0.1135	8.3969	2.2196	0.1069	2.3265	0.0000	11,355.5901	11,355.5901	0.7752	0.0000	11,374.9699
Stationary	0.2513	1.1230	1.1816	4.9000e-003		0.0807	0.0807		0.0807	0.0807	0.0000	801.3887	801.3887	0.0275	0.0000	802.0759
Waste						0.0000	0.0000		0.0000	0.0000	88.2727	0.0000	88.2727	5.2168	0.0000	218.6918
Water						0.0000	0.0000		0.0000	0.0000	6.0460	88.5539	94.5999	0.6246	0.0154	114.8109
Total	**4.0956**	**28.1478**	**33.6811**	**0.1318**	**8.2835**	**0.2495**	**8.5330**	**2.2196**	**0.2430**	**2.4626**	**94.3187**	**14,030.7844**	**14,125.1031**	**6.7003**	**0.0384**	**14,304.0614**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.4217	7.0000e-005	7.3100e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0141	0.0141	4.0000e-005	0.0000	0.0151
Energy	0.0801	0.7277	0.6113	4.3700e-003		0.0553	0.0553		0.0553	0.0553	0.0000	1,751.7216	1,751.7216	0.0548	0.0227	1,759.8621
Mobile	3.2800	26.2970	31.8809	0.1225	8.2835	0.1135	8.3969	2.2196	0.1069	2.3265	0.0000	11,355.5901	11,355.5901	0.7752	0.0000	11,374.9699
Stationary	0.2513	1.1230	1.1816	4.9000e-003		0.0807	0.0807		0.0807	0.0807	0.0000	801.3887	801.3887	0.0275	0.0000	802.0759
Waste						0.0000	0.0000		0.0000	0.0000	44.1363	0.0000	44.1363	2.6084	0.0000	109.3459
Water						0.0000	0.0000		0.0000	0.0000	4.8368	72.7409	77.5778	0.4998	0.0124	93.7533
Total	**4.0331**	**28.1478**	**33.6811**	**0.1318**	**8.2835**	**0.2495**	**8.5330**	**2.2196**	**0.2430**	**2.4626**	**48.9732**	**13,981.4555**	**14,030.4287**	**3.9657**	**0.0351**	**14,140.0221**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**1.53**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**48.08**	**0.35**	**0.67**	**40.81**	**8.74**	**1.15**

3.0 Construction Detail

Construction Phase

Agua Caliente Cathedral City FTT Casino Project - Alternative C - Riverside-Salton Sea County, Annual

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/1/2019	1/14/2019	5	10	
2	Grading	Grading	1/15/2019	2/25/2019	5	30	
3	Building Construction	Building Construction	2/26/2019	11/5/2019	5	181	
4	Paving	Paving	11/6/2019	12/3/2019	5	20	
5	Architectural Coating	Architectural Coating	12/4/2019	12/31/2019	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 13.68

Acres of Paving: 6.3

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 135,000; Non-Residential Outdoor: 45,000; Striped Parking Area: 16,800 (Architectural Coating – sqft)

OffRoad Equipment

Agua Caliente Cathedral City FTT Casino Project - Alternative C - Riverside-Salton Sea County, Annual

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	12,327.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	152.00	61.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	30.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use DPF for Construction Equipment

Use Soil Stabilizer

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0903	0.0000	0.0903	0.0497	0.0000	0.0497	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0217	0.2279	0.1103	1.9000e-004		0.0120	0.0120		0.0110	0.0110	0.0000	17.0843	17.0843	5.4100e-003	0.0000	17.2195
Total	**0.0217**	**0.2279**	**0.1103**	**1.9000e-004**	**0.0903**	**0.0120**	**0.1023**	**0.0497**	**0.0110**	**0.0607**	**0.0000**	**17.0843**	**17.0843**	**5.4100e-003**	**0.0000**	**17.2195**

3.2 Site Preparation - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.6000e-004	2.5000e-004	2.6700e-003	1.0000e-005	7.4000e-004	0.0000	7.5000e-004	2.0000e-004	0.0000	2.0000e-004	0.0000	0.6442	0.6442	2.0000e-005	0.0000	0.6447
Total	**3.6000e-004**	**2.5000e-004**	**2.6700e-003**	**1.0000e-005**	**7.4000e-004**	**0.0000**	**7.5000e-004**	**2.0000e-004**	**0.0000**	**2.0000e-004**	**0.0000**	**0.6442**	**0.6442**	**2.0000e-005**	**0.0000**	**0.6447**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0407	0.0000	0.0407	0.0223	0.0000	0.0223	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.6600e-003	0.0953	0.1148	1.9000e-004		7.1000e-004	7.1000e-004		7.1000e-004	7.1000e-004	0.0000	17.0843	17.0843	5.4100e-003	0.0000	17.2195
Total	**4.6600e-003**	**0.0953**	**0.1148**	**1.9000e-004**	**0.0407**	**7.1000e-004**	**0.0414**	**0.0223**	**7.1000e-004**	**0.0231**	**0.0000**	**17.0843**	**17.0843**	**5.4100e-003**	**0.0000**	**17.2195**

3.2 Site Preparation - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.6000e-004	2.5000e-004	2.6700e-003	1.0000e-005	7.4000e-004	0.0000	7.5000e-004	2.0000e-004	0.0000	2.0000e-004	0.0000	0.6442	0.6442	2.0000e-005	0.0000	0.6447
Total	**3.6000e-004**	**2.5000e-004**	**2.6700e-003**	**1.0000e-005**	**7.4000e-004**	**0.0000**	**7.5000e-004**	**2.0000e-004**	**0.0000**	**2.0000e-004**	**0.0000**	**0.6442**	**0.6442**	**2.0000e-005**	**0.0000**	**0.6447**

3.3 Grading - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1038	0.0000	0.1038	0.0514	0.0000	0.0514	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0711	0.8178	0.5007	9.3000e-004		0.0357	0.0357		0.0329	0.0329	0.0000	83.5520	83.5520	0.0264	0.0000	84.2129
Total	**0.0711**	**0.8178**	**0.5007**	**9.3000e-004**	**0.1038**	**0.0357**	**0.1396**	**0.0514**	**0.0329**	**0.0843**	**0.0000**	**83.5520**	**83.5520**	**0.0264**	**0.0000**	**84.2129**

3.3 Grading - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0354	1.6142	0.2036	4.6900e-003	0.1063	5.7300e-003	0.1120	0.0292	5.4800e-003	0.0347	0.0000	451.5042	451.5042	0.0295	0.0000	452.2419
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2100e-003	8.4000e-004	8.9100e-003	2.0000e-005	2.4700e-003	2.0000e-005	2.4800e-003	6.6000e-004	1.0000e-005	6.7000e-004	0.0000	2.1474	2.1474	6.0000e-005	0.0000	2.1489
Total	**0.0366**	**1.6150**	**0.2125**	**4.7100e-003**	**0.1087**	**5.7500e-003**	**0.1145**	**0.0298**	**5.4900e-003**	**0.0353**	**0.0000**	**453.6516**	**453.6516**	**0.0296**	**0.0000**	**454.3908**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0467	0.0000	0.0467	0.0231	0.0000	0.0231	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0436	0.6209	0.5503	9.3000e-004		0.0169	0.0169		0.0157	0.0157	0.0000	83.5519	83.5519	0.0264	0.0000	84.2128
Total	**0.0436**	**0.6209**	**0.5503**	**9.3000e-004**	**0.0467**	**0.0169**	**0.0636**	**0.0231**	**0.0157**	**0.0388**	**0.0000**	**83.5519**	**83.5519**	**0.0264**	**0.0000**	**84.2128**

3.3 Grading - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0354	1.6142	0.2036	4.6900e-003	0.1063	5.7300e-003	0.1120	0.0292	5.4800e-003	0.0347	0.0000	451.5042	451.5042	0.0295	0.0000	452.2419
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2100e-003	8.4000e-004	8.9100e-003	2.0000e-005	2.4700e-003	2.0000e-005	2.4800e-003	6.6000e-004	1.0000e-005	6.7000e-004	0.0000	2.1474	2.1474	6.0000e-005	0.0000	2.1489
Total	**0.0366**	**1.6150**	**0.2125**	**4.7100e-003**	**0.1087**	**5.7500e-003**	**0.1145**	**0.0298**	**5.4900e-003**	**0.0353**	**0.0000**	**453.6516**	**453.6516**	**0.0296**	**0.0000**	**454.3908**

3.4 Building Construction - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2137	1.9076	1.5533	2.4400e-003		0.1167	0.1167		0.1098	0.1098	0.0000	212.7693	212.7693	0.0518	0.0000	214.0651
Total	**0.2137**	**1.9076**	**1.5533**	**2.4400e-003**		**0.1167**	**0.1167**		**0.1098**	**0.1098**	**0.0000**	**212.7693**	**212.7693**	**0.0518**	**0.0000**	**214.0651**

3.4 Building Construction - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0168	0.5829	0.1166	1.2100e-003	0.0273	3.8100e-003	0.0311	7.8900e-003	3.6500e-003	0.0115	0.0000	115.4556	115.4556	0.0113	0.0000	115.7383
Worker	0.0554	0.0385	0.4086	1.0900e-003	0.1132	7.3000e-004	0.1139	0.0301	6.7000e-004	0.0307	0.0000	98.4653	98.4653	2.7600e-003	0.0000	98.5343
Total	**0.0721**	**0.6214**	**0.5252**	**2.3000e-003**	**0.1405**	**4.5400e-003**	**0.1451**	**0.0380**	**4.3200e-003**	**0.0423**	**0.0000**	**213.9209**	**213.9209**	**0.0141**	**0.0000**	**214.2726**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0610	1.2875	1.6176	2.4400e-003		0.0123	0.0123		0.0123	0.0123	0.0000	212.7690	212.7690	0.0518	0.0000	214.0649
Total	**0.0610**	**1.2875**	**1.6176**	**2.4400e-003**		**0.0123**	**0.0123**		**0.0123**	**0.0123**	**0.0000**	**212.7690**	**212.7690**	**0.0518**	**0.0000**	**214.0649**

3.4 Building Construction - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0168	0.5829	0.1166	1.2100e-003	0.0273	3.8100e-003	0.0311	7.8900e-003	3.6500e-003	0.0115	0.0000	115.4556	115.4556	0.0113	0.0000	115.7383
Worker	0.0554	0.0385	0.4086	1.0900e-003	0.1132	7.3000e-004	0.1139	0.0301	6.7000e-004	0.0307	0.0000	98.4653	98.4653	2.7600e-003	0.0000	98.5343
Total	**0.0721**	**0.6214**	**0.5252**	**2.3000e-003**	**0.1405**	**4.5400e-003**	**0.1451**	**0.0380**	**4.3200e-003**	**0.0423**	**0.0000**	**213.9209**	**213.9209**	**0.0141**	**0.0000**	**214.2726**

3.5 Paving - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0145	0.1524	0.1467	2.3000e-004		8.2500e-003	8.2500e-003		7.5900e-003	7.5900e-003	0.0000	20.4752	20.4752	6.4800e-003	0.0000	20.6371
Paving	8.2500e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0228**	**0.1524**	**0.1467**	**2.3000e-004**		**8.2500e-003**	**8.2500e-003**		**7.5900e-003**	**7.5900e-003**	**0.0000**	**20.4752**	**20.4752**	**6.4800e-003**	**0.0000**	**20.6371**

3.5 Paving - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0000e-004	4.2000e-004	4.4600e-003	1.0000e-005	1.2300e-003	1.0000e-005	1.2400e-003	3.3000e-004	1.0000e-005	3.4000e-004	0.0000	1.0737	1.0737	3.0000e-005	0.0000	1.0745
Total	**6.0000e-004**	**4.2000e-004**	**4.4600e-003**	**1.0000e-005**	**1.2300e-003**	**1.0000e-005**	**1.2400e-003**	**3.3000e-004**	**1.0000e-005**	**3.4000e-004**	**0.0000**	**1.0737**	**1.0737**	**3.0000e-005**	**0.0000**	**1.0745**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	5.6100e-003	0.1130	0.1730	2.3000e-004		9.1000e-004	9.1000e-004		9.1000e-004	9.1000e-004	0.0000	20.4752	20.4752	6.4800e-003	0.0000	20.6371
Paving	8.2500e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0139**	**0.1130**	**0.1730**	**2.3000e-004**		**9.1000e-004**	**9.1000e-004**		**9.1000e-004**	**9.1000e-004**	**0.0000**	**20.4752**	**20.4752**	**6.4800e-003**	**0.0000**	**20.6371**

3.5 Paving - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0000e-004	4.2000e-004	4.4600e-003	1.0000e-005	1.2300e-003	1.0000e-005	1.2400e-003	3.3000e-004	1.0000e-005	3.4000e-004	0.0000	1.0737	1.0737	3.0000e-005	0.0000	1.0745
Total	**6.0000e-004**	**4.2000e-004**	**4.4600e-003**	**1.0000e-005**	**1.2300e-003**	**1.0000e-005**	**1.2400e-003**	**3.3000e-004**	**1.0000e-005**	**3.4000e-004**	**0.0000**	**1.0737**	**1.0737**	**3.0000e-005**	**0.0000**	**1.0745**

3.6 Architectural Coating - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.1402					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.6600e-003	0.0184	0.0184	3.0000e-005		1.2900e-003	1.2900e-003		1.2900e-003	1.2900e-003	0.0000	2.5533	2.5533	2.2000e-004	0.0000	2.5587
Total	**1.1429**	**0.0184**	**0.0184**	**3.0000e-005**		**1.2900e-003**	**1.2900e-003**		**1.2900e-003**	**1.2900e-003**	**0.0000**	**2.5533**	**2.5533**	**2.2000e-004**	**0.0000**	**2.5587**

3.6 Architectural Coating - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2100e-003	8.4000e-004	8.9100e-003	2.0000e-005	2.4700e-003	2.0000e-005	2.4800e-003	6.6000e-004	1.0000e-005	6.7000e-004	0.0000	2.1474	2.1474	6.0000e-005	0.0000	2.1489
Total	**1.2100e-003**	**8.4000e-004**	**8.9100e-003**	**2.0000e-005**	**2.4700e-003**	**2.0000e-005**	**2.4800e-003**	**6.6000e-004**	**1.0000e-005**	**6.7000e-004**	**0.0000**	**2.1474**	**2.1474**	**6.0000e-005**	**0.0000**	**2.1489**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.1402					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.9000e-004	0.0136	0.0183	3.0000e-005		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004	0.0000	2.5533	2.5533	2.2000e-004	0.0000	2.5586
Total	**1.1408**	**0.0136**	**0.0183**	**3.0000e-005**		**1.4000e-004**	**1.4000e-004**		**1.4000e-004**	**1.4000e-004**	**0.0000**	**2.5533**	**2.5533**	**2.2000e-004**	**0.0000**	**2.5586**

3.6 Architectural Coating - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2100e-003	8.4000e-004	8.9100e-003	2.0000e-005	2.4700e-003	2.0000e-005	2.4800e-003	6.6000e-004	1.0000e-005	6.7000e-004	0.0000	2.1474	2.1474	6.0000e-005	0.0000	2.1489
Total	**1.2100e-003**	**8.4000e-004**	**8.9100e-003**	**2.0000e-005**	**2.4700e-003**	**2.0000e-005**	**2.4800e-003**	**6.6000e-004**	**1.0000e-005**	**6.7000e-004**	**0.0000**	**2.1474**	**2.1474**	**6.0000e-005**	**0.0000**	**2.1489**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	3.2800	26.2970	31.8809	0.1225	8.2835	0.1135	8.3969	2.2196	0.1069	2.3265	0.0000	11,355.5901	11,355.5901	0.7752	0.0000	11,374.9699
Unmitigated	3.2800	26.2970	31.8809	0.1225	8.2835	0.1135	8.3969	2.2196	0.1069	2.3265	0.0000	11,355.5901	11,355.5901	0.7752	0.0000	11,374.9699

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Fast Food Restaurant w/o Drive Thru	1,991.00	1,991.00	1991.00	3,299,306	3,299,306
Fast Food Restaurant with Drive Thru	2,492.00	2,492.00	2492.00	4,182,220	4,182,220
High Turnover (Sit Down Restaurant)	2,438.04	2,438.04	2438.04	4,555,707	4,555,707
Parking Lot	0.00	0.00	0.00		
Quality Restaurant	1,815.44	1,815.44	1815.44	3,584,289	3,584,289
Regional Shopping Center	2,885.40	2,885.40	2885.40	6,071,596	6,071,596
Total	11,621.88	11,621.88	11,621.88	21,693,117	21,693,117

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Fast Food Restaurant w/o Drive	12.50	4.20	5.40	1.50	79.50	19.00	100	0	0
Fast Food Restaurant with Drive	12.50	4.20	5.40	2.20	78.80	19.00	100	0	0
High Turnover (Sit Down	12.50	4.20	5.40	8.50	72.50	19.00	100	0	0
Parking Lot	12.50	4.20	5.40	0.00	0.00	0.00	0	0	0
Quality Restaurant	12.50	4.20	5.40	12.00	69.00	19.00	100	0	0
Regional Shopping Center	12.50	4.20	5.40	16.30	64.70	19.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Fast Food Restaurant w/o Drive Thru	0.538064	0.038449	0.184390	0.122109	0.017402	0.005339	0.017250	0.067711	0.001365	0.001213	0.004629	0.000959	0.001120
Fast Food Restaurant with Drive Thru	0.538064	0.038449	0.184390	0.122109	0.017402	0.005339	0.017250	0.067711	0.001365	0.001213	0.004629	0.000959	0.001120
High Turnover (Sit Down Restaurant)	0.538064	0.038449	0.184390	0.122109	0.017402	0.005339	0.017250	0.067711	0.001365	0.001213	0.004629	0.000959	0.001120
Parking Lot	0.538064	0.038449	0.184390	0.122109	0.017402	0.005339	0.017250	0.067711	0.001365	0.001213	0.004629	0.000959	0.001120
Quality Restaurant	0.538064	0.038449	0.184390	0.122109	0.017402	0.005339	0.017250	0.067711	0.001365	0.001213	0.004629	0.000959	0.001120
Regional Shopping Center	0.538064	0.038449	0.184390	0.122109	0.017402	0.005339	0.017250	0.067711	0.001365	0.001213	0.004629	0.000959	0.001120

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Install High Efficiency Lighting

Agua Caliente Cathedral City FTT Casino Project - Alternative C - Riverside-Salton Sea County, Annual

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	959.4996	959.4996	0.0396	8.2000e-003	962.9323
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	993.0155	993.0155	0.0410	8.4800e-003	996.5681
NaturalGas Mitigated	0.0801	0.7277	0.6113	4.3700e-003		0.0553	0.0553		0.0553	0.0553	0.0000	792.2220	792.2220	0.0152	0.0145	796.9298
NaturalGas Unmitigated	0.0801	0.7277	0.6113	4.3700e-003		0.0553	0.0553		0.0553	0.0553	0.0000	792.2220	792.2220	0.0152	0.0145	796.9298

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Fast Food Restaurant w/o Drive Thru	546880	2.9500e-003	0.0268	0.0225	1.6000e-004		2.0400e-003	2.0400e-003		2.0400e-003	2.0400e-003	0.0000	29.1836	29.1836	5.6000e-004	5.4000e-004	29.3570
Fast Food Restaurant with Drive Thru	2.18752e+006	0.0118	0.1072	0.0901	6.4000e-004		8.1500e-003	8.1500e-003		8.1500e-003	8.1500e-003	0.0000	116.7344	116.7344	2.2400e-003	2.1400e-003	117.4281
High Turnover (Sit Down Restaurant)	6.01568e+006	0.0324	0.2949	0.2477	1.7700e-003		0.0224	0.0224		0.0224	0.0224	0.0000	321.0196	321.0196	6.1500e-003	5.8900e-003	322.9273
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	6.01568e+006	0.0324	0.2949	0.2477	1.7700e-003		0.0224	0.0224		0.0224	0.0224	0.0000	321.0196	321.0196	6.1500e-003	5.8900e-003	322.9273
Regional Shopping Center	79920	4.3000e-004	3.9200e-003	3.2900e-003	2.0000e-005		3.0000e-004	3.0000e-004		3.0000e-004	3.0000e-004	0.0000	4.2648	4.2648	8.0000e-005	8.0000e-005	4.2902
Total		**0.0801**	**0.7277**	**0.6113**	**4.3600e-003**		**0.0553**	**0.0553**		**0.0553**	**0.0553**	**0.0000**	**792.2220**	**792.2220**	**0.0152**	**0.0145**	**796.9298**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Fast Food Restaurant w/o Drive Thru	546880	2.9500e-003	0.0268	0.0225	1.6000e-004		2.0400e-003	2.0400e-003		2.0400e-003	2.0400e-003	0.0000	29.1836	29.1836	5.6000e-004	5.4000e-004	29.3570
Fast Food Restaurant with Drive Thru	2.18752e+006	0.0118	0.1072	0.0901	6.4000e-004		8.1500e-003	8.1500e-003		8.1500e-003	8.1500e-003	0.0000	116.7344	116.7344	2.2400e-003	2.1400e-003	117.4281
High Turnover (Sit Down Restaurant)	6.01568e+006	0.0324	0.2949	0.2477	1.7700e-003		0.0224	0.0224		0.0224	0.0224	0.0000	321.0196	321.0196	6.1500e-003	5.8900e-003	322.9273
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	6.01568e+006	0.0324	0.2949	0.2477	1.7700e-003		0.0224	0.0224		0.0224	0.0224	0.0000	321.0196	321.0196	6.1500e-003	5.8900e-003	322.9273
Regional Shopping Center	79920	4.3000e-004	3.9200e-003	3.2900e-003	2.0000e-005		3.0000e-004	3.0000e-004		3.0000e-004	3.0000e-004	0.0000	4.2648	4.2648	8.0000e-005	8.0000e-005	4.2902
Total		**0.0801**	**0.7277**	**0.6113**	**4.3600e-003**		**0.0553**	**0.0553**		**0.0553**	**0.0553**	**0.0000**	**792.2220**	**792.2220**	**0.0152**	**0.0145**	**796.9298**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Fast Food Restaurant w/o Drive Thru	94960	30.2563	1.2500e-003	2.6000e-004	30.3645
Fast Food Restaurant with Drive Thru	379840	121.0252	5.0000e-003	1.0300e-003	121.4581
High Turnover (Sit Down Restaurant)	1.04456e+006	332.8192	0.0137	2.8400e-003	334.0099
Parking Lot	98000	31.2249	1.2900e-003	2.7000e-004	31.3366
Quality Restaurant	1.04456e+006	332.8192	0.0137	2.8400e-003	334.0099
Regional Shopping Center	454680	144.8708	5.9800e-003	1.2400e-003	145.3891
Total		**993.0155**	**0.0410**	**8.4800e-003**	**996.5681**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Fast Food Restaurant w/o Drive Thru	92841.6	29.5813	1.2200e-003	2.5000e-004	29.6872
Fast Food Restaurant with Drive Thru	371366	118.3253	4.8900e-003	1.0100e-003	118.7486
High Turnover (Sit Down Restaurant)	1.02126e+006	325.3946	0.0134	2.7800e-003	326.5587
Parking Lot	82320	26.2289	1.0800e-003	2.2000e-004	26.3228
Quality Restaurant	1.02126e+006	325.3946	0.0134	2.7800e-003	326.5587
Regional Shopping Center	422366	134.5750	5.5600e-003	1.1500e-003	135.0564
Total		**959.4996**	**0.0396**	**8.1900e-003**	**962.9323**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.4217	7.0000e-005	7.3100e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0141	0.0141	4.0000e-005	0.0000	0.0151
Unmitigated	0.4843	7.0000e-005	7.3100e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0141	0.0141	4.0000e-005	0.0000	0.0151

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1140					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.3696					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	6.9000e-004	7.0000e-005	7.3100e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0141	0.0141	4.0000e-005	0.0000	0.0151
Total	**0.4843**	**7.0000e-005**	**7.3100e-003**	**0.0000**		**3.0000e-005**	**3.0000e-005**		**3.0000e-005**	**3.0000e-005**	**0.0000**	**0.0141**	**0.0141**	**4.0000e-005**	**0.0000**	**0.0151**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0515					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.3696					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	6.9000e-004	7.0000e-005	7.3100e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0141	0.0141	4.0000e-005	0.0000	0.0151
Total	**0.4217**	**7.0000e-005**	**7.3100e-003**	**0.0000**		**3.0000e-005**	**3.0000e-005**		**3.0000e-005**	**3.0000e-005**	**0.0000**	**0.0141**	**0.0141**	**4.0000e-005**	**0.0000**	**0.0151**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	77.5778	0.4998	0.0124	93.7533
Unmitigated	94.5999	0.6246	0.0154	114.8109

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Fast Food Restaurant w/o Drive Thru	0.607067 / 0.038749	2.8483	0.0199	4.9000e-004	3.4916
Fast Food Restaurant with Drive Thru	2.42827 / 0.154996	11.3934	0.0796	1.9600e-003	13.9663
High Turnover (Sit Down Restaurant)	6.67774 / 0.426239	31.3318	0.2188	5.3900e-003	38.4072
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	6.67774 / 0.426239	31.3318	0.2188	5.3900e-003	38.4072
Regional Shopping Center	2.66661 / 1.63437	17.6946	0.0876	2.2000e-003	20.5386
Total		**94.5999**	**0.6246**	**0.0154**	**114.8109**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Fast Food Restaurant w/o Drive Thru	0.485654 / 0.038749	2.3061	0.0159	3.9000e-004	2.8208
Fast Food Restaurant with Drive Thru	1.94262 / 0.154996	9.2244	0.0637	1.5700e-003	11.2831
High Turnover (Sit Down Restaurant)	5.34219 / 0.426239	25.3672	0.1751	4.3100e-003	31.0286
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	5.34219 / 0.426239	25.3672	0.1751	4.3100e-003	31.0286
Regional Shopping Center	2.13329 / 1.63437	15.3128	0.0701	1.7700e-003	17.5921
Total		**77.5778**	**0.4998**	**0.0124**	**93.7533**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	44.1363	2.6084	0.0000	109.3459
Unmitigated	88.2727	5.2168	0.0000	218.6918

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Fast Food Restaurant w/o Drive Thru	23.04	4.6769	0.2764	0.0000	11.5869
Fast Food Restaurant with Drive Thru	92.15	18.7056	1.1055	0.0000	46.3424
High Turnover (Sit Down Restaurant)	261.8	53.1430	3.1407	0.0000	131.6596
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	20.07	4.0740	0.2408	0.0000	10.0932
Regional Shopping Center	37.8	7.6731	0.4535	0.0000	19.0097
Total		**88.2727**	**5.2168**	**0.0000**	**218.6918**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Fast Food Restaurant w/o Drive Thru	11.52	2.3385	0.1382	0.0000	5.7934
Fast Food Restaurant with Drive Thru	46.075	9.3528	0.5527	0.0000	23.1712
High Turnover (Sit Down Restaurant)	130.9	26.5715	1.5703	0.0000	65.8298
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	10.035	2.0370	0.1204	0.0000	5.0466
Regional Shopping Center	18.9	3.8365	0.2267	0.0000	9.5048
Total		**44.1363**	**2.6084**	**0.0000**	**109.3459**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Emergency Generator	3	0	30	2923	0.73	Diesel

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
Boiler	3	12	4380	0.5	CNG

User Defined Equipment

Equipment Type	Number

10.1 Stationary Sources

Unmitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	tons/yr										MT/yr					
Boiler - CNG (0 - 2 MMBTU)	0.0354	0.1577	0.6313	3.8600e-003		0.0490	0.0490		0.0490	0.0490	0.0000	701.2124	701.2124	0.0134	0.0000	701.5484
Emergency Generator - Diesel (750 - 9999 HP)	0.2159	0.9653	0.5504	1.0400e-003		0.0318	0.0318		0.0318	0.0318	0.0000	100.1763	100.1763	0.0140	0.0000	100.5274
Total	**0.2513**	**1.1230**	**1.1816**	**4.9000e-003**		**0.0807**	**0.0807**		**0.0807**	**0.0807**	**0.0000**	**801.3887**	**801.3887**	**0.0275**	**0.0000**	**802.0759**

11.0 Vegetation

Agua Caliente Cathedral City FTT Casino Project - Alternative C

Riverside-Salton Sea County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	700.00	Space	6.30	280,000.00	0
Fast Food Restaurant w/o Drive Thru	2.00	1000sqft	1.48	2,000.00	0
Fast Food Restaurant with Drive Thru	8.00	1000sqft	1.48	8,000.00	0
High Turnover (Sit Down Restaurant)	22.00	1000sqft	1.48	22,000.00	0
Quality Restaurant	22.00	1000sqft	1.48	22,000.00	0
Regional Shopping Center	36.00	1000sqft	1.48	36,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2020
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Agua Caliente Cathedral City FTT Casino Project - Alternative C - Riverside-Salton Sea County, Summer

Project Characteristics -

Land Use - Project Description; all Retail and Recreational land use acreages are divided into 1.476-acre allotments for the purposes of this analysis.

Construction Phase - Construction phasing based on a 12-month construction schedule.

Grading - MSA Consulting, Inc., 2018c (See Table 2, CalEEMod Inputs)

Vehicle Trips - See Table 3, CalEEMod Inputs. Trip generation rates are derived from the TIS (Appendix TIS).

Energy Use - Electricity energy and natural gas intensity for the user defined recretational land use determined from similar projects and scaled by square footage

Water And Wastewater - Water demand is based off of similar projects and scaled by square footage

Solid Waste -

Construction Off-road Equipment Mitigation - Construction Mitigation

Area Mitigation - MDAQMD Rule 1113 Architectural Coatings (based on nonflat coating)

Energy Mitigation -

Water Mitigation -

Waste Mitigation - Tribe will use the Salton City Landfill's facilities and will divert 50 percent of waste from the landfill.

Stationary Sources - Emergency Generators and Fire Pumps - Based on like project emergency generator size and use

Stationary Sources - Process Boilers - Based on like project boiler size and use

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	250	100
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	100
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3

tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	9.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3

Agua Caliente Cathedral City FTT Casino Project - Alternative C - Riverside-Salton Sea County, Summer

tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	300.00	181.00
tblGrading	AcresOfGrading	75.00	13.68
tblGrading	MaterialImported	0.00	98,613.00
tblLandUse	LotAcreage	0.05	1.48
tblLandUse	LotAcreage	0.18	1.48
tblLandUse	LotAcreage	0.51	1.48
tblLandUse	LotAcreage	0.51	1.48
tblLandUse	LotAcreage	0.83	1.48
tblStationaryBoilersUse	AnnualHeatInput	0.00	4,380.00
tblStationaryBoilersUse	BoilerRatingValue	0.00	0.50
tblStationaryBoilersUse	DailyHeatInput	0.00	12.00
tblStationaryBoilersUse	NumberOfEquipment	0.00	3.00
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	2,923.00
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	30.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	3.00
tblVehicleTrips	DV_TP	37.00	0.00
tblVehicleTrips	DV_TP	21.00	0.00
tblVehicleTrips	DV_TP	20.00	0.00
tblVehicleTrips	DV_TP	18.00	0.00
tblVehicleTrips	DV_TP	35.00	0.00
tblVehicleTrips	PB_TP	12.00	0.00
tblVehicleTrips	PB_TP	50.00	0.00
tblVehicleTrips	PB_TP	43.00	0.00
tblVehicleTrips	PB_TP	44.00	0.00

tblVehicleTrips	PB_TP	11.00	0.00
tblVehicleTrips	PR_TP	51.00	100.00
tblVehicleTrips	PR_TP	29.00	100.00
tblVehicleTrips	PR_TP	37.00	100.00
tblVehicleTrips	PR_TP	38.00	100.00
tblVehicleTrips	PR_TP	54.00	100.00
tblVehicleTrips	ST_TR	696.00	995.50
tblVehicleTrips	ST_TR	722.03	311.50
tblVehicleTrips	ST_TR	158.37	110.82
tblVehicleTrips	ST_TR	94.36	82.52
tblVehicleTrips	ST_TR	49.97	80.15
tblVehicleTrips	SU_TR	500.00	995.50
tblVehicleTrips	SU_TR	542.72	311.50
tblVehicleTrips	SU_TR	131.84	110.82
tblVehicleTrips	SU_TR	72.16	82.52
tblVehicleTrips	SU_TR	25.24	80.15
tblVehicleTrips	WD_TR	716.00	995.50
tblVehicleTrips	WD_TR	496.12	311.50
tblVehicleTrips	WD_TR	127.15	110.82
tblVehicleTrips	WD_TR	89.95	82.52
tblVehicleTrips	WD_TR	42.70	80.15

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	114.4236	159.5411	46.6880	0.3799	18.2169	2.7630	20.6082	9.9706	2.5559	12.1706	0.0000	39,840.5408	39,840.5408	4.0307	0.0000	39,941.3075
Maximum	**114.4236**	**159.5411**	**46.6880**	**0.3799**	**18.2169**	**2.7630**	**20.6082**	**9.9706**	**2.5559**	**12.1706**	**0.0000**	**39,840.5408**	**39,840.5408**	**4.0307**	**0.0000**	**39,941.3075**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	114.2166	146.4106	50.0006	0.3799	10.4710	1.5053	11.9763	4.5088	1.4078	4.9644	0.0000	39,840.5408	39,840.5408	4.0307	0.0000	39,941.3075
Maximum	**114.2166**	**146.4106**	**50.0006**	**0.3799**	**10.4710**	**1.5053**	**11.9763**	**4.5088**	**1.4078**	**4.9644**	**0.0000**	**39,840.5408**	**39,840.5408**	**4.0307**	**0.0000**	**39,941.3075**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.18**	**8.23**	**-7.10**	**0.00**	**42.52**	**45.52**	**41.89**	**54.78**	**44.92**	**59.21**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.6576	7.5000e-004	0.0812	1.0000e-005		2.9000e-004	2.9000e-004		2.9000e-004	2.9000e-004		0.1729	0.1729	4.6000e-004		0.1845
Energy	0.4386	3.9876	3.3496	0.0239		0.3031	0.3031		0.3031	0.3031		4,785.0701	4,785.0701	0.0917	0.0877	4,813.5054
Mobile	21.5938	143.0382	190.2463	0.7133	46.2690	0.6203	46.8893	12.3812	0.5844	12.9656		72,824.8356	72,824.8356	4.6148		72,940.2055
Stationary	0.1941	0.8640	3.4589	0.0212		0.2682	0.2682		0.2682	0.2682		4,235.3665	4,235.3665	0.0812		4,237.3959
Total	**24.8841**	**147.8905**	**197.1359**	**0.7584**	**46.2690**	**1.1919**	**47.4609**	**12.3812**	**1.1560**	**13.5372**		**81,845.4450**	**81,845.4450**	**4.7882**	**0.0877**	**81,991.2912**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.3147	7.5000e-004	0.0812	1.0000e-005		2.9000e-004	2.9000e-004		2.9000e-004	2.9000e-004		0.1729	0.1729	4.6000e-004		0.1845
Energy	0.4386	3.9876	3.3496	0.0239		0.3031	0.3031		0.3031	0.3031		4,785.0701	4,785.0701	0.0917	0.0877	4,813.5054
Mobile	21.5938	143.0382	190.2463	0.7133	46.2690	0.6203	46.8893	12.3812	0.5844	12.9656		72,824.8356	72,824.8356	4.6148		72,940.2055
Stationary	0.1941	0.8640	3.4589	0.0212		0.2682	0.2682		0.2682	0.2682		4,235.3665	4,235.3665	0.0812		4,237.3959
Total	**24.5412**	**147.8905**	**197.1359**	**0.7584**	**46.2690**	**1.1919**	**47.4609**	**12.3812**	**1.1560**	**13.5372**		**81,845.4450**	**81,845.4450**	**4.7882**	**0.0877**	**81,991.2912**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**1.38**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Agua Caliente Cathedral City FTT Casino Project - Alternative C - Riverside-Salton Sea County, Summer

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/1/2019	1/14/2019	5	10	
2	Grading	Grading	1/15/2019	2/25/2019	5	30	
3	Building Construction	Building Construction	2/26/2019	11/5/2019	5	181	
4	Paving	Paving	11/6/2019	12/3/2019	5	20	
5	Architectural Coating	Architectural Coating	12/4/2019	12/31/2019	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 13.68

Acres of Paving: 6.3

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 135,000; Non-Residential Outdoor: 45,000; Striped Parking Area: 16,800 (Architectural Coating – sqft)

OffRoad Equipment

Agua Caliente Cathedral City FTT Casino Project - Alternative C - Riverside-Salton Sea County, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	12,327.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	152.00	61.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	30.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use DPF for Construction Equipment

Use Soil Stabilizer

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	4.3350	45.5727	22.0630	0.0380		2.3904	2.3904		2.1991	2.1991		3,766.4529	3,766.4529	1.1917		3,796.2445
Total	**4.3350**	**45.5727**	**22.0630**	**0.0380**	**18.0663**	**2.3904**	**20.4566**	**9.9307**	**2.1991**	**12.1298**		**3,766.4529**	**3,766.4529**	**1.1917**		**3,796.2445**

3.2 Site Preparation - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0817	0.0471	0.6195	1.5500e-003	0.1506	9.6000e-004	0.1516	0.0400	8.8000e-004	0.0408		154.2784	154.2784	4.4000e-003		154.3884
Total	**0.0817**	**0.0471**	**0.6195**	**1.5500e-003**	**0.1506**	**9.6000e-004**	**0.1516**	**0.0400**	**8.8000e-004**	**0.0408**		**154.2784**	**154.2784**	**4.4000e-003**		**154.3884**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.1298	0.0000	8.1298	4.4688	0.0000	4.4688			0.0000			0.0000
Off-Road	0.9312	19.0656	22.9600	0.0380		0.1419	0.1419		0.1419	0.1419	0.0000	3,766.4529	3,766.4529	1.1917		3,796.2445
Total	**0.9312**	**19.0656**	**22.9600**	**0.0380**	**8.1298**	**0.1419**	**8.2717**	**4.4688**	**0.1419**	**4.6107**	**0.0000**	**3,766.4529**	**3,766.4529**	**1.1917**		**3,796.2445**

3.2 Site Preparation - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0817	0.0471	0.6195	1.5500e-003	0.1506	9.6000e-004	0.1516	0.0400	8.8000e-004	0.0408		154.2784	154.2784	4.4000e-003		154.3884
Total	**0.0817**	**0.0471**	**0.6195**	**1.5500e-003**	**0.1506**	**9.6000e-004**	**0.1516**	**0.0400**	**8.8000e-004**	**0.0408**		**154.2784**	**154.2784**	**4.4000e-003**		**154.3884**

3.3 Grading - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.9219	0.0000	6.9219	3.4255	0.0000	3.4255			0.0000			0.0000
Off-Road	4.7389	54.5202	33.3768	0.0620		2.3827	2.3827		2.1920	2.1920		6,140.0195	6,140.0195	1.9426		6,188.5854
Total	**4.7389**	**54.5202**	**33.3768**	**0.0620**	**6.9219**	**2.3827**	**9.3046**	**3.4255**	**2.1920**	**5.6175**		**6,140.0195**	**6,140.0195**	**1.9426**		**6,188.5854**

3.3 Grading - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	2.3082	104.9685	12.6229	0.3162	7.1888	0.3793	7.5682	1.9707	0.3629	2.3336		33,529.1009	33,529.1009	2.0831		33,581.1795
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0908	0.0524	0.6883	1.7200e-003	0.1673	1.0700e-003	0.1684	0.0444	9.8000e-004	0.0454		171.4204	171.4204	4.8900e-003		171.5427
Total	**2.3990**	**105.0209**	**13.3112**	**0.3179**	**7.3562**	**0.3804**	**7.7366**	**2.0151**	**0.3639**	**2.3790**		**33,700.5213**	**33,700.5213**	**2.0880**		**33,752.7221**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.1149	0.0000	3.1149	1.5415	0.0000	1.5415			0.0000			0.0000
Off-Road	2.9080	41.3897	36.6894	0.0620		1.1249	1.1249		1.0439	1.0439	0.0000	6,140.0195	6,140.0195	1.9426		6,188.5854
Total	**2.9080**	**41.3897**	**36.6894**	**0.0620**	**3.1149**	**1.1249**	**4.2398**	**1.5415**	**1.0439**	**2.5854**	**0.0000**	**6,140.0195**	**6,140.0195**	**1.9426**		**6,188.5854**

3.3 Grading - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	2.3082	104.9685	12.6229	0.3162	7.1888	0.3793	7.5682	1.9707	0.3629	2.3336		33,529.1009	33,529.1009	2.0831		33,581.1795
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0908	0.0524	0.6883	1.7200e-003	0.1673	1.0700e-003	0.1684	0.0444	9.8000e-004	0.0454		171.4204	171.4204	4.8900e-003		171.5427
Total	**2.3990**	**105.0209**	**13.3112**	**0.3179**	**7.3562**	**0.3804**	**7.7366**	**2.0151**	**0.3639**	**2.3790**		**33,700.5213**	**33,700.5213**	**2.0880**		**33,752.7221**

3.4 Building Construction - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.3612	21.0788	17.1638	0.0269		1.2899	1.2899		1.2127	1.2127		2,591.5802	2,591.5802	0.6313		2,607.3635
Total	**2.3612**	**21.0788**	**17.1638**	**0.0269**		**1.2899**	**1.2899**		**1.2127**	**1.2127**		**2,591.5802**	**2,591.5802**	**0.6313**		**2,607.3635**

3.4 Building Construction - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1815	6.3786	1.1875	0.0136	0.3061	0.0419	0.3479	0.0882	0.0401	0.1282		1,432.8288	1,432.8288	0.1312		1,436.1078
Worker	0.6901	0.3980	5.2314	0.0131	1.2717	8.1000e-003	1.2798	0.3373	7.4600e-003	0.3448		1,302.7953	1,302.7953	0.0372		1,303.7242
Total	**0.8716**	**6.7766**	**6.4189**	**0.0267**	**1.5778**	**0.0500**	**1.6278**	**0.4255**	**0.0475**	**0.4730**		**2,735.6241**	**2,735.6241**	**0.1683**		**2,739.8320**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6739	14.2261	17.8738	0.0269		0.1355	0.1355		0.1355	0.1355	0.0000	2,591.5802	2,591.5802	0.6313		2,607.3635
Total	**0.6739**	**14.2261**	**17.8738**	**0.0269**		**0.1355**	**0.1355**		**0.1355**	**0.1355**	**0.0000**	**2,591.5802**	**2,591.5802**	**0.6313**		**2,607.3635**

3.4 Building Construction - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1815	6.3786	1.1875	0.0136	0.3061	0.0419	0.3479	0.0882	0.0401	0.1282		1,432.8288	1,432.8288	0.1312		1,436.1078
Worker	0.6901	0.3980	5.2314	0.0131	1.2717	8.1000e-003	1.2798	0.3373	7.4600e-003	0.3448		1,302.7953	1,302.7953	0.0372		1,303.7242
Total	**0.8716**	**6.7766**	**6.4189**	**0.0267**	**1.5778**	**0.0500**	**1.6278**	**0.4255**	**0.0475**	**0.4730**		**2,735.6241**	**2,735.6241**	**0.1683**		**2,739.8320**

3.5 Paving - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4544	15.2441	14.6648	0.0228		0.8246	0.8246		0.7586	0.7586		2,257.0025	2,257.0025	0.7141		2,274.8548
Paving	0.8253					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.2797**	**15.2441**	**14.6648**	**0.0228**		**0.8246**	**0.8246**		**0.7586**	**0.7586**		**2,257.0025**	**2,257.0025**	**0.7141**		**2,274.8548**

3.5 Paving - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0681	0.0393	0.5163	1.2900e-003	0.1255	8.0000e-004	0.1263	0.0333	7.4000e-004	0.0340		128.5653	128.5653	3.6700e-003		128.6570
Total	**0.0681**	**0.0393**	**0.5163**	**1.2900e-003**	**0.1255**	**8.0000e-004**	**0.1263**	**0.0333**	**7.4000e-004**	**0.0340**		**128.5653**	**128.5653**	**3.6700e-003**		**128.6570**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5609	11.2952	17.2957	0.0228		0.0914	0.0914		0.0914	0.0914	0.0000	2,257.0025	2,257.0025	0.7141		2,274.8548
Paving	0.8253					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.3862**	**11.2952**	**17.2957**	**0.0228**		**0.0914**	**0.0914**		**0.0914**	**0.0914**	**0.0000**	**2,257.0025**	**2,257.0025**	**0.7141**		**2,274.8548**

3.5 Paving - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0681	0.0393	0.5163	1.2900e-003	0.1255	8.0000e-004	0.1263	0.0333	7.4000e-004	0.0340		128.5653	128.5653	3.6700e-003		128.6570
Total	**0.0681**	**0.0393**	**0.5163**	**1.2900e-003**	**0.1255**	**8.0000e-004**	**0.1263**	**0.0333**	**7.4000e-004**	**0.0340**		**128.5653**	**128.5653**	**3.6700e-003**		**128.6570**

3.6 Architectural Coating - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	114.0210					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2664	1.8354	1.8413	2.9700e-003		0.1288	0.1288		0.1288	0.1288		281.4481	281.4481	0.0238		282.0423
Total	**114.2874**	**1.8354**	**1.8413**	**2.9700e-003**		**0.1288**	**0.1288**		**0.1288**	**0.1288**		**281.4481**	**281.4481**	**0.0238**		**282.0423**

3.6 Architectural Coating - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1362	0.0786	1.0325	2.5800e-003	0.2510	1.6000e-003	0.2526	0.0666	1.4700e-003	0.0681		257.1307	257.1307	7.3300e-003		257.3140
Total	**0.1362**	**0.0786**	**1.0325**	**2.5800e-003**	**0.2510**	**1.6000e-003**	**0.2526**	**0.0666**	**1.4700e-003**	**0.0681**		**257.1307**	**257.1307**	**7.3300e-003**		**257.3140**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	114.0210					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0594	1.3570	1.8324	2.9700e-003		0.0143	0.0143		0.0143	0.0143	0.0000	281.4481	281.4481	0.0238		282.0423
Total	**114.0804**	**1.3570**	**1.8324**	**2.9700e-003**		**0.0143**	**0.0143**		**0.0143**	**0.0143**	**0.0000**	**281.4481**	**281.4481**	**0.0238**		**282.0423**

3.6 Architectural Coating - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1362	0.0786	1.0325	2.5800e-003	0.2510	1.6000e-003	0.2526	0.0666	1.4700e-003	0.0681		257.1307	257.1307	7.3300e-003		257.3140
Total	**0.1362**	**0.0786**	**1.0325**	**2.5800e-003**	**0.2510**	**1.6000e-003**	**0.2526**	**0.0666**	**1.4700e-003**	**0.0681**		**257.1307**	**257.1307**	**7.3300e-003**		**257.3140**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	21.5938	143.0382	190.2463	0.7133	46.2690	0.6203	46.8893	12.3812	0.5844	12.9656		72,824.8356	72,824.8356	4.6148		72,940.2055
Unmitigated	21.5938	143.0382	190.2463	0.7133	46.2690	0.6203	46.8893	12.3812	0.5844	12.9656		72,824.8356	72,824.8356	4.6148		72,940.2055

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Fast Food Restaurant w/o Drive Thru	1,991.00	1,991.00	1991.00	3,299,306	3,299,306
Fast Food Restaurant with Drive Thru	2,492.00	2,492.00	2492.00	4,182,220	4,182,220
High Turnover (Sit Down Restaurant)	2,438.04	2,438.04	2438.04	4,555,707	4,555,707
Parking Lot	0.00	0.00	0.00		
Quality Restaurant	1,815.44	1,815.44	1815.44	3,584,289	3,584,289
Regional Shopping Center	2,885.40	2,885.40	2885.40	6,071,596	6,071,596
Total	11,621.88	11,621.88	11,621.88	21,693,117	21,693,117

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Fast Food Restaurant w/o Drive	12.50	4.20	5.40	1.50	79.50	19.00	100	0	0
Fast Food Restaurant with Drive	12.50	4.20	5.40	2.20	78.80	19.00	100	0	0
High Turnover (Sit Down	12.50	4.20	5.40	8.50	72.50	19.00	100	0	0
Parking Lot	12.50	4.20	5.40	0.00	0.00	0.00	0	0	0
Quality Restaurant	12.50	4.20	5.40	12.00	69.00	19.00	100	0	0
Regional Shopping Center	12.50	4.20	5.40	16.30	64.70	19.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Fast Food Restaurant w/o Drive Thru	0.538064	0.038449	0.184390	0.122109	0.017402	0.005339	0.017250	0.067711	0.001365	0.001213	0.004629	0.000959	0.001120
Fast Food Restaurant with Drive Thru	0.538064	0.038449	0.184390	0.122109	0.017402	0.005339	0.017250	0.067711	0.001365	0.001213	0.004629	0.000959	0.001120
High Turnover (Sit Down Restaurant)	0.538064	0.038449	0.184390	0.122109	0.017402	0.005339	0.017250	0.067711	0.001365	0.001213	0.004629	0.000959	0.001120
Parking Lot	0.538064	0.038449	0.184390	0.122109	0.017402	0.005339	0.017250	0.067711	0.001365	0.001213	0.004629	0.000959	0.001120
Quality Restaurant	0.538064	0.038449	0.184390	0.122109	0.017402	0.005339	0.017250	0.067711	0.001365	0.001213	0.004629	0.000959	0.001120
Regional Shopping Center	0.538064	0.038449	0.184390	0.122109	0.017402	0.005339	0.017250	0.067711	0.001365	0.001213	0.004629	0.000959	0.001120

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Install High Efficiency Lighting

Agua Caliente Cathedral City FTT Casino Project - Alternative C - Riverside-Salton Sea County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.4386	3.9876	3.3496	0.0239		0.3031	0.3031		0.3031	0.3031		4,785.0701	4,785.0701	0.0917	0.0877	4,813.5054
NaturalGas Unmitigated	0.4386	3.9876	3.3496	0.0239		0.3031	0.3031		0.3031	0.3031		4,785.0701	4,785.0701	0.0917	0.0877	4,813.5054

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Fast Food Restaurant w/o Drive Thru	1498.3	0.0162	0.1469	0.1234	8.8000e-004		0.0112	0.0112		0.0112	0.0112		176.2708	176.2708	3.3800e-003	3.2300e-003	177.3182
Fast Food Restaurant with Drive Thru	5993.21	0.0646	0.5876	0.4936	3.5300e-003		0.0447	0.0447		0.0447	0.0447		705.0830	705.0830	0.0135	0.0129	709.2730
High Turnover (Sit Down Restaurant)	16481.3	0.1777	1.6158	1.3573	9.6900e-003		0.1228	0.1228		0.1228	0.1228		1,938.9782	1,938.9782	0.0372	0.0356	1,950.5006
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	16481.3	0.1777	1.6158	1.3573	9.6900e-003		0.1228	0.1228		0.1228	0.1228		1,938.9782	1,938.9782	0.0372	0.0356	1,950.5006
Regional Shopping Center	218.959	2.3600e-003	0.0215	0.0180	1.3000e-004		1.6300e-003	1.6300e-003		1.6300e-003	1.6300e-003		25.7599	25.7599	4.9000e-004	4.7000e-004	25.9130
Total		**0.4386**	**3.9876**	**3.3495**	**0.0239**		**0.3031**	**0.3031**		**0.3031**	**0.3031**		**4,785.0701**	**4,785.0701**	**0.0917**	**0.0877**	**4,813.5054**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Fast Food Restaurant w/o Drive Thru	1.4983	0.0162	0.1469	0.1234	8.8000e-004		0.0112	0.0112		0.0112	0.0112		176.2708	176.2708	3.3800e-003	3.2300e-003	177.3182
Fast Food Restaurant with Drive Thru	5.99321	0.0646	0.5876	0.4936	3.5300e-003		0.0447	0.0447		0.0447	0.0447		705.0830	705.0830	0.0135	0.0129	709.2730
High Turnover (Sit Down Restaurant)	16.4813	0.1777	1.6158	1.3573	9.6900e-003		0.1228	0.1228		0.1228	0.1228		1,938.9782	1,938.9782	0.0372	0.0356	1,950.5006
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	16.4813	0.1777	1.6158	1.3573	9.6900e-003		0.1228	0.1228		0.1228	0.1228		1,938.9782	1,938.9782	0.0372	0.0356	1,950.5006
Regional Shopping Center	0.218959	2.3600e-003	0.0215	0.0180	1.3000e-004		1.6300e-003	1.6300e-003		1.6300e-003	1.6300e-003		25.7599	25.7599	4.9000e-004	4.7000e-004	25.9130
Total		**0.4386**	**3.9876**	**3.3495**	**0.0239**		**0.3031**	**0.3031**		**0.3031**	**0.3031**		**4,785.0701**	**4,785.0701**	**0.0917**	**0.0877**	**4,813.5054**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.3147	7.5000e-004	0.0812	1.0000e-005		2.9000e-004	2.9000e-004		2.9000e-004	2.9000e-004		0.1729	0.1729	4.6000e-004		0.1845
Unmitigated	2.6576	7.5000e-004	0.0812	1.0000e-005		2.9000e-004	2.9000e-004		2.9000e-004	2.9000e-004		0.1729	0.1729	4.6000e-004		0.1845

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.6248					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.0252					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	7.6400e-003	7.5000e-004	0.0812	1.0000e-005		2.9000e-004	2.9000e-004		2.9000e-004	2.9000e-004		0.1729	0.1729	4.6000e-004		0.1845
Total	**2.6576**	**7.5000e-004**	**0.0812**	**1.0000e-005**		**2.9000e-004**	**2.9000e-004**		**2.9000e-004**	**2.9000e-004**		**0.1729**	**0.1729**	**4.6000e-004**		**0.1845**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.2819					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.0252					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	7.6400e-003	7.5000e-004	0.0812	1.0000e-005		2.9000e-004	2.9000e-004		2.9000e-004	2.9000e-004		0.1729	0.1729	4.6000e-004		0.1845
Total	**2.3147**	**7.5000e-004**	**0.0812**	**1.0000e-005**		**2.9000e-004**	**2.9000e-004**		**2.9000e-004**	**2.9000e-004**		**0.1729**	**0.1729**	**4.6000e-004**		**0.1845**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Emergency Generator	3	0	30	2923	0.73	Diesel

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
Boiler	3	12	4380	0.5	CNG

User Defined Equipment

Equipment Type	Number

10.1 Stationary Sources

Unmitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	lb/day										lb/day					
Boiler - CNG (0 - 2 MMBTU)	0.1941	0.8640	3.4589	0.0212		0.2682	0.2682		0.2682	0.2682		4,235.3665	4,235.3665	0.0812		4,237.3959
Emergency Generator - Diesel (750 - 9999 HP)	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.1941**	**0.8640**	**3.4589**	**0.0212**		**0.2682**	**0.2682**		**0.2682**	**0.2682**		**4,235.3665**	**4,235.3665**	**0.0812**		**4,237.3959**

11.0 Vegetation

Agua Caliente Cathedral City FTT Casino Project - Alternative C

Riverside-Salton Sea County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	700.00	Space	6.30	280,000.00	0
Fast Food Restaurant w/o Drive Thru	2.00	1000sqft	1.48	2,000.00	0
Fast Food Restaurant with Drive Thru	8.00	1000sqft	1.48	8,000.00	0
High Turnover (Sit Down Restaurant)	22.00	1000sqft	1.48	22,000.00	0
Quality Restaurant	22.00	1000sqft	1.48	22,000.00	0
Regional Shopping Center	36.00	1000sqft	1.48	36,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2020
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Agua Caliente Cathedral City FTT Casino Project - Alternative C - Riverside-Salton Sea County, Winter

Project Characteristics -

Land Use - Project Description; all Retail and Recreational land use acreages are divided into 1.476-acre allotments for the purposes of this analysis.

Construction Phase - Construction phasing based on a 12-month construction schedule.

Grading - MSA Consulting, Inc., 2018c (See Table 2, CalEEMod Inputs)

Vehicle Trips - See Table 3, CalEEMod Inputs. Trip generation rates are derived from the TIS (Appendix TIS).

Energy Use - Electricity energy and natural gas intensity for the user defined recretational land use determined from similar projects and scaled by square footage

Water And Wastewater - Water demand is based off of similar projects and scaled by square footage

Solid Waste -

Construction Off-road Equipment Mitigation - Construction Mitigation

Area Mitigation - MDAQMD Rule 1113 Architectural Coatings (based on nonflat coating)

Energy Mitigation -

Water Mitigation -

Waste Mitigation - Tribe will use the Salton City Landfill's facilities and will divert 50 percent of waste from the landfill.

Stationary Sources - Emergency Generators and Fire Pumps - Based on like project emergency generator size and use

Stationary Sources - Process Boilers - Based on like project boiler size and use

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	250	100
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	100
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3

tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	9.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3

Agua Caliente Cathedral City FTT Casino Project - Alternative C - Riverside-Salton Sea County, Winter

tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	300.00	181.00
tblGrading	AcresOfGrading	75.00	13.68
tblGrading	MaterialImported	0.00	98,613.00
tblLandUse	LotAcreage	0.05	1.48
tblLandUse	LotAcreage	0.18	1.48
tblLandUse	LotAcreage	0.51	1.48
tblLandUse	LotAcreage	0.51	1.48
tblLandUse	LotAcreage	0.83	1.48
tblStationaryBoilersUse	AnnualHeatInput	0.00	4,380.00
tblStationaryBoilersUse	BoilerRatingValue	0.00	0.50
tblStationaryBoilersUse	DailyHeatInput	0.00	12.00
tblStationaryBoilersUse	NumberOfEquipment	0.00	3.00
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	2,923.00
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	30.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	3.00
tblVehicleTrips	DV_TP	37.00	0.00
tblVehicleTrips	DV_TP	21.00	0.00
tblVehicleTrips	DV_TP	20.00	0.00
tblVehicleTrips	DV_TP	18.00	0.00
tblVehicleTrips	DV_TP	35.00	0.00
tblVehicleTrips	PB_TP	12.00	0.00
tblVehicleTrips	PB_TP	50.00	0.00
tblVehicleTrips	PB_TP	43.00	0.00
tblVehicleTrips	PB_TP	44.00	0.00

tblVehicleTrips	PB_TP	11.00	0.00
tblVehicleTrips	PR_TP	51.00	100.00
tblVehicleTrips	PR_TP	29.00	100.00
tblVehicleTrips	PR_TP	37.00	100.00
tblVehicleTrips	PR_TP	38.00	100.00
tblVehicleTrips	PR_TP	54.00	100.00
tblVehicleTrips	ST_TR	696.00	995.50
tblVehicleTrips	ST_TR	722.03	311.50
tblVehicleTrips	ST_TR	158.37	110.82
tblVehicleTrips	ST_TR	94.36	82.52
tblVehicleTrips	ST_TR	49.97	80.15
tblVehicleTrips	SU_TR	500.00	995.50
tblVehicleTrips	SU_TR	542.72	311.50
tblVehicleTrips	SU_TR	131.84	110.82
tblVehicleTrips	SU_TR	72.16	82.52
tblVehicleTrips	SU_TR	25.24	80.15
tblVehicleTrips	WD_TR	716.00	995.50
tblVehicleTrips	WD_TR	496.12	311.50
tblVehicleTrips	WD_TR	127.15	110.82
tblVehicleTrips	WD_TR	89.95	82.52
tblVehicleTrips	WD_TR	42.70	80.15

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	114.4174	160.6004	48.7819	0.3719	18.2169	2.7698	20.6082	9.9706	2.5624	12.1706	0.0000	38,991.5114	38,991.5114	4.2278	0.0000	39,097.2069
Maximum	**114.4174**	**160.6004**	**48.7819**	**0.3719**	**18.2169**	**2.7698**	**20.6082**	**9.9706**	**2.5624**	**12.1706**	**0.0000**	**38,991.5114**	**38,991.5114**	**4.2278**	**0.0000**	**39,097.2069**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	114.2104	147.4699	52.0945	0.3719	10.4710	1.5121	11.9831	4.5088	1.4143	4.9709	0.0000	38,991.5114	38,991.5114	4.2278	0.0000	39,097.2069
Maximum	**114.2104**	**147.4699**	**52.0945**	**0.3719**	**10.4710**	**1.5121**	**11.9831**	**4.5088**	**1.4143**	**4.9709**	**0.0000**	**38,991.5114**	**38,991.5114**	**4.2278**	**0.0000**	**39,097.2069**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.18**	**8.18**	**-6.79**	**0.00**	**42.52**	**45.41**	**41.85**	**54.78**	**44.81**	**59.16**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.6576	7.5000e-004	0.0812	1.0000e-005		2.9000e-004	2.9000e-004		2.9000e-004	2.9000e-004		0.1729	0.1729	4.6000e-004		0.1845
Energy	0.4386	3.9876	3.3496	0.0239		0.3031	0.3031		0.3031	0.3031		4,785.0701	4,785.0701	0.0917	0.0877	4,813.5054
Mobile	18.0614	141.8331	172.1717	0.6555	46.2690	0.6295	46.8985	12.3812	0.5932	12.9744		66,980.2730	66,980.2730	4.8829		67,102.3455
Stationary	0.1941	0.8640	3.4589	0.0212		0.2682	0.2682		0.2682	0.2682		4,235.3665	4,235.3665	0.0812		4,237.3959
Total	**21.3517**	**146.6854**	**179.0613**	**0.7006**	**46.2690**	**1.2011**	**47.4701**	**12.3812**	**1.1647**	**13.5459**		**76,000.8824**	**76,000.8824**	**5.0563**	**0.0877**	**76,153.4312**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.3147	7.5000e-004	0.0812	1.0000e-005		2.9000e-004	2.9000e-004		2.9000e-004	2.9000e-004		0.1729	0.1729	4.6000e-004		0.1845
Energy	0.4386	3.9876	3.3496	0.0239		0.3031	0.3031		0.3031	0.3031		4,785.0701	4,785.0701	0.0917	0.0877	4,813.5054
Mobile	18.0614	141.8331	172.1717	0.6555	46.2690	0.6295	46.8985	12.3812	0.5932	12.9744		66,980.2730	66,980.2730	4.8829		67,102.3455
Stationary	0.1941	0.8640	3.4589	0.0212		0.2682	0.2682		0.2682	0.2682		4,235.3665	4,235.3665	0.0812		4,237.3959
Total	**21.0088**	**146.6854**	**179.0613**	**0.7006**	**46.2690**	**1.2011**	**47.4701**	**12.3812**	**1.1647**	**13.5459**		**76,000.8824**	**76,000.8824**	**5.0563**	**0.0877**	**76,153.4312**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**1.61**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Agua Caliente Cathedral City FTT Casino Project - Alternative C - Riverside-Salton Sea County, Winter

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/1/2019	1/14/2019	5	10	
2	Grading	Grading	1/15/2019	2/25/2019	5	30	
3	Building Construction	Building Construction	2/26/2019	11/5/2019	5	181	
4	Paving	Paving	11/6/2019	12/3/2019	5	20	
5	Architectural Coating	Architectural Coating	12/4/2019	12/31/2019	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 13.68

Acres of Paving: 6.3

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 135,000; Non-Residential Outdoor: 45,000; Striped Parking Area: 16,800 (Architectural Coating – sqft)

OffRoad Equipment

Agua Caliente Cathedral City FTT Casino Project - Alternative C - Riverside-Salton Sea County, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	12,327.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	152.00	61.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	30.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use DPF for Construction Equipment

Use Soil Stabilizer

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	4.3350	45.5727	22.0630	0.0380		2.3904	2.3904		2.1991	2.1991		3,766.4529	3,766.4529	1.1917		3,796.2445
Total	**4.3350**	**45.5727**	**22.0630**	**0.0380**	**18.0663**	**2.3904**	**20.4566**	**9.9307**	**2.1991**	**12.1298**		**3,766.4529**	**3,766.4529**	**1.1917**		**3,796.2445**

3.2 Site Preparation - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0780	0.0488	0.5089	1.3900e-003	0.1506	9.6000e-004	0.1516	0.0400	8.8000e-004	0.0408		138.4827	138.4827	3.8600e-003		138.5791
Total	**0.0780**	**0.0488**	**0.5089**	**1.3900e-003**	**0.1506**	**9.6000e-004**	**0.1516**	**0.0400**	**8.8000e-004**	**0.0408**		**138.4827**	**138.4827**	**3.8600e-003**		**138.5791**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.1298	0.0000	8.1298	4.4688	0.0000	4.4688			0.0000			0.0000
Off-Road	0.9312	19.0656	22.9600	0.0380		0.1419	0.1419		0.1419	0.1419	0.0000	3,766.4529	3,766.4529	1.1917		3,796.2445
Total	**0.9312**	**19.0656**	**22.9600**	**0.0380**	**8.1298**	**0.1419**	**8.2717**	**4.4688**	**0.1419**	**4.6107**	**0.0000**	**3,766.4529**	**3,766.4529**	**1.1917**		**3,796.2445**

3.2 Site Preparation - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0780	0.0488	0.5089	1.3900e-003	0.1506	9.6000e-004	0.1516	0.0400	8.8000e-004	0.0408		138.4827	138.4827	3.8600e-003		138.5791
Total	**0.0780**	**0.0488**	**0.5089**	**1.3900e-003**	**0.1506**	**9.6000e-004**	**0.1516**	**0.0400**	**8.8000e-004**	**0.0408**		**138.4827**	**138.4827**	**3.8600e-003**		**138.5791**

3.3 Grading - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.9219	0.0000	6.9219	3.4255	0.0000	3.4255			0.0000			0.0000
Off-Road	4.7389	54.5202	33.3768	0.0620		2.3827	2.3827		2.1920	2.1920		6,140.0195	6,140.0195	1.9426		6,188.5854
Total	**4.7389**	**54.5202**	**33.3768**	**0.0620**	**6.9219**	**2.3827**	**9.3046**	**3.4255**	**2.1920**	**5.6175**		**6,140.0195**	**6,140.0195**	**1.9426**		**6,188.5854**

3.3 Grading - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	2.4270	106.0260	14.8397	0.3083	7.1888	0.3861	7.5749	1.9707	0.3694	2.3401		32,697.6223	32,697.6223	2.2809		32,754.6447
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0866	0.0542	0.5655	1.5500e-003	0.1673	1.0700e-003	0.1684	0.0444	9.8000e-004	0.0454		153.8697	153.8697	4.2900e-003		153.9768
Total	**2.5136**	**106.0802**	**15.4051**	**0.3099**	**7.3562**	**0.3872**	**7.7433**	**2.0151**	**0.3704**	**2.3855**		**32,851.4920**	**32,851.4920**	**2.2852**		**32,908.6215**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.1149	0.0000	3.1149	1.5415	0.0000	1.5415			0.0000			0.0000
Off-Road	2.9080	41.3897	36.6894	0.0620		1.1249	1.1249		1.0439	1.0439	0.0000	6,140.0195	6,140.0195	1.9426		6,188.5854
Total	**2.9080**	**41.3897**	**36.6894**	**0.0620**	**3.1149**	**1.1249**	**4.2398**	**1.5415**	**1.0439**	**2.5854**	**0.0000**	**6,140.0195**	**6,140.0195**	**1.9426**		**6,188.5854**

3.3 Grading - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	2.4270	106.0260	14.8397	0.3083	7.1888	0.3861	7.5749	1.9707	0.3694	2.3401		32,697.6223	32,697.6223	2.2809		32,754.6447
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0866	0.0542	0.5655	1.5500e-003	0.1673	1.0700e-003	0.1684	0.0444	9.8000e-004	0.0454		153.8697	153.8697	4.2900e-003		153.9768
Total	**2.5136**	**106.0802**	**15.4051**	**0.3099**	**7.3562**	**0.3872**	**7.7433**	**2.0151**	**0.3704**	**2.3855**		**32,851.4920**	**32,851.4920**	**2.2852**		**32,908.6215**

3.4 Building Construction - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.3612	21.0788	17.1638	0.0269		1.2899	1.2899		1.2127	1.2127		2,591.5802	2,591.5802	0.6313		2,607.3635
Total	**2.3612**	**21.0788**	**17.1638**	**0.0269**		**1.2899**	**1.2899**		**1.2127**	**1.2127**		**2,591.5802**	**2,591.5802**	**0.6313**		**2,607.3635**

3.4 Building Construction - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1915	6.3332	1.4003	0.0130	0.3061	0.0425	0.3486	0.0882	0.0407	0.1288		1,369.6085	1,369.6085	0.1462		1,373.2632
Worker	0.6583	0.4120	4.2974	0.0117	1.2717	8.1000e-003	1.2798	0.3373	7.4600e-003	0.3448		1,169.4094	1,169.4094	0.0326		1,170.2237
Total	**0.8498**	**6.7452**	**5.6977**	**0.0247**	**1.5778**	**0.0506**	**1.6284**	**0.4255**	**0.0481**	**0.4736**		**2,539.0179**	**2,539.0179**	**0.1788**		**2,543.4869**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6739	14.2261	17.8738	0.0269		0.1355	0.1355		0.1355	0.1355	0.0000	2,591.5802	2,591.5802	0.6313		2,607.3635
Total	**0.6739**	**14.2261**	**17.8738**	**0.0269**		**0.1355**	**0.1355**		**0.1355**	**0.1355**	**0.0000**	**2,591.5802**	**2,591.5802**	**0.6313**		**2,607.3635**

3.4 Building Construction - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1915	6.3332	1.4003	0.0130	0.3061	0.0425	0.3486	0.0882	0.0407	0.1288		1,369.6085	1,369.6085	0.1462		1,373.2632
Worker	0.6583	0.4120	4.2974	0.0117	1.2717	8.1000e-003	1.2798	0.3373	7.4600e-003	0.3448		1,169.4094	1,169.4094	0.0326		1,170.2237
Total	**0.8498**	**6.7452**	**5.6977**	**0.0247**	**1.5778**	**0.0506**	**1.6284**	**0.4255**	**0.0481**	**0.4736**		**2,539.0179**	**2,539.0179**	**0.1788**		**2,543.4869**

3.5 Paving - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4544	15.2441	14.6648	0.0228		0.8246	0.8246		0.7586	0.7586		2,257.0025	2,257.0025	0.7141		2,274.8548
Paving	0.8253					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.2797**	**15.2441**	**14.6648**	**0.0228**		**0.8246**	**0.8246**		**0.7586**	**0.7586**		**2,257.0025**	**2,257.0025**	**0.7141**		**2,274.8548**

3.5 Paving - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0650	0.0407	0.4241	1.1600e-003	0.1255	8.0000e-004	0.1263	0.0333	7.4000e-004	0.0340		115.4022	115.4022	3.2100e-003		115.4826
Total	**0.0650**	**0.0407**	**0.4241**	**1.1600e-003**	**0.1255**	**8.0000e-004**	**0.1263**	**0.0333**	**7.4000e-004**	**0.0340**		**115.4022**	**115.4022**	**3.2100e-003**		**115.4826**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5609	11.2952	17.2957	0.0228		0.0914	0.0914		0.0914	0.0914	0.0000	2,257.0025	2,257.0025	0.7141		2,274.8548
Paving	0.8253					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.3862**	**11.2952**	**17.2957**	**0.0228**		**0.0914**	**0.0914**		**0.0914**	**0.0914**	**0.0000**	**2,257.0025**	**2,257.0025**	**0.7141**		**2,274.8548**

3.5 Paving - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0650	0.0407	0.4241	1.1600e-003	0.1255	8.0000e-004	0.1263	0.0333	7.4000e-004	0.0340		115.4022	115.4022	3.2100e-003		115.4826
Total	**0.0650**	**0.0407**	**0.4241**	**1.1600e-003**	**0.1255**	**8.0000e-004**	**0.1263**	**0.0333**	**7.4000e-004**	**0.0340**		**115.4022**	**115.4022**	**3.2100e-003**		**115.4826**

3.6 Architectural Coating - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	114.0210					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2664	1.8354	1.8413	2.9700e-003		0.1288	0.1288		0.1288	0.1288		281.4481	281.4481	0.0238		282.0423
Total	**114.2874**	**1.8354**	**1.8413**	**2.9700e-003**		**0.1288**	**0.1288**		**0.1288**	**0.1288**		**281.4481**	**281.4481**	**0.0238**		**282.0423**

3.6 Architectural Coating - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1299	0.0813	0.8482	2.3200e-003	0.2510	1.6000e-003	0.2526	0.0666	1.4700e-003	0.0681		230.8045	230.8045	6.4300e-003		230.9652
Total	**0.1299**	**0.0813**	**0.8482**	**2.3200e-003**	**0.2510**	**1.6000e-003**	**0.2526**	**0.0666**	**1.4700e-003**	**0.0681**		**230.8045**	**230.8045**	**6.4300e-003**		**230.9652**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	114.0210					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0594	1.3570	1.8324	2.9700e-003		0.0143	0.0143		0.0143	0.0143	0.0000	281.4481	281.4481	0.0238		282.0423
Total	**114.0804**	**1.3570**	**1.8324**	**2.9700e-003**		**0.0143**	**0.0143**		**0.0143**	**0.0143**	**0.0000**	**281.4481**	**281.4481**	**0.0238**		**282.0423**

3.6 Architectural Coating - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1299	0.0813	0.8482	2.3200e-003	0.2510	1.6000e-003	0.2526	0.0666	1.4700e-003	0.0681		230.8045	230.8045	6.4300e-003		230.9652
Total	**0.1299**	**0.0813**	**0.8482**	**2.3200e-003**	**0.2510**	**1.6000e-003**	**0.2526**	**0.0666**	**1.4700e-003**	**0.0681**		**230.8045**	**230.8045**	**6.4300e-003**		**230.9652**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	18.0614	141.8331	172.1717	0.6555	46.2690	0.6295	46.8985	12.3812	0.5932	12.9744		66,980.2730	66,980.2730	4.8829		67,102.3455
Unmitigated	18.0614	141.8331	172.1717	0.6555	46.2690	0.6295	46.8985	12.3812	0.5932	12.9744		66,980.2730	66,980.2730	4.8829		67,102.3455

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Fast Food Restaurant w/o Drive Thru	1,991.00	1,991.00	1991.00	3,299,306	3,299,306
Fast Food Restaurant with Drive Thru	2,492.00	2,492.00	2492.00	4,182,220	4,182,220
High Turnover (Sit Down Restaurant)	2,438.04	2,438.04	2438.04	4,555,707	4,555,707
Parking Lot	0.00	0.00	0.00		
Quality Restaurant	1,815.44	1,815.44	1815.44	3,584,289	3,584,289
Regional Shopping Center	2,885.40	2,885.40	2885.40	6,071,596	6,071,596
Total	11,621.88	11,621.88	11,621.88	21,693,117	21,693,117

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Fast Food Restaurant w/o Drive	12.50	4.20	5.40	1.50	79.50	19.00	100	0	0
Fast Food Restaurant with Drive	12.50	4.20	5.40	2.20	78.80	19.00	100	0	0
High Turnover (Sit Down	12.50	4.20	5.40	8.50	72.50	19.00	100	0	0
Parking Lot	12.50	4.20	5.40	0.00	0.00	0.00	0	0	0
Quality Restaurant	12.50	4.20	5.40	12.00	69.00	19.00	100	0	0
Regional Shopping Center	12.50	4.20	5.40	16.30	64.70	19.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Fast Food Restaurant w/o Drive Thru	0.538064	0.038449	0.184390	0.122109	0.017402	0.005339	0.017250	0.067711	0.001365	0.001213	0.004629	0.000959	0.001120
Fast Food Restaurant with Drive Thru	0.538064	0.038449	0.184390	0.122109	0.017402	0.005339	0.017250	0.067711	0.001365	0.001213	0.004629	0.000959	0.001120
High Turnover (Sit Down Restaurant)	0.538064	0.038449	0.184390	0.122109	0.017402	0.005339	0.017250	0.067711	0.001365	0.001213	0.004629	0.000959	0.001120
Parking Lot	0.538064	0.038449	0.184390	0.122109	0.017402	0.005339	0.017250	0.067711	0.001365	0.001213	0.004629	0.000959	0.001120
Quality Restaurant	0.538064	0.038449	0.184390	0.122109	0.017402	0.005339	0.017250	0.067711	0.001365	0.001213	0.004629	0.000959	0.001120
Regional Shopping Center	0.538064	0.038449	0.184390	0.122109	0.017402	0.005339	0.017250	0.067711	0.001365	0.001213	0.004629	0.000959	0.001120

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Install High Efficiency Lighting

Agua Caliente Cathedral City FTT Casino Project - Alternative C - Riverside-Salton Sea County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.4386	3.9876	3.3496	0.0239		0.3031	0.3031		0.3031	0.3031		4,785.0701	4,785.0701	0.0917	0.0877	4,813.5054
NaturalGas Unmitigated	0.4386	3.9876	3.3496	0.0239		0.3031	0.3031		0.3031	0.3031		4,785.0701	4,785.0701	0.0917	0.0877	4,813.5054

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Fast Food Restaurant w/o Drive Thru	1498.3	0.0162	0.1469	0.1234	8.8000e-004		0.0112	0.0112		0.0112	0.0112		176.2708	176.2708	3.3800e-003	3.2300e-003	177.3182
Fast Food Restaurant with Drive Thru	5993.21	0.0646	0.5876	0.4936	3.5300e-003		0.0447	0.0447		0.0447	0.0447		705.0830	705.0830	0.0135	0.0129	709.2730
High Turnover (Sit Down Restaurant)	16481.3	0.1777	1.6158	1.3573	9.6900e-003		0.1228	0.1228		0.1228	0.1228		1,938.9782	1,938.9782	0.0372	0.0356	1,950.5006
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	16481.3	0.1777	1.6158	1.3573	9.6900e-003		0.1228	0.1228		0.1228	0.1228		1,938.9782	1,938.9782	0.0372	0.0356	1,950.5006
Regional Shopping Center	218.959	2.3600e-003	0.0215	0.0180	1.3000e-004		1.6300e-003	1.6300e-003		1.6300e-003	1.6300e-003		25.7599	25.7599	4.9000e-004	4.7000e-004	25.9130
Total		**0.4386**	**3.9876**	**3.3495**	**0.0239**		**0.3031**	**0.3031**		**0.3031**	**0.3031**		**4,785.0701**	**4,785.0701**	**0.0917**	**0.0877**	**4,813.5054**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Fast Food Restaurant w/o Drive Thru	1.4983	0.0162	0.1469	0.1234	8.8000e-004		0.0112	0.0112		0.0112	0.0112		176.2708	176.2708	3.3800e-003	3.2300e-003	177.3182
Fast Food Restaurant with Drive Thru	5.99321	0.0646	0.5876	0.4936	3.5300e-003		0.0447	0.0447		0.0447	0.0447		705.0830	705.0830	0.0135	0.0129	709.2730
High Turnover (Sit Down Restaurant)	16.4813	0.1777	1.6158	1.3573	9.6900e-003		0.1228	0.1228		0.1228	0.1228		1,938.9782	1,938.9782	0.0372	0.0356	1,950.5006
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	16.4813	0.1777	1.6158	1.3573	9.6900e-003		0.1228	0.1228		0.1228	0.1228		1,938.9782	1,938.9782	0.0372	0.0356	1,950.5006
Regional Shopping Center	0.218959	2.3600e-003	0.0215	0.0180	1.3000e-004		1.6300e-003	1.6300e-003		1.6300e-003	1.6300e-003		25.7599	25.7599	4.9000e-004	4.7000e-004	25.9130
Total		**0.4386**	**3.9876**	**3.3495**	**0.0239**		**0.3031**	**0.3031**		**0.3031**	**0.3031**		**4,785.0701**	**4,785.0701**	**0.0917**	**0.0877**	**4,813.5054**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.3147	7.5000e-004	0.0812	1.0000e-005		2.9000e-004	2.9000e-004		2.9000e-004	2.9000e-004		0.1729	0.1729	4.6000e-004		0.1845
Unmitigated	2.6576	7.5000e-004	0.0812	1.0000e-005		2.9000e-004	2.9000e-004		2.9000e-004	2.9000e-004		0.1729	0.1729	4.6000e-004		0.1845

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.6248					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.0252					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	7.6400e-003	7.5000e-004	0.0812	1.0000e-005		2.9000e-004	2.9000e-004		2.9000e-004	2.9000e-004		0.1729	0.1729	4.6000e-004		0.1845
Total	**2.6576**	**7.5000e-004**	**0.0812**	**1.0000e-005**		**2.9000e-004**	**2.9000e-004**		**2.9000e-004**	**2.9000e-004**		**0.1729**	**0.1729**	**4.6000e-004**		**0.1845**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.2819					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.0252					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	7.6400e-003	7.5000e-004	0.0812	1.0000e-005		2.9000e-004	2.9000e-004		2.9000e-004	2.9000e-004		0.1729	0.1729	4.6000e-004		0.1845
Total	**2.3147**	**7.5000e-004**	**0.0812**	**1.0000e-005**		**2.9000e-004**	**2.9000e-004**		**2.9000e-004**	**2.9000e-004**		**0.1729**	**0.1729**	**4.6000e-004**		**0.1845**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Emergency Generator	3	0	30	2923	0.73	Diesel

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
Boiler	3	12	4380	0.5	CNG

User Defined Equipment

Equipment Type	Number

10.1 Stationary Sources

Unmitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	lb/day										lb/day					
Boiler - CNG (0 - 2 MMBTU)	0.1941	0.8640	3.4589	0.0212		0.2682	0.2682		0.2682	0.2682		4,235.3665	4,235.3665	0.0812		4,237.3959
Emergency Generator - Diesel (750 - 9999 HP)	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.1941**	**0.8640**	**3.4589**	**0.0212**		**0.2682**	**0.2682**		**0.2682**	**0.2682**		**4,235.3665**	**4,235.3665**	**0.0812**		**4,237.3959**

11.0 Vegetation

Agua Caliente Cathedral City FTT Casino Project - Alternative C

Riverside-Salton Sea County, Mitigation Report

Construction Mitigation Summary

Phase	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Architectural Coating	0.00	0.25	0.00	0.00	0.88	0.88	0.00	0.00	0.00	0.00	0.00	0.00
Building Construction	0.53	0.25	-0.03	0.00	0.86	0.85	0.00	0.00	0.00	0.00	0.00	0.00
Grading	0.26	0.08	-0.07	0.00	0.45	0.45	0.00	0.00	0.00	0.00	0.00	0.00
Paving	0.38	0.26	-0.17	0.00	0.89	0.88	0.00	0.00	0.00	0.00	0.00	0.00
Site Preparation	0.77	0.58	-0.04	0.00	0.94	0.94	0.00	0.00	0.00	0.00	0.00	0.00

OFFROAD Equipment Mitigation

Equipment Type	Fuel Type	Tier	Number Mitigated	Total Number of Equipment	DPF	Oxidation Catalyst
Air Compressors	Diesel	Tier 3	1	1	Level 3	0.00
Cranes	Diesel	Tier 3	1	1	Level 3	0.00
Excavators	Diesel	Tier 3	2	2	Level 3	0.00
Forklifts	Diesel	Tier 3	3	3	Level 3	0.00
Generator Sets	Diesel	Tier 3	1	1	Level 3	0.00
Graders	Diesel	Tier 3	1	1	Level 3	0.00
Pavers	Diesel	Tier 3	2	2	Level 3	0.00
Paving Equipment	Diesel	Tier 3	2	2	Level 3	0.00
Rollers	Diesel	Tier 3	2	2	Level 3	0.00
Rubber Tired Dozers	Diesel	Tier 3	4	4	Level 3	0.00
Scrapers	Diesel	No Change	0	2	No Change	0.00
Tractors/Loaders/Backhoes	Diesel	Tier 3	9	9	Level 3	0.00
Welders	Diesel	Tier 3	1	1	Level 3	0.00

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	Unmitigated tons/yr						Unmitigated mt/yr					
Air Compressors	2.66000E-003	1.83500E-002	1.84100E-002	3.00000E-005	1.29000E-003	1.29000E-003	0.00000E+000	2.55325E+000	2.55325E+000	2.20000E-004	0.00000E+000	2.55865E+000
Cranes	3.99100E-002	4.75680E-001	1.81580E-001	4.60000E-004	2.01600E-002	1.85500E-002	0.00000E+000	4.10345E+001	4.10345E+001	1.29800E-002	0.00000E+000	4.13590E+001
Excavators	7.82000E-003	8.04600E-002	9.79000E-002	1.50000E-004	3.88000E-003	3.57000E-003	0.00000E+000	1.39106E+001	1.39106E+001	4.40000E-003	0.00000E+000	1.40206E+001
Forklifts	4.34300E-002	3.87790E-001	3.24220E-001	4.10000E-004	3.00400E-002	2.76400E-002	0.00000E+000	3.72703E+001	3.72703E+001	1.17900E-002	0.00000E+000	3.75651E+001
Generator Sets	4.01800E-002	3.41900E-001	3.36940E-001	6.00000E-004	2.04400E-002	2.04400E-002	0.00000E+000	5.11513E+001	5.11513E+001	3.24000E-003	0.00000E+000	5.12323E+001
Graders	7.30000E-003	9.86900E-002	2.75700E-002	1.00000E-004	3.17000E-003	2.91000E-003	0.00000E+000	8.94884E+000	8.94884E+000	2.83000E-003	0.00000E+000	9.01962E+000
Pavers	5.75000E-003	6.24900E-002	5.80300E-002	9.00000E-005	3.06000E-003	2.82000E-003	0.00000E+000	8.44586E+000	8.44586E+000	2.67000E-003	0.00000E+000	8.51266E+000
Paving Equipment	4.26000E-003	4.51300E-002	5.04700E-002	8.00000E-005	2.24000E-003	2.06000E-003	0.00000E+000	7.31770E+000	7.31770E+000	2.32000E-003	0.00000E+000	7.37558E+000
Rollers	4.53000E-003	4.48200E-002	3.81500E-002	5.00000E-005	2.95000E-003	2.71000E-003	0.00000E+000	4.71162E+000	4.71162E+000	1.49000E-003	0.00000E+000	4.74889E+000
Rubber Tired Dozers	3.40400E-002	3.62230E-001	1.28520E-001	2.60000E-004	1.76600E-002	1.62500E-002	0.00000E+000	2.30088E+001	2.30088E+001	7.28000E-003	0.00000E+000	2.31908E+001
Scrapers	3.19600E-002	3.87420E-001	2.41840E-001	4.50000E-004	1.51800E-002	1.39700E-002	0.00000E+000	4.08183E+001	4.08183E+001	1.29100E-002	0.00000E+000	4.11411E+001
Tractors/Loaders/ Backhoes	6.69500E-002	6.72140E-001	6.62160E-001	8.90000E-004	4.48700E-002	4.12800E-002	0.00000E+000	8.02292E+001	8.02292E+001	2.53800E-002	0.00000E+000	8.08638E+001
Welders	3.48600E-002	1.47000E-001	1.63550E-001	2.30000E-004	9.02000E-003	9.02000E-003	0.00000E+000	1.70340E+001	1.70340E+001	2.85000E-003	0.00000E+000	1.71052E+001

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	Mitigated tons/yr						Mitigated mt/yr					
Air Compressors	5.90000E-004	1.35700E-002	1.83200E-002	3.00000E-005	1.40000E-004	1.40000E-004	0.00000E+000	2.55325E+000	2.55325E+000	2.20000E-004	0.00000E+000	2.55864E+000
Cranes	1.12300E-002	2.17060E-001	2.43260E-001	4.60000E-004	1.23000E-003	1.23000E-003	0.00000E+000	4.10344E+001	4.10344E+001	1.29800E-002	0.00000E+000	4.13590E+001
Excavators	3.81000E-003	7.37000E-002	1.17540E-001	1.50000E-004	5.30000E-004	5.30000E-004	0.00000E+000	1.39105E+001	1.39105E+001	4.40000E-003	0.00000E+000	1.40206E+001
Forklifts	1.02300E-002	2.33540E-001	3.15370E-001	4.10000E-004	2.45000E-003	2.45000E-003	0.00000E+000	3.72703E+001	3.72703E+001	1.17900E-002	0.00000E+000	3.75651E+001
Generator Sets	1.19100E-002	2.71850E-001	3.67100E-001	6.00000E-004	2.86000E-003	2.86000E-003	0.00000E+000	5.11512E+001	5.11512E+001	3.24000E-003	0.00000E+000	5.12322E+001
Graders	2.43000E-003	4.70600E-002	5.27400E-002	1.00000E-004	2.70000E-004	2.70000E-004	0.00000E+000	8.94883E+000	8.94883E+000	2.83000E-003	0.00000E+000	9.01961E+000
Pavers	2.31000E-003	4.46800E-002	7.12600E-002	9.00000E-005	3.20000E-004	3.20000E-004	0.00000E+000	8.44585E+000	8.44585E+000	2.67000E-003	0.00000E+000	8.51265E+000
Paving Equipment	2.01000E-003	3.88900E-002	6.20200E-002	8.00000E-005	2.80000E-004	2.80000E-004	0.00000E+000	7.31769E+000	7.31769E+000	2.32000E-003	0.00000E+000	7.37557E+000
Rollers	1.29000E-003	2.93800E-002	3.96800E-002	5.00000E-005	3.10000E-004	3.10000E-004	0.00000E+000	4.71162E+000	4.71162E+000	1.49000E-003	0.00000E+000	4.74888E+000
Rubber Tired Dozers	6.27000E-003	1.21280E-001	1.35920E-001	2.60000E-004	6.90000E-004	6.90000E-004	0.00000E+000	2.30088E+001	2.30088E+001	7.28000E-003	0.00000E+000	2.31908E+001
Scrapers	3.19600E-002	3.87410E-001	2.41840E-001	4.50000E-004	1.51800E-002	1.39700E-002	0.00000E+000	4.08182E+001	4.08182E+001	1.29100E-002	0.00000E+000	4.11411E+001
Tractors/Loaders/Backhoes	2.18400E-002	4.98750E-001	6.73490E-001	8.90000E-004	5.24000E-003	5.24000E-003	0.00000E+000	8.02291E+001	8.02291E+001	2.53800E-002	0.00000E+000	8.08637E+001
Welders	9.58000E-003	1.52980E-001	1.35460E-001	2.30000E-004	1.39000E-003	1.39000E-003	0.00000E+000	1.70340E+001	1.70340E+001	2.85000E-003	0.00000E+000	1.71051E+001

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Air Compressors	7.78195E-001	2.60490E-001	4.88865E-003	0.00000E+000	8.91473E-001	8.91473E-001	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	3.90831E-006
Cranes	7.18617E-001	5.43685E-001	-3.39685E-001	0.00000E+000	9.38988E-001	9.33693E-001	0.00000E+000	1.21849E-006	1.21849E-006	0.00000E+000	0.00000E+000	1.20893E-006
Excavators	5.12788E-001	8.40169E-002	-2.00613E-001	0.00000E+000	8.63402E-001	8.51541E-001	0.00000E+000	1.43776E-006	1.43776E-006	0.00000E+000	0.00000E+000	1.42647E-006
Forklifts	7.64449E-001	3.97767E-001	2.72963E-002	0.00000E+000	9.18442E-001	9.11360E-001	0.00000E+000	1.34155E-006	1.34155E-006	0.00000E+000	0.00000E+000	1.06482E-006
Generator Sets	7.03584E-001	2.04884E-001	-8.95115E-002	0.00000E+000	8.60078E-001	8.60078E-001	0.00000E+000	1.17299E-006	1.17299E-006	0.00000E+000	0.00000E+000	1.17114E-006
Graders	6.67123E-001	5.23153E-001	-9.12949E-001	0.00000E+000	9.14826E-001	9.07216E-001	0.00000E+000	1.11746E-006	1.11746E-006	0.00000E+000	0.00000E+000	1.10869E-006
Pavers	5.98261E-001	2.85006E-001	-2.27986E-001	0.00000E+000	8.95425E-001	8.86525E-001	0.00000E+000	1.18401E-006	1.18401E-006	0.00000E+000	0.00000E+000	1.17472E-006
Paving Equipment	5.28169E-001	1.38267E-001	-2.28849E-001	0.00000E+000	8.75000E-001	8.64078E-001	0.00000E+000	1.36655E-006	1.36655E-006	0.00000E+000	0.00000E+000	1.35583E-006
Rollers	7.15232E-001	3.44489E-001	-4.01048E-002	0.00000E+000	8.94915E-001	8.85609E-001	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	2.10576E-006
Rubber Tired Dozers	8.15805E-001	6.65185E-001	-5.75786E-002	0.00000E+000	9.60929E-001	9.57538E-001	0.00000E+000	8.69233E-007	8.69233E-007	0.00000E+000	0.00000E+000	1.29362E-006
Scrapers	0.00000E+000	2.58118E-005	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	9.79954E-007	9.79954E-007	0.00000E+000	0.00000E+000	1.21533E-006
Tractors/Loaders/Backhoes	6.73786E-001	2.57967E-001	-1.71107E-002	0.00000E+000	8.83218E-001	8.73062E-001	0.00000E+000	1.24643E-006	1.24643E-006	0.00000E+000	0.00000E+000	1.23665E-006
Welders	7.25186E-001	-4.06803E-002	1.71752E-001	0.00000E+000	8.45898E-001	8.45898E-001	0.00000E+000	1.17412E-006	1.17412E-006	0.00000E+000	0.00000E+000	1.16924E-006

Fugitive Dust Mitigation

Yes/No	Mitigation Measure	Mitigation Input		Mitigation Input		Mitigation Input	
Yes	Soil Stabilizer for unpaved Roads	PM10 Reduction	10.00	PM2.5 Reduction	10.00		
No	Replace Ground Cover of Area Disturbed	PM10 Reduction	0.00	PM2.5 Reduction	0.00		
Yes	Water Exposed Area	PM10 Reduction	55.00	PM2.5 Reduction	55.00	Frequency (per day)	2.00

No	Unpaved Road Mitigation	Moisture Content %	0.00	Vehicle Speed (mph)	15.00		
No	Clean Paved Road	% PM Reduction	0.00				

		Unmitigated		Mitigated		Percent Reduction	
Phase	Source	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5
Architectural Coating	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Architectural Coating	Roads	0.00	0.00	0.00	0.00	0.00	0.00
Building Construction	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Building Construction	Roads	0.14	0.04	0.14	0.04	0.00	0.00
Grading	Fugitive Dust	0.10	0.05	0.05	0.02	0.55	0.55
Grading	Roads	0.11	0.03	0.11	0.03	0.00	0.00
Paving	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Paving	Roads	0.00	0.00	0.00	0.00	0.00	0.00
Site Preparation	Fugitive Dust	0.09	0.05	0.04	0.02	0.55	0.55
Site Preparation	Roads	0.00	0.00	0.00	0.00	0.00	0.00

Operational Percent Reduction Summary

Category	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Architectural Coating	54.88	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electricity	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.38	3.38	3.37	3.53	3.38
Hearth	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Landscaping	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mobile	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Natural Gas	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Water Indoor	0.00	0.00	0.00	0.00	0.00	0.00	20.00	17.86	17.99	19.99	19.91	18.34
Water Outdoor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Operational Mobile Mitigation

Project Setting:

Mitigation	Category	Measure	% Reduction	Input Value 1	Input Value 2	Input Value
No	Land Use	Increase Density	0.00			
No	Land Use	Increase Diversity	0.14	0.39		
No	Land Use	Improve Walkability Design	0.00			
No	Land Use	Improve Destination Accessibility	0.00			
No	Land Use	Increase Transit Accessibility	0.25			
No	Land Use	Integrate Below Market Rate Housing	0.00			
	Land Use	Land Use SubTotal	0.00			

No	Neighborhood Enhancements	Improve Pedestrian Network				
No	Neighborhood Enhancements	Provide Traffic Calming Measures				
No	Neighborhood Enhancements	Implement NEV Network	0.00			
	Neighborhood Enhancements	Neighborhood Enhancements Subtotal	0.00			
No	Parking Policy Pricing	Limit Parking Supply	0.00			
No	Parking Policy Pricing	Unbundle Parking Costs	0.00			
No	Parking Policy Pricing	On-street Market Pricing	0.00			
	Parking Policy Pricing	Parking Policy Pricing Subtotal	0.00			
No	Transit Improvements	Provide BRT System	0.00			
No	Transit Improvements	Expand Transit Network	0.00			
No	Transit Improvements	Increase Transit Frequency	0.00			
	Transit Improvements	Transit Improvements Subtotal	0.00			
		Land Use and Site Enhancement Subtotal	0.00			
No	Commute	Implement Trip Reduction Program				
No	Commute	Transit Subsidy				
No	Commute	Implement Employee Parking "Cash Out"				
No	Commute	Workplace Parking Charge				
No	Commute	Encourage Telecommuting and Alternative Work Schedules	0.00			
No	Commute	Market Commute Trip Reduction Option	0.00			
No	Commute	Employee Vanpool/Shuttle	0.00		2.00	
No	Commute	Provide Ride Sharing Program				
	Commute	Commute Subtotal	0.00			

No	School Trip	Implement School Bus Program	0.00			
		Total VMT Reduction	0.00			

Area Mitigation

Measure Implemented	Mitigation Measure	Input Value
No	Only Natural Gas Hearth	
No	No Hearth	
No	Use Low VOC Cleaning Supplies	
No	Use Low VOC Paint (Residential Interior)	250.00
No	Use Low VOC Paint (Residential Exterior)	250.00
Yes	Use Low VOC Paint (Non-residential Interior)	100.00
Yes	Use Low VOC Paint (Non-residential Exterior)	100.00
No	Use Low VOC Paint (Parking)	250.00
No	% Electric Lawnmower	0.00
No	% Electric Leafblower	0.00
No	% Electric Chainsaw	0.00

Energy Mitigation Measures

Measure Implemented	Mitigation Measure	Input Value 1	Input Value 2
No	Exceed Title 24	0.00	
Yes	Install High Efficiency Lighting	16.00	
No	On-site Renewable	0.00	0.00

Appliance Type	Land Use Subtype	% Improvement
ClothWasher		30.00
DishWasher		15.00
Fan		50.00
Refrigerator		15.00

Water Mitigation Measures

Measure Implemented	Mitigation Measure	Input Value 1	Input Value 2
No	Apply Water Conservation on Strategy	0.00	0.00
No	Use Reclaimed Water	0.00	0.00
No	Use Grey Water	0.00	
Yes	Install low-flow bathroom faucet	32.00	
Yes	Install low-flow Kitchen faucet	18.00	
Yes	Install low-flow Toilet	20.00	
Yes	Install low-flow Shower	20.00	
No	Turf Reduction	0.00	
No	Use Water Efficient Irrigation Systems	6.10	
No	Water Efficient Landscape	0.00	0.00

Solid Waste Mitigation

Mitigation Measures	Input Value

Institute Recycling and Composting Services Percent Reduction in Waste Disposed	50.00

Agua Caliente Cathedral City FTT Casino Project - Alternative C Cumulative

Riverside-Salton Sea County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	700.00	Space	6.30	280,000.00	0
Fast Food Restaurant w/o Drive Thru	2.00	1000sqft	1.48	2,000.00	0
Fast Food Restaurant with Drive Thru	8.00	1000sqft	1.48	8,000.00	0
High Turnover (Sit Down Restaurant)	22.00	1000sqft	1.48	22,000.00	0
Quality Restaurant	22.00	1000sqft	1.48	22,000.00	0
Regional Shopping Center	36.00	1000sqft	1.48	36,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2040
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Agua Caliente Cathedral City FTT Casino Project - Alternative C Cumulative - Riverside-Salton Sea County, Annual

Project Characteristics -

Land Use - Project Description; all Retail and Recreational land use acreages are divided into 1.476-acre allotments for the purposes of this analysis.

Construction Phase - Construction phasing based on a 12-month construction schedule.

Grading - MSA Consulting, Inc., 2018c (See Table 2, CalEEMod Inputs)

Vehicle Trips - See Table 3, CalEEMod Inputs. Trip generation rates are derived from the TIS (Appendix TIS).

Energy Use - Electricity energy and natural gas intensity for the user defined recretational land use determined from similar projects and scaled by square footage

Water And Wastewater - Water demand is based off of similar projects and scaled by square footage

Solid Waste -

Construction Off-road Equipment Mitigation - Construction Mitigation

Area Mitigation - MDAQMD Rule 1113 Architectural Coatings (based on nonflat coating)

Energy Mitigation -

Water Mitigation -

Waste Mitigation - Tribe will use the Salton City Landfill's facilities and will divert 50 percent of waste from the landfill.

Stationary Sources - Emergency Generators and Fire Pumps - Based on like project emergency generator size and use

Stationary Sources - Process Boilers - Based on like project boiler size and use

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	250	100
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	100
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	9.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3

tblLandUse	LotAcreage	0.05	1.48
tblLandUse	LotAcreage	0.18	1.48
tblLandUse	LotAcreage	0.51	1.48
tblLandUse	LotAcreage	0.51	1.48
tblLandUse	LotAcreage	0.83	1.48
tblStationaryBoilersUse	AnnualHeatInput	0.00	4,380.00
tblStationaryBoilersUse	BoilerRatingValue	0.00	0.50
tblStationaryBoilersUse	DailyHeatInput	0.00	12.00
tblStationaryBoilersUse	NumberOfEquipment	0.00	3.00
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	2,923.00
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	30.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	3.00
tblVehicleTrips	DV_TP	37.00	0.00
tblVehicleTrips	DV_TP	21.00	0.00
tblVehicleTrips	DV_TP	20.00	0.00
tblVehicleTrips	DV_TP	18.00	0.00
tblVehicleTrips	DV_TP	35.00	0.00
tblVehicleTrips	PB_TP	12.00	0.00
tblVehicleTrips	PB_TP	50.00	0.00
tblVehicleTrips	PB_TP	43.00	0.00
tblVehicleTrips	PB_TP	44.00	0.00
tblVehicleTrips	PB_TP	11.00	0.00
tblVehicleTrips	PR_TP	51.00	100.00
tblVehicleTrips	PR_TP	29.00	100.00
tblVehicleTrips	PR_TP	37.00	100.00
tblVehicleTrips	PR_TP	38.00	100.00
tblVehicleTrips	PR_TP	54.00	100.00

tblVehicleTrips	ST_TR	696.00	995.50
tblVehicleTrips	ST_TR	722.03	311.50
tblVehicleTrips	ST_TR	158.37	110.82
tblVehicleTrips	ST_TR	94.36	82.52
tblVehicleTrips	ST_TR	49.97	80.15
tblVehicleTrips	SU_TR	500.00	995.50
tblVehicleTrips	SU_TR	542.72	311.50
tblVehicleTrips	SU_TR	131.84	110.82
tblVehicleTrips	SU_TR	72.16	82.52
tblVehicleTrips	SU_TR	25.24	80.15
tblVehicleTrips	WD_TR	716.00	995.50
tblVehicleTrips	WD_TR	496.12	311.50
tblVehicleTrips	WD_TR	127.15	110.82
tblVehicleTrips	WD_TR	89.95	82.52
tblVehicleTrips	WD_TR	42.70	80.15

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	0.0220	0.2281	0.1130	2.0000e-004	0.0911	0.0120	0.1030	0.0499	0.0110	0.0609	0.0000	17.7286	17.7286	5.4200e-003	0.0000	17.8642
Maximum	**0.0220**	**0.2281**	**0.1130**	**2.0000e-004**	**0.0911**	**0.0120**	**0.1030**	**0.0499**	**0.0110**	**0.0609**	**0.0000**	**17.7286**	**17.7286**	**5.4200e-003**	**0.0000**	**17.8642**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	-0.0035	0.0408	0.1197	2.0000e-004	0.0414	-0.0055	0.0359	0.0225	-0.0050	0.0176	0.0000	17.7285	17.7285	5.4200e-003	0.0000	17.8641
Maximum	**-0.0035**	**0.0408**	**0.1197**	**2.0000e-004**	**0.0414**	**-0.0055**	**0.0359**	**0.0225**	**-0.0050**	**0.0176**	**0.0000**	**17.7285**	**17.7285**	**5.4200e-003**	**0.0000**	**17.8641**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**115.79**	**82.14**	**-5.92**	**0.00**	**54.55**	**146.24**	**65.19**	**54.78**	**145.36**	**71.16**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	1-1-2019	3-31-2019	0.2502	0.0373
		Highest	0.2502	0.0373

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.4843	6.0000e-005	7.2100e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0141	0.0141	4.0000e-005	0.0000	0.0150
Energy	0.0801	0.7277	0.6113	4.3700e-003		0.0553	0.0553		0.0553	0.0553	0.0000	1,785.2376	1,785.2376	0.0562	0.0230	1,793.4979
Mobile	1.3092	14.7898	13.1925	0.0899	8.2663	0.0305	8.2968	2.2121	0.0284	2.2406	0.0000	8,412.8788	8,412.8788	0.3587	0.0000	8,421.8459
Stationary	0.2513	1.1230	1.1816	4.9000e-003		0.0807	0.0807		0.0807	0.0807	0.0000	801.3887	801.3887	0.0275	0.0000	802.0759
Waste						0.0000	0.0000		0.0000	0.0000	88.2727	0.0000	88.2727	5.2168	0.0000	218.6918
Water						0.0000	0.0000		0.0000	0.0000	6.0460	88.5539	94.5999	0.6246	0.0154	114.8109
Total	**2.1248**	**16.6406**	**14.9927**	**0.0991**	**8.2663**	**0.1665**	**8.4328**	**2.2121**	**0.1645**	**2.3766**	**94.3187**	**11,088.0731**	**11,182.3918**	**6.2838**	**0.0384**	**11,350.9373**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.4217	6.0000e-005	7.2100e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0141	0.0141	4.0000e-005	0.0000	0.0150
Energy	0.0801	0.7277	0.6113	4.3700e-003		0.0553	0.0553		0.0553	0.0553	0.0000	1,751.7216	1,751.7216	0.0548	0.0227	1,759.8621
Mobile	1.3092	14.7898	13.1925	0.0899	8.2663	0.0305	8.2968	2.2121	0.0284	2.2406	0.0000	8,412.8788	8,412.8788	0.3587	0.0000	8,421.8459
Stationary	0.2513	1.1230	1.1816	4.9000e-003		0.0807	0.0807		0.0807	0.0807	0.0000	801.3887	801.3887	0.0275	0.0000	802.0759
Waste						0.0000	0.0000		0.0000	0.0000	44.1363	0.0000	44.1363	2.6084	0.0000	109.3459
Water						0.0000	0.0000		0.0000	0.0000	4.8368	72.7409	77.5778	0.4998	0.0124	93.7533
Total	**2.0622**	**16.6406**	**14.9927**	**0.0991**	**8.2663**	**0.1665**	**8.4328**	**2.2121**	**0.1645**	**2.3766**	**48.9732**	**11,038.7442**	**11,087.7173**	**3.5492**	**0.0351**	**11,186.8980**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**2.95**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**48.08**	**0.44**	**0.85**	**43.52**	**8.74**	**1.45**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/1/2019	1/14/2019	5	10	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 6.3

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use DPF for Construction Equipment

Use Soil Stabilizer

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0903	0.0000	0.0903	0.0497	0.0000	0.0497	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0217	0.2279	0.1103	1.9000e-004		0.0120	0.0120		0.0110	0.0110	0.0000	17.0843	17.0843	5.4100e-003	0.0000	17.2195
Total	**0.0217**	**0.2279**	**0.1103**	**1.9000e-004**	**0.0903**	**0.0120**	**0.1023**	**0.0497**	**0.0110**	**0.0607**	**0.0000**	**17.0843**	**17.0843**	**5.4100e-003**	**0.0000**	**17.2195**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.6000e-004	2.5000e-004	2.6700e-003	1.0000e-005	7.4000e-004	0.0000	7.5000e-004	2.0000e-004	0.0000	2.0000e-004	0.0000	0.6442	0.6442	2.0000e-005	0.0000	0.6447
Total	**3.6000e-004**	**2.5000e-004**	**2.6700e-003**	**1.0000e-005**	**7.4000e-004**	**0.0000**	**7.5000e-004**	**2.0000e-004**	**0.0000**	**2.0000e-004**	**0.0000**	**0.6442**	**0.6442**	**2.0000e-005**	**0.0000**	**0.6447**

3.2 Site Preparation - 2019

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0407	0.0000	0.0407	0.0223	0.0000	0.0223	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	-0.0039	0.0405	0.1170	1.9000e-004		-0.0055	-0.0055		-0.0050	-0.0050	0.0000	17.0843	17.0843	5.4100e-003	0.0000	17.2195
Total	**-0.0039**	**0.0405**	**0.1170**	**1.9000e-004**	**0.0407**	**-0.0055**	**0.0351**	**0.0223**	**-0.0050**	**0.0174**	**0.0000**	**17.0843**	**17.0843**	**5.4100e-003**	**0.0000**	**17.2195**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.6000e-004	2.5000e-004	2.6700e-003	1.0000e-005	7.4000e-004	0.0000	7.5000e-004	2.0000e-004	0.0000	2.0000e-004	0.0000	0.6442	0.6442	2.0000e-005	0.0000	0.6447
Total	**3.6000e-004**	**2.5000e-004**	**2.6700e-003**	**1.0000e-005**	**7.4000e-004**	**0.0000**	**7.5000e-004**	**2.0000e-004**	**0.0000**	**2.0000e-004**	**0.0000**	**0.6442**	**0.6442**	**2.0000e-005**	**0.0000**	**0.6447**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.3092	14.7898	13.1925	0.0899	8.2663	0.0305	8.2968	2.2121	0.0284	2.2406	0.0000	8,412.8788	8,412.8788	0.3587	0.0000	8,421.8459
Unmitigated	1.3092	14.7898	13.1925	0.0899	8.2663	0.0305	8.2968	2.2121	0.0284	2.2406	0.0000	8,412.8788	8,412.8788	0.3587	0.0000	8,421.8459

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Fast Food Restaurant w/o Drive Thru	1,991.00	1,991.00	1991.00	3,299,306	3,299,306
Fast Food Restaurant with Drive Thru	2,492.00	2,492.00	2492.00	4,182,220	4,182,220
High Turnover (Sit Down Restaurant)	2,438.04	2,438.04	2438.04	4,555,707	4,555,707
Parking Lot	0.00	0.00	0.00		
Quality Restaurant	1,815.44	1,815.44	1815.44	3,584,289	3,584,289
Regional Shopping Center	2,885.40	2,885.40	2885.40	6,071,596	6,071,596
Total	11,621.88	11,621.88	11,621.88	21,693,117	21,693,117

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Fast Food Restaurant w/o Drive	12.50	4.20	5.40	1.50	79.50	19.00	100	0	0
Fast Food Restaurant with Drive	12.50	4.20	5.40	2.20	78.80	19.00	100	0	0
High Turnover (Sit Down	12.50	4.20	5.40	8.50	72.50	19.00	100	0	0
Parking Lot	12.50	4.20	5.40	0.00	0.00	0.00	0	0	0
Quality Restaurant	12.50	4.20	5.40	12.00	69.00	19.00	100	0	0
Regional Shopping Center	12.50	4.20	5.40	16.30	64.70	19.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Fast Food Restaurant w/o Drive Thru	0.566189	0.033707	0.192293	0.100413	0.008756	0.004001	0.016522	0.070107	0.001420	0.001057	0.004327	0.000696	0.000512
Fast Food Restaurant with Drive Thru	0.566189	0.033707	0.192293	0.100413	0.008756	0.004001	0.016522	0.070107	0.001420	0.001057	0.004327	0.000696	0.000512
High Turnover (Sit Down Restaurant)	0.566189	0.033707	0.192293	0.100413	0.008756	0.004001	0.016522	0.070107	0.001420	0.001057	0.004327	0.000696	0.000512
Parking Lot	0.566189	0.033707	0.192293	0.100413	0.008756	0.004001	0.016522	0.070107	0.001420	0.001057	0.004327	0.000696	0.000512
Quality Restaurant	0.566189	0.033707	0.192293	0.100413	0.008756	0.004001	0.016522	0.070107	0.001420	0.001057	0.004327	0.000696	0.000512
Regional Shopping Center	0.566189	0.033707	0.192293	0.100413	0.008756	0.004001	0.016522	0.070107	0.001420	0.001057	0.004327	0.000696	0.000512

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Install High Efficiency Lighting

Agua Caliente Cathedral City FTT Casino Project - Alternative C Cumulative - Riverside-Salton Sea County, Annual

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	959.4996	959.4996	0.0396	8.2000e-003	962.9323
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	993.0155	993.0155	0.0410	8.4800e-003	996.5681
NaturalGas Mitigated	0.0801	0.7277	0.6113	4.3700e-003		0.0553	0.0553		0.0553	0.0553	0.0000	792.2220	792.2220	0.0152	0.0145	796.9298
NaturalGas Unmitigated	0.0801	0.7277	0.6113	4.3700e-003		0.0553	0.0553		0.0553	0.0553	0.0000	792.2220	792.2220	0.0152	0.0145	796.9298

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Fast Food Restaurant w/o Drive Thru	546880	2.9500e-003	0.0268	0.0225	1.6000e-004		2.0400e-003	2.0400e-003		2.0400e-003	2.0400e-003	0.0000	29.1836	29.1836	5.6000e-004	5.4000e-004	29.3570
Fast Food Restaurant with Drive Thru	2.18752e+006	0.0118	0.1072	0.0901	6.4000e-004		8.1500e-003	8.1500e-003		8.1500e-003	8.1500e-003	0.0000	116.7344	116.7344	2.2400e-003	2.1400e-003	117.4281
High Turnover (Sit Down Restaurant)	6.01568e+006	0.0324	0.2949	0.2477	1.7700e-003		0.0224	0.0224		0.0224	0.0224	0.0000	321.0196	321.0196	6.1500e-003	5.8900e-003	322.9273
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	6.01568e+006	0.0324	0.2949	0.2477	1.7700e-003		0.0224	0.0224		0.0224	0.0224	0.0000	321.0196	321.0196	6.1500e-003	5.8900e-003	322.9273
Regional Shopping Center	79920	4.3000e-004	3.9200e-003	3.2900e-003	2.0000e-005		3.0000e-004	3.0000e-004		3.0000e-004	3.0000e-004	0.0000	4.2648	4.2648	8.0000e-005	8.0000e-005	4.2902
Total		**0.0801**	**0.7277**	**0.6113**	**4.3600e-003**		**0.0553**	**0.0553**		**0.0553**	**0.0553**	**0.0000**	**792.2220**	**792.2220**	**0.0152**	**0.0145**	**796.9298**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Fast Food Restaurant w/o Drive Thru	546880	2.9500e-003	0.0268	0.0225	1.6000e-004		2.0400e-003	2.0400e-003		2.0400e-003	2.0400e-003	0.0000	29.1836	29.1836	5.6000e-004	5.4000e-004	29.3570
Fast Food Restaurant with Drive Thru	2.18752e+006	0.0118	0.1072	0.0901	6.4000e-004		8.1500e-003	8.1500e-003		8.1500e-003	8.1500e-003	0.0000	116.7344	116.7344	2.2400e-003	2.1400e-003	117.4281
High Turnover (Sit Down Restaurant)	6.01568e+006	0.0324	0.2949	0.2477	1.7700e-003		0.0224	0.0224		0.0224	0.0224	0.0000	321.0196	321.0196	6.1500e-003	5.8900e-003	322.9273
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	6.01568e+006	0.0324	0.2949	0.2477	1.7700e-003		0.0224	0.0224		0.0224	0.0224	0.0000	321.0196	321.0196	6.1500e-003	5.8900e-003	322.9273
Regional Shopping Center	79920	4.3000e-004	3.9200e-003	3.2900e-003	2.0000e-005		3.0000e-004	3.0000e-004		3.0000e-004	3.0000e-004	0.0000	4.2648	4.2648	8.0000e-005	8.0000e-005	4.2902
Total		**0.0801**	**0.7277**	**0.6113**	**4.3600e-003**		**0.0553**	**0.0553**		**0.0553**	**0.0553**	**0.0000**	**792.2220**	**792.2220**	**0.0152**	**0.0145**	**796.9298**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Fast Food Restaurant w/o Drive Thru	94960	30.2563	1.2500e-003	2.6000e-004	30.3645
Fast Food Restaurant with Drive Thru	379840	121.0252	5.0000e-003	1.0300e-003	121.4581
High Turnover (Sit Down Restaurant)	1.04456e+006	332.8192	0.0137	2.8400e-003	334.0099
Parking Lot	98000	31.2249	1.2900e-003	2.7000e-004	31.3366
Quality Restaurant	1.04456e+006	332.8192	0.0137	2.8400e-003	334.0099
Regional Shopping Center	454680	144.8708	5.9800e-003	1.2400e-003	145.3891
Total		**993.0155**	**0.0410**	**8.4800e-003**	**996.5681**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Fast Food Restaurant w/o Drive Thru	92841.6	29.5813	1.2200e-003	2.5000e-004	29.6872
Fast Food Restaurant with Drive Thru	371366	118.3253	4.8900e-003	1.0100e-003	118.7486
High Turnover (Sit Down Restaurant)	1.02126e+006	325.3946	0.0134	2.7800e-003	326.5587
Parking Lot	82320	26.2289	1.0800e-003	2.2000e-004	26.3228
Quality Restaurant	1.02126e+006	325.3946	0.0134	2.7800e-003	326.5587
Regional Shopping Center	422366	134.5750	5.5600e-003	1.1500e-003	135.0564
Total		**959.4996**	**0.0396**	**8.1900e-003**	**962.9323**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.4217	6.0000e-005	7.2100e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0141	0.0141	4.0000e-005	0.0000	0.0150
Unmitigated	0.4843	6.0000e-005	7.2100e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0141	0.0141	4.0000e-005	0.0000	0.0150

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1140					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.3696					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	6.6000e-004	6.0000e-005	7.2100e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0141	0.0141	4.0000e-005	0.0000	0.0150
Total	**0.4843**	**6.0000e-005**	**7.2100e-003**	**0.0000**		**3.0000e-005**	**3.0000e-005**		**3.0000e-005**	**3.0000e-005**	**0.0000**	**0.0141**	**0.0141**	**4.0000e-005**	**0.0000**	**0.0150**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0515					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.3696					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	6.6000e-004	6.0000e-005	7.2100e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0141	0.0141	4.0000e-005	0.0000	0.0150
Total	**0.4217**	**6.0000e-005**	**7.2100e-003**	**0.0000**		**3.0000e-005**	**3.0000e-005**		**3.0000e-005**	**3.0000e-005**	**0.0000**	**0.0141**	**0.0141**	**4.0000e-005**	**0.0000**	**0.0150**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Agua Caliente Cathedral City FTT Casino Project - Alternative C Cumulative - Riverside-Salton Sea County, Annual

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	77.5778	0.4998	0.0124	93.7533
Unmitigated	94.5999	0.6246	0.0154	114.8109

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Fast Food Restaurant w/o Drive Thru	0.607067 / 0.038749	2.8483	0.0199	4.9000e-004	3.4916
Fast Food Restaurant with Drive Thru	2.42827 / 0.154996	11.3934	0.0796	1.9600e-003	13.9663
High Turnover (Sit Down Restaurant)	6.67774 / 0.426239	31.3318	0.2188	5.3900e-003	38.4072
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	6.67774 / 0.426239	31.3318	0.2188	5.3900e-003	38.4072
Regional Shopping Center	2.66661 / 1.63437	17.6946	0.0876	2.2000e-003	20.5386
Total		**94.5999**	**0.6246**	**0.0154**	**114.8109**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Fast Food Restaurant w/o Drive Thru	0.485654 / 0.038749	2.3061	0.0159	3.9000e-004	2.8208
Fast Food Restaurant with Drive Thru	1.94262 / 0.154996	9.2244	0.0637	1.5700e-003	11.2831
High Turnover (Sit Down Restaurant)	5.34219 / 0.426239	25.3672	0.1751	4.3100e-003	31.0286
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	5.34219 / 0.426239	25.3672	0.1751	4.3100e-003	31.0286
Regional Shopping Center	2.13329 / 1.63437	15.3128	0.0701	1.7700e-003	17.5921
Total		**77.5778**	**0.4998**	**0.0124**	**93.7533**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	44.1363	2.6084	0.0000	109.3459
Unmitigated	88.2727	5.2168	0.0000	218.6918

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Fast Food Restaurant w/o Drive Thru	23.04	4.6769	0.2764	0.0000	11.5869
Fast Food Restaurant with Drive Thru	92.15	18.7056	1.1055	0.0000	46.3424
High Turnover (Sit Down Restaurant)	261.8	53.1430	3.1407	0.0000	131.6596
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	20.07	4.0740	0.2408	0.0000	10.0932
Regional Shopping Center	37.8	7.6731	0.4535	0.0000	19.0097
Total		**88.2727**	**5.2168**	**0.0000**	**218.6918**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Fast Food Restaurant w/o Drive Thru	11.52	2.3385	0.1382	0.0000	5.7934
Fast Food Restaurant with Drive Thru	46.075	9.3528	0.5527	0.0000	23.1712
High Turnover (Sit Down Restaurant)	130.9	26.5715	1.5703	0.0000	65.8298
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	10.035	2.0370	0.1204	0.0000	5.0466
Regional Shopping Center	18.9	3.8365	0.2267	0.0000	9.5048
Total		**44.1363**	**2.6084**	**0.0000**	**109.3459**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Emergency Generator	3	0	30	2923	0.73	Diesel

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
Boiler	3	12	4380	0.5	CNG

User Defined Equipment

Equipment Type	Number

10.1 Stationary Sources

Unmitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	tons/yr										MT/yr					
Boiler - CNG (0 - 2 MMBTU)	0.0354	0.1577	0.6313	3.8600e-003		0.0490	0.0490		0.0490	0.0490	0.0000	701.2124	701.2124	0.0134	0.0000	701.5484
Emergency Generator - Diesel (750 - 9999 HP)	0.2159	0.9653	0.5504	1.0400e-003		0.0318	0.0318		0.0318	0.0318	0.0000	100.1763	100.1763	0.0140	0.0000	100.5274
Total	**0.2513**	**1.1230**	**1.1816**	**4.9000e-003**		**0.0807**	**0.0807**		**0.0807**	**0.0807**	**0.0000**	**801.3887**	**801.3887**	**0.0275**	**0.0000**	**802.0759**

11.0 Vegetation

Agua Caliente Cathedral City FTT Casino Project - Alternative C Cumulative

Riverside-Salton Sea County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	700.00	Space	6.30	280,000.00	0
Fast Food Restaurant w/o Drive Thru	2.00	1000sqft	1.48	2,000.00	0
Fast Food Restaurant with Drive Thru	8.00	1000sqft	1.48	8,000.00	0
High Turnover (Sit Down Restaurant)	22.00	1000sqft	1.48	22,000.00	0
Quality Restaurant	22.00	1000sqft	1.48	22,000.00	0
Regional Shopping Center	36.00	1000sqft	1.48	36,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2040
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Agua Caliente Cathedral City FTT Casino Project - Alternative C Cumulative - Riverside-Salton Sea County, Summer

Project Characteristics -

Land Use - Project Description; all Retail and Recreational land use acreages are divided into 1.476-acre allotments for the purposes of this analysis.

Construction Phase - Construction phasing based on a 12-month construction schedule.

Grading - MSA Consulting, Inc., 2018c (See Table 2, CalEEMod Inputs)

Vehicle Trips - See Table 3, CalEEMod Inputs. Trip generation rates are derived from the TIS (Appendix TIS).

Energy Use - Electricity energy and natural gas intensity for the user defined recretational land use determined from similar projects and scaled by square footage

Water And Wastewater - Water demand is based off of similar projects and scaled by square footage

Solid Waste -

Construction Off-road Equipment Mitigation - Construction Mitigation

Area Mitigation - MDAQMD Rule 1113 Architectural Coatings (based on nonflat coating)

Energy Mitigation -

Water Mitigation -

Waste Mitigation - Tribe will use the Salton City Landfill's facilities and will divert 50 percent of waste from the landfill.

Stationary Sources - Emergency Generators and Fire Pumps - Based on like project emergency generator size and use

Stationary Sources - Process Boilers - Based on like project boiler size and use

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	250	100
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	100
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	9.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3

tblLandUse	LotAcreage	0.05	1.48
tblLandUse	LotAcreage	0.18	1.48
tblLandUse	LotAcreage	0.51	1.48
tblLandUse	LotAcreage	0.51	1.48
tblLandUse	LotAcreage	0.83	1.48
tblStationaryBoilersUse	AnnualHeatInput	0.00	4,380.00
tblStationaryBoilersUse	BoilerRatingValue	0.00	0.50
tblStationaryBoilersUse	DailyHeatInput	0.00	12.00
tblStationaryBoilersUse	NumberOfEquipment	0.00	3.00
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	2,923.00
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	30.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	3.00
tblVehicleTrips	DV_TP	37.00	0.00
tblVehicleTrips	DV_TP	21.00	0.00
tblVehicleTrips	DV_TP	20.00	0.00
tblVehicleTrips	DV_TP	18.00	0.00
tblVehicleTrips	DV_TP	35.00	0.00
tblVehicleTrips	PB_TP	12.00	0.00
tblVehicleTrips	PB_TP	50.00	0.00
tblVehicleTrips	PB_TP	43.00	0.00
tblVehicleTrips	PB_TP	44.00	0.00
tblVehicleTrips	PB_TP	11.00	0.00
tblVehicleTrips	PR_TP	51.00	100.00
tblVehicleTrips	PR_TP	29.00	100.00
tblVehicleTrips	PR_TP	37.00	100.00
tblVehicleTrips	PR_TP	38.00	100.00
tblVehicleTrips	PR_TP	54.00	100.00

tblVehicleTrips	ST_TR	696.00	995.50
tblVehicleTrips	ST_TR	722.03	311.50
tblVehicleTrips	ST_TR	158.37	110.82
tblVehicleTrips	ST_TR	94.36	82.52
tblVehicleTrips	ST_TR	49.97	80.15
tblVehicleTrips	SU_TR	500.00	995.50
tblVehicleTrips	SU_TR	542.72	311.50
tblVehicleTrips	SU_TR	131.84	110.82
tblVehicleTrips	SU_TR	72.16	82.52
tblVehicleTrips	SU_TR	25.24	80.15
tblVehicleTrips	WD_TR	716.00	995.50
tblVehicleTrips	WD_TR	496.12	311.50
tblVehicleTrips	WD_TR	127.15	110.82
tblVehicleTrips	WD_TR	89.95	82.52
tblVehicleTrips	WD_TR	42.70	80.15

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	4.4167	45.6199	22.6825	0.0396	18.2169	2.3913	20.6082	9.9706	2.2000	12.1706	0.0000	3,920.7313	3,920.7313	1.1961	0.0000	3,950.6329
Maximum	**4.4167**	**45.6199**	**22.6825**	**0.0396**	**18.2169**	**2.3913**	**20.6082**	**9.9706**	**2.2000**	**12.1706**	**0.0000**	**3,920.7313**	**3,920.7313**	**1.1961**	**0.0000**	**3,950.6329**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	0.0000	8.1465	24.0205	0.0396	8.2804	-1.1062	7.1742	4.5088	-0.9973	3.5115	0.0000	3,920.7313	3,920.7313	1.1961	0.0000	3,950.6329
Maximum	**0.0000**	**8.1465**	**24.0205**	**0.0396**	**8.2804**	**-1.1062**	**7.1742**	**4.5088**	**-0.9973**	**3.5115**	**0.0000**	**3,920.7313**	**3,920.7313**	**1.1961**	**0.0000**	**3,950.6329**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**100.00**	**82.14**	**-5.90**	**0.00**	**54.55**	**146.26**	**65.19**	**54.78**	**145.33**	**71.15**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.6573	7.2000e-004	0.0801	1.0000e-005		2.8000e-004	2.8000e-004		2.8000e-004	2.8000e-004		0.1729	0.1729	4.5000e-004		0.1840
Energy	0.4386	3.9876	3.3496	0.0239		0.3031	0.3031		0.3031	0.3031		4,785.0701	4,785.0701	0.0917	0.0877	4,813.5054
Mobile	8.5992	81.5863	79.0774	0.5207	46.1748	0.1671	46.3419	12.3400	0.1559	12.4959		53,682.5179	53,682.5179	2.1258		53,735.6628
Stationary	0.1941	0.8640	3.4589	0.0212		0.2682	0.2682		0.2682	0.2682		4,235.3665	4,235.3665	0.0812		4,237.3959
Total	**11.8892**	**86.4386**	**85.9659**	**0.5658**	**46.1748**	**0.7387**	**46.9135**	**12.3400**	**0.7275**	**13.0675**		**62,703.1274**	**62,703.1274**	**2.2991**	**0.0877**	**62,786.7482**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.3144	7.2000e-004	0.0801	1.0000e-005		2.8000e-004	2.8000e-004		2.8000e-004	2.8000e-004		0.1729	0.1729	4.5000e-004		0.1840
Energy	0.4386	3.9876	3.3496	0.0239		0.3031	0.3031		0.3031	0.3031		4,785.0701	4,785.0701	0.0917	0.0877	4,813.5054
Mobile	8.5992	81.5863	79.0774	0.5207	46.1748	0.1671	46.3419	12.3400	0.1559	12.4959		53,682.5179	53,682.5179	2.1258		53,735.6628
Stationary	0.1941	0.8640	3.4589	0.0212		0.2682	0.2682		0.2682	0.2682		4,235.3665	4,235.3665	0.0812		4,237.3959
Total	**11.5464**	**86.4386**	**85.9659**	**0.5658**	**46.1748**	**0.7387**	**46.9135**	**12.3400**	**0.7275**	**13.0675**		**62,703.1274**	**62,703.1274**	**2.2991**	**0.0877**	**62,786.7482**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**2.88**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/1/2019	1/14/2019	5	10	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 6.3

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use DPF for Construction Equipment

Use Soil Stabilizer

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	4.3350	45.5727	22.0630	0.0380		2.3904	2.3904		2.1991	2.1991		3,766.4529	3,766.4529	1.1917		3,796.2445
Total	**4.3350**	**45.5727**	**22.0630**	**0.0380**	**18.0663**	**2.3904**	**20.4566**	**9.9307**	**2.1991**	**12.1298**		**3,766.4529**	**3,766.4529**	**1.1917**		**3,796.2445**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0817	0.0471	0.6195	1.5500e-003	0.1506	9.6000e-004	0.1516	0.0400	8.8000e-004	0.0408		154.2784	154.2784	4.4000e-003		154.3884
Total	**0.0817**	**0.0471**	**0.6195**	**1.5500e-003**	**0.1506**	**9.6000e-004**	**0.1516**	**0.0400**	**8.8000e-004**	**0.0408**		**154.2784**	**154.2784**	**4.4000e-003**		**154.3884**

3.2 Site Preparation - 2019

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.1298	0.0000	8.1298	4.4688	0.0000	4.4688			0.0000			0.0000
Off-Road	-0.7693	8.0993	23.4010	0.0380		-1.1072	-1.1072		-0.9982	-0.9982	0.0000	3,766.4529	3,766.4529	1.1917		3,796.2445
Total	**-0.7693**	**8.0993**	**23.4010**	**0.0380**	**8.1298**	**-1.1072**	**7.0226**	**4.4688**	**-0.9982**	**3.4707**	**0.0000**	**3,766.4529**	**3,766.4529**	**1.1917**		**3,796.2445**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0817	0.0471	0.6195	1.5500e-003	0.1506	9.6000e-004	0.1516	0.0400	8.8000e-004	0.0408		154.2784	154.2784	4.4000e-003		154.3884
Total	**0.0817**	**0.0471**	**0.6195**	**1.5500e-003**	**0.1506**	**9.6000e-004**	**0.1516**	**0.0400**	**8.8000e-004**	**0.0408**		**154.2784**	**154.2784**	**4.4000e-003**		**154.3884**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	8.5992	81.5863	79.0774	0.5207	46.1748	0.1671	46.3419	12.3400	0.1559	12.4959		53,682.5179	53,682.5179	2.1258		53,735.6628
Unmitigated	8.5992	81.5863	79.0774	0.5207	46.1748	0.1671	46.3419	12.3400	0.1559	12.4959		53,682.5179	53,682.5179	2.1258		53,735.6628

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Fast Food Restaurant w/o Drive Thru	1,991.00	1,991.00	1991.00	3,299,306	3,299,306
Fast Food Restaurant with Drive Thru	2,492.00	2,492.00	2492.00	4,182,220	4,182,220
High Turnover (Sit Down Restaurant)	2,438.04	2,438.04	2438.04	4,555,707	4,555,707
Parking Lot	0.00	0.00	0.00		
Quality Restaurant	1,815.44	1,815.44	1815.44	3,584,289	3,584,289
Regional Shopping Center	2,885.40	2,885.40	2885.40	6,071,596	6,071,596
Total	11,621.88	11,621.88	11,621.88	21,693,117	21,693,117

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Fast Food Restaurant w/o Drive	12.50	4.20	5.40	1.50	79.50	19.00	100	0	0
Fast Food Restaurant with Drive	12.50	4.20	5.40	2.20	78.80	19.00	100	0	0
High Turnover (Sit Down	12.50	4.20	5.40	8.50	72.50	19.00	100	0	0
Parking Lot	12.50	4.20	5.40	0.00	0.00	0.00	0	0	0
Quality Restaurant	12.50	4.20	5.40	12.00	69.00	19.00	100	0	0
Regional Shopping Center	12.50	4.20	5.40	16.30	64.70	19.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Fast Food Restaurant w/o Drive Thru	0.566189	0.033707	0.192293	0.100413	0.008756	0.004001	0.016522	0.070107	0.001420	0.001057	0.004327	0.000696	0.000512
Fast Food Restaurant with Drive Thru	0.566189	0.033707	0.192293	0.100413	0.008756	0.004001	0.016522	0.070107	0.001420	0.001057	0.004327	0.000696	0.000512
High Turnover (Sit Down Restaurant)	0.566189	0.033707	0.192293	0.100413	0.008756	0.004001	0.016522	0.070107	0.001420	0.001057	0.004327	0.000696	0.000512
Parking Lot	0.566189	0.033707	0.192293	0.100413	0.008756	0.004001	0.016522	0.070107	0.001420	0.001057	0.004327	0.000696	0.000512
Quality Restaurant	0.566189	0.033707	0.192293	0.100413	0.008756	0.004001	0.016522	0.070107	0.001420	0.001057	0.004327	0.000696	0.000512
Regional Shopping Center	0.566189	0.033707	0.192293	0.100413	0.008756	0.004001	0.016522	0.070107	0.001420	0.001057	0.004327	0.000696	0.000512

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Install High Efficiency Lighting

Agua Caliente Cathedral City FTT Casino Project - Alternative C Cumulative - Riverside-Salton Sea County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.4386	3.9876	3.3496	0.0239		0.3031	0.3031		0.3031	0.3031		4,785.0701	4,785.0701	0.0917	0.0877	4,813.5054
NaturalGas Unmitigated	0.4386	3.9876	3.3496	0.0239		0.3031	0.3031		0.3031	0.3031		4,785.0701	4,785.0701	0.0917	0.0877	4,813.5054

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Fast Food Restaurant w/o Drive Thru	1498.3	0.0162	0.1469	0.1234	8.8000e-004		0.0112	0.0112		0.0112	0.0112		176.2708	176.2708	3.3800e-003	3.2300e-003	177.3182
Fast Food Restaurant with Drive Thru	5993.21	0.0646	0.5876	0.4936	3.5300e-003		0.0447	0.0447		0.0447	0.0447		705.0830	705.0830	0.0135	0.0129	709.2730
High Turnover (Sit Down Restaurant)	16481.3	0.1777	1.6158	1.3573	9.6900e-003		0.1228	0.1228		0.1228	0.1228		1,938.9782	1,938.9782	0.0372	0.0356	1,950.5006
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	16481.3	0.1777	1.6158	1.3573	9.6900e-003		0.1228	0.1228		0.1228	0.1228		1,938.9782	1,938.9782	0.0372	0.0356	1,950.5006
Regional Shopping Center	218.959	2.3600e-003	0.0215	0.0180	1.3000e-004		1.6300e-003	1.6300e-003		1.6300e-003	1.6300e-003		25.7599	25.7599	4.9000e-004	4.7000e-004	25.9130
Total		**0.4386**	**3.9876**	**3.3495**	**0.0239**		**0.3031**	**0.3031**		**0.3031**	**0.3031**		**4,785.0701**	**4,785.0701**	**0.0917**	**0.0877**	**4,813.5054**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Fast Food Restaurant w/o Drive Thru	1.4983	0.0162	0.1469	0.1234	8.8000e-004		0.0112	0.0112		0.0112	0.0112		176.2708	176.2708	3.3800e-003	3.2300e-003	177.3182
Fast Food Restaurant with Drive Thru	5.99321	0.0646	0.5876	0.4936	3.5300e-003		0.0447	0.0447		0.0447	0.0447		705.0830	705.0830	0.0135	0.0129	709.2730
High Turnover (Sit Down Restaurant)	16.4813	0.1777	1.6158	1.3573	9.6900e-003		0.1228	0.1228		0.1228	0.1228		1,938.9782	1,938.9782	0.0372	0.0356	1,950.5006
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	16.4813	0.1777	1.6158	1.3573	9.6900e-003		0.1228	0.1228		0.1228	0.1228		1,938.9782	1,938.9782	0.0372	0.0356	1,950.5006
Regional Shopping Center	0.218959	2.3600e-003	0.0215	0.0180	1.3000e-004		1.6300e-003	1.6300e-003		1.6300e-003	1.6300e-003		25.7599	25.7599	4.9000e-004	4.7000e-004	25.9130
Total		**0.4386**	**3.9876**	**3.3495**	**0.0239**		**0.3031**	**0.3031**		**0.3031**	**0.3031**		**4,785.0701**	**4,785.0701**	**0.0917**	**0.0877**	**4,813.5054**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.3144	7.2000e-004	0.0801	1.0000e-005		2.8000e-004	2.8000e-004		2.8000e-004	2.8000e-004		0.1729	0.1729	4.5000e-004		0.1840
Unmitigated	2.6573	7.2000e-004	0.0801	1.0000e-005		2.8000e-004	2.8000e-004		2.8000e-004	2.8000e-004		0.1729	0.1729	4.5000e-004		0.1840

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.6248					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.0252					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	7.3300e-003	7.2000e-004	0.0801	1.0000e-005		2.8000e-004	2.8000e-004		2.8000e-004	2.8000e-004		0.1729	0.1729	4.5000e-004		0.1840
Total	**2.6573**	**7.2000e-004**	**0.0801**	**1.0000e-005**		**2.8000e-004**	**2.8000e-004**		**2.8000e-004**	**2.8000e-004**		**0.1729**	**0.1729**	**4.5000e-004**		**0.1840**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.2819					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.0252					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	7.3300e-003	7.2000e-004	0.0801	1.0000e-005		2.8000e-004	2.8000e-004		2.8000e-004	2.8000e-004		0.1729	0.1729	4.5000e-004		0.1840
Total	**2.3144**	**7.2000e-004**	**0.0801**	**1.0000e-005**		**2.8000e-004**	**2.8000e-004**		**2.8000e-004**	**2.8000e-004**		**0.1729**	**0.1729**	**4.5000e-004**		**0.1840**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Emergency Generator	3	0	30	2923	0.73	Diesel

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
Boiler	3	12	4380	0.5	CNG

User Defined Equipment

Equipment Type	Number

10.1 Stationary Sources

Unmitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	lb/day										lb/day					
Boiler - CNG (0 - 2 MMBTU)	0.1941	0.8640	3.4589	0.0212		0.2682	0.2682		0.2682	0.2682		4,235.3665	4,235.3665	0.0812		4,237.3959
Emergency Generator - Diesel (750 - 9999 HP)	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.1941**	**0.8640**	**3.4589**	**0.0212**		**0.2682**	**0.2682**		**0.2682**	**0.2682**		**4,235.3665**	**4,235.3665**	**0.0812**		**4,237.3959**

11.0 Vegetation

Agua Caliente Cathedral City FTT Casino Project - Alternative C Cumulative

Riverside-Salton Sea County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	700.00	Space	6.30	280,000.00	0
Fast Food Restaurant w/o Drive Thru	2.00	1000sqft	1.48	2,000.00	0
Fast Food Restaurant with Drive Thru	8.00	1000sqft	1.48	8,000.00	0
High Turnover (Sit Down Restaurant)	22.00	1000sqft	1.48	22,000.00	0
Quality Restaurant	22.00	1000sqft	1.48	22,000.00	0
Regional Shopping Center	36.00	1000sqft	1.48	36,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2040
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Agua Caliente Cathedral City FTT Casino Project - Alternative C Cumulative - Riverside-Salton Sea County, Winter

Project Characteristics -

Land Use - Project Description; all Retail and Recreational land use acreages are divided into 1.476-acre allotments for the purposes of this analysis.

Construction Phase - Construction phasing based on a 12-month construction schedule.

Grading - MSA Consulting, Inc., 2018c (See Table 2, CalEEMod Inputs)

Vehicle Trips - See Table 3, CalEEMod Inputs. Trip generation rates are derived from the TIS (Appendix TIS).

Energy Use - Electricity energy and natural gas intensity for the user defined recretational land use determined from similar projects and scaled by square footage

Water And Wastewater - Water demand is based off of similar projects and scaled by square footage

Solid Waste -

Construction Off-road Equipment Mitigation - Construction Mitigation

Area Mitigation - MDAQMD Rule 1113 Architectural Coatings (based on nonflat coating)

Energy Mitigation -

Water Mitigation -

Waste Mitigation - Tribe will use the Salton City Landfill's facilities and will divert 50 percent of waste from the landfill.

Stationary Sources - Emergency Generators and Fire Pumps - Based on like project emergency generator size and use

Stationary Sources - Process Boilers - Based on like project boiler size and use

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	250	100
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	100
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	9.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3

tblLandUse	LotAcreage	0.05	1.48
tblLandUse	LotAcreage	0.18	1.48
tblLandUse	LotAcreage	0.51	1.48
tblLandUse	LotAcreage	0.51	1.48
tblLandUse	LotAcreage	0.83	1.48
tblStationaryBoilersUse	AnnualHeatInput	0.00	4,380.00
tblStationaryBoilersUse	BoilerRatingValue	0.00	0.50
tblStationaryBoilersUse	DailyHeatInput	0.00	12.00
tblStationaryBoilersUse	NumberOfEquipment	0.00	3.00
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	2,923.00
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	30.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	3.00
tblVehicleTrips	DV_TP	37.00	0.00
tblVehicleTrips	DV_TP	21.00	0.00
tblVehicleTrips	DV_TP	20.00	0.00
tblVehicleTrips	DV_TP	18.00	0.00
tblVehicleTrips	DV_TP	35.00	0.00
tblVehicleTrips	PB_TP	12.00	0.00
tblVehicleTrips	PB_TP	50.00	0.00
tblVehicleTrips	PB_TP	43.00	0.00
tblVehicleTrips	PB_TP	44.00	0.00
tblVehicleTrips	PB_TP	11.00	0.00
tblVehicleTrips	PR_TP	51.00	100.00
tblVehicleTrips	PR_TP	29.00	100.00
tblVehicleTrips	PR_TP	37.00	100.00
tblVehicleTrips	PR_TP	38.00	100.00
tblVehicleTrips	PR_TP	54.00	100.00

tblVehicleTrips	ST_TR	696.00	995.50
tblVehicleTrips	ST_TR	722.03	311.50
tblVehicleTrips	ST_TR	158.37	110.82
tblVehicleTrips	ST_TR	94.36	82.52
tblVehicleTrips	ST_TR	49.97	80.15
tblVehicleTrips	SU_TR	500.00	995.50
tblVehicleTrips	SU_TR	542.72	311.50
tblVehicleTrips	SU_TR	131.84	110.82
tblVehicleTrips	SU_TR	72.16	82.52
tblVehicleTrips	SU_TR	25.24	80.15
tblVehicleTrips	WD_TR	716.00	995.50
tblVehicleTrips	WD_TR	496.12	311.50
tblVehicleTrips	WD_TR	127.15	110.82
tblVehicleTrips	WD_TR	89.95	82.52
tblVehicleTrips	WD_TR	42.70	80.15

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	4.4130	45.6215	22.5719	0.0394	18.2169	2.3913	20.6082	9.9706	2.2000	12.1706	0.0000	3,904.9356	3,904.9356	1.1955	0.0000	3,934.8237
Maximum	**4.4130**	**45.6215**	**22.5719**	**0.0394**	**18.2169**	**2.3913**	**20.6082**	**9.9706**	**2.2000**	**12.1706**	**0.0000**	**3,904.9356**	**3,904.9356**	**1.1955**	**0.0000**	**3,934.8237**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	0.0000	8.1481	23.9099	0.0394	8.2804	-1.1062	7.1742	4.5088	-0.9973	3.5115	0.0000	3,904.9356	3,904.9356	1.1955	0.0000	3,934.8237
Maximum	**0.0000**	**8.1481**	**23.9099**	**0.0394**	**8.2804**	**-1.1062**	**7.1742**	**4.5088**	**-0.9973**	**3.5115**	**0.0000**	**3,904.9356**	**3,904.9356**	**1.1955**	**0.0000**	**3,934.8237**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**100.00**	**82.14**	**-5.93**	**0.00**	**54.55**	**146.26**	**65.19**	**54.78**	**145.33**	**71.15**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.6573	7.2000e-004	0.0801	1.0000e-005		2.8000e-004	2.8000e-004		2.8000e-004	2.8000e-004		0.1729	0.1729	4.5000e-004		0.1840
Energy	0.4386	3.9876	3.3496	0.0239		0.3031	0.3031		0.3031	0.3031		4,785.0701	4,785.0701	0.0917	0.0877	4,813.5054
Mobile	7.1818	79.9328	71.6020	0.4802	46.1748	0.1684	46.3432	12.3400	0.1571	12.4971		49,562.1249	49,562.1249	2.2601		49,618.6273
Stationary	0.1941	0.8640	3.4589	0.0212		0.2682	0.2682		0.2682	0.2682		4,235.3665	4,235.3665	0.0812		4,237.3959
Total	**10.4719**	**84.7851**	**78.4906**	**0.5253**	**46.1748**	**0.7400**	**46.9147**	**12.3400**	**0.7287**	**13.0687**		**58,582.7344**	**58,582.7344**	**2.4334**	**0.0877**	**58,669.7126**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.3144	7.2000e-004	0.0801	1.0000e-005		2.8000e-004	2.8000e-004		2.8000e-004	2.8000e-004		0.1729	0.1729	4.5000e-004		0.1840
Energy	0.4386	3.9876	3.3496	0.0239		0.3031	0.3031		0.3031	0.3031		4,785.0701	4,785.0701	0.0917	0.0877	4,813.5054
Mobile	7.1818	79.9328	71.6020	0.4802	46.1748	0.1684	46.3432	12.3400	0.1571	12.4971		49,562.1249	49,562.1249	2.2601		49,618.6273
Stationary	0.1941	0.8640	3.4589	0.0212		0.2682	0.2682		0.2682	0.2682		4,235.3665	4,235.3665	0.0812		4,237.3959
Total	**10.1290**	**84.7851**	**78.4906**	**0.5253**	**46.1748**	**0.7400**	**46.9147**	**12.3400**	**0.7287**	**13.0687**		**58,582.7344**	**58,582.7344**	**2.4334**	**0.0877**	**58,669.7126**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**3.27**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/1/2019	1/14/2019	5	10	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 6.3

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use DPF for Construction Equipment

Use Soil Stabilizer

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	4.3350	45.5727	22.0630	0.0380		2.3904	2.3904		2.1991	2.1991		3,766.4529	3,766.4529	1.1917		3,796.2445
Total	**4.3350**	**45.5727**	**22.0630**	**0.0380**	**18.0663**	**2.3904**	**20.4566**	**9.9307**	**2.1991**	**12.1298**		**3,766.4529**	**3,766.4529**	**1.1917**		**3,796.2445**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0780	0.0488	0.5089	1.3900e-003	0.1506	9.6000e-004	0.1516	0.0400	8.8000e-004	0.0408		138.4827	138.4827	3.8600e-003		138.5791
Total	**0.0780**	**0.0488**	**0.5089**	**1.3900e-003**	**0.1506**	**9.6000e-004**	**0.1516**	**0.0400**	**8.8000e-004**	**0.0408**		**138.4827**	**138.4827**	**3.8600e-003**		**138.5791**

3.2 Site Preparation - 2019

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.1298	0.0000	8.1298	4.4688	0.0000	4.4688			0.0000			0.0000
Off-Road	-0.7693	8.0993	23.4010	0.0380		-1.1072	-1.1072		-0.9982	-0.9982	0.0000	3,766.4529	3,766.4529	1.1917		3,796.2445
Total	**-0.7693**	**8.0993**	**23.4010**	**0.0380**	**8.1298**	**-1.1072**	**7.0226**	**4.4688**	**-0.9982**	**3.4707**	**0.0000**	**3,766.4529**	**3,766.4529**	**1.1917**		**3,796.2445**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0780	0.0488	0.5089	1.3900e-003	0.1506	9.6000e-004	0.1516	0.0400	8.8000e-004	0.0408		138.4827	138.4827	3.8600e-003		138.5791
Total	**0.0780**	**0.0488**	**0.5089**	**1.3900e-003**	**0.1506**	**9.6000e-004**	**0.1516**	**0.0400**	**8.8000e-004**	**0.0408**		**138.4827**	**138.4827**	**3.8600e-003**		**138.5791**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	7.1818	79.9328	71.6020	0.4802	46.1748	0.1684	46.3432	12.3400	0.1571	12.4971		49,562.1249	49,562.1249	2.2601		49,618.6273
Unmitigated	7.1818	79.9328	71.6020	0.4802	46.1748	0.1684	46.3432	12.3400	0.1571	12.4971		49,562.1249	49,562.1249	2.2601		49,618.6273

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Fast Food Restaurant w/o Drive Thru	1,991.00	1,991.00	1991.00	3,299,306	3,299,306
Fast Food Restaurant with Drive Thru	2,492.00	2,492.00	2492.00	4,182,220	4,182,220
High Turnover (Sit Down Restaurant)	2,438.04	2,438.04	2438.04	4,555,707	4,555,707
Parking Lot	0.00	0.00	0.00		
Quality Restaurant	1,815.44	1,815.44	1815.44	3,584,289	3,584,289
Regional Shopping Center	2,885.40	2,885.40	2885.40	6,071,596	6,071,596
Total	11,621.88	11,621.88	11,621.88	21,693,117	21,693,117

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Fast Food Restaurant w/o Drive	12.50	4.20	5.40	1.50	79.50	19.00	100	0	0
Fast Food Restaurant with Drive	12.50	4.20	5.40	2.20	78.80	19.00	100	0	0
High Turnover (Sit Down	12.50	4.20	5.40	8.50	72.50	19.00	100	0	0
Parking Lot	12.50	4.20	5.40	0.00	0.00	0.00	0	0	0
Quality Restaurant	12.50	4.20	5.40	12.00	69.00	19.00	100	0	0
Regional Shopping Center	12.50	4.20	5.40	16.30	64.70	19.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Fast Food Restaurant w/o Drive Thru	0.566189	0.033707	0.192293	0.100413	0.008756	0.004001	0.016522	0.070107	0.001420	0.001057	0.004327	0.000696	0.000512
Fast Food Restaurant with Drive Thru	0.566189	0.033707	0.192293	0.100413	0.008756	0.004001	0.016522	0.070107	0.001420	0.001057	0.004327	0.000696	0.000512
High Turnover (Sit Down Restaurant)	0.566189	0.033707	0.192293	0.100413	0.008756	0.004001	0.016522	0.070107	0.001420	0.001057	0.004327	0.000696	0.000512
Parking Lot	0.566189	0.033707	0.192293	0.100413	0.008756	0.004001	0.016522	0.070107	0.001420	0.001057	0.004327	0.000696	0.000512
Quality Restaurant	0.566189	0.033707	0.192293	0.100413	0.008756	0.004001	0.016522	0.070107	0.001420	0.001057	0.004327	0.000696	0.000512
Regional Shopping Center	0.566189	0.033707	0.192293	0.100413	0.008756	0.004001	0.016522	0.070107	0.001420	0.001057	0.004327	0.000696	0.000512

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Install High Efficiency Lighting

Agua Caliente Cathedral City FTT Casino Project - Alternative C Cumulative - Riverside-Salton Sea County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.4386	3.9876	3.3496	0.0239		0.3031	0.3031		0.3031	0.3031		4,785.0701	4,785.0701	0.0917	0.0877	4,813.5054
NaturalGas Unmitigated	0.4386	3.9876	3.3496	0.0239		0.3031	0.3031		0.3031	0.3031		4,785.0701	4,785.0701	0.0917	0.0877	4,813.5054

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Fast Food Restaurant w/o Drive Thru	1498.3	0.0162	0.1469	0.1234	8.8000e-004		0.0112	0.0112		0.0112	0.0112		176.2708	176.2708	3.3800e-003	3.2300e-003	177.3182
Fast Food Restaurant with Drive Thru	5993.21	0.0646	0.5876	0.4936	3.5300e-003		0.0447	0.0447		0.0447	0.0447		705.0830	705.0830	0.0135	0.0129	709.2730
High Turnover (Sit Down Restaurant)	16481.3	0.1777	1.6158	1.3573	9.6900e-003		0.1228	0.1228		0.1228	0.1228		1,938.9782	1,938.9782	0.0372	0.0356	1,950.5006
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	16481.3	0.1777	1.6158	1.3573	9.6900e-003		0.1228	0.1228		0.1228	0.1228		1,938.9782	1,938.9782	0.0372	0.0356	1,950.5006
Regional Shopping Center	218.959	2.3600e-003	0.0215	0.0180	1.3000e-004		1.6300e-003	1.6300e-003		1.6300e-003	1.6300e-003		25.7599	25.7599	4.9000e-004	4.7000e-004	25.9130
Total		**0.4386**	**3.9876**	**3.3495**	**0.0239**		**0.3031**	**0.3031**		**0.3031**	**0.3031**		**4,785.0701**	**4,785.0701**	**0.0917**	**0.0877**	**4,813.5054**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Fast Food Restaurant w/o Drive Thru	1.4983	0.0162	0.1469	0.1234	8.8000e-004		0.0112	0.0112		0.0112	0.0112		176.2708	176.2708	3.3800e-003	3.2300e-003	177.3182
Fast Food Restaurant with Drive Thru	5.99321	0.0646	0.5876	0.4936	3.5300e-003		0.0447	0.0447		0.0447	0.0447		705.0830	705.0830	0.0135	0.0129	709.2730
High Turnover (Sit Down Restaurant)	16.4813	0.1777	1.6158	1.3573	9.6900e-003		0.1228	0.1228		0.1228	0.1228		1,938.9782	1,938.9782	0.0372	0.0356	1,950.5006
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	16.4813	0.1777	1.6158	1.3573	9.6900e-003		0.1228	0.1228		0.1228	0.1228		1,938.9782	1,938.9782	0.0372	0.0356	1,950.5006
Regional Shopping Center	0.218959	2.3600e-003	0.0215	0.0180	1.3000e-004		1.6300e-003	1.6300e-003		1.6300e-003	1.6300e-003		25.7599	25.7599	4.9000e-004	4.7000e-004	25.9130
Total		**0.4386**	**3.9876**	**3.3495**	**0.0239**		**0.3031**	**0.3031**		**0.3031**	**0.3031**		**4,785.0701**	**4,785.0701**	**0.0917**	**0.0877**	**4,813.5054**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.3144	7.2000e-004	0.0801	1.0000e-005		2.8000e-004	2.8000e-004		2.8000e-004	2.8000e-004		0.1729	0.1729	4.5000e-004		0.1840
Unmitigated	2.6573	7.2000e-004	0.0801	1.0000e-005		2.8000e-004	2.8000e-004		2.8000e-004	2.8000e-004		0.1729	0.1729	4.5000e-004		0.1840

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.6248					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.0252					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	7.3300e-003	7.2000e-004	0.0801	1.0000e-005		2.8000e-004	2.8000e-004		2.8000e-004	2.8000e-004		0.1729	0.1729	4.5000e-004		0.1840
Total	**2.6573**	**7.2000e-004**	**0.0801**	**1.0000e-005**		**2.8000e-004**	**2.8000e-004**		**2.8000e-004**	**2.8000e-004**		**0.1729**	**0.1729**	**4.5000e-004**		**0.1840**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.2819					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.0252					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	7.3300e-003	7.2000e-004	0.0801	1.0000e-005		2.8000e-004	2.8000e-004		2.8000e-004	2.8000e-004		0.1729	0.1729	4.5000e-004		0.1840
Total	**2.3144**	**7.2000e-004**	**0.0801**	**1.0000e-005**		**2.8000e-004**	**2.8000e-004**		**2.8000e-004**	**2.8000e-004**		**0.1729**	**0.1729**	**4.5000e-004**		**0.1840**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Emergency Generator	3	0	30	2923	0.73	Diesel

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
Boiler	3	12	4380	0.5	CNG

User Defined Equipment

Equipment Type	Number

10.1 Stationary Sources

Unmitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	lb/day										lb/day					
Boiler - CNG (0 - 2 MMBTU)	0.1941	0.8640	3.4589	0.0212		0.2682	0.2682		0.2682	0.2682		4,235.3665	4,235.3665	0.0812		4,237.3959
Emergency Generator - Diesel (750 - 9999 HP)	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.1941**	**0.8640**	**3.4589**	**0.0212**		**0.2682**	**0.2682**		**0.2682**	**0.2682**		**4,235.3665**	**4,235.3665**	**0.0812**		**4,237.3959**

11.0 Vegetation

Agua Caliente Cathedral City FTT Casino Project - Alternative C Cumulative

Riverside-Salton Sea County, Mitigation Report

Construction Mitigation Summary

Phase	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Site Preparation	1.16	0.82	-0.06	0.00	1.46	1.45	0.00	0.00	0.00	0.00	0.00	0.00

OFFROAD Equipment Mitigation

Equipment Type	Fuel Type	Tier	Number Mitigated	Total Number of Equipment	DPF	Oxidation Catalyst
Rubber Tired Dozers	Diesel	Tier 3	4	3	Level 3	0.00
Tractors/Loaders/Backhoes	Diesel	Tier 3	9	4	Level 3	0.00

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	Unmitigated tons/yr						Unmitigated mt/yr					
Rubber Tired Dozers	1.70200E-002	1.81120E-001	6.42600E-002	1.30000E-004	8.83000E-003	8.12000E-003	0.00000E+000	1.15044E+001	1.15044E+001	3.64000E-003	0.00000E+000	1.15954E+001
Tractors/Loaders/Backhoes	4.66000E-003	4.67500E-002	4.60500E-002	6.00000E-005	3.12000E-003	2.87000E-003	0.00000E+000	5.57995E+000	5.57995E+000	1.77000E-003	0.00000E+000	5.62408E+000

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	Mitigated tons/yr						Mitigated mt/yr					
Rubber Tired Dozers	-1.44000E-003	2.08800E-002	6.91800E-002	1.30000E-004	-2.46000E-003	-2.22000E-003	0.00000E+000	1.15044E+001	1.15044E+001	3.64000E-003	0.00000E+000	1.15954E+001
Tractors/Loaders/Backhoes	-2.40000E-003	1.96100E-002	4.78300E-002	6.00000E-005	-3.08000E-003	-2.77000E-003	0.00000E+000	5.57994E+000	5.57994E+000	1.77000E-003	0.00000E+000	5.62407E+000

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Rubber Tired Dozers	1.08461E+000	8.84717E-001	-7.65640E-002	0.00000E+000	1.27860E+000	1.27340E+000	0.00000E+000	1.73847E-006	1.73847E-006	0.00000E+000	0.00000E+000	8.62412E-007
Tractors/Loaders/Backhoes	1.51502E+000	5.80535E-001	-3.86536E-002	0.00000E+000	1.98718E+000	1.96516E+000	0.00000E+000	1.79213E-006	1.79213E-006	0.00000E+000	0.00000E+000	1.77807E-006

Fugitive Dust Mitigation

Yes/No	Mitigation Measure	Mitigation Input		Mitigation Input		Mitigation Input	
Yes	Soil Stabilizer for unpaved Roads	PM10 Reduction	10.00	PM2.5 Reduction	10.00		
No	Replace Ground Cover of Area Disturbed	PM10 Reduction	0.00	PM2.5 Reduction	0.00		
Yes	Water Exposed Area	PM10 Reduction	55.00	PM2.5 Reduction	55.00	Frequency (per day)	2.00
No	Unpaved Road Mitigation	Moisture Content %	0.00	Vehicle Speed (mph)	15.00		
No	Clean Paved Road	% PM Reduction	0.00				

		Unmitigated		Mitigated		Percent Reduction	
Phase	Source	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5
Site Preparation	Fugitive Dust	0.09	0.05	0.04	0.02	0.55	0.55
Site Preparation	Roads	0.00	0.00	0.00	0.00	0.00	0.00

Operational Percent Reduction Summary

Category	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Architectural Coating	54.88	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electricity	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.38	3.38	3.37	3.53	3.38
Hearth	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Landscaping	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mobile	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Natural Gas	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Water Indoor	0.00	0.00	0.00	0.00	0.00	0.00	20.00	17.86	17.99	19.99	19.91	18.34
Water Outdoor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Operational Mobile Mitigation

Project Setting:

Mitigation	Category	Measure	% Reduction	Input Value 1	Input Value 2	Input Value
No	Land Use	Increase Density	0.00			
No	Land Use	Increase Diversity	0.14	0.39		
No	Land Use	Improve Walkability Design	0.00			
No	Land Use	Improve Destination Accessibility	0.00			
No	Land Use	Increase Transit Accessibility	0.25			
No	Land Use	Integrate Below Market Rate Housing	0.00			
	Land Use	Land Use SubTotal	0.00			

No	Neighborhood Enhancements	Improve Pedestrian Network				
No	Neighborhood Enhancements	Provide Traffic Calming Measures				
No	Neighborhood Enhancements	Implement NEV Network	0.00			
	Neighborhood Enhancements	Neighborhood Enhancements Subtotal	0.00			
No	Parking Policy Pricing	Limit Parking Supply	0.00			
No	Parking Policy Pricing	Unbundle Parking Costs	0.00			
No	Parking Policy Pricing	On-street Market Pricing	0.00			
	Parking Policy Pricing	Parking Policy Pricing Subtotal	0.00			
No	Transit Improvements	Provide BRT System	0.00			
No	Transit Improvements	Expand Transit Network	0.00			
No	Transit Improvements	Increase Transit Frequency	0.00			
	Transit Improvements	Transit Improvements Subtotal	0.00			
		Land Use and Site Enhancement Subtotal	0.00			
No	Commute	Implement Trip Reduction Program				
No	Commute	Transit Subsidy				
No	Commute	Implement Employee Parking "Cash Out"				
No	Commute	Workplace Parking Charge				
No	Commute	Encourage Telecommuting and Alternative Work Schedules	0.00			
No	Commute	Market Commute Trip Reduction Option	0.00			
No	Commute	Employee Vanpool/Shuttle	0.00		2.00	
No	Commute	Provide Ride Sharing Program				
	Commute	Commute Subtotal	0.00			

No	School Trip	Implement School Bus Program	0.00			
		Total VMT Reduction	0.00			

Area Mitigation

Measure Implemented	Mitigation Measure	Input Value
No	Only Natural Gas Hearth	
No	No Hearth	
No	Use Low VOC Cleaning Supplies	
No	Use Low VOC Paint (Residential Interior)	250.00
No	Use Low VOC Paint (Residential Exterior)	250.00
Yes	Use Low VOC Paint (Non-residential Interior)	100.00
Yes	Use Low VOC Paint (Non-residential Exterior)	100.00
No	Use Low VOC Paint (Parking)	250.00
No	% Electric Lawnmower	0.00
No	% Electric Leafblower	0.00
No	% Electric Chainsaw	0.00

Energy Mitigation Measures

Measure Implemented	Mitigation Measure	Input Value 1	Input Value 2
No	Exceed Title 24	0.00	
Yes	Install High Efficiency Lighting	16.00	
No	On-site Renewable	0.00	0.00

Appliance Type	Land Use Subtype	% Improvement
ClothWasher		30.00
DishWasher		15.00
Fan		50.00
Refrigerator		15.00

Water Mitigation Measures

Measure Implemented	Mitigation Measure	Input Value 1	Input Value 2
No	Apply Water Conservation on Strategy	0.00	0.00
No	Use Reclaimed Water	0.00	0.00
No	Use Grey Water	0.00	
Yes	Install low-flow bathroom faucet	32.00	
Yes	Install low-flow Kitchen faucet	18.00	
Yes	Install low-flow Toilet	20.00	
Yes	Install low-flow Shower	20.00	
No	Turf Reduction	0.00	
No	Use Water Efficient Irrigation Systems	6.10	
No	Water Efficient Landscape	0.00	0.00

Solid Waste Mitigation

Mitigation Measures	Input Value

Institute Recycling and Composting Services Percent Reduction in Waste Disposed	50.00

Agua Caliente Cathedral City FTT Casino Project - Alternative D

Riverside-Salton Sea County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	1,150.00	Space	10.35	460,000.00	0
Fast Food Restaurant w/o Drive Thru	2.00	1000sqft	0.00	2,000.00	0
Fast Food Restaurant with Drive Thru	6.00	1000sqft	0.00	6,000.00	0
High Turnover (Sit Down Restaurant)	14.00	1000sqft	0.00	14,000.00	0
Quality Restaurant	14.00	1000sqft	0.00	14,000.00	0
User Defined Recreational	40.00	User Defined Unit	3.70	40,000.00	0
Regional Shopping Center	24.00	1000sqft	0.00	24,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2020
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Agua Caliente Cathedral City FTT Casino Project - Alternative D - Riverside-Salton Sea County, Annual

Project Characteristics -

Land Use - Project Description; lot acreage for all recreational and retail space is all included within the User Defined Recreational land use.

Construction Phase - Construction phasing based on a 12-month construction schedule.

Grading - MSA Consulting, Inc., 2018d (See Table 2, CalEEMod Inputs)

Vehicle Trips - See Table 3, CalEEMod Inputs. Trip generation rates are derived from the TIS (Appendix TIS).

Energy Use - Electricity energy and natural gas intensity for the user defined recretational land use determined from similar projects and scaled by square footage

Water And Wastewater - Water demand is based off of similar projects and scaled by square footage

Solid Waste - Section 4.9 of the EA

Construction Off-road Equipment Mitigation - Construction Mitigation

Area Mitigation - MDAQMD Rule 1113 Architectural Coatings (based on nonflat coating)

Energy Mitigation -

Water Mitigation -

Waste Mitigation - Tribe will use the Salton City Landfill's facilities and will divert 50 percent of waste from the landfill.

Stationary Sources - Emergency Generators and Fire Pumps - Based on like project emergency generator size and use

Stationary Sources - Process Boilers - Based on like project boiler size and use

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	250	100
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	100
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3

tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	9.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3

Agua Caliente Cathedral City FTT Casino Project - Alternative D - Riverside-Salton Sea County, Annual

tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	300.00	181.00
tblEnergyUse	NT24E	0.00	3.37
tblEnergyUse	NT24NG	0.00	560.88
tblGrading	AcresOfGrading	75.00	14.05
tblGrading	MaterialExported	0.00	140,948.00
tblLandUse	LandUseSquareFeet	0.00	40,000.00
tblLandUse	LotAcreage	0.05	0.00
tblLandUse	LotAcreage	0.14	0.00
tblLandUse	LotAcreage	0.32	0.00
tblLandUse	LotAcreage	0.32	0.00
tblLandUse	LotAcreage	0.00	3.70
tblLandUse	LotAcreage	0.55	0.00
tblSolidWaste	SolidWasteGenerationRate	0.00	375.95
tblStationaryBoilersUse	AnnualHeatInput	0.00	4,380.00
tblStationaryBoilersUse	BoilerRatingValue	0.00	0.50
tblStationaryBoilersUse	DailyHeatInput	0.00	12.00
tblStationaryBoilersUse	NumberOfEquipment	0.00	3.00
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	2,923.00
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	30.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	3.00
tblTripsAndVMT	HaulingTripNumber	17,619.00	17,618.00
tblVehicleTrips	CC_TTP	0.00	80.00
tblVehicleTrips	CNW_TTP	0.00	5.00
tblVehicleTrips	CW_TTP	0.00	15.00

tblVehicleTrips	DV_TP	37.00	0.00
tblVehicleTrips	DV_TP	21.00	0.00
tblVehicleTrips	DV_TP	20.00	0.00
tblVehicleTrips	DV_TP	18.00	0.00
tblVehicleTrips	DV_TP	35.00	0.00
tblVehicleTrips	PB_TP	12.00	0.00
tblVehicleTrips	PB_TP	50.00	0.00
tblVehicleTrips	PB_TP	43.00	0.00
tblVehicleTrips	PB_TP	44.00	0.00
tblVehicleTrips	PB_TP	11.00	0.00
tblVehicleTrips	PR_TP	51.00	100.00
tblVehicleTrips	PR_TP	29.00	100.00
tblVehicleTrips	PR_TP	37.00	100.00
tblVehicleTrips	PR_TP	38.00	100.00
tblVehicleTrips	PR_TP	54.00	100.00
tblVehicleTrips	PR_TP	0.00	100.00
tblVehicleTrips	ST_TR	696.00	288.38
tblVehicleTrips	ST_TR	722.03	159.63
tblVehicleTrips	ST_TR	158.37	45.55
tblVehicleTrips	ST_TR	94.36	17.20
tblVehicleTrips	ST_TR	49.97	36.34
tblVehicleTrips	ST_TR	0.00	93.00
tblVehicleTrips	SU_TR	500.00	288.38
tblVehicleTrips	SU_TR	542.72	159.63
tblVehicleTrips	SU_TR	131.84	45.55
tblVehicleTrips	SU_TR	72.16	17.20
tblVehicleTrips	SU_TR	25.24	36.34

tblVehicleTrips	SU_TR	0.00	93.00
tblVehicleTrips	WD_TR	716.00	288.38
tblVehicleTrips	WD_TR	496.12	159.63
tblVehicleTrips	WD_TR	127.15	45.55
tblVehicleTrips	WD_TR	89.95	17.20
tblVehicleTrips	WD_TR	42.70	36.34
tblVehicleTrips	WD_TR	0.00	93.00
tblWater	IndoorWaterUseRate	0.00	15,931,489.00
tblWater	OutdoorWaterUseRate	0.00	6,928,889.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	1.8206	6.3721	3.4526	0.0141	0.5719	0.1891	0.7610	0.2033	0.1769	0.3803	0.0000	1,314.0294	1,314.0294	0.1540	0.0000	1,317.8800
Maximum	**1.8206**	**6.3721**	**3.4526**	**0.0141**	**0.5719**	**0.1891**	**0.7610**	**0.2033**	**0.1769**	**0.3803**	**0.0000**	**1,314.0294**	**1,314.0294**	**0.1540**	**0.0000**	**1,317.8800**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	1.6124	5.3781	3.5972	0.0141	0.4636	0.0460	0.5096	0.1475	0.0441	0.1917	0.0000	1,314.0290	1,314.0290	0.1540	0.0000	1,317.8796
Maximum	**1.6124**	**5.3781**	**3.5972**	**0.0141**	**0.4636**	**0.0460**	**0.5096**	**0.1475**	**0.0441**	**0.1917**	**0.0000**	**1,314.0290**	**1,314.0290**	**0.1540**	**0.0000**	**1,317.8796**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**11.43**	**15.60**	**-4.19**	**0.00**	**18.95**	**75.66**	**33.04**	**27.45**	**75.06**	**49.60**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	1-1-2019	3-31-2019	3.8903	3.4126
2	4-1-2019	6-30-2019	1.1376	0.8600
3	7-1-2019	9-30-2019	1.1501	0.8695
		Highest	3.8903	3.4126

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.5532	1.1000e-004	0.0116	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0223	0.0223	6.0000e-005	0.0000	0.0238
Energy	0.1743	1.5849	1.3313	9.5100e-003		0.1205	0.1205		0.1205	0.1205	0.0000	2,460.8177	2,460.8177	0.0634	0.0379	2,473.7018
Mobile	1.9936	16.0382	19.6606	0.0759	5.1624	0.0704	5.2328	1.3833	0.0663	1.4496	0.0000	7,032.4923	7,032.4923	0.4726	0.0000	7,044.3082
Stationary	0.2513	1.1230	1.1816	4.9000e-003		0.0807	0.0807		0.0807	0.0807	0.0000	801.3887	801.3887	0.0275	0.0000	802.0759
Waste						0.0000	0.0000		0.0000	0.0000	136.5480	0.0000	136.5480	8.0698	0.0000	338.2918
Water						0.0000	0.0000		0.0000	0.0000	9.0850	149.6595	158.7445	0.9393	0.0233	189.1737
Total	**2.9724**	**18.7462**	**22.1851**	**0.0903**	**5.1624**	**0.2716**	**5.4340**	**1.3833**	**0.2675**	**1.6508**	**145.6330**	**10,444.3806**	**10,590.0135**	**9.5727**	**0.0612**	**10,847.5752**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.4837	1.1000e-004	0.0116	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0223	0.0223	6.0000e-005	0.0000	0.0238
Energy	0.1743	1.5849	1.3313	9.5100e-003		0.1205	0.1205		0.1205	0.1205	0.0000	2,433.5967	2,433.5967	0.0623	0.0377	2,446.3835
Mobile	1.9936	16.0382	19.6606	0.0759	5.1624	0.0704	5.2328	1.3833	0.0663	1.4496	0.0000	7,032.4923	7,032.4923	0.4726	0.0000	7,044.3082
Stationary	0.2513	1.1230	1.1816	4.9000e-003		0.0807	0.0807		0.0807	0.0807	0.0000	801.3887	801.3887	0.0275	0.0000	802.0759
Waste						0.0000	0.0000		0.0000	0.0000	68.2740	0.0000	68.2740	4.0349	0.0000	169.1459
Water						0.0000	0.0000		0.0000	0.0000	7.2680	125.8983	133.1663	0.7517	0.0187	157.5317
Total	**2.9029**	**18.7462**	**22.1851**	**0.0903**	**5.1624**	**0.2716**	**5.4340**	**1.3833**	**0.2675**	**1.6508**	**75.5420**	**10,393.3984**	**10,468.9404**	**5.3491**	**0.0564**	**10,619.4689**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**2.34**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**48.13**	**0.49**	**1.14**	**44.12**	**7.91**	**2.10**

3.0 Construction Detail

Construction Phase

Agua Caliente Cathedral City FTT Casino Project - Alternative D - Riverside-Salton Sea County, Annual

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/1/2019	1/14/2019	5	10	
2	Grading	Grading	1/15/2019	2/25/2019	5	30	
3	Building Construction	Building Construction	2/26/2019	11/5/2019	5	181	
4	Paving	Paving	11/6/2019	12/3/2019	5	20	
5	Architectural Coating	Architectural Coating	12/4/2019	12/31/2019	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 14.05

Acres of Paving: 10.35

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 150,000; Non-Residential Outdoor: 50,000; Striped Parking Area: 27,600 (Architectural Coating – sqft)

OffRoad Equipment

Agua Caliente Cathedral City FTT Casino Project - Alternative D - Riverside-Salton Sea County, Annual

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	17,618.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	233.00	92.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	47.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use DPF for Construction Equipment

Use Soil Stabilizer

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0903	0.0000	0.0903	0.0497	0.0000	0.0497	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0217	0.2279	0.1103	1.9000e-004		0.0120	0.0120		0.0110	0.0110	0.0000	17.0843	17.0843	5.4100e-003	0.0000	17.2195
Total	**0.0217**	**0.2279**	**0.1103**	**1.9000e-004**	**0.0903**	**0.0120**	**0.1023**	**0.0497**	**0.0110**	**0.0607**	**0.0000**	**17.0843**	**17.0843**	**5.4100e-003**	**0.0000**	**17.2195**

3.2 Site Preparation - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.6000e-004	2.5000e-004	2.6700e-003	1.0000e-005	7.4000e-004	0.0000	7.5000e-004	2.0000e-004	0.0000	2.0000e-004	0.0000	0.6442	0.6442	2.0000e-005	0.0000	0.6447
Total	**3.6000e-004**	**2.5000e-004**	**2.6700e-003**	**1.0000e-005**	**7.4000e-004**	**0.0000**	**7.5000e-004**	**2.0000e-004**	**0.0000**	**2.0000e-004**	**0.0000**	**0.6442**	**0.6442**	**2.0000e-005**	**0.0000**	**0.6447**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0407	0.0000	0.0407	0.0223	0.0000	0.0223	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.6600e-003	0.0953	0.1148	1.9000e-004		7.1000e-004	7.1000e-004		7.1000e-004	7.1000e-004	0.0000	17.0843	17.0843	5.4100e-003	0.0000	17.2195
Total	**4.6600e-003**	**0.0953**	**0.1148**	**1.9000e-004**	**0.0407**	**7.1000e-004**	**0.0414**	**0.0223**	**7.1000e-004**	**0.0231**	**0.0000**	**17.0843**	**17.0843**	**5.4100e-003**	**0.0000**	**17.2195**

3.2 Site Preparation - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.6000e-004	2.5000e-004	2.6700e-003	1.0000e-005	7.4000e-004	0.0000	7.5000e-004	2.0000e-004	0.0000	2.0000e-004	0.0000	0.6442	0.6442	2.0000e-005	0.0000	0.6447
Total	**3.6000e-004**	**2.5000e-004**	**2.6700e-003**	**1.0000e-005**	**7.4000e-004**	**0.0000**	**7.5000e-004**	**2.0000e-004**	**0.0000**	**2.0000e-004**	**0.0000**	**0.6442**	**0.6442**	**2.0000e-005**	**0.0000**	**0.6447**

3.3 Grading - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1067	0.0000	0.1067	0.0518	0.0000	0.0518	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0711	0.8178	0.5007	9.3000e-004		0.0357	0.0357		0.0329	0.0329	0.0000	83.5520	83.5520	0.0264	0.0000	84.2129
Total	**0.0711**	**0.8178**	**0.5007**	**9.3000e-004**	**0.1067**	**0.0357**	**0.1425**	**0.0518**	**0.0329**	**0.0847**	**0.0000**	**83.5520**	**83.5520**	**0.0264**	**0.0000**	**84.2129**

3.3 Grading - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0506	2.3070	0.2910	6.7100e-003	0.1519	8.1900e-003	0.1601	0.0417	7.8400e-003	0.0495	0.0000	645.2990	645.2990	0.0422	0.0000	646.3533
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2100e-003	8.4000e-004	8.9100e-003	2.0000e-005	2.4700e-003	2.0000e-005	2.4800e-003	6.6000e-004	1.0000e-005	6.7000e-004	0.0000	2.1474	2.1474	6.0000e-005	0.0000	2.1489
Total	**0.0518**	**2.3079**	**0.2999**	**6.7300e-003**	**0.1544**	**8.2100e-003**	**0.1626**	**0.0424**	**7.8500e-003**	**0.0502**	**0.0000**	**647.4464**	**647.4464**	**0.0422**	**0.0000**	**648.5022**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0480	0.0000	0.0480	0.0233	0.0000	0.0233	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0436	0.6209	0.5503	9.3000e-004		0.0169	0.0169		0.0157	0.0157	0.0000	83.5519	83.5519	0.0264	0.0000	84.2128
Total	**0.0436**	**0.6209**	**0.5503**	**9.3000e-004**	**0.0480**	**0.0169**	**0.0649**	**0.0233**	**0.0157**	**0.0390**	**0.0000**	**83.5519**	**83.5519**	**0.0264**	**0.0000**	**84.2128**

3.3 Grading - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0506	2.3070	0.2910	6.7100e-003	0.1519	8.1900e-003	0.1601	0.0417	7.8400e-003	0.0495	0.0000	645.2990	645.2990	0.0422	0.0000	646.3533
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2100e-003	8.4000e-004	8.9100e-003	2.0000e-005	2.4700e-003	2.0000e-005	2.4800e-003	6.6000e-004	1.0000e-005	6.7000e-004	0.0000	2.1474	2.1474	6.0000e-005	0.0000	2.1489
Total	**0.0518**	**2.3079**	**0.2999**	**6.7300e-003**	**0.1544**	**8.2100e-003**	**0.1626**	**0.0424**	**7.8500e-003**	**0.0502**	**0.0000**	**647.4464**	**647.4464**	**0.0422**	**0.0000**	**648.5022**

3.4 Building Construction - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2137	1.9076	1.5533	2.4400e-003		0.1167	0.1167		0.1098	0.1098	0.0000	212.7693	212.7693	0.0518	0.0000	214.0651
Total	**0.2137**	**1.9076**	**1.5533**	**2.4400e-003**		**0.1167**	**0.1167**		**0.1098**	**0.1098**	**0.0000**	**212.7693**	**212.7693**	**0.0518**	**0.0000**	**214.0651**

3.4 Building Construction - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0253	0.8791	0.1758	1.8200e-003	0.0412	5.7500e-003	0.0470	0.0119	5.5000e-003	0.0174	0.0000	174.1298	174.1298	0.0171	0.0000	174.5561
Worker	0.0849	0.0591	0.6263	1.6700e-003	0.1735	1.1200e-003	0.1746	0.0461	1.0300e-003	0.0471	0.0000	150.9369	150.9369	4.2300e-003	0.0000	151.0427
Total	**0.1101**	**0.9381**	**0.8022**	**3.4900e-003**	**0.2147**	**6.8700e-003**	**0.2216**	**0.0580**	**6.5300e-003**	**0.0645**	**0.0000**	**325.0667**	**325.0667**	**0.0213**	**0.0000**	**325.5988**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0610	1.2875	1.6176	2.4400e-003		0.0123	0.0123		0.0123	0.0123	0.0000	212.7690	212.7690	0.0518	0.0000	214.0649
Total	**0.0610**	**1.2875**	**1.6176**	**2.4400e-003**		**0.0123**	**0.0123**		**0.0123**	**0.0123**	**0.0000**	**212.7690**	**212.7690**	**0.0518**	**0.0000**	**214.0649**

3.4 Building Construction - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0253	0.8791	0.1758	1.8200e-003	0.0412	5.7500e-003	0.0470	0.0119	5.5000e-003	0.0174	0.0000	174.1298	174.1298	0.0171	0.0000	174.5561
Worker	0.0849	0.0591	0.6263	1.6700e-003	0.1735	1.1200e-003	0.1746	0.0461	1.0300e-003	0.0471	0.0000	150.9369	150.9369	4.2300e-003	0.0000	151.0427
Total	**0.1101**	**0.9381**	**0.8022**	**3.4900e-003**	**0.2147**	**6.8700e-003**	**0.2216**	**0.0580**	**6.5300e-003**	**0.0645**	**0.0000**	**325.0667**	**325.0667**	**0.0213**	**0.0000**	**325.5988**

3.5 Paving - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0145	0.1524	0.1467	2.3000e-004		8.2500e-003	8.2500e-003		7.5900e-003	7.5900e-003	0.0000	20.4752	20.4752	6.4800e-003	0.0000	20.6371
Paving	0.0136					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0281**	**0.1524**	**0.1467**	**2.3000e-004**		**8.2500e-003**	**8.2500e-003**		**7.5900e-003**	**7.5900e-003**	**0.0000**	**20.4752**	**20.4752**	**6.4800e-003**	**0.0000**	**20.6371**

3.5 Paving - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0000e-004	4.2000e-004	4.4600e-003	1.0000e-005	1.2300e-003	1.0000e-005	1.2400e-003	3.3000e-004	1.0000e-005	3.4000e-004	0.0000	1.0737	1.0737	3.0000e-005	0.0000	1.0745
Total	**6.0000e-004**	**4.2000e-004**	**4.4600e-003**	**1.0000e-005**	**1.2300e-003**	**1.0000e-005**	**1.2400e-003**	**3.3000e-004**	**1.0000e-005**	**3.4000e-004**	**0.0000**	**1.0737**	**1.0737**	**3.0000e-005**	**0.0000**	**1.0745**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	5.6100e-003	0.1130	0.1730	2.3000e-004		9.1000e-004	9.1000e-004		9.1000e-004	9.1000e-004	0.0000	20.4752	20.4752	6.4800e-003	0.0000	20.6371
Paving	0.0136					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0192**	**0.1130**	**0.1730**	**2.3000e-004**		**9.1000e-004**	**9.1000e-004**		**9.1000e-004**	**9.1000e-004**	**0.0000**	**20.4752**	**20.4752**	**6.4800e-003**	**0.0000**	**20.6371**

3.5 Paving - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0000e-004	4.2000e-004	4.4600e-003	1.0000e-005	1.2300e-003	1.0000e-005	1.2400e-003	3.3000e-004	1.0000e-005	3.4000e-004	0.0000	1.0737	1.0737	3.0000e-005	0.0000	1.0745
Total	**6.0000e-004**	**4.2000e-004**	**4.4600e-003**	**1.0000e-005**	**1.2300e-003**	**1.0000e-005**	**1.2400e-003**	**3.3000e-004**	**1.0000e-005**	**3.4000e-004**	**0.0000**	**1.0737**	**1.0737**	**3.0000e-005**	**0.0000**	**1.0745**

3.6 Architectural Coating - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.3187					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.6600e-003	0.0184	0.0184	3.0000e-005		1.2900e-003	1.2900e-003		1.2900e-003	1.2900e-003	0.0000	2.5533	2.5533	2.2000e-004	0.0000	2.5587
Total	**1.3213**	**0.0184**	**0.0184**	**3.0000e-005**		**1.2900e-003**	**1.2900e-003**		**1.2900e-003**	**1.2900e-003**	**0.0000**	**2.5533**	**2.5533**	**2.2000e-004**	**0.0000**	**2.5587**

3.6 Architectural Coating - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.8900e-003	1.3200e-003	0.0140	4.0000e-005	3.8700e-003	3.0000e-005	3.8900e-003	1.0300e-003	2.0000e-005	1.0500e-003	0.0000	3.3643	3.3643	9.0000e-005	0.0000	3.3666
Total	**1.8900e-003**	**1.3200e-003**	**0.0140**	**4.0000e-005**	**3.8700e-003**	**3.0000e-005**	**3.8900e-003**	**1.0300e-003**	**2.0000e-005**	**1.0500e-003**	**0.0000**	**3.3643**	**3.3643**	**9.0000e-005**	**0.0000**	**3.3666**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.3187					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.9000e-004	0.0136	0.0183	3.0000e-005		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004	0.0000	2.5533	2.5533	2.2000e-004	0.0000	2.5586
Total	**1.3193**	**0.0136**	**0.0183**	**3.0000e-005**		**1.4000e-004**	**1.4000e-004**		**1.4000e-004**	**1.4000e-004**	**0.0000**	**2.5533**	**2.5533**	**2.2000e-004**	**0.0000**	**2.5586**

3.6 Architectural Coating - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.8900e-003	1.3200e-003	0.0140	4.0000e-005	3.8700e-003	3.0000e-005	3.8900e-003	1.0300e-003	2.0000e-005	1.0500e-003	0.0000	3.3643	3.3643	9.0000e-005	0.0000	3.3666
Total	**1.8900e-003**	**1.3200e-003**	**0.0140**	**4.0000e-005**	**3.8700e-003**	**3.0000e-005**	**3.8900e-003**	**1.0300e-003**	**2.0000e-005**	**1.0500e-003**	**0.0000**	**3.3643**	**3.3643**	**9.0000e-005**	**0.0000**	**3.3666**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.9936	16.0382	19.6606	0.0759	5.1624	0.0704	5.2328	1.3833	0.0663	1.4496	0.0000	7,032.4923	7,032.4923	0.4726	0.0000	7,044.3082
Unmitigated	1.9936	16.0382	19.6606	0.0759	5.1624	0.0704	5.2328	1.3833	0.0663	1.4496	0.0000	7,032.4923	7,032.4923	0.4726	0.0000	7,044.3082

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Fast Food Restaurant w/o Drive Thru	576.76	576.76	576.76	955,755	955,755
Fast Food Restaurant with Drive Thru	957.78	957.78	957.78	1,607,402	1,607,402
High Turnover (Sit Down Restaurant)	637.70	637.70	637.70	1,191,602	1,191,602
Parking Lot	0.00	0.00	0.00		
Quality Restaurant	240.80	240.80	240.80	475,420	475,420
Regional Shopping Center	872.16	872.16	872.16	1,835,241	1,835,241
User Defined Recreational	3,720.00	3,720.00	3720.00	7,454,210	7,454,210
Total	7,005.20	7,005.20	7,005.20	13,519,631	13,519,631

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Fast Food Restaurant w/o Drive	12.50	4.20	5.40	1.50	79.50	19.00	100	0	0
Fast Food Restaurant with Drive	12.50	4.20	5.40	2.20	78.80	19.00	100	0	0
High Turnover (Sit Down	12.50	4.20	5.40	8.50	72.50	19.00	100	0	0
Parking Lot	12.50	4.20	5.40	0.00	0.00	0.00	0	0	0
Quality Restaurant	12.50	4.20	5.40	12.00	69.00	19.00	100	0	0
Regional Shopping Center	12.50	4.20	5.40	16.30	64.70	19.00	100	0	0
User Defined Recreational	12.50	4.20	5.40	15.00	80.00	5.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Fast Food Restaurant w/o Drive Thru	0.538064	0.038449	0.184390	0.122109	0.017402	0.005339	0.017250	0.067711	0.001365	0.001213	0.004629	0.000959	0.001120
Fast Food Restaurant with Drive Thru	0.538064	0.038449	0.184390	0.122109	0.017402	0.005339	0.017250	0.067711	0.001365	0.001213	0.004629	0.000959	0.001120
High Turnover (Sit Down Restaurant)	0.538064	0.038449	0.184390	0.122109	0.017402	0.005339	0.017250	0.067711	0.001365	0.001213	0.004629	0.000959	0.001120
Parking Lot	0.538064	0.038449	0.184390	0.122109	0.017402	0.005339	0.017250	0.067711	0.001365	0.001213	0.004629	0.000959	0.001120
Quality Restaurant	0.538064	0.038449	0.184390	0.122109	0.017402	0.005339	0.017250	0.067711	0.001365	0.001213	0.004629	0.000959	0.001120
Regional Shopping Center	0.538064	0.038449	0.184390	0.122109	0.017402	0.005339	0.017250	0.067711	0.001365	0.001213	0.004629	0.000959	0.001120
User Defined Recreational	0.538064	0.038449	0.184390	0.122109	0.017402	0.005339	0.017250	0.067711	0.001365	0.001213	0.004629	0.000959	0.001120

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Install High Efficiency Lighting

Agua Caliente Cathedral City FTT Casino Project - Alternative D - Riverside-Salton Sea County, Annual

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	708.2210	708.2210	0.0292	6.0500e-003	710.7547
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	735.4420	735.4420	0.0304	6.2800e-003	738.0730
NaturalGas Mitigated	0.1743	1.5849	1.3313	9.5100e-003		0.1205	0.1205		0.1205	0.1205	0.0000	1,725.3757	1,725.3757	0.0331	0.0316	1,735.6288
NaturalGas Unmitigated	0.1743	1.5849	1.3313	9.5100e-003		0.1205	0.1205		0.1205	0.1205	0.0000	1,725.3757	1,725.3757	0.0331	0.0316	1,735.6288

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Fast Food Restaurant w/o Drive Thru	546880	2.9500e-003	0.0268	0.0225	1.6000e-004		2.0400e-003	2.0400e-003		2.0400e-003	2.0400e-003	0.0000	29.1836	29.1836	5.6000e-004	5.4000e-004	29.3570
Fast Food Restaurant with Drive Thru	1.64064e+006	8.8500e-003	0.0804	0.0676	4.8000e-004		6.1100e-003	6.1100e-003		6.1100e-003	6.1100e-003	0.0000	87.5508	87.5508	1.6800e-003	1.6100e-003	88.0711
High Turnover (Sit Down Restaurant)	3.82816e+006	0.0206	0.1877	0.1576	1.1300e-003		0.0143	0.0143		0.0143	0.0143	0.0000	204.2852	204.2852	3.9200e-003	3.7500e-003	205.4992
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	3.82816e+006	0.0206	0.1877	0.1576	1.1300e-003		0.0143	0.0143		0.0143	0.0143	0.0000	204.2852	204.2852	3.9200e-003	3.7500e-003	205.4992
Regional Shopping Center	53280	2.9000e-004	2.6100e-003	2.1900e-003	2.0000e-005		2.0000e-004	2.0000e-004		2.0000e-004	2.0000e-004	0.0000	2.8432	2.8432	5.0000e-005	5.0000e-005	2.8601
User Defined Recreational	2.24352e+007	0.1210	1.0998	0.9238	6.6000e-003		0.0836	0.0836		0.0836	0.0836	0.0000	1,197.2277	1,197.2277	0.0230	0.0220	1,204.3422
Total		**0.1743**	**1.5849**	**1.3313**	**9.5200e-003**		**0.1205**	**0.1205**		**0.1205**	**0.1205**	**0.0000**	**1,725.3757**	**1,725.3757**	**0.0331**	**0.0317**	**1,735.6288**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Fast Food Restaurant w/o Drive Thru	546880	2.9500e-003	0.0268	0.0225	1.6000e-004		2.0400e-003	2.0400e-003		2.0400e-003	2.0400e-003	0.0000	29.1836	29.1836	5.6000e-004	5.4000e-004	29.3570
Fast Food Restaurant with Drive Thru	1.64064e+006	8.8500e-003	0.0804	0.0676	4.8000e-004		6.1100e-003	6.1100e-003		6.1100e-003	6.1100e-003	0.0000	87.5508	87.5508	1.6800e-003	1.6100e-003	88.0711
High Turnover (Sit Down Restaurant)	3.82816e+006	0.0206	0.1877	0.1576	1.1300e-003		0.0143	0.0143		0.0143	0.0143	0.0000	204.2852	204.2852	3.9200e-003	3.7500e-003	205.4992
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	3.82816e+006	0.0206	0.1877	0.1576	1.1300e-003		0.0143	0.0143		0.0143	0.0143	0.0000	204.2852	204.2852	3.9200e-003	3.7500e-003	205.4992
Regional Shopping Center	53280	2.9000e-004	2.6100e-003	2.1900e-003	2.0000e-005		2.0000e-004	2.0000e-004		2.0000e-004	2.0000e-004	0.0000	2.8432	2.8432	5.0000e-005	5.0000e-005	2.8601
User Defined Recreational	2.24352e+007	0.1210	1.0998	0.9238	6.6000e-003		0.0836	0.0836		0.0836	0.0836	0.0000	1,197.2277	1,197.2277	0.0230	0.0220	1,204.3422
Total		**0.1743**	**1.5849**	**1.3313**	**9.5200e-003**		**0.1205**	**0.1205**		**0.1205**	**0.1205**	**0.0000**	**1,725.3757**	**1,725.3757**	**0.0331**	**0.0317**	**1,735.6288**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Fast Food Restaurant w/o Drive Thru	94960	30.2563	1.2500e-003	2.6000e-004	30.3645
Fast Food Restaurant with Drive Thru	284880	90.7689	3.7500e-003	7.8000e-004	91.0936
High Turnover (Sit Down Restaurant)	664720	211.7940	8.7400e-003	1.8100e-003	212.5517
Parking Lot	161000	51.2981	2.1200e-003	4.4000e-004	51.4816
Quality Restaurant	664720	211.7940	8.7400e-003	1.8100e-003	212.5517
Regional Shopping Center	303120	96.5805	3.9900e-003	8.2000e-004	96.9261
User Defined Recreational	134800	42.9502	1.7700e-003	3.7000e-004	43.1038
Total		**735.4420**	**0.0304**	**6.2900e-003**	**738.0730**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Fast Food Restaurant w/o Drive Thru	92841.6	29.5813	1.2200e-003	2.5000e-004	29.6872
Fast Food Restaurant with Drive Thru	278525	88.7440	3.6600e-003	7.6000e-004	89.0615
High Turnover (Sit Down Restaurant)	649891	207.0693	8.5500e-003	1.7700e-003	207.8101
Parking Lot	135240	43.0904	1.7800e-003	3.7000e-004	43.2445
Quality Restaurant	649891	207.0693	8.5500e-003	1.7700e-003	207.8101
Regional Shopping Center	281578	89.7167	3.7000e-003	7.7000e-004	90.0376
User Defined Recreational	134800	42.9502	1.7700e-003	3.7000e-004	43.1038
Total		**708.2210**	**0.0292**	**6.0600e-003**	**710.7547**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.4837	1.1000e-004	0.0116	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0223	0.0223	6.0000e-005	0.0000	0.0238
Unmitigated	0.5532	1.1000e-004	0.0116	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0223	0.0223	6.0000e-005	0.0000	0.0238

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1319					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.4203					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0900e-003	1.1000e-004	0.0116	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0223	0.0223	6.0000e-005	0.0000	0.0238
Total	**0.5533**	**1.1000e-004**	**0.0116**	**0.0000**		**4.0000e-005**	**4.0000e-005**		**4.0000e-005**	**4.0000e-005**	**0.0000**	**0.0223**	**0.0223**	**6.0000e-005**	**0.0000**	**0.0238**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0623					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.4203					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0900e-003	1.1000e-004	0.0116	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0223	0.0223	6.0000e-005	0.0000	0.0238
Total	**0.4837**	**1.1000e-004**	**0.0116**	**0.0000**		**4.0000e-005**	**4.0000e-005**		**4.0000e-005**	**4.0000e-005**	**0.0000**	**0.0223**	**0.0223**	**6.0000e-005**	**0.0000**	**0.0238**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Agua Caliente Cathedral City FTT Casino Project - Alternative D - Riverside-Salton Sea County, Annual

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	133.1663	0.7517	0.0187	157.5317
Unmitigated	158.7445	0.9393	0.0233	189.1737

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Fast Food Restaurant w/o Drive Thru	0.607067 / 0.038749	2.8483	0.0199	4.9000e-004	3.4916
Fast Food Restaurant with Drive Thru	1.8212 / 0.116247	8.5450	0.0597	1.4700e-003	10.4747
High Turnover (Sit Down Restaurant)	4.24947 / 0.271243	19.9384	0.1392	3.4300e-003	24.4410
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	4.24947 / 0.271243	19.9384	0.1392	3.4300e-003	24.4410
Regional Shopping Center	1.77774 / 1.08958	11.7964	0.0584	1.4600e-003	13.6924
User Defined Recreational	15.9315 / 6.92889	95.6779	0.5229	0.0130	112.6331
Total		**158.7445**	**0.9393**	**0.0233**	**189.1737**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Fast Food Restaurant w/o Drive Thru	0.485654 / 0.038749	2.3061	0.0159	3.9000e-004	2.8208
Fast Food Restaurant with Drive Thru	1.45696 / 0.116247	6.9183	0.0477	1.1800e-003	8.4624
High Turnover (Sit Down Restaurant)	3.39958 / 0.271243	16.1428	0.1114	2.7400e-003	19.7455
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	3.39958 / 0.271243	16.1428	0.1114	2.7400e-003	19.7455
Regional Shopping Center	1.42219 / 1.08958	10.2085	0.0467	1.1800e-003	11.7281
User Defined Recreational	12.7452 / 6.92889	81.4478	0.4185	0.0105	95.0295
Total		**133.1663**	**0.7517**	**0.0187**	**157.5317**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	68.2740	4.0349	0.0000	169.1459
Unmitigated	136.5480	8.0698	0.0000	338.2918

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Fast Food Restaurant w/o Drive Thru	23.04	4.6769	0.2764	0.0000	11.5869
Fast Food Restaurant with Drive Thru	69.11	14.0287	0.8291	0.0000	34.7555
High Turnover (Sit Down Restaurant)	166.6	33.8183	1.9986	0.0000	83.7834
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	12.78	2.5942	0.1533	0.0000	6.4271
Regional Shopping Center	25.2	5.1154	0.3023	0.0000	12.6731
User Defined Recreational	375.95	76.3145	4.5101	0.0000	189.0658
Total		**136.5480**	**8.0697**	**0.0000**	**338.2918**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Fast Food Restaurant w/o Drive Thru	11.52	2.3385	0.1382	0.0000	5.7934
Fast Food Restaurant with Drive Thru	34.555	7.0144	0.4145	0.0000	17.3778
High Turnover (Sit Down Restaurant)	83.3	16.9092	0.9993	0.0000	41.8917
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	6.39	1.2971	0.0767	0.0000	3.2135
Regional Shopping Center	12.6	2.5577	0.1512	0.0000	6.3366
User Defined Recreational	187.975	38.1572	2.2550	0.0000	94.5329
Total		**68.2740**	**4.0349**	**0.0000**	**169.1459**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Emergency Generator	3	0	30	2923	0.73	Diesel

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
Boiler	3	12	4380	0.5	CNG

User Defined Equipment

Equipment Type	Number

10.1 Stationary Sources

Unmitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	tons/yr										MT/yr					
Boiler - CNG (0 - 2 MMBTU)	0.0354	0.1577	0.6313	3.8600e-003		0.0490	0.0490		0.0490	0.0490	0.0000	701.2124	701.2124	0.0134	0.0000	701.5484
Emergency Generator - Diesel (750 - 9999 HP)	0.2159	0.9653	0.5504	1.0400e-003		0.0318	0.0318		0.0318	0.0318	0.0000	100.1763	100.1763	0.0140	0.0000	100.5274
Total	**0.2513**	**1.1230**	**1.1816**	**4.9000e-003**		**0.0807**	**0.0807**		**0.0807**	**0.0807**	**0.0000**	**801.3887**	**801.3887**	**0.0275**	**0.0000**	**802.0759**

11.0 Vegetation

Agua Caliente Cathedral City FTT Casino Project - Alternative D

Riverside-Salton Sea County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	1,150.00	Space	10.35	460,000.00	0
Fast Food Restaurant w/o Drive Thru	2.00	1000sqft	0.00	2,000.00	0
Fast Food Restaurant with Drive Thru	6.00	1000sqft	0.00	6,000.00	0
High Turnover (Sit Down Restaurant)	14.00	1000sqft	0.00	14,000.00	0
Quality Restaurant	14.00	1000sqft	0.00	14,000.00	0
User Defined Recreational	40.00	User Defined Unit	3.70	40,000.00	0
Regional Shopping Center	24.00	1000sqft	0.00	24,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2020
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Agua Caliente Cathedral City FTT Casino Project - Alternative D - Riverside-Salton Sea County, Summer

Project Characteristics -

Land Use - Project Description; lot acreage for all recreational and retail space is all included within the User Defined Recreational land use.

Construction Phase - Construction phasing based on a 12-month construction schedule.

Grading - MSA Consulting, Inc., 2018d (See Table 2, CalEEMod Inputs)

Vehicle Trips - See Table 3, CalEEMod Inputs. Trip generation rates are derived from the TIS (Appendix TIS).

Energy Use - Electricity energy and natural gas intensity for the user defined recretational land use determined from similar projects and scaled by square footage

Water And Wastewater - Water demand is based off of similar projects and scaled by square footage

Solid Waste - Section 4.9 of the EA

Construction Off-road Equipment Mitigation - Construction Mitigation

Area Mitigation - MDAQMD Rule 1113 Architectural Coatings (based on nonflat coating)

Energy Mitigation -

Water Mitigation -

Waste Mitigation - Tribe will use the Salton City Landfill's facilities and will divert 50 percent of waste from the landfill.

Stationary Sources - Emergency Generators and Fire Pumps - Based on like project emergency generator size and use

Stationary Sources - Process Boilers - Based on like project boiler size and use

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	250	100
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	100
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3

tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	9.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3

Agua Caliente Cathedral City FTT Casino Project - Alternative D - Riverside-Salton Sea County, Summer

tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	300.00	181.00
tblEnergyUse	NT24E	0.00	3.37
tblEnergyUse	NT24NG	0.00	560.88
tblGrading	AcresOfGrading	75.00	14.05
tblGrading	MaterialExported	0.00	140,948.00
tblLandUse	LandUseSquareFeet	0.00	40,000.00
tblLandUse	LotAcreage	0.05	0.00
tblLandUse	LotAcreage	0.14	0.00
tblLandUse	LotAcreage	0.32	0.00
tblLandUse	LotAcreage	0.32	0.00
tblLandUse	LotAcreage	0.00	3.70
tblLandUse	LotAcreage	0.55	0.00
tblSolidWaste	SolidWasteGenerationRate	0.00	375.95
tblStationaryBoilersUse	AnnualHeatInput	0.00	4,380.00
tblStationaryBoilersUse	BoilerRatingValue	0.00	0.50
tblStationaryBoilersUse	DailyHeatInput	0.00	12.00
tblStationaryBoilersUse	NumberOfEquipment	0.00	3.00
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	2,923.00
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	30.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	3.00
tblTripsAndVMT	HaulingTripNumber	17,619.00	17,618.00
tblVehicleTrips	CC_TTP	0.00	80.00
tblVehicleTrips	CNW_TTP	0.00	5.00
tblVehicleTrips	CW_TTP	0.00	15.00

tblVehicleTrips	DV_TP	37.00	0.00
tblVehicleTrips	DV_TP	21.00	0.00
tblVehicleTrips	DV_TP	20.00	0.00
tblVehicleTrips	DV_TP	18.00	0.00
tblVehicleTrips	DV_TP	35.00	0.00
tblVehicleTrips	PB_TP	12.00	0.00
tblVehicleTrips	PB_TP	50.00	0.00
tblVehicleTrips	PB_TP	43.00	0.00
tblVehicleTrips	PB_TP	44.00	0.00
tblVehicleTrips	PB_TP	11.00	0.00
tblVehicleTrips	PR_TP	51.00	100.00
tblVehicleTrips	PR_TP	29.00	100.00
tblVehicleTrips	PR_TP	37.00	100.00
tblVehicleTrips	PR_TP	38.00	100.00
tblVehicleTrips	PR_TP	54.00	100.00
tblVehicleTrips	PR_TP	0.00	100.00
tblVehicleTrips	ST_TR	696.00	288.38
tblVehicleTrips	ST_TR	722.03	159.63
tblVehicleTrips	ST_TR	158.37	45.55
tblVehicleTrips	ST_TR	94.36	17.20
tblVehicleTrips	ST_TR	49.97	36.34
tblVehicleTrips	ST_TR	0.00	93.00
tblVehicleTrips	SU_TR	500.00	288.38
tblVehicleTrips	SU_TR	542.72	159.63
tblVehicleTrips	SU_TR	131.84	45.55
tblVehicleTrips	SU_TR	72.16	17.20
tblVehicleTrips	SU_TR	25.24	36.34

tblVehicleTrips	SU_TR	0.00	93.00
tblVehicleTrips	WD_TR	716.00	288.38
tblVehicleTrips	WD_TR	496.12	159.63
tblVehicleTrips	WD_TR	127.15	45.55
tblVehicleTrips	WD_TR	89.95	17.20
tblVehicleTrips	WD_TR	42.70	36.34
tblVehicleTrips	WD_TR	0.00	93.00
tblWater	IndoorWaterUseRate	0.00	15,931,489.00
tblWater	OutdoorWaterUseRate	0.00	6,928,889.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	132.3456	204.5957	52.1060	0.5157	18.2169	2.9259	20.6082	9.9706	2.7117	12.1706	0.0000	54,231.9152	54,231.9152	4.9248	0.0000	54,355.0352
Maximum	**132.3456**	**204.5957**	**52.1060**	**0.5157**	**18.2169**	**2.9259**	**20.6082**	**9.9706**	**2.7117**	**12.1706**	**0.0000**	**54,231.9152**	**54,231.9152**	**4.9248**	**0.0000**	**54,355.0352**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	132.1386	191.4653	55.4186	0.5157	13.6429	1.6681	15.3110	4.5088	1.5636	5.9789	0.0000	54,231.9152	54,231.9152	4.9248	0.0000	54,355.0352
Maximum	**132.1386**	**191.4653**	**55.4186**	**0.5157**	**13.6429**	**1.6681**	**15.3110**	**4.5088**	**1.5636**	**5.9789**	**0.0000**	**54,231.9152**	**54,231.9152**	**4.9248**	**0.0000**	**54,355.0352**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.16**	**6.42**	**-6.36**	**0.00**	**25.11**	**42.99**	**25.70**	**54.78**	**42.34**	**50.87**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	3.0376	1.1900e-003	0.1284	1.0000e-005		4.6000e-004	4.6000e-004		4.6000e-004	4.6000e-004		0.2736	0.2736	7.3000e-004		0.2919
Energy	0.9553	8.6845	7.2950	0.0521		0.6600	0.6600		0.6600	0.6600		10,421.3763	10,421.3763	0.1997	0.1911	10,483.3053
Mobile	13.1114	87.1867	117.5619	0.4418	28.8359	0.3849	29.2207	7.7162	0.3626	8.0788		45,102.0457	45,102.0457	2.8163		45,172.4529
Stationary	0.1941	0.8640	3.4589	0.0212		0.2682	0.2682		0.2682	0.2682		4,235.3665	4,235.3665	0.0812		4,237.3959
Total	**17.2984**	**96.7364**	**128.4441**	**0.5151**	**28.8359**	**1.3136**	**30.1494**	**7.7162**	**1.2913**	**9.0075**		**59,759.0621**	**59,759.0621**	**3.0979**	**0.1911**	**59,893.4461**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.6566	1.1900e-003	0.1284	1.0000e-005		4.6000e-004	4.6000e-004		4.6000e-004	4.6000e-004		0.2736	0.2736	7.3000e-004		0.2919
Energy	0.9553	8.6845	7.2950	0.0521		0.6600	0.6600		0.6600	0.6600		10,421.3763	10,421.3763	0.1997	0.1911	10,483.3053
Mobile	13.1114	87.1867	117.5619	0.4418	28.8359	0.3849	29.2207	7.7162	0.3626	8.0788		45,102.0457	45,102.0457	2.8163		45,172.4529
Stationary	0.1941	0.8640	3.4589	0.0212		0.2682	0.2682		0.2682	0.2682		4,235.3665	4,235.3665	0.0812		4,237.3959
Total	**16.9174**	**96.7364**	**128.4441**	**0.5151**	**28.8359**	**1.3136**	**30.1494**	**7.7162**	**1.2913**	**9.0075**		**59,759.0621**	**59,759.0621**	**3.0979**	**0.1911**	**59,893.4461**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**2.20**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Agua Caliente Cathedral City FTT Casino Project - Alternative D - Riverside-Salton Sea County, Summer

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/1/2019	1/14/2019	5	10	
2	Grading	Grading	1/15/2019	2/25/2019	5	30	
3	Building Construction	Building Construction	2/26/2019	11/5/2019	5	181	
4	Paving	Paving	11/6/2019	12/3/2019	5	20	
5	Architectural Coating	Architectural Coating	12/4/2019	12/31/2019	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 14.05

Acres of Paving: 10.35

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 150,000; Non-Residential Outdoor: 50,000; Striped Parking Area: 27,600 (Architectural Coating – sqft)

OffRoad Equipment

Agua Caliente Cathedral City FTT Casino Project - Alternative D - Riverside-Salton Sea County, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	17,618.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	233.00	92.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	47.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use DPF for Construction Equipment

Use Soil Stabilizer

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	4.3350	45.5727	22.0630	0.0380		2.3904	2.3904		2.1991	2.1991		3,766.4529	3,766.4529	1.1917		3,796.2445
Total	**4.3350**	**45.5727**	**22.0630**	**0.0380**	**18.0663**	**2.3904**	**20.4566**	**9.9307**	**2.1991**	**12.1298**		**3,766.4529**	**3,766.4529**	**1.1917**		**3,796.2445**

3.2 Site Preparation - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0817	0.0471	0.6195	1.5500e-003	0.1506	9.6000e-004	0.1516	0.0400	8.8000e-004	0.0408		154.2784	154.2784	4.4000e-003		154.3884
Total	**0.0817**	**0.0471**	**0.6195**	**1.5500e-003**	**0.1506**	**9.6000e-004**	**0.1516**	**0.0400**	**8.8000e-004**	**0.0408**		**154.2784**	**154.2784**	**4.4000e-003**		**154.3884**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.1298	0.0000	8.1298	4.4688	0.0000	4.4688			0.0000			0.0000
Off-Road	0.9312	19.0656	22.9600	0.0380		0.1419	0.1419		0.1419	0.1419	0.0000	3,766.4529	3,766.4529	1.1917		3,796.2445
Total	**0.9312**	**19.0656**	**22.9600**	**0.0380**	**8.1298**	**0.1419**	**8.2717**	**4.4688**	**0.1419**	**4.6107**	**0.0000**	**3,766.4529**	**3,766.4529**	**1.1917**		**3,796.2445**

3.2 Site Preparation - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0817	0.0471	0.6195	1.5500e-003	0.1506	9.6000e-004	0.1516	0.0400	8.8000e-004	0.0408		154.2784	154.2784	4.4000e-003		154.3884
Total	**0.0817**	**0.0471**	**0.6195**	**1.5500e-003**	**0.1506**	**9.6000e-004**	**0.1516**	**0.0400**	**8.8000e-004**	**0.0408**		**154.2784**	**154.2784**	**4.4000e-003**		**154.3884**

3.3 Grading - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.1137	0.0000	7.1137	3.4540	0.0000	3.4540			0.0000			0.0000
Off-Road	4.7389	54.5202	33.3768	0.0620		2.3827	2.3827		2.1920	2.1920		6,140.0195	6,140.0195	1.9426		6,188.5854
Total	**4.7389**	**54.5202**	**33.3768**	**0.0620**	**7.1137**	**2.3827**	**9.4964**	**3.4540**	**2.1920**	**5.6460**		**6,140.0195**	**6,140.0195**	**1.9426**		**6,188.5854**

3.3 Grading - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	3.2989	150.0232	18.0409	0.4519	10.2744	0.5422	10.8166	2.8166	0.5187	3.3353		47,920.4753	47,920.4753	2.9773		47,994.9071
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0908	0.0524	0.6883	1.7200e-003	0.1673	1.0700e-003	0.1684	0.0444	9.8000e-004	0.0454		171.4204	171.4204	4.8900e-003		171.5427
Total	**3.3897**	**150.0755**	**18.7292**	**0.4537**	**10.4418**	**0.5432**	**10.9850**	**2.8610**	**0.5197**	**3.3807**		**48,091.8957**	**48,091.8957**	**2.9822**		**48,166.4498**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.2012	0.0000	3.2012	1.5543	0.0000	1.5543			0.0000			0.0000
Off-Road	2.9080	41.3897	36.6894	0.0620		1.1249	1.1249		1.0439	1.0439	0.0000	6,140.0195	6,140.0195	1.9426		6,188.5854
Total	**2.9080**	**41.3897**	**36.6894**	**0.0620**	**3.2012**	**1.1249**	**4.3261**	**1.5543**	**1.0439**	**2.5982**	**0.0000**	**6,140.0195**	**6,140.0195**	**1.9426**		**6,188.5854**

3.3 Grading - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	3.2989	150.0232	18.0409	0.4519	10.2744	0.5422	10.8166	2.8166	0.5187	3.3353		47,920.4753	47,920.4753	2.9773		47,994.9071
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0908	0.0524	0.6883	1.7200e-003	0.1673	1.0700e-003	0.1684	0.0444	9.8000e-004	0.0454		171.4204	171.4204	4.8900e-003		171.5427
Total	**3.3897**	**150.0755**	**18.7292**	**0.4537**	**10.4418**	**0.5432**	**10.9850**	**2.8610**	**0.5197**	**3.3807**		**48,091.8957**	**48,091.8957**	**2.9822**		**48,166.4498**

3.4 Building Construction - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.3612	21.0788	17.1638	0.0269		1.2899	1.2899		1.2127	1.2127		2,591.5802	2,591.5802	0.6313		2,607.3635
Total	**2.3612**	**21.0788**	**17.1638**	**0.0269**		**1.2899**	**1.2899**		**1.2127**	**1.2127**		**2,591.5802**	**2,591.5802**	**0.6313**		**2,607.3635**

3.4 Building Construction - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.2737	9.6202	1.7910	0.0205	0.4616	0.0632	0.5248	0.1330	0.0604	0.1934		2,160.9877	2,160.9877	0.1978		2,165.9331
Worker	1.0579	0.6101	8.0192	0.0201	1.9494	0.0124	1.9619	0.5171	0.0114	0.5285		1,997.0480	1,997.0480	0.0570		1,998.4720
Total	**1.3316**	**10.2303**	**9.8102**	**0.0406**	**2.4111**	**0.0756**	**2.4866**	**0.6500**	**0.0719**	**0.7219**		**4,158.0357**	**4,158.0357**	**0.2548**		**4,164.4051**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6739	14.2261	17.8738	0.0269		0.1355	0.1355		0.1355	0.1355	0.0000	2,591.5802	2,591.5802	0.6313		2,607.3635
Total	**0.6739**	**14.2261**	**17.8738**	**0.0269**		**0.1355**	**0.1355**		**0.1355**	**0.1355**	**0.0000**	**2,591.5802**	**2,591.5802**	**0.6313**		**2,607.3635**

3.4 Building Construction - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.2737	9.6202	1.7910	0.0205	0.4616	0.0632	0.5248	0.1330	0.0604	0.1934		2,160.9877	2,160.9877	0.1978		2,165.9331
Worker	1.0579	0.6101	8.0192	0.0201	1.9494	0.0124	1.9619	0.5171	0.0114	0.5285		1,997.0480	1,997.0480	0.0570		1,998.4720
Total	**1.3316**	**10.2303**	**9.8102**	**0.0406**	**2.4111**	**0.0756**	**2.4866**	**0.6500**	**0.0719**	**0.7219**		**4,158.0357**	**4,158.0357**	**0.2548**		**4,164.4051**

3.5 Paving - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4544	15.2441	14.6648	0.0228		0.8246	0.8246		0.7586	0.7586		2,257.0025	2,257.0025	0.7141		2,274.8548
Paving	1.3559					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.8103**	**15.2441**	**14.6648**	**0.0228**		**0.8246**	**0.8246**		**0.7586**	**0.7586**		**2,257.0025**	**2,257.0025**	**0.7141**		**2,274.8548**

3.5 Paving - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0681	0.0393	0.5163	1.2900e-003	0.1255	8.0000e-004	0.1263	0.0333	7.4000e-004	0.0340		128.5653	128.5653	3.6700e-003		128.6570
Total	**0.0681**	**0.0393**	**0.5163**	**1.2900e-003**	**0.1255**	**8.0000e-004**	**0.1263**	**0.0333**	**7.4000e-004**	**0.0340**		**128.5653**	**128.5653**	**3.6700e-003**		**128.6570**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5609	11.2952	17.2957	0.0228		0.0914	0.0914		0.0914	0.0914	0.0000	2,257.0025	2,257.0025	0.7141		2,274.8548
Paving	1.3559					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.9168**	**11.2952**	**17.2957**	**0.0228**		**0.0914**	**0.0914**		**0.0914**	**0.0914**	**0.0000**	**2,257.0025**	**2,257.0025**	**0.7141**		**2,274.8548**

3.5 Paving - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0681	0.0393	0.5163	1.2900e-003	0.1255	8.0000e-004	0.1263	0.0333	7.4000e-004	0.0340		128.5653	128.5653	3.6700e-003		128.6570
Total	**0.0681**	**0.0393**	**0.5163**	**1.2900e-003**	**0.1255**	**8.0000e-004**	**0.1263**	**0.0333**	**7.4000e-004**	**0.0340**		**128.5653**	**128.5653**	**3.6700e-003**		**128.6570**

3.6 Architectural Coating - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	131.8658					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2664	1.8354	1.8413	2.9700e-003		0.1288	0.1288		0.1288	0.1288		281.4481	281.4481	0.0238		282.0423
Total	**132.1322**	**1.8354**	**1.8413**	**2.9700e-003**		**0.1288**	**0.1288**		**0.1288**	**0.1288**		**281.4481**	**281.4481**	**0.0238**		**282.0423**

3.6 Architectural Coating - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2134	0.1231	1.6176	4.0500e-003	0.3932	2.5000e-003	0.3957	0.1043	2.3100e-003	0.1066		402.8380	402.8380	0.0115		403.1253
Total	**0.2134**	**0.1231**	**1.6176**	**4.0500e-003**	**0.3932**	**2.5000e-003**	**0.3957**	**0.1043**	**2.3100e-003**	**0.1066**		**402.8380**	**402.8380**	**0.0115**		**403.1253**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	131.8658					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0594	1.3570	1.8324	2.9700e-003		0.0143	0.0143		0.0143	0.0143	0.0000	281.4481	281.4481	0.0238		282.0423
Total	**131.9252**	**1.3570**	**1.8324**	**2.9700e-003**		**0.0143**	**0.0143**		**0.0143**	**0.0143**	**0.0000**	**281.4481**	**281.4481**	**0.0238**		**282.0423**

3.6 Architectural Coating - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2134	0.1231	1.6176	4.0500e-003	0.3932	2.5000e-003	0.3957	0.1043	2.3100e-003	0.1066		402.8380	402.8380	0.0115		403.1253
Total	**0.2134**	**0.1231**	**1.6176**	**4.0500e-003**	**0.3932**	**2.5000e-003**	**0.3957**	**0.1043**	**2.3100e-003**	**0.1066**		**402.8380**	**402.8380**	**0.0115**		**403.1253**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	13.1114	87.1867	117.5619	0.4418	28.8359	0.3849	29.2207	7.7162	0.3626	8.0788		45,102.0457	45,102.0457	2.8163		45,172.4529
Unmitigated	13.1114	87.1867	117.5619	0.4418	28.8359	0.3849	29.2207	7.7162	0.3626	8.0788		45,102.0457	45,102.0457	2.8163		45,172.4529

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Fast Food Restaurant w/o Drive Thru	576.76	576.76	576.76	955,755	955,755
Fast Food Restaurant with Drive Thru	957.78	957.78	957.78	1,607,402	1,607,402
High Turnover (Sit Down Restaurant)	637.70	637.70	637.70	1,191,602	1,191,602
Parking Lot	0.00	0.00	0.00		
Quality Restaurant	240.80	240.80	240.80	475,420	475,420
Regional Shopping Center	872.16	872.16	872.16	1,835,241	1,835,241
User Defined Recreational	3,720.00	3,720.00	3720.00	7,454,210	7,454,210
Total	7,005.20	7,005.20	7,005.20	13,519,631	13,519,631

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Fast Food Restaurant w/o Drive	12.50	4.20	5.40	1.50	79.50	19.00	100	0	0
Fast Food Restaurant with Drive	12.50	4.20	5.40	2.20	78.80	19.00	100	0	0
High Turnover (Sit Down	12.50	4.20	5.40	8.50	72.50	19.00	100	0	0
Parking Lot	12.50	4.20	5.40	0.00	0.00	0.00	0	0	0
Quality Restaurant	12.50	4.20	5.40	12.00	69.00	19.00	100	0	0
Regional Shopping Center	12.50	4.20	5.40	16.30	64.70	19.00	100	0	0
User Defined Recreational	12.50	4.20	5.40	15.00	80.00	5.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Fast Food Restaurant w/o Drive Thru	0.538064	0.038449	0.184390	0.122109	0.017402	0.005339	0.017250	0.067711	0.001365	0.001213	0.004629	0.000959	0.001120
Fast Food Restaurant with Drive Thru	0.538064	0.038449	0.184390	0.122109	0.017402	0.005339	0.017250	0.067711	0.001365	0.001213	0.004629	0.000959	0.001120
High Turnover (Sit Down Restaurant)	0.538064	0.038449	0.184390	0.122109	0.017402	0.005339	0.017250	0.067711	0.001365	0.001213	0.004629	0.000959	0.001120
Parking Lot	0.538064	0.038449	0.184390	0.122109	0.017402	0.005339	0.017250	0.067711	0.001365	0.001213	0.004629	0.000959	0.001120
Quality Restaurant	0.538064	0.038449	0.184390	0.122109	0.017402	0.005339	0.017250	0.067711	0.001365	0.001213	0.004629	0.000959	0.001120
Regional Shopping Center	0.538064	0.038449	0.184390	0.122109	0.017402	0.005339	0.017250	0.067711	0.001365	0.001213	0.004629	0.000959	0.001120
User Defined Recreational	0.538064	0.038449	0.184390	0.122109	0.017402	0.005339	0.017250	0.067711	0.001365	0.001213	0.004629	0.000959	0.001120

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Install High Efficiency Lighting

Agua Caliente Cathedral City FTT Casino Project - Alternative D - Riverside-Salton Sea County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.9553	8.6845	7.2950	0.0521		0.6600	0.6600		0.6600	0.6600		10,421.3763	10,421.3763	0.1997	0.1911	10,483.3053
NaturalGas Unmitigated	0.9553	8.6845	7.2950	0.0521		0.6600	0.6600		0.6600	0.6600		10,421.3763	10,421.3763	0.1997	0.1911	10,483.3053

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Fast Food Restaurant w/o Drive Thru	1498.3	0.0162	0.1469	0.1234	8.8000e-004		0.0112	0.0112		0.0112	0.0112		176.2708	176.2708	3.3800e-003	3.2300e-003	177.3182
Fast Food Restaurant with Drive Thru	4494.9	0.0485	0.4407	0.3702	2.6400e-003		0.0335	0.0335		0.0335	0.0335		528.8123	528.8123	0.0101	9.6900e-003	531.9547
High Turnover (Sit Down Restaurant)	10488.1	0.1131	1.0283	0.8637	6.1700e-003		0.0782	0.0782		0.0782	0.0782		1,233.8953	1,233.8953	0.0237	0.0226	1,241.2277
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	10488.1	0.1131	1.0283	0.8637	6.1700e-003		0.0782	0.0782		0.0782	0.0782		1,233.8953	1,233.8953	0.0237	0.0226	1,241.2277
Regional Shopping Center	145.973	1.5700e-003	0.0143	0.0120	9.0000e-005		1.0900e-003	1.0900e-003		1.0900e-003	1.0900e-003		17.1733	17.1733	3.3000e-004	3.1000e-004	17.2753
User Defined Recreational	61466.3	0.6629	6.0261	5.0619	0.0362		0.4580	0.4580		0.4580	0.4580		7,231.3296	7,231.3296	0.1386	0.1326	7,274.3018
Total		**0.9553**	**8.6845**	**7.2950**	**0.0521**		**0.6600**	**0.6600**		**0.6600**	**0.6600**		**10,421.3763**	**10,421.3763**	**0.1998**	**0.1910**	**10,483.3053**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Fast Food Restaurant w/o Drive Thru	1.4983	0.0162	0.1469	0.1234	8.8000e-004		0.0112	0.0112		0.0112	0.0112		176.2708	176.2708	3.3800e-003	3.2300e-003	177.3182
Fast Food Restaurant with Drive Thru	4.4949	0.0485	0.4407	0.3702	2.6400e-003		0.0335	0.0335		0.0335	0.0335		528.8123	528.8123	0.0101	9.6900e-003	531.9547
High Turnover (Sit Down Restaurant)	10.4881	0.1131	1.0283	0.8637	6.1700e-003		0.0782	0.0782		0.0782	0.0782		1,233.8953	1,233.8953	0.0237	0.0226	1,241.2277
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	10.4881	0.1131	1.0283	0.8637	6.1700e-003		0.0782	0.0782		0.0782	0.0782		1,233.8953	1,233.8953	0.0237	0.0226	1,241.2277
Regional Shopping Center	0.145973	1.5700e-003	0.0143	0.0120	9.0000e-005		1.0900e-003	1.0900e-003		1.0900e-003	1.0900e-003		17.1733	17.1733	3.3000e-004	3.1000e-004	17.2753
User Defined Recreational	61.4663	0.6629	6.0261	5.0619	0.0362		0.4580	0.4580		0.4580	0.4580		7,231.3296	7,231.3296	0.1386	0.1326	7,274.3018
Total		**0.9553**	**8.6845**	**7.2950**	**0.0521**		**0.6600**	**0.6600**		**0.6600**	**0.6600**		**10,421.3763**	**10,421.3763**	**0.1998**	**0.1910**	**10,483.3053**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.6566	1.1900e-003	0.1284	1.0000e-005		4.6000e-004	4.6000e-004		4.6000e-004	4.6000e-004		0.2736	0.2736	7.3000e-004		0.2919
Unmitigated	3.0376	1.1900e-003	0.1284	1.0000e-005		4.6000e-004	4.6000e-004		4.6000e-004	4.6000e-004		0.2736	0.2736	7.3000e-004		0.2919

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.7226					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.3029					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0121	1.1900e-003	0.1284	1.0000e-005		4.6000e-004	4.6000e-004		4.6000e-004	4.6000e-004		0.2736	0.2736	7.3000e-004		0.2919
Total	**3.0376**	**1.1900e-003**	**0.1284**	**1.0000e-005**		**4.6000e-004**	**4.6000e-004**		**4.6000e-004**	**4.6000e-004**		**0.2736**	**0.2736**	**7.3000e-004**		**0.2919**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.3416					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.3029					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0121	1.1900e-003	0.1284	1.0000e-005		4.6000e-004	4.6000e-004		4.6000e-004	4.6000e-004		0.2736	0.2736	7.3000e-004		0.2919
Total	**2.6566**	**1.1900e-003**	**0.1284**	**1.0000e-005**		**4.6000e-004**	**4.6000e-004**		**4.6000e-004**	**4.6000e-004**		**0.2736**	**0.2736**	**7.3000e-004**		**0.2919**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Emergency Generator	3	0	30	2923	0.73	Diesel

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
Boiler	3	12	4380	0.5	CNG

User Defined Equipment

Equipment Type	Number

10.1 Stationary Sources

Unmitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	lb/day										lb/day					
Boiler - CNG (0 - 2 MMBTU)	0.1941	0.8640	3.4589	0.0212		0.2682	0.2682		0.2682	0.2682		4,235.3665	4,235.3665	0.0812		4,237.3959
Emergency Generator - Diesel (750 - 9999 HP)	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.1941**	**0.8640**	**3.4589**	**0.0212**		**0.2682**	**0.2682**		**0.2682**	**0.2682**		**4,235.3665**	**4,235.3665**	**0.0812**		**4,237.3959**

11.0 Vegetation

Agua Caliente Cathedral City FTT Casino Project - Alternative D

Riverside-Salton Sea County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	1,150.00	Space	10.35	460,000.00	0
Fast Food Restaurant w/o Drive Thru	2.00	1000sqft	0.00	2,000.00	0
Fast Food Restaurant with Drive Thru	6.00	1000sqft	0.00	6,000.00	0
High Turnover (Sit Down Restaurant)	14.00	1000sqft	0.00	14,000.00	0
Quality Restaurant	14.00	1000sqft	0.00	14,000.00	0
User Defined Recreational	40.00	User Defined Unit	3.70	40,000.00	0
Regional Shopping Center	24.00	1000sqft	0.00	24,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2020
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Agua Caliente Cathedral City FTT Casino Project - Alternative D - Riverside-Salton Sea County, Winter

Project Characteristics -

Land Use - Project Description; lot acreage for all recreational and retail space is all included within the User Defined Recreational land use.

Construction Phase - Construction phasing based on a 12-month construction schedule.

Grading - MSA Consulting, Inc., 2018d (See Table 2, CalEEMod Inputs)

Vehicle Trips - See Table 3, CalEEMod Inputs. Trip generation rates are derived from the TIS (Appendix TIS).

Energy Use - Electricity energy and natural gas intensity for the user defined recretational land use determined from similar projects and scaled by square footage

Water And Wastewater - Water demand is based off of similar projects and scaled by square footage

Solid Waste - Section 4.9 of the EA

Construction Off-road Equipment Mitigation - Construction Mitigation

Area Mitigation - MDAQMD Rule 1113 Architectural Coatings (based on nonflat coating)

Energy Mitigation -

Water Mitigation -

Waste Mitigation - Tribe will use the Salton City Landfill's facilities and will divert 50 percent of waste from the landfill.

Stationary Sources - Emergency Generators and Fire Pumps - Based on like project emergency generator size and use

Stationary Sources - Process Boilers - Based on like project boiler size and use

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	250	100
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	100
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3

tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	9.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3

Agua Caliente Cathedral City FTT Casino Project - Alternative D - Riverside-Salton Sea County, Winter

tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	300.00	181.00
tblEnergyUse	NT24E	0.00	3.37
tblEnergyUse	NT24NG	0.00	560.88
tblGrading	AcresOfGrading	75.00	14.05
tblGrading	MaterialExported	0.00	140,948.00
tblLandUse	LandUseSquareFeet	0.00	40,000.00
tblLandUse	LotAcreage	0.05	0.00
tblLandUse	LotAcreage	0.14	0.00
tblLandUse	LotAcreage	0.32	0.00
tblLandUse	LotAcreage	0.32	0.00
tblLandUse	LotAcreage	0.00	3.70
tblLandUse	LotAcreage	0.55	0.00
tblSolidWaste	SolidWasteGenerationRate	0.00	375.95
tblStationaryBoilersUse	AnnualHeatInput	0.00	4,380.00
tblStationaryBoilersUse	BoilerRatingValue	0.00	0.50
tblStationaryBoilersUse	DailyHeatInput	0.00	12.00
tblStationaryBoilersUse	NumberOfEquipment	0.00	3.00
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	2,923.00
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	30.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	3.00
tblTripsAndVMT	HaulingTripNumber	17,619.00	17,618.00
tblVehicleTrips	CC_TTP	0.00	80.00
tblVehicleTrips	CNW_TTP	0.00	5.00
tblVehicleTrips	CW_TTP	0.00	15.00

tblVehicleTrips	DV_TP	37.00	0.00
tblVehicleTrips	DV_TP	21.00	0.00
tblVehicleTrips	DV_TP	20.00	0.00
tblVehicleTrips	DV_TP	18.00	0.00
tblVehicleTrips	DV_TP	35.00	0.00
tblVehicleTrips	PB_TP	12.00	0.00
tblVehicleTrips	PB_TP	50.00	0.00
tblVehicleTrips	PB_TP	43.00	0.00
tblVehicleTrips	PB_TP	44.00	0.00
tblVehicleTrips	PB_TP	11.00	0.00
tblVehicleTrips	PR_TP	51.00	100.00
tblVehicleTrips	PR_TP	29.00	100.00
tblVehicleTrips	PR_TP	37.00	100.00
tblVehicleTrips	PR_TP	38.00	100.00
tblVehicleTrips	PR_TP	54.00	100.00
tblVehicleTrips	PR_TP	0.00	100.00
tblVehicleTrips	ST_TR	696.00	288.38
tblVehicleTrips	ST_TR	722.03	159.63
tblVehicleTrips	ST_TR	158.37	45.55
tblVehicleTrips	ST_TR	94.36	17.20
tblVehicleTrips	ST_TR	49.97	36.34
tblVehicleTrips	ST_TR	0.00	93.00
tblVehicleTrips	SU_TR	500.00	288.38
tblVehicleTrips	SU_TR	542.72	159.63
tblVehicleTrips	SU_TR	131.84	45.55
tblVehicleTrips	SU_TR	72.16	17.20
tblVehicleTrips	SU_TR	25.24	36.34

tblVehicleTrips	SU_TR	0.00	93.00
tblVehicleTrips	WD_TR	716.00	288.38
tblVehicleTrips	WD_TR	496.12	159.63
tblVehicleTrips	WD_TR	127.15	45.55
tblVehicleTrips	WD_TR	89.95	17.20
tblVehicleTrips	WD_TR	42.70	36.34
tblVehicleTrips	WD_TR	0.00	93.00
tblWater	IndoorWaterUseRate	0.00	15,931,489.00
tblWater	OutdoorWaterUseRate	0.00	6,928,889.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	132.3357	206.1089	55.1514	0.5042	18.2169	2.9355	20.6082	9.9706	2.7210	12.1706	0.0000	53,025.9983	53,025.9983	5.2068	0.0000	53,156.1689
Maximum	**132.3357**	**206.1089**	**55.1514**	**0.5042**	**18.2169**	**2.9355**	**20.6082**	**9.9706**	**2.7210**	**12.1706**	**0.0000**	**53,025.9983**	**53,025.9983**	**5.2068**	**0.0000**	**53,156.1689**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	132.1287	192.9785	58.4640	0.5042	13.6429	1.6778	15.3207	4.5088	1.5729	5.9881	0.0000	53,025.9983	53,025.9983	5.2068	0.0000	53,156.1689
Maximum	**132.1287**	**192.9785**	**58.4640**	**0.5042**	**13.6429**	**1.6778**	**15.3207**	**4.5088**	**1.5729**	**5.9881**	**0.0000**	**53,025.9983**	**53,025.9983**	**5.2068**	**0.0000**	**53,156.1689**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.16**	**6.37**	**-6.01**	**0.00**	**25.11**	**42.85**	**25.66**	**54.78**	**42.19**	**50.80**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	3.0376	1.1900e-003	0.1284	1.0000e-005		4.6000e-004	4.6000e-004		4.6000e-004	4.6000e-004		0.2736	0.2736	7.3000e-004		0.2919
Energy	0.9553	8.6845	7.2950	0.0521		0.6600	0.6600		0.6600	0.6600		10,421.3763	10,421.3763	0.1997	0.1911	10,483.3053
Mobile	10.9758	86.5085	106.0899	0.4061	28.8359	0.3904	29.2262	7.7162	0.3679	8.0841		41,492.3963	41,492.3963	2.9753		41,566.7775
Stationary	0.1941	0.8640	3.4589	0.0212		0.2682	0.2682		0.2682	0.2682		4,235.3665	4,235.3665	0.0812		4,237.3959
Total	**15.1628**	**96.0581**	**116.9722**	**0.4794**	**28.8359**	**1.3191**	**30.1550**	**7.7162**	**1.2966**	**9.0128**		**56,149.4127**	**56,149.4127**	**3.2569**	**0.1911**	**56,287.7707**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.6566	1.1900e-003	0.1284	1.0000e-005		4.6000e-004	4.6000e-004		4.6000e-004	4.6000e-004		0.2736	0.2736	7.3000e-004		0.2919
Energy	0.9553	8.6845	7.2950	0.0521		0.6600	0.6600		0.6600	0.6600		10,421.3763	10,421.3763	0.1997	0.1911	10,483.3053
Mobile	10.9758	86.5085	106.0899	0.4061	28.8359	0.3904	29.2262	7.7162	0.3679	8.0841		41,492.3963	41,492.3963	2.9753		41,566.7775
Stationary	0.1941	0.8640	3.4589	0.0212		0.2682	0.2682		0.2682	0.2682		4,235.3665	4,235.3665	0.0812		4,237.3959
Total	**14.7819**	**96.0581**	**116.9722**	**0.4794**	**28.8359**	**1.3191**	**30.1550**	**7.7162**	**1.2966**	**9.0128**		**56,149.4127**	**56,149.4127**	**3.2569**	**0.1911**	**56,287.7707**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**2.51**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Agua Caliente Cathedral City FTT Casino Project - Alternative D - Riverside-Salton Sea County, Winter

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/1/2019	1/14/2019	5	10	
2	Grading	Grading	1/15/2019	2/25/2019	5	30	
3	Building Construction	Building Construction	2/26/2019	11/5/2019	5	181	
4	Paving	Paving	11/6/2019	12/3/2019	5	20	
5	Architectural Coating	Architectural Coating	12/4/2019	12/31/2019	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 14.05

Acres of Paving: 10.35

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 150,000; Non-Residential Outdoor: 50,000; Striped Parking Area: 27,600 (Architectural Coating – sqft)

OffRoad Equipment

Agua Caliente Cathedral City FTT Casino Project - Alternative D - Riverside-Salton Sea County, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	17,618.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	233.00	92.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	47.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use DPF for Construction Equipment

Use Soil Stabilizer

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	4.3350	45.5727	22.0630	0.0380		2.3904	2.3904		2.1991	2.1991		3,766.4529	3,766.4529	1.1917		3,796.2445
Total	**4.3350**	**45.5727**	**22.0630**	**0.0380**	**18.0663**	**2.3904**	**20.4566**	**9.9307**	**2.1991**	**12.1298**		**3,766.4529**	**3,766.4529**	**1.1917**		**3,796.2445**

3.2 Site Preparation - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0780	0.0488	0.5089	1.3900e-003	0.1506	9.6000e-004	0.1516	0.0400	8.8000e-004	0.0408		138.4827	138.4827	3.8600e-003		138.5791
Total	**0.0780**	**0.0488**	**0.5089**	**1.3900e-003**	**0.1506**	**9.6000e-004**	**0.1516**	**0.0400**	**8.8000e-004**	**0.0408**		**138.4827**	**138.4827**	**3.8600e-003**		**138.5791**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.1298	0.0000	8.1298	4.4688	0.0000	4.4688			0.0000			0.0000
Off-Road	0.9312	19.0656	22.9600	0.0380		0.1419	0.1419		0.1419	0.1419	0.0000	3,766.4529	3,766.4529	1.1917		3,796.2445
Total	**0.9312**	**19.0656**	**22.9600**	**0.0380**	**8.1298**	**0.1419**	**8.2717**	**4.4688**	**0.1419**	**4.6107**	**0.0000**	**3,766.4529**	**3,766.4529**	**1.1917**		**3,796.2445**

3.2 Site Preparation - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0780	0.0488	0.5089	1.3900e-003	0.1506	9.6000e-004	0.1516	0.0400	8.8000e-004	0.0408		138.4827	138.4827	3.8600e-003		138.5791
Total	**0.0780**	**0.0488**	**0.5089**	**1.3900e-003**	**0.1506**	**9.6000e-004**	**0.1516**	**0.0400**	**8.8000e-004**	**0.0408**		**138.4827**	**138.4827**	**3.8600e-003**		**138.5791**

3.3 Grading - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.1137	0.0000	7.1137	3.4540	0.0000	3.4540			0.0000			0.0000
Off-Road	4.7389	54.5202	33.3768	0.0620		2.3827	2.3827		2.1920	2.1920		6,140.0195	6,140.0195	1.9426		6,188.5854
Total	**4.7389**	**54.5202**	**33.3768**	**0.0620**	**7.1137**	**2.3827**	**9.4964**	**3.4540**	**2.1920**	**5.6460**		**6,140.0195**	**6,140.0195**	**1.9426**		**6,188.5854**

3.3 Grading - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	3.4687	151.5345	21.2092	0.4407	10.2744	0.5518	10.8263	2.8166	0.5280	3.3445		46,732.1092	46,732.1092	3.2599		46,813.6067
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0866	0.0542	0.5655	1.5500e-003	0.1673	1.0700e-003	0.1684	0.0444	9.8000e-004	0.0454		153.8697	153.8697	4.2900e-003		153.9768
Total	**3.5553**	**151.5887**	**21.7746**	**0.4422**	**10.4418**	**0.5529**	**10.9947**	**2.8610**	**0.5289**	**3.3899**		**46,885.9788**	**46,885.9788**	**3.2642**		**46,967.5835**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.2012	0.0000	3.2012	1.5543	0.0000	1.5543			0.0000			0.0000
Off-Road	2.9080	41.3897	36.6894	0.0620		1.1249	1.1249		1.0439	1.0439	0.0000	6,140.0195	6,140.0195	1.9426		6,188.5854
Total	**2.9080**	**41.3897**	**36.6894**	**0.0620**	**3.2012**	**1.1249**	**4.3261**	**1.5543**	**1.0439**	**2.5982**	**0.0000**	**6,140.0195**	**6,140.0195**	**1.9426**		**6,188.5854**

3.3 Grading - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	3.4687	151.5345	21.2092	0.4407	10.2744	0.5518	10.8263	2.8166	0.5280	3.3445		46,732.1092	46,732.1092	3.2599		46,813.6067
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0866	0.0542	0.5655	1.5500e-003	0.1673	1.0700e-003	0.1684	0.0444	9.8000e-004	0.0454		153.8697	153.8697	4.2900e-003		153.9768
Total	**3.5553**	**151.5887**	**21.7746**	**0.4422**	**10.4418**	**0.5529**	**10.9947**	**2.8610**	**0.5289**	**3.3899**		**46,885.9788**	**46,885.9788**	**3.2642**		**46,967.5835**

3.4 Building Construction - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.3612	21.0788	17.1638	0.0269		1.2899	1.2899		1.2127	1.2127		2,591.5802	2,591.5802	0.6313		2,607.3635
Total	**2.3612**	**21.0788**	**17.1638**	**0.0269**		**1.2899**	**1.2899**		**1.2127**	**1.2127**		**2,591.5802**	**2,591.5802**	**0.6313**		**2,607.3635**

3.4 Building Construction - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.2888	9.5518	2.1119	0.0196	0.4616	0.0641	0.5258	0.1330	0.0614	0.1943		2,065.6391	2,065.6391	0.2205		2,071.1511
Worker	1.0091	0.6316	6.5875	0.0180	1.9494	0.0124	1.9619	0.5171	0.0114	0.5285		1,792.5815	1,792.5815	0.0499		1,793.8297
Total	**1.2979**	**10.1833**	**8.6994**	**0.0376**	**2.4111**	**0.0766**	**2.4876**	**0.6500**	**0.0728**	**0.7228**		**3,858.2206**	**3,858.2206**	**0.2704**		**3,864.9808**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6739	14.2261	17.8738	0.0269		0.1355	0.1355		0.1355	0.1355	0.0000	2,591.5802	2,591.5802	0.6313		2,607.3635
Total	**0.6739**	**14.2261**	**17.8738**	**0.0269**		**0.1355**	**0.1355**		**0.1355**	**0.1355**	**0.0000**	**2,591.5802**	**2,591.5802**	**0.6313**		**2,607.3635**

3.4 Building Construction - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.2888	9.5518	2.1119	0.0196	0.4616	0.0641	0.5258	0.1330	0.0614	0.1943		2,065.6391	2,065.6391	0.2205		2,071.1511
Worker	1.0091	0.6316	6.5875	0.0180	1.9494	0.0124	1.9619	0.5171	0.0114	0.5285		1,792.5815	1,792.5815	0.0499		1,793.8297
Total	**1.2979**	**10.1833**	**8.6994**	**0.0376**	**2.4111**	**0.0766**	**2.4876**	**0.6500**	**0.0728**	**0.7228**		**3,858.2206**	**3,858.2206**	**0.2704**		**3,864.9808**

3.5 Paving - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4544	15.2441	14.6648	0.0228		0.8246	0.8246		0.7586	0.7586		2,257.0025	2,257.0025	0.7141		2,274.8548
Paving	1.3559					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.8103**	**15.2441**	**14.6648**	**0.0228**		**0.8246**	**0.8246**		**0.7586**	**0.7586**		**2,257.0025**	**2,257.0025**	**0.7141**		**2,274.8548**

3.5 Paving - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0650	0.0407	0.4241	1.1600e-003	0.1255	8.0000e-004	0.1263	0.0333	7.4000e-004	0.0340		115.4022	115.4022	3.2100e-003		115.4826
Total	**0.0650**	**0.0407**	**0.4241**	**1.1600e-003**	**0.1255**	**8.0000e-004**	**0.1263**	**0.0333**	**7.4000e-004**	**0.0340**		**115.4022**	**115.4022**	**3.2100e-003**		**115.4826**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5609	11.2952	17.2957	0.0228		0.0914	0.0914		0.0914	0.0914	0.0000	2,257.0025	2,257.0025	0.7141		2,274.8548
Paving	1.3559					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.9168**	**11.2952**	**17.2957**	**0.0228**		**0.0914**	**0.0914**		**0.0914**	**0.0914**	**0.0000**	**2,257.0025**	**2,257.0025**	**0.7141**		**2,274.8548**

3.5 Paving - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0650	0.0407	0.4241	1.1600e-003	0.1255	8.0000e-004	0.1263	0.0333	7.4000e-004	0.0340		115.4022	115.4022	3.2100e-003		115.4826
Total	**0.0650**	**0.0407**	**0.4241**	**1.1600e-003**	**0.1255**	**8.0000e-004**	**0.1263**	**0.0333**	**7.4000e-004**	**0.0340**		**115.4022**	**115.4022**	**3.2100e-003**		**115.4826**

3.6 Architectural Coating - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	131.8658					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2664	1.8354	1.8413	2.9700e-003		0.1288	0.1288		0.1288	0.1288		281.4481	281.4481	0.0238		282.0423
Total	**132.1322**	**1.8354**	**1.8413**	**2.9700e-003**		**0.1288**	**0.1288**		**0.1288**	**0.1288**		**281.4481**	**281.4481**	**0.0238**		**282.0423**

3.6 Architectural Coating - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2036	0.1274	1.3288	3.6300e-003	0.3932	2.5000e-003	0.3957	0.1043	2.3100e-003	0.1066		361.5937	361.5937	0.0101		361.8455
Total	**0.2036**	**0.1274**	**1.3288**	**3.6300e-003**	**0.3932**	**2.5000e-003**	**0.3957**	**0.1043**	**2.3100e-003**	**0.1066**		**361.5937**	**361.5937**	**0.0101**		**361.8455**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	131.8658					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0594	1.3570	1.8324	2.9700e-003		0.0143	0.0143		0.0143	0.0143	0.0000	281.4481	281.4481	0.0238		282.0423
Total	**131.9252**	**1.3570**	**1.8324**	**2.9700e-003**		**0.0143**	**0.0143**		**0.0143**	**0.0143**	**0.0000**	**281.4481**	**281.4481**	**0.0238**		**282.0423**

3.6 Architectural Coating - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2036	0.1274	1.3288	3.6300e-003	0.3932	2.5000e-003	0.3957	0.1043	2.3100e-003	0.1066		361.5937	361.5937	0.0101		361.8455
Total	**0.2036**	**0.1274**	**1.3288**	**3.6300e-003**	**0.3932**	**2.5000e-003**	**0.3957**	**0.1043**	**2.3100e-003**	**0.1066**		**361.5937**	**361.5937**	**0.0101**		**361.8455**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	10.9758	86.5085	106.0899	0.4061	28.8359	0.3904	29.2262	7.7162	0.3679	8.0841		41,492.3963	41,492.3963	2.9753		41,566.7775
Unmitigated	10.9758	86.5085	106.0899	0.4061	28.8359	0.3904	29.2262	7.7162	0.3679	8.0841		41,492.3963	41,492.3963	2.9753		41,566.7775

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Fast Food Restaurant w/o Drive Thru	576.76	576.76	576.76	955,755	955,755
Fast Food Restaurant with Drive Thru	957.78	957.78	957.78	1,607,402	1,607,402
High Turnover (Sit Down Restaurant)	637.70	637.70	637.70	1,191,602	1,191,602
Parking Lot	0.00	0.00	0.00		
Quality Restaurant	240.80	240.80	240.80	475,420	475,420
Regional Shopping Center	872.16	872.16	872.16	1,835,241	1,835,241
User Defined Recreational	3,720.00	3,720.00	3720.00	7,454,210	7,454,210
Total	7,005.20	7,005.20	7,005.20	13,519,631	13,519,631

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Fast Food Restaurant w/o Drive	12.50	4.20	5.40	1.50	79.50	19.00	100	0	0
Fast Food Restaurant with Drive	12.50	4.20	5.40	2.20	78.80	19.00	100	0	0
High Turnover (Sit Down	12.50	4.20	5.40	8.50	72.50	19.00	100	0	0
Parking Lot	12.50	4.20	5.40	0.00	0.00	0.00	0	0	0
Quality Restaurant	12.50	4.20	5.40	12.00	69.00	19.00	100	0	0
Regional Shopping Center	12.50	4.20	5.40	16.30	64.70	19.00	100	0	0
User Defined Recreational	12.50	4.20	5.40	15.00	80.00	5.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Fast Food Restaurant w/o Drive Thru	0.538064	0.038449	0.184390	0.122109	0.017402	0.005339	0.017250	0.067711	0.001365	0.001213	0.004629	0.000959	0.001120
Fast Food Restaurant with Drive Thru	0.538064	0.038449	0.184390	0.122109	0.017402	0.005339	0.017250	0.067711	0.001365	0.001213	0.004629	0.000959	0.001120
High Turnover (Sit Down Restaurant)	0.538064	0.038449	0.184390	0.122109	0.017402	0.005339	0.017250	0.067711	0.001365	0.001213	0.004629	0.000959	0.001120
Parking Lot	0.538064	0.038449	0.184390	0.122109	0.017402	0.005339	0.017250	0.067711	0.001365	0.001213	0.004629	0.000959	0.001120
Quality Restaurant	0.538064	0.038449	0.184390	0.122109	0.017402	0.005339	0.017250	0.067711	0.001365	0.001213	0.004629	0.000959	0.001120
Regional Shopping Center	0.538064	0.038449	0.184390	0.122109	0.017402	0.005339	0.017250	0.067711	0.001365	0.001213	0.004629	0.000959	0.001120
User Defined Recreational	0.538064	0.038449	0.184390	0.122109	0.017402	0.005339	0.017250	0.067711	0.001365	0.001213	0.004629	0.000959	0.001120

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Install High Efficiency Lighting

Agua Caliente Cathedral City FTT Casino Project - Alternative D - Riverside-Salton Sea County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.9553	8.6845	7.2950	0.0521		0.6600	0.6600		0.6600	0.6600		10,421.3763	10,421.3763	0.1997	0.1911	10,483.3053
NaturalGas Unmitigated	0.9553	8.6845	7.2950	0.0521		0.6600	0.6600		0.6600	0.6600		10,421.3763	10,421.3763	0.1997	0.1911	10,483.3053

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Fast Food Restaurant w/o Drive Thru	1498.3	0.0162	0.1469	0.1234	8.8000e-004		0.0112	0.0112		0.0112	0.0112		176.2708	176.2708	3.3800e-003	3.2300e-003	177.3182
Fast Food Restaurant with Drive Thru	4494.9	0.0485	0.4407	0.3702	2.6400e-003		0.0335	0.0335		0.0335	0.0335		528.8123	528.8123	0.0101	9.6900e-003	531.9547
High Turnover (Sit Down Restaurant)	10488.1	0.1131	1.0283	0.8637	6.1700e-003		0.0782	0.0782		0.0782	0.0782		1,233.8953	1,233.8953	0.0237	0.0226	1,241.2277
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	10488.1	0.1131	1.0283	0.8637	6.1700e-003		0.0782	0.0782		0.0782	0.0782		1,233.8953	1,233.8953	0.0237	0.0226	1,241.2277
Regional Shopping Center	145.973	1.5700e-003	0.0143	0.0120	9.0000e-005		1.0900e-003	1.0900e-003		1.0900e-003	1.0900e-003		17.1733	17.1733	3.3000e-004	3.1000e-004	17.2753
User Defined Recreational	61466.3	0.6629	6.0261	5.0619	0.0362		0.4580	0.4580		0.4580	0.4580		7,231.3296	7,231.3296	0.1386	0.1326	7,274.3018
Total		**0.9553**	**8.6845**	**7.2950**	**0.0521**		**0.6600**	**0.6600**		**0.6600**	**0.6600**		**10,421.3763**	**10,421.3763**	**0.1998**	**0.1910**	**10,483.3053**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Fast Food Restaurant w/o Drive Thru	1.4983	0.0162	0.1469	0.1234	8.8000e-004		0.0112	0.0112		0.0112	0.0112		176.2708	176.2708	3.3800e-003	3.2300e-003	177.3182
Fast Food Restaurant with Drive Thru	4.4949	0.0485	0.4407	0.3702	2.6400e-003		0.0335	0.0335		0.0335	0.0335		528.8123	528.8123	0.0101	9.6900e-003	531.9547
High Turnover (Sit Down Restaurant)	10.4881	0.1131	1.0283	0.8637	6.1700e-003		0.0782	0.0782		0.0782	0.0782		1,233.8953	1,233.8953	0.0237	0.0226	1,241.2277
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	10.4881	0.1131	1.0283	0.8637	6.1700e-003		0.0782	0.0782		0.0782	0.0782		1,233.8953	1,233.8953	0.0237	0.0226	1,241.2277
Regional Shopping Center	0.145973	1.5700e-003	0.0143	0.0120	9.0000e-005		1.0900e-003	1.0900e-003		1.0900e-003	1.0900e-003		17.1733	17.1733	3.3000e-004	3.1000e-004	17.2753
User Defined Recreational	61.4663	0.6629	6.0261	5.0619	0.0362		0.4580	0.4580		0.4580	0.4580		7,231.3296	7,231.3296	0.1386	0.1326	7,274.3018
Total		**0.9553**	**8.6845**	**7.2950**	**0.0521**		**0.6600**	**0.6600**		**0.6600**	**0.6600**		**10,421.3763**	**10,421.3763**	**0.1998**	**0.1910**	**10,483.3053**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.6566	1.1900e-003	0.1284	1.0000e-005		4.6000e-004	4.6000e-004		4.6000e-004	4.6000e-004		0.2736	0.2736	7.3000e-004		0.2919
Unmitigated	3.0376	1.1900e-003	0.1284	1.0000e-005		4.6000e-004	4.6000e-004		4.6000e-004	4.6000e-004		0.2736	0.2736	7.3000e-004		0.2919

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.7226					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.3029					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0121	1.1900e-003	0.1284	1.0000e-005		4.6000e-004	4.6000e-004		4.6000e-004	4.6000e-004		0.2736	0.2736	7.3000e-004		0.2919
Total	**3.0376**	**1.1900e-003**	**0.1284**	**1.0000e-005**		**4.6000e-004**	**4.6000e-004**		**4.6000e-004**	**4.6000e-004**		**0.2736**	**0.2736**	**7.3000e-004**		**0.2919**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.3416					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.3029					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0121	1.1900e-003	0.1284	1.0000e-005		4.6000e-004	4.6000e-004		4.6000e-004	4.6000e-004		0.2736	0.2736	7.3000e-004		0.2919
Total	**2.6566**	**1.1900e-003**	**0.1284**	**1.0000e-005**		**4.6000e-004**	**4.6000e-004**		**4.6000e-004**	**4.6000e-004**		**0.2736**	**0.2736**	**7.3000e-004**		**0.2919**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Emergency Generator	3	0	30	2923	0.73	Diesel

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
Boiler	3	12	4380	0.5	CNG

User Defined Equipment

Equipment Type	Number

10.1 Stationary Sources

Unmitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	lb/day										lb/day					
Boiler - CNG (0 - 2 MMBTU)	0.1941	0.8640	3.4589	0.0212		0.2682	0.2682		0.2682	0.2682		4,235.3665	4,235.3665	0.0812		4,237.3959
Emergency Generator - Diesel (750 - 9999 HP)	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.1941**	**0.8640**	**3.4589**	**0.0212**		**0.2682**	**0.2682**		**0.2682**	**0.2682**		**4,235.3665**	**4,235.3665**	**0.0812**		**4,237.3959**

11.0 Vegetation

Agua Caliente Cathedral City FTT Casino Project - Alternative D

Riverside-Salton Sea County, Mitigation Report

Construction Mitigation Summary

Phase	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Architectural Coating	0.00	0.24	0.00	0.00	0.87	0.88	0.00	0.00	0.00	0.00	0.00	0.00
Building Construction	0.47	0.22	-0.03	0.00	0.85	0.84	0.00	0.00	0.00	0.00	0.00	0.00
Grading	0.22	0.06	-0.06	0.00	0.43	0.42	0.00	0.00	0.00	0.00	0.00	0.00
Paving	0.31	0.26	-0.17	0.00	0.89	0.88	0.00	0.00	0.00	0.00	0.00	0.00
Site Preparation	0.77	0.58	-0.04	0.00	0.94	0.94	0.00	0.00	0.00	0.00	0.00	0.00

OFFROAD Equipment Mitigation

Equipment Type	Fuel Type	Tier	Number Mitigated	Total Number of Equipment	DPF	Oxidation Catalyst
Air Compressors	Diesel	Tier 3	1	1	Level 3	0.00
Cranes	Diesel	Tier 3	1	1	Level 3	0.00
Excavators	Diesel	Tier 3	2	2	Level 3	0.00
Forklifts	Diesel	Tier 3	3	3	Level 3	0.00
Generator Sets	Diesel	Tier 3	1	1	Level 3	0.00
Graders	Diesel	Tier 3	1	1	Level 3	0.00
Pavers	Diesel	Tier 3	2	2	Level 3	0.00
Paving Equipment	Diesel	Tier 3	2	2	Level 3	0.00
Rollers	Diesel	Tier 3	2	2	Level 3	0.00
Rubber Tired Dozers	Diesel	Tier 3	4	4	Level 3	0.00
Scrapers	Diesel	No Change	0	2	No Change	0.00
Tractors/Loaders/Backhoes	Diesel	Tier 3	9	9	Level 3	0.00
Welders	Diesel	Tier 3	1	1	Level 3	0.00

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	Unmitigated tons/yr						Unmitigated mt/yr					
Air Compressors	2.66000E-003	1.83500E-002	1.84100E-002	3.00000E-005	1.29000E-003	1.29000E-003	0.00000E+000	2.55325E+000	2.55325E+000	2.20000E-004	0.00000E+000	2.55865E+000
Cranes	3.99100E-002	4.75680E-001	1.81580E-001	4.60000E-004	2.01600E-002	1.85500E-002	0.00000E+000	4.10345E+001	4.10345E+001	1.29800E-002	0.00000E+000	4.13590E+001
Excavators	7.82000E-003	8.04600E-002	9.79000E-002	1.50000E-004	3.88000E-003	3.57000E-003	0.00000E+000	1.39106E+001	1.39106E+001	4.40000E-003	0.00000E+000	1.40206E+001
Forklifts	4.34300E-002	3.87790E-001	3.24220E-001	4.10000E-004	3.00400E-002	2.76400E-002	0.00000E+000	3.72703E+001	3.72703E+001	1.17900E-002	0.00000E+000	3.75651E+001
Generator Sets	4.01800E-002	3.41900E-001	3.36940E-001	6.00000E-004	2.04400E-002	2.04400E-002	0.00000E+000	5.11513E+001	5.11513E+001	3.24000E-003	0.00000E+000	5.12323E+001
Graders	7.30000E-003	9.86900E-002	2.75700E-002	1.00000E-004	3.17000E-003	2.91000E-003	0.00000E+000	8.94884E+000	8.94884E+000	2.83000E-003	0.00000E+000	9.01962E+000
Pavers	5.75000E-003	6.24900E-002	5.80300E-002	9.00000E-005	3.06000E-003	2.82000E-003	0.00000E+000	8.44586E+000	8.44586E+000	2.67000E-003	0.00000E+000	8.51266E+000
Paving Equipment	4.26000E-003	4.51300E-002	5.04700E-002	8.00000E-005	2.24000E-003	2.06000E-003	0.00000E+000	7.31770E+000	7.31770E+000	2.32000E-003	0.00000E+000	7.37558E+000
Rollers	4.53000E-003	4.48200E-002	3.81500E-002	5.00000E-005	2.95000E-003	2.71000E-003	0.00000E+000	4.71162E+000	4.71162E+000	1.49000E-003	0.00000E+000	4.74889E+000
Rubber Tired Dozers	3.40400E-002	3.62230E-001	1.28520E-001	2.60000E-004	1.76600E-002	1.62500E-002	0.00000E+000	2.30088E+001	2.30088E+001	7.28000E-003	0.00000E+000	2.31908E+001
Scrapers	3.19600E-002	3.87420E-001	2.41840E-001	4.50000E-004	1.51800E-002	1.39700E-002	0.00000E+000	4.08183E+001	4.08183E+001	1.29100E-002	0.00000E+000	4.11411E+001
Tractors/Loaders/ Backhoes	6.69500E-002	6.72140E-001	6.62160E-001	8.90000E-004	4.48700E-002	4.12800E-002	0.00000E+000	8.02292E+001	8.02292E+001	2.53800E-002	0.00000E+000	8.08638E+001
Welders	3.48600E-002	1.47000E-001	1.63550E-001	2.30000E-004	9.02000E-003	9.02000E-003	0.00000E+000	1.70340E+001	1.70340E+001	2.85000E-003	0.00000E+000	1.71052E+001

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	Mitigated tons/yr						Mitigated mt/yr					
Air Compressors	5.90000E-004	1.35700E-002	1.83200E-002	3.00000E-005	1.40000E-004	1.40000E-004	0.00000E+000	2.55325E+000	2.55325E+000	2.20000E-004	0.00000E+000	2.55864E+000
Cranes	1.12300E-002	2.17060E-001	2.43260E-001	4.60000E-004	1.23000E-003	1.23000E-003	0.00000E+000	4.10344E+001	4.10344E+001	1.29800E-002	0.00000E+000	4.13590E+001
Excavators	3.81000E-003	7.37000E-002	1.17540E-001	1.50000E-004	5.30000E-004	5.30000E-004	0.00000E+000	1.39105E+001	1.39105E+001	4.40000E-003	0.00000E+000	1.40206E+001
Forklifts	1.02300E-002	2.33540E-001	3.15370E-001	4.10000E-004	2.45000E-003	2.45000E-003	0.00000E+000	3.72703E+001	3.72703E+001	1.17900E-002	0.00000E+000	3.75651E+001
Generator Sets	1.19100E-002	2.71850E-001	3.67100E-001	6.00000E-004	2.86000E-003	2.86000E-003	0.00000E+000	5.11512E+001	5.11512E+001	3.24000E-003	0.00000E+000	5.12322E+001
Graders	2.43000E-003	4.70600E-002	5.27400E-002	1.00000E-004	2.70000E-004	2.70000E-004	0.00000E+000	8.94883E+000	8.94883E+000	2.83000E-003	0.00000E+000	9.01961E+000
Pavers	2.31000E-003	4.46800E-002	7.12600E-002	9.00000E-005	3.20000E-004	3.20000E-004	0.00000E+000	8.44585E+000	8.44585E+000	2.67000E-003	0.00000E+000	8.51265E+000
Paving Equipment	2.01000E-003	3.88900E-002	6.20200E-002	8.00000E-005	2.80000E-004	2.80000E-004	0.00000E+000	7.31769E+000	7.31769E+000	2.32000E-003	0.00000E+000	7.37557E+000
Rollers	1.29000E-003	2.93800E-002	3.96800E-002	5.00000E-005	3.10000E-004	3.10000E-004	0.00000E+000	4.71162E+000	4.71162E+000	1.49000E-003	0.00000E+000	4.74888E+000
Rubber Tired Dozers	6.27000E-003	1.21280E-001	1.35920E-001	2.60000E-004	6.90000E-004	6.90000E-004	0.00000E+000	2.30088E+001	2.30088E+001	7.28000E-003	0.00000E+000	2.31908E+001
Scrapers	3.19600E-002	3.87410E-001	2.41840E-001	4.50000E-004	1.51800E-002	1.39700E-002	0.00000E+000	4.08182E+001	4.08182E+001	1.29100E-002	0.00000E+000	4.11411E+001
Tractors/Loaders/Backhoes	2.18400E-002	4.98750E-001	6.73490E-001	8.90000E-004	5.24000E-003	5.24000E-003	0.00000E+000	8.02291E+001	8.02291E+001	2.53800E-002	0.00000E+000	8.08637E+001
Welders	9.58000E-003	1.52980E-001	1.35460E-001	2.30000E-004	1.39000E-003	1.39000E-003	0.00000E+000	1.70340E+001	1.70340E+001	2.85000E-003	0.00000E+000	1.71051E+001

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Air Compressors	7.78195E-001	2.60490E-001	4.88865E-003	0.00000E+000	8.91473E-001	8.91473E-001	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	3.90831E-006
Cranes	7.18617E-001	5.43685E-001	-3.39685E-001	0.00000E+000	9.38988E-001	9.33693E-001	0.00000E+000	1.21849E-006	1.21849E-006	0.00000E+000	0.00000E+000	1.20893E-006
Excavators	5.12788E-001	8.40169E-002	-2.00613E-001	0.00000E+000	8.63402E-001	8.51541E-001	0.00000E+000	1.43776E-006	1.43776E-006	0.00000E+000	0.00000E+000	1.42647E-006
Forklifts	7.64449E-001	3.97767E-001	2.72963E-002	0.00000E+000	9.18442E-001	9.11360E-001	0.00000E+000	1.34155E-006	1.34155E-006	0.00000E+000	0.00000E+000	1.06482E-006
Generator Sets	7.03584E-001	2.04884E-001	-8.95115E-002	0.00000E+000	8.60078E-001	8.60078E-001	0.00000E+000	1.17299E-006	1.17299E-006	0.00000E+000	0.00000E+000	1.17114E-006
Graders	6.67123E-001	5.23153E-001	-9.12949E-001	0.00000E+000	9.14826E-001	9.07216E-001	0.00000E+000	1.11746E-006	1.11746E-006	0.00000E+000	0.00000E+000	1.10869E-006
Pavers	5.98261E-001	2.85006E-001	-2.27986E-001	0.00000E+000	8.95425E-001	8.86525E-001	0.00000E+000	1.18401E-006	1.18401E-006	0.00000E+000	0.00000E+000	1.17472E-006
Paving Equipment	5.28169E-001	1.38267E-001	-2.28849E-001	0.00000E+000	8.75000E-001	8.64078E-001	0.00000E+000	1.36655E-006	1.36655E-006	0.00000E+000	0.00000E+000	1.35583E-006
Rollers	7.15232E-001	3.44489E-001	-4.01048E-002	0.00000E+000	8.94915E-001	8.85609E-001	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	2.10576E-006
Rubber Tired Dozers	8.15805E-001	6.65185E-001	-5.75786E-002	0.00000E+000	9.60929E-001	9.57538E-001	0.00000E+000	8.69233E-007	8.69233E-007	0.00000E+000	0.00000E+000	1.29362E-006
Scrapers	0.00000E+000	2.58118E-005	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	9.79954E-007	9.79954E-007	0.00000E+000	0.00000E+000	1.21533E-006
Tractors/Loaders/Backhoes	6.73786E-001	2.57967E-001	-1.71107E-002	0.00000E+000	8.83218E-001	8.73062E-001	0.00000E+000	1.24643E-006	1.24643E-006	0.00000E+000	0.00000E+000	1.23665E-006
Welders	7.25186E-001	-4.06803E-002	1.71752E-001	0.00000E+000	8.45898E-001	8.45898E-001	0.00000E+000	1.17412E-006	1.17412E-006	0.00000E+000	0.00000E+000	1.16924E-006

Fugitive Dust Mitigation

Yes/No	Mitigation Measure	Mitigation Input		Mitigation Input		Mitigation Input	
Yes	Soil Stabilizer for unpaved Roads	PM10 Reduction	10.00	PM2.5 Reduction	10.00		
No	Replace Ground Cover of Area Disturbed	PM10 Reduction	0.00	PM2.5 Reduction	0.00		
Yes	Water Exposed Area	PM10 Reduction	55.00	PM2.5 Reduction	55.00	Frequency (per day)	2.00

No	Unpaved Road Mitigation	Moisture Content %	0.00	Vehicle Speed (mph)	15.00		
No	Clean Paved Road	% PM Reduction	0.00				

		Unmitigated		Mitigated		Percent Reduction	
Phase	Source	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5
Architectural Coating	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Architectural Coating	Roads	0.00	0.00	0.00	0.00	0.00	0.00
Building Construction	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Building Construction	Roads	0.21	0.06	0.21	0.06	0.00	0.00
Grading	Fugitive Dust	0.11	0.05	0.05	0.02	0.55	0.55
Grading	Roads	0.15	0.04	0.15	0.04	0.00	0.00
Paving	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Paving	Roads	0.00	0.00	0.00	0.00	0.00	0.00
Site Preparation	Fugitive Dust	0.09	0.05	0.04	0.02	0.55	0.55
Site Preparation	Roads	0.00	0.00	0.00	0.00	0.00	0.00

Operational Percent Reduction Summary

Category	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Architectural Coating	52.73	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electricity	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.70	3.70	3.75	3.66	3.70
Hearth	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Landscaping	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mobile	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Natural Gas	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Water Indoor	0.00	0.00	0.00	0.00	0.00	0.00	20.00	15.88	16.11	19.97	19.73	16.73
Water Outdoor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Operational Mobile Mitigation

Project Setting:

Mitigation	Category	Measure	% Reduction	Input Value 1	Input Value 2	Input Value
No	Land Use	Increase Density	0.00			
No	Land Use	Increase Diversity	0.11	0.33		
No	Land Use	Improve Walkability Design	0.00			
No	Land Use	Improve Destination Accessibility	0.00			
No	Land Use	Increase Transit Accessibility	0.25			
No	Land Use	Integrate Below Market Rate Housing	0.00			
	Land Use	Land Use SubTotal	0.00			

No	Neighborhood Enhancements	Improve Pedestrian Network				
No	Neighborhood Enhancements	Provide Traffic Calming Measures				
No	Neighborhood Enhancements	Implement NEV Network	0.00			
	Neighborhood Enhancements	Neighborhood Enhancements Subtotal	0.00			
No	Parking Policy Pricing	Limit Parking Supply	0.00			
No	Parking Policy Pricing	Unbundle Parking Costs	0.00			
No	Parking Policy Pricing	On-street Market Pricing	0.00			
	Parking Policy Pricing	Parking Policy Pricing Subtotal	0.00			
No	Transit Improvements	Provide BRT System	0.00			
No	Transit Improvements	Expand Transit Network	0.00			
No	Transit Improvements	Increase Transit Frequency	0.00			
	Transit Improvements	Transit Improvements Subtotal	0.00			
		Land Use and Site Enhancement Subtotal	0.00			
No	Commute	Implement Trip Reduction Program				
No	Commute	Transit Subsidy				
No	Commute	Implement Employee Parking "Cash Out"				
No	Commute	Workplace Parking Charge				
No	Commute	Encourage Telecommuting and Alternative Work Schedules	0.00			
No	Commute	Market Commute Trip Reduction Option	0.00			
No	Commute	Employee Vanpool/Shuttle	0.00		2.00	
No	Commute	Provide Ride Sharing Program				
	Commute	Commute Subtotal	0.00			

No	School Trip	Implement School Bus Program	0.00			
		Total VMT Reduction	0.00			

Area Mitigation

Measure Implemented	Mitigation Measure	Input Value
No	Only Natural Gas Hearth	
No	No Hearth	
No	Use Low VOC Cleaning Supplies	
No	Use Low VOC Paint (Residential Interior)	250.00
No	Use Low VOC Paint (Residential Exterior)	250.00
Yes	Use Low VOC Paint (Non-residential Interior)	100.00
Yes	Use Low VOC Paint (Non-residential Exterior)	100.00
No	Use Low VOC Paint (Parking)	250.00
No	% Electric Lawnmower	0.00
No	% Electric Leafblower	0.00
No	% Electric Chainsaw	0.00

Energy Mitigation Measures

Measure Implemented	Mitigation Measure	Input Value 1	Input Value 2
No	Exceed Title 24	0.00	
Yes	Install High Efficiency Lighting	16.00	
No	On-site Renewable	0.00	0.00

Appliance Type	Land Use Subtype	% Improvement
ClothWasher		30.00
DishWasher		15.00
Fan		50.00
Refrigerator		15.00

Water Mitigation Measures

Measure Implemented	Mitigation Measure	Input Value 1	Input Value 2
No	Apply Water Conservation on Strategy	0.00	0.00
No	Use Reclaimed Water	0.00	0.00
No	Use Grey Water	0.00	
Yes	Install low-flow bathroom faucet	32.00	
Yes	Install low-flow Kitchen faucet	18.00	
Yes	Install low-flow Toilet	20.00	
Yes	Install low-flow Shower	20.00	
No	Turf Reduction	0.00	
No	Use Water Efficient Irrigation Systems	6.10	
No	Water Efficient Landscape	0.00	0.00

Solid Waste Mitigation

Mitigation Measures	Input Value

Institute Recycling and Composting Services Percent Reduction in Waste Disposed	50.00

Agua Caliente Cathedral City FTT Casino Project - Alternative D Cumulative

Riverside-Salton Sea County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	1,150.00	Space	10.35	460,000.00	0
Fast Food Restaurant w/o Drive Thru	2.00	1000sqft	0.00	2,000.00	0
Fast Food Restaurant with Drive Thru	6.00	1000sqft	0.00	6,000.00	0
High Turnover (Sit Down Restaurant)	14.00	1000sqft	0.00	14,000.00	0
Quality Restaurant	14.00	1000sqft	0.00	14,000.00	0
User Defined Recreational	40.00	User Defined Unit	3.70	40,000.00	0
Regional Shopping Center	24.00	1000sqft	0.00	24,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2040
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Project Description; lot acreage for all recreational and retail space is all included within the User Defined Recreational land use.

Construction Phase - Construction phasing based on a 12-month construction schedule.

Grading - MSA Consulting, Inc., 2018d (See Table 2, CalEEMod Inputs)

Vehicle Trips - See Table 3, CalEEMod Inputs. Trip generation rates are derived from the TIS (Appendix TIS).

Energy Use - Electricity energy and natural gas intensity for the user defined recretational land use determined from similar projects and scaled by square footage

Water And Wastewater - Water demand is based off of similar projects and scaled by square footage

Solid Waste - Section 4.9 of the EA

Construction Off-road Equipment Mitigation - Construction Mitigation

Area Mitigation - MDAQMD Rule 1113 Architectural Coatings (based on nonflat coating)

Energy Mitigation -

Water Mitigation -

Waste Mitigation - Tribe will use the Salton City Landfill's facilities and will divert 50 percent of waste from the landfill.

Stationary Sources - Emergency Generators and Fire Pumps - Based on like project emergency generator size and use

Stationary Sources - Process Boilers - Based on like project boiler size and use

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	250	100
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	100
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	9.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3

Agua Caliente Cathedral City FTT Casino Project - Alternative D Cumulative - Riverside-Salton Sea County, Annual

tblConstructionPhase	NumDays	10.00	2.00
tblEnergyUse	NT24E	0.00	3.37
tblEnergyUse	NT24NG	0.00	560.88
tblLandUse	LandUseSquareFeet	0.00	40,000.00
tblLandUse	LotAcreage	0.05	0.00
tblLandUse	LotAcreage	0.14	0.00
tblLandUse	LotAcreage	0.32	0.00
tblLandUse	LotAcreage	0.32	0.00
tblLandUse	LotAcreage	0.00	3.70
tblLandUse	LotAcreage	0.55	0.00
tblSolidWaste	SolidWasteGenerationRate	0.00	375.95
tblStationaryBoilersUse	AnnualHeatInput	0.00	4,380.00
tblStationaryBoilersUse	BoilerRatingValue	0.00	0.50
tblStationaryBoilersUse	DailyHeatInput	0.00	12.00
tblStationaryBoilersUse	NumberOfEquipment	0.00	3.00
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	2,923.00
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	30.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	3.00
tblVehicleTrips	CC_TTP	0.00	80.00
tblVehicleTrips	CNW_TTP	0.00	5.00
tblVehicleTrips	CW_TTP	0.00	15.00
tblVehicleTrips	DV_TP	37.00	0.00
tblVehicleTrips	DV_TP	21.00	0.00
tblVehicleTrips	DV_TP	20.00	0.00
tblVehicleTrips	DV_TP	18.00	0.00
tblVehicleTrips	DV_TP	35.00	0.00
tblVehicleTrips	PB_TP	12.00	0.00

tblVehicleTrips	PB_TP	50.00	0.00
tblVehicleTrips	PB_TP	43.00	0.00
tblVehicleTrips	PB_TP	44.00	0.00
tblVehicleTrips	PB_TP	11.00	0.00
tblVehicleTrips	PR_TP	51.00	100.00
tblVehicleTrips	PR_TP	29.00	100.00
tblVehicleTrips	PR_TP	37.00	100.00
tblVehicleTrips	PR_TP	38.00	100.00
tblVehicleTrips	PR_TP	54.00	100.00
tblVehicleTrips	PR_TP	0.00	100.00
tblVehicleTrips	ST_TR	696.00	288.38
tblVehicleTrips	ST_TR	722.03	159.63
tblVehicleTrips	ST_TR	158.37	45.55
tblVehicleTrips	ST_TR	94.36	17.20
tblVehicleTrips	ST_TR	49.97	36.34
tblVehicleTrips	ST_TR	0.00	93.00
tblVehicleTrips	SU_TR	500.00	288.38
tblVehicleTrips	SU_TR	542.72	159.63
tblVehicleTrips	SU_TR	131.84	45.55
tblVehicleTrips	SU_TR	72.16	17.20
tblVehicleTrips	SU_TR	25.24	36.34
tblVehicleTrips	SU_TR	0.00	93.00
tblVehicleTrips	WD_TR	716.00	288.38
tblVehicleTrips	WD_TR	496.12	159.63
tblVehicleTrips	WD_TR	127.15	45.55
tblVehicleTrips	WD_TR	89.95	17.20
tblVehicleTrips	WD_TR	42.70	36.34

tblVehicleTrips	WD_TR	0.00	93.00
tblWater	IndoorWaterUseRate	0.00	15,931,489.00
tblWater	OutdoorWaterUseRate	0.00	6,928,889.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	4.4100e-003	0.0456	0.0226	4.0000e-005	0.0182	2.3900e-003	0.0206	9.9700e-003	2.2000e-003	0.0122	0.0000	3.5457	3.5457	1.0800e-003	0.0000	3.5728
Maximum	**4.4100e-003**	**0.0456**	**0.0226**	**4.0000e-005**	**0.0182**	**2.3900e-003**	**0.0206**	**9.9700e-003**	**2.2000e-003**	**0.0122**	**0.0000**	**3.5457**	**3.5457**	**1.0800e-003**	**0.0000**	**3.5728**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	-0.0007	8.1500e-003	0.0239	4.0000e-005	8.2800e-003	-0.0011	7.1700e-003	4.5100e-003	-0.0010	3.5100e-003	0.0000	3.5457	3.5457	1.0800e-003	0.0000	3.5728
Maximum	**-0.0007**	**8.1500e-003**	**0.0239**	**4.0000e-005**	**8.2800e-003**	**-0.0011**	**7.1700e-003**	**4.5100e-003**	**-0.0010**	**3.5100e-003**	**0.0000**	**3.5457**	**3.5457**	**1.0800e-003**	**0.0000**	**3.5728**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**115.87**	**82.14**	**-5.93**	**0.00**	**54.53**	**146.44**	**65.21**	**54.76**	**145.45**	**71.16**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	1-1-2019	3-31-2019	0.0357	0.0053
		Highest	0.0357	0.0053

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.5532	1.0000e-004	0.0114	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0223	0.0223	6.0000e-005	0.0000	0.0238
Energy	0.1743	1.5849	1.3313	9.5100e-003		0.1205	0.1205		0.1205	0.1205	0.0000	2,460.8177	2,460.8177	0.0634	0.0379	2,473.7018
Mobile	0.7971	8.9544	8.1463	0.0556	5.1517	0.0189	5.1706	1.3787	0.0176	1.3963	0.0000	5,204.4919	5,204.4919	0.2192	0.0000	5,209.9706
Stationary	0.2513	1.1230	1.1816	4.9000e-003		0.0807	0.0807		0.0807	0.0807	0.0000	801.3887	801.3887	0.0275	0.0000	802.0759
Waste						0.0000	0.0000		0.0000	0.0000	136.5480	0.0000	136.5480	8.0698	0.0000	338.2918
Water						0.0000	0.0000		0.0000	0.0000	9.0850	149.6595	158.7445	0.9393	0.0233	189.1737
Total	**1.7760**	**11.6624**	**10.6707**	**0.0700**	**5.1517**	**0.2201**	**5.3718**	**1.3787**	**0.2188**	**1.5975**	**145.6330**	**8,616.3801**	**8,762.0131**	**9.3192**	**0.0612**	**9,013.2375**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.4837	1.0000e-004	0.0114	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0223	0.0223	6.0000e-005	0.0000	0.0238
Energy	0.1743	1.5849	1.3313	9.5100e-003		0.1205	0.1205		0.1205	0.1205	0.0000	2,433.5967	2,433.5967	0.0623	0.0377	2,446.3835
Mobile	0.7971	8.9544	8.1463	0.0556	5.1517	0.0189	5.1706	1.3787	0.0176	1.3963	0.0000	5,204.4919	5,204.4919	0.2192	0.0000	5,209.9706
Stationary	0.2513	1.1230	1.1816	4.9000e-003		0.0807	0.0807		0.0807	0.0807	0.0000	801.3887	801.3887	0.0275	0.0000	802.0759
Waste						0.0000	0.0000		0.0000	0.0000	68.2740	0.0000	68.2740	4.0349	0.0000	169.1459
Water						0.0000	0.0000		0.0000	0.0000	7.2680	125.8983	133.1663	0.7517	0.0187	157.5317
Total	**1.7064**	**11.6624**	**10.6707**	**0.0700**	**5.1517**	**0.2201**	**5.3718**	**1.3787**	**0.2188**	**1.5975**	**75.5420**	**8,565.3980**	**8,640.9400**	**5.0956**	**0.0564**	**8,785.1313**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**3.92**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**48.13**	**0.59**	**1.38**	**45.32**	**7.91**	**2.53**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/1/2019	1/2/2019	5	2	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 10.35

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use DPF for Construction Equipment

Use Soil Stabilizer

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0181	0.0000	0.0181	9.9300e-003	0.0000	9.9300e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.3400e-003	0.0456	0.0221	4.0000e-005		2.3900e-003	2.3900e-003		2.2000e-003	2.2000e-003	0.0000	3.4169	3.4169	1.0800e-003	0.0000	3.4439
Total	**4.3400e-003**	**0.0456**	**0.0221**	**4.0000e-005**	**0.0181**	**2.3900e-003**	**0.0205**	**9.9300e-003**	**2.2000e-003**	**0.0121**	**0.0000**	**3.4169**	**3.4169**	**1.0800e-003**	**0.0000**	**3.4439**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.0000e-005	5.0000e-005	5.3000e-004	0.0000	1.5000e-004	0.0000	1.5000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1288	0.1288	0.0000	0.0000	0.1289
Total	**7.0000e-005**	**5.0000e-005**	**5.3000e-004**	**0.0000**	**1.5000e-004**	**0.0000**	**1.5000e-004**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**0.0000**	**0.1288**	**0.1288**	**0.0000**	**0.0000**	**0.1289**

3.2 Site Preparation - 2019

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					8.1300e-003	0.0000	8.1300e-003	4.4700e-003	0.0000	4.4700e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	-0.0008	8.1000e-003	0.0234	4.0000e-005		-0.0011	-0.0011		-0.0010	-0.0010	0.0000	3.4169	3.4169	1.0800e-003	0.0000	3.4439
Total	**-0.0008**	**8.1000e-003**	**0.0234**	**4.0000e-005**	**8.1300e-003**	**-0.0011**	**7.0200e-003**	**4.4700e-003**	**-0.0010**	**3.4700e-003**	**0.0000**	**3.4169**	**3.4169**	**1.0800e-003**	**0.0000**	**3.4439**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.0000e-005	5.0000e-005	5.3000e-004	0.0000	1.5000e-004	0.0000	1.5000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1288	0.1288	0.0000	0.0000	0.1289
Total	**7.0000e-005**	**5.0000e-005**	**5.3000e-004**	**0.0000**	**1.5000e-004**	**0.0000**	**1.5000e-004**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**0.0000**	**0.1288**	**0.1288**	**0.0000**	**0.0000**	**0.1289**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.7971	8.9544	8.1463	0.0556	5.1517	0.0189	5.1706	1.3787	0.0176	1.3963	0.0000	5,204.4919	5,204.4919	0.2192	0.0000	5,209.9706
Unmitigated	0.7971	8.9544	8.1463	0.0556	5.1517	0.0189	5.1706	1.3787	0.0176	1.3963	0.0000	5,204.4919	5,204.4919	0.2192	0.0000	5,209.9706

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Fast Food Restaurant w/o Drive Thru	576.76	576.76	576.76	955,755	955,755
Fast Food Restaurant with Drive Thru	957.78	957.78	957.78	1,607,402	1,607,402
High Turnover (Sit Down Restaurant)	637.70	637.70	637.70	1,191,602	1,191,602
Parking Lot	0.00	0.00	0.00		
Quality Restaurant	240.80	240.80	240.80	475,420	475,420
Regional Shopping Center	872.16	872.16	872.16	1,835,241	1,835,241
User Defined Recreational	3,720.00	3,720.00	3720.00	7,454,210	7,454,210
Total	7,005.20	7,005.20	7,005.20	13,519,631	13,519,631

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Fast Food Restaurant w/o Drive	12.50	4.20	5.40	1.50	79.50	19.00	100	0	0
Fast Food Restaurant with Drive	12.50	4.20	5.40	2.20	78.80	19.00	100	0	0
High Turnover (Sit Down	12.50	4.20	5.40	8.50	72.50	19.00	100	0	0
Parking Lot	12.50	4.20	5.40	0.00	0.00	0.00	0	0	0
Quality Restaurant	12.50	4.20	5.40	12.00	69.00	19.00	100	0	0
Regional Shopping Center	12.50	4.20	5.40	16.30	64.70	19.00	100	0	0
User Defined Recreational	12.50	4.20	5.40	15.00	80.00	5.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Fast Food Restaurant w/o Drive Thru	0.566189	0.033707	0.192293	0.100413	0.008756	0.004001	0.016522	0.070107	0.001420	0.001057	0.004327	0.000696	0.000512
Fast Food Restaurant with Drive Thru	0.566189	0.033707	0.192293	0.100413	0.008756	0.004001	0.016522	0.070107	0.001420	0.001057	0.004327	0.000696	0.000512
High Turnover (Sit Down Restaurant)	0.566189	0.033707	0.192293	0.100413	0.008756	0.004001	0.016522	0.070107	0.001420	0.001057	0.004327	0.000696	0.000512
Parking Lot	0.566189	0.033707	0.192293	0.100413	0.008756	0.004001	0.016522	0.070107	0.001420	0.001057	0.004327	0.000696	0.000512
Quality Restaurant	0.566189	0.033707	0.192293	0.100413	0.008756	0.004001	0.016522	0.070107	0.001420	0.001057	0.004327	0.000696	0.000512
Regional Shopping Center	0.566189	0.033707	0.192293	0.100413	0.008756	0.004001	0.016522	0.070107	0.001420	0.001057	0.004327	0.000696	0.000512
User Defined Recreational	0.566189	0.033707	0.192293	0.100413	0.008756	0.004001	0.016522	0.070107	0.001420	0.001057	0.004327	0.000696	0.000512

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Install High Efficiency Lighting

Agua Caliente Cathedral City FTT Casino Project - Alternative D Cumulative - Riverside-Salton Sea County, Annual

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	708.2210	708.2210	0.0292	6.0500e-003	710.7547
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	735.4420	735.4420	0.0304	6.2800e-003	738.0730
NaturalGas Mitigated	0.1743	1.5849	1.3313	9.5100e-003		0.1205	0.1205		0.1205	0.1205	0.0000	1,725.3757	1,725.3757	0.0331	0.0316	1,735.6288
NaturalGas Unmitigated	0.1743	1.5849	1.3313	9.5100e-003		0.1205	0.1205		0.1205	0.1205	0.0000	1,725.3757	1,725.3757	0.0331	0.0316	1,735.6288

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Fast Food Restaurant w/o Drive Thru	546880	2.9500e-003	0.0268	0.0225	1.6000e-004		2.0400e-003	2.0400e-003		2.0400e-003	2.0400e-003	0.0000	29.1836	29.1836	5.6000e-004	5.4000e-004	29.3570
Fast Food Restaurant with Drive Thru	1.64064e+006	8.8500e-003	0.0804	0.0676	4.8000e-004		6.1100e-003	6.1100e-003		6.1100e-003	6.1100e-003	0.0000	87.5508	87.5508	1.6800e-003	1.6100e-003	88.0711
High Turnover (Sit Down Restaurant)	3.82816e+006	0.0206	0.1877	0.1576	1.1300e-003		0.0143	0.0143		0.0143	0.0143	0.0000	204.2852	204.2852	3.9200e-003	3.7500e-003	205.4992
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	3.82816e+006	0.0206	0.1877	0.1576	1.1300e-003		0.0143	0.0143		0.0143	0.0143	0.0000	204.2852	204.2852	3.9200e-003	3.7500e-003	205.4992
Regional Shopping Center	53280	2.9000e-004	2.6100e-003	2.1900e-003	2.0000e-005		2.0000e-004	2.0000e-004		2.0000e-004	2.0000e-004	0.0000	2.8432	2.8432	5.0000e-005	5.0000e-005	2.8601
User Defined Recreational	2.24352e+007	0.1210	1.0998	0.9238	6.6000e-003		0.0836	0.0836		0.0836	0.0836	0.0000	1,197.2277	1,197.2277	0.0230	0.0220	1,204.3422
Total		**0.1743**	**1.5849**	**1.3313**	**9.5200e-003**		**0.1205**	**0.1205**		**0.1205**	**0.1205**	**0.0000**	**1,725.3757**	**1,725.3757**	**0.0331**	**0.0317**	**1,735.6288**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Fast Food Restaurant w/o Drive Thru	546880	2.9500e-003	0.0268	0.0225	1.6000e-004		2.0400e-003	2.0400e-003		2.0400e-003	2.0400e-003	0.0000	29.1836	29.1836	5.6000e-004	5.4000e-004	29.3570
Fast Food Restaurant with Drive Thru	1.64064e+006	8.8500e-003	0.0804	0.0676	4.8000e-004		6.1100e-003	6.1100e-003		6.1100e-003	6.1100e-003	0.0000	87.5508	87.5508	1.6800e-003	1.6100e-003	88.0711
High Turnover (Sit Down Restaurant)	3.82816e+006	0.0206	0.1877	0.1576	1.1300e-003		0.0143	0.0143		0.0143	0.0143	0.0000	204.2852	204.2852	3.9200e-003	3.7500e-003	205.4992
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	3.82816e+006	0.0206	0.1877	0.1576	1.1300e-003		0.0143	0.0143		0.0143	0.0143	0.0000	204.2852	204.2852	3.9200e-003	3.7500e-003	205.4992
Regional Shopping Center	53280	2.9000e-004	2.6100e-003	2.1900e-003	2.0000e-005		2.0000e-004	2.0000e-004		2.0000e-004	2.0000e-004	0.0000	2.8432	2.8432	5.0000e-005	5.0000e-005	2.8601
User Defined Recreational	2.24352e+007	0.1210	1.0998	0.9238	6.6000e-003		0.0836	0.0836		0.0836	0.0836	0.0000	1,197.2277	1,197.2277	0.0230	0.0220	1,204.3422
Total		**0.1743**	**1.5849**	**1.3313**	**9.5200e-003**		**0.1205**	**0.1205**		**0.1205**	**0.1205**	**0.0000**	**1,725.3757**	**1,725.3757**	**0.0331**	**0.0317**	**1,735.6288**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Fast Food Restaurant w/o Drive Thru	94960	30.2563	1.2500e-003	2.6000e-004	30.3645
Fast Food Restaurant with Drive Thru	284880	90.7689	3.7500e-003	7.8000e-004	91.0936
High Turnover (Sit Down Restaurant)	664720	211.7940	8.7400e-003	1.8100e-003	212.5517
Parking Lot	161000	51.2981	2.1200e-003	4.4000e-004	51.4816
Quality Restaurant	664720	211.7940	8.7400e-003	1.8100e-003	212.5517
Regional Shopping Center	303120	96.5805	3.9900e-003	8.2000e-004	96.9261
User Defined Recreational	134800	42.9502	1.7700e-003	3.7000e-004	43.1038
Total		**735.4420**	**0.0304**	**6.2900e-003**	**738.0730**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Fast Food Restaurant w/o Drive Thru	92841.6	29.5813	1.2200e-003	2.5000e-004	29.6872
Fast Food Restaurant with Drive Thru	278525	88.7440	3.6600e-003	7.6000e-004	89.0615
High Turnover (Sit Down Restaurant)	649891	207.0693	8.5500e-003	1.7700e-003	207.8101
Parking Lot	135240	43.0904	1.7800e-003	3.7000e-004	43.2445
Quality Restaurant	649891	207.0693	8.5500e-003	1.7700e-003	207.8101
Regional Shopping Center	281578	89.7167	3.7000e-003	7.7000e-004	90.0376
User Defined Recreational	134800	42.9502	1.7700e-003	3.7000e-004	43.1038
Total		**708.2210**	**0.0292**	**6.0600e-003**	**710.7547**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.4837	1.0000e-004	0.0114	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0223	0.0223	6.0000e-005	0.0000	0.0238
Unmitigated	0.5532	1.0000e-004	0.0114	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0223	0.0223	6.0000e-005	0.0000	0.0238

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1319					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.4203					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0400e-003	1.0000e-004	0.0114	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0223	0.0223	6.0000e-005	0.0000	0.0238
Total	**0.5532**	**1.0000e-004**	**0.0114**	**0.0000**		**4.0000e-005**	**4.0000e-005**		**4.0000e-005**	**4.0000e-005**	**0.0000**	**0.0223**	**0.0223**	**6.0000e-005**	**0.0000**	**0.0238**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0623					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.4203					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0400e-003	1.0000e-004	0.0114	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0223	0.0223	6.0000e-005	0.0000	0.0238
Total	**0.4837**	**1.0000e-004**	**0.0114**	**0.0000**		**4.0000e-005**	**4.0000e-005**		**4.0000e-005**	**4.0000e-005**	**0.0000**	**0.0223**	**0.0223**	**6.0000e-005**	**0.0000**	**0.0238**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Agua Caliente Cathedral City FTT Casino Project - Alternative D Cumulative - Riverside-Salton Sea County, Annual

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	133.1663	0.7517	0.0187	157.5317
Unmitigated	158.7445	0.9393	0.0233	189.1737

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Fast Food Restaurant w/o Drive Thru	0.607067 / 0.038749	2.8483	0.0199	4.9000e-004	3.4916
Fast Food Restaurant with Drive Thru	1.8212 / 0.116247	8.5450	0.0597	1.4700e-003	10.4747
High Turnover (Sit Down Restaurant)	4.24947 / 0.271243	19.9384	0.1392	3.4300e-003	24.4410
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	4.24947 / 0.271243	19.9384	0.1392	3.4300e-003	24.4410
Regional Shopping Center	1.77774 / 1.08958	11.7964	0.0584	1.4600e-003	13.6924
User Defined Recreational	15.9315 / 6.92889	95.6779	0.5229	0.0130	112.6331
Total		**158.7445**	**0.9393**	**0.0233**	**189.1737**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Fast Food Restaurant w/o Drive Thru	0.485654 / 0.038749	2.3061	0.0159	3.9000e-004	2.8208
Fast Food Restaurant with Drive Thru	1.45696 / 0.116247	6.9183	0.0477	1.1800e-003	8.4624
High Turnover (Sit Down Restaurant)	3.39958 / 0.271243	16.1428	0.1114	2.7400e-003	19.7455
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	3.39958 / 0.271243	16.1428	0.1114	2.7400e-003	19.7455
Regional Shopping Center	1.42219 / 1.08958	10.2085	0.0467	1.1800e-003	11.7281
User Defined Recreational	12.7452 / 6.92889	81.4478	0.4185	0.0105	95.0295
Total		**133.1663**	**0.7517**	**0.0187**	**157.5317**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	68.2740	4.0349	0.0000	169.1459
Unmitigated	136.5480	8.0698	0.0000	338.2918

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Fast Food Restaurant w/o Drive Thru	23.04	4.6769	0.2764	0.0000	11.5869
Fast Food Restaurant with Drive Thru	69.11	14.0287	0.8291	0.0000	34.7555
High Turnover (Sit Down Restaurant)	166.6	33.8183	1.9986	0.0000	83.7834
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	12.78	2.5942	0.1533	0.0000	6.4271
Regional Shopping Center	25.2	5.1154	0.3023	0.0000	12.6731
User Defined Recreational	375.95	76.3145	4.5101	0.0000	189.0658
Total		**136.5480**	**8.0697**	**0.0000**	**338.2918**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Fast Food Restaurant w/o Drive Thru	11.52	2.3385	0.1382	0.0000	5.7934
Fast Food Restaurant with Drive Thru	34.555	7.0144	0.4145	0.0000	17.3778
High Turnover (Sit Down Restaurant)	83.3	16.9092	0.9993	0.0000	41.8917
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	6.39	1.2971	0.0767	0.0000	3.2135
Regional Shopping Center	12.6	2.5577	0.1512	0.0000	6.3366
User Defined Recreational	187.975	38.1572	2.2550	0.0000	94.5329
Total		**68.2740**	**4.0349**	**0.0000**	**169.1459**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Emergency Generator	3	0	30	2923	0.73	Diesel

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
Boiler	3	12	4380	0.5	CNG

User Defined Equipment

Equipment Type	Number

10.1 Stationary Sources

Unmitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	tons/yr										MT/yr					
Boiler - CNG (0 - 2 MMBTU)	0.0354	0.1577	0.6313	3.8600e-003		0.0490	0.0490		0.0490	0.0490	0.0000	701.2124	701.2124	0.0134	0.0000	701.5484
Emergency Generator - Diesel (750 - 9999 HP)	0.2159	0.9653	0.5504	1.0400e-003		0.0318	0.0318		0.0318	0.0318	0.0000	100.1763	100.1763	0.0140	0.0000	100.5274
Total	**0.2513**	**1.1230**	**1.1816**	**4.9000e-003**		**0.0807**	**0.0807**		**0.0807**	**0.0807**	**0.0000**	**801.3887**	**801.3887**	**0.0275**	**0.0000**	**802.0759**

11.0 Vegetation

Agua Caliente Cathedral City FTT Casino Project - Alternative D Cumulative

Riverside-Salton Sea County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	1,150.00	Space	10.35	460,000.00	0
Fast Food Restaurant w/o Drive Thru	2.00	1000sqft	0.00	2,000.00	0
Fast Food Restaurant with Drive Thru	6.00	1000sqft	0.00	6,000.00	0
High Turnover (Sit Down Restaurant)	14.00	1000sqft	0.00	14,000.00	0
Quality Restaurant	14.00	1000sqft	0.00	14,000.00	0
User Defined Recreational	40.00	User Defined Unit	3.70	40,000.00	0
Regional Shopping Center	24.00	1000sqft	0.00	24,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2040
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Agua Caliente Cathedral City FTT Casino Project - Alternative D Cumulative - Riverside-Salton Sea County, Summer

Project Characteristics -

Land Use - Project Description; lot acreage for all recreational and retail space is all included within the User Defined Recreational land use.

Construction Phase - Construction phasing based on a 12-month construction schedule.

Grading - MSA Consulting, Inc., 2018d (See Table 2, CalEEMod Inputs)

Vehicle Trips - See Table 3, CalEEMod Inputs. Trip generation rates are derived from the TIS (Appendix TIS).

Energy Use - Electricity energy and natural gas intensity for the user defined recretational land use determined from similar projects and scaled by square footage

Water And Wastewater - Water demand is based off of similar projects and scaled by square footage

Solid Waste - Section 4.9 of the EA

Construction Off-road Equipment Mitigation - Construction Mitigation

Area Mitigation - MDAQMD Rule 1113 Architectural Coatings (based on nonflat coating)

Energy Mitigation -

Water Mitigation -

Waste Mitigation - Tribe will use the Salton City Landfill's facilities and will divert 50 percent of waste from the landfill.

Stationary Sources - Emergency Generators and Fire Pumps - Based on like project emergency generator size and use

Stationary Sources - Process Boilers - Based on like project boiler size and use

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	250	100
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	100
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	9.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3

Agua Caliente Cathedral City FTT Casino Project - Alternative D Cumulative - Riverside-Salton Sea County, Summer

tblConstructionPhase	NumDays	10.00	2.00
tblEnergyUse	NT24E	0.00	3.37
tblEnergyUse	NT24NG	0.00	560.88
tblLandUse	LandUseSquareFeet	0.00	40,000.00
tblLandUse	LotAcreage	0.05	0.00
tblLandUse	LotAcreage	0.14	0.00
tblLandUse	LotAcreage	0.32	0.00
tblLandUse	LotAcreage	0.32	0.00
tblLandUse	LotAcreage	0.00	3.70
tblLandUse	LotAcreage	0.55	0.00
tblSolidWaste	SolidWasteGenerationRate	0.00	375.95
tblStationaryBoilersUse	AnnualHeatInput	0.00	4,380.00
tblStationaryBoilersUse	BoilerRatingValue	0.00	0.50
tblStationaryBoilersUse	DailyHeatInput	0.00	12.00
tblStationaryBoilersUse	NumberOfEquipment	0.00	3.00
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	2,923.00
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	30.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	3.00
tblVehicleTrips	CC_TTP	0.00	80.00
tblVehicleTrips	CNW_TTP	0.00	5.00
tblVehicleTrips	CW_TTP	0.00	15.00
tblVehicleTrips	DV_TP	37.00	0.00
tblVehicleTrips	DV_TP	21.00	0.00
tblVehicleTrips	DV_TP	20.00	0.00
tblVehicleTrips	DV_TP	18.00	0.00
tblVehicleTrips	DV_TP	35.00	0.00
tblVehicleTrips	PB_TP	12.00	0.00

tblVehicleTrips	PB_TP	50.00	0.00
tblVehicleTrips	PB_TP	43.00	0.00
tblVehicleTrips	PB_TP	44.00	0.00
tblVehicleTrips	PB_TP	11.00	0.00
tblVehicleTrips	PR_TP	51.00	100.00
tblVehicleTrips	PR_TP	29.00	100.00
tblVehicleTrips	PR_TP	37.00	100.00
tblVehicleTrips	PR_TP	38.00	100.00
tblVehicleTrips	PR_TP	54.00	100.00
tblVehicleTrips	PR_TP	0.00	100.00
tblVehicleTrips	ST_TR	696.00	288.38
tblVehicleTrips	ST_TR	722.03	159.63
tblVehicleTrips	ST_TR	158.37	45.55
tblVehicleTrips	ST_TR	94.36	17.20
tblVehicleTrips	ST_TR	49.97	36.34
tblVehicleTrips	ST_TR	0.00	93.00
tblVehicleTrips	SU_TR	500.00	288.38
tblVehicleTrips	SU_TR	542.72	159.63
tblVehicleTrips	SU_TR	131.84	45.55
tblVehicleTrips	SU_TR	72.16	17.20
tblVehicleTrips	SU_TR	25.24	36.34
tblVehicleTrips	SU_TR	0.00	93.00
tblVehicleTrips	WD_TR	716.00	288.38
tblVehicleTrips	WD_TR	496.12	159.63
tblVehicleTrips	WD_TR	127.15	45.55
tblVehicleTrips	WD_TR	89.95	17.20
tblVehicleTrips	WD_TR	42.70	36.34

tblVehicleTrips	WD_TR	0.00	93.00
tblWater	IndoorWaterUseRate	0.00	15,931,489.00
tblWater	OutdoorWaterUseRate	0.00	6,928,889.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	4.4167	45.6199	22.6825	0.0396	18.2169	2.3913	20.6082	9.9706	2.2000	12.1706	0.0000	3,920.7313	3,920.7313	1.1961	0.0000	3,950.6329
Maximum	**4.4167**	**45.6199**	**22.6825**	**0.0396**	**18.2169**	**2.3913**	**20.6082**	**9.9706**	**2.2000**	**12.1706**	**0.0000**	**3,920.7313**	**3,920.7313**	**1.1961**	**0.0000**	**3,950.6329**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	0.0000	8.1465	24.0205	0.0396	8.2804	-1.1062	7.1742	4.5088	-0.9973	3.5115	0.0000	3,920.7313	3,920.7313	1.1961	0.0000	3,950.6329
Maximum	**0.0000**	**8.1465**	**24.0205**	**0.0396**	**8.2804**	**-1.1062**	**7.1742**	**4.5088**	**-0.9973**	**3.5115**	**0.0000**	**3,920.7313**	**3,920.7313**	**1.1961**	**0.0000**	**3,950.6329**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**100.00**	**82.14**	**-5.90**	**0.00**	**54.55**	**146.26**	**65.19**	**54.78**	**145.33**	**71.15**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	3.0371	1.1400e-003	0.1268	1.0000e-005		4.5000e-004	4.5000e-004		4.5000e-004	4.5000e-004		0.2736	0.2736	7.0000e-004		0.2912
Energy	0.9553	8.6845	7.2950	0.0521		0.6600	0.6600		0.6600	0.6600		10,421.3763	10,421.3763	0.1997	0.1911	10,483.3053
Mobile	5.2285	49.3817	48.9163	0.3222	28.7771	0.1036	28.8807	7.6906	0.0966	7.7872		33,209.4457	33,209.4457	1.2997		33,241.9387
Stationary	0.1941	0.8640	3.4589	0.0212		0.2682	0.2682		0.2682	0.2682		4,235.3665	4,235.3665	0.0812		4,237.3959
Total	**9.4150**	**58.9313**	**59.7970**	**0.3955**	**28.7771**	**1.0323**	**29.8094**	**7.6906**	**1.0253**	**8.7159**		**47,866.4621**	**47,866.4621**	**1.5813**	**0.1911**	**47,962.9311**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.6561	1.1400e-003	0.1268	1.0000e-005		4.5000e-004	4.5000e-004		4.5000e-004	4.5000e-004		0.2736	0.2736	7.0000e-004		0.2912
Energy	0.9553	8.6845	7.2950	0.0521		0.6600	0.6600		0.6600	0.6600		10,421.3763	10,421.3763	0.1997	0.1911	10,483.3053
Mobile	5.2285	49.3817	48.9163	0.3222	28.7771	0.1036	28.8807	7.6906	0.0966	7.7872		33,209.4457	33,209.4457	1.2997		33,241.9387
Stationary	0.1941	0.8640	3.4589	0.0212		0.2682	0.2682		0.2682	0.2682		4,235.3665	4,235.3665	0.0812		4,237.3959
Total	**9.0341**	**58.9313**	**59.7970**	**0.3955**	**28.7771**	**1.0323**	**29.8094**	**7.6906**	**1.0253**	**8.7159**		**47,866.4621**	**47,866.4621**	**1.5813**	**0.1911**	**47,962.9311**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**4.05**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/1/2019	1/2/2019	5	2	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 10.35

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use DPF for Construction Equipment

Use Soil Stabilizer

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	4.3350	45.5727	22.0630	0.0380		2.3904	2.3904		2.1991	2.1991		3,766.4529	3,766.4529	1.1917		3,796.2445
Total	**4.3350**	**45.5727**	**22.0630**	**0.0380**	**18.0663**	**2.3904**	**20.4566**	**9.9307**	**2.1991**	**12.1298**		**3,766.4529**	**3,766.4529**	**1.1917**		**3,796.2445**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0817	0.0471	0.6195	1.5500e-003	0.1506	9.6000e-004	0.1516	0.0400	8.8000e-004	0.0408		154.2784	154.2784	4.4000e-003		154.3884
Total	**0.0817**	**0.0471**	**0.6195**	**1.5500e-003**	**0.1506**	**9.6000e-004**	**0.1516**	**0.0400**	**8.8000e-004**	**0.0408**		**154.2784**	**154.2784**	**4.4000e-003**		**154.3884**

3.2 Site Preparation - 2019

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.1298	0.0000	8.1298	4.4688	0.0000	4.4688			0.0000			0.0000
Off-Road	-0.7693	8.0993	23.4010	0.0380		-1.1072	-1.1072		-0.9982	-0.9982	0.0000	3,766.4529	3,766.4529	1.1917		3,796.2445
Total	**-0.7693**	**8.0993**	**23.4010**	**0.0380**	**8.1298**	**-1.1072**	**7.0226**	**4.4688**	**-0.9982**	**3.4707**	**0.0000**	**3,766.4529**	**3,766.4529**	**1.1917**		**3,796.2445**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0817	0.0471	0.6195	1.5500e-003	0.1506	9.6000e-004	0.1516	0.0400	8.8000e-004	0.0408		154.2784	154.2784	4.4000e-003		154.3884
Total	**0.0817**	**0.0471**	**0.6195**	**1.5500e-003**	**0.1506**	**9.6000e-004**	**0.1516**	**0.0400**	**8.8000e-004**	**0.0408**		**154.2784**	**154.2784**	**4.4000e-003**		**154.3884**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	5.2285	49.3817	48.9163	0.3222	28.7771	0.1036	28.8807	7.6906	0.0966	7.7872		33,209.4457	33,209.4457	1.2997		33,241.9387
Unmitigated	5.2285	49.3817	48.9163	0.3222	28.7771	0.1036	28.8807	7.6906	0.0966	7.7872		33,209.4457	33,209.4457	1.2997		33,241.9387

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Fast Food Restaurant w/o Drive Thru	576.76	576.76	576.76	955,755	955,755
Fast Food Restaurant with Drive Thru	957.78	957.78	957.78	1,607,402	1,607,402
High Turnover (Sit Down Restaurant)	637.70	637.70	637.70	1,191,602	1,191,602
Parking Lot	0.00	0.00	0.00		
Quality Restaurant	240.80	240.80	240.80	475,420	475,420
Regional Shopping Center	872.16	872.16	872.16	1,835,241	1,835,241
User Defined Recreational	3,720.00	3,720.00	3720.00	7,454,210	7,454,210
Total	7,005.20	7,005.20	7,005.20	13,519,631	13,519,631

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Fast Food Restaurant w/o Drive	12.50	4.20	5.40	1.50	79.50	19.00	100	0	0
Fast Food Restaurant with Drive	12.50	4.20	5.40	2.20	78.80	19.00	100	0	0
High Turnover (Sit Down	12.50	4.20	5.40	8.50	72.50	19.00	100	0	0
Parking Lot	12.50	4.20	5.40	0.00	0.00	0.00	0	0	0
Quality Restaurant	12.50	4.20	5.40	12.00	69.00	19.00	100	0	0
Regional Shopping Center	12.50	4.20	5.40	16.30	64.70	19.00	100	0	0
User Defined Recreational	12.50	4.20	5.40	15.00	80.00	5.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Fast Food Restaurant w/o Drive Thru	0.566189	0.033707	0.192293	0.100413	0.008756	0.004001	0.016522	0.070107	0.001420	0.001057	0.004327	0.000696	0.000512
Fast Food Restaurant with Drive Thru	0.566189	0.033707	0.192293	0.100413	0.008756	0.004001	0.016522	0.070107	0.001420	0.001057	0.004327	0.000696	0.000512
High Turnover (Sit Down Restaurant)	0.566189	0.033707	0.192293	0.100413	0.008756	0.004001	0.016522	0.070107	0.001420	0.001057	0.004327	0.000696	0.000512
Parking Lot	0.566189	0.033707	0.192293	0.100413	0.008756	0.004001	0.016522	0.070107	0.001420	0.001057	0.004327	0.000696	0.000512
Quality Restaurant	0.566189	0.033707	0.192293	0.100413	0.008756	0.004001	0.016522	0.070107	0.001420	0.001057	0.004327	0.000696	0.000512
Regional Shopping Center	0.566189	0.033707	0.192293	0.100413	0.008756	0.004001	0.016522	0.070107	0.001420	0.001057	0.004327	0.000696	0.000512
User Defined Recreational	0.566189	0.033707	0.192293	0.100413	0.008756	0.004001	0.016522	0.070107	0.001420	0.001057	0.004327	0.000696	0.000512

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Install High Efficiency Lighting

Agua Caliente Cathedral City FTT Casino Project - Alternative D Cumulative - Riverside-Salton Sea County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.9553	8.6845	7.2950	0.0521		0.6600	0.6600		0.6600	0.6600		10,421.3763	10,421.3763	0.1997	0.1911	10,483.3053
NaturalGas Unmitigated	0.9553	8.6845	7.2950	0.0521		0.6600	0.6600		0.6600	0.6600		10,421.3763	10,421.3763	0.1997	0.1911	10,483.3053

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Fast Food Restaurant w/o Drive Thru	1498.3	0.0162	0.1469	0.1234	8.8000e-004		0.0112	0.0112		0.0112	0.0112		176.2708	176.2708	3.3800e-003	3.2300e-003	177.3182
Fast Food Restaurant with Drive Thru	4494.9	0.0485	0.4407	0.3702	2.6400e-003		0.0335	0.0335		0.0335	0.0335		528.8123	528.8123	0.0101	9.6900e-003	531.9547
High Turnover (Sit Down Restaurant)	10488.1	0.1131	1.0283	0.8637	6.1700e-003		0.0782	0.0782		0.0782	0.0782		1,233.8953	1,233.8953	0.0237	0.0226	1,241.2277
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	10488.1	0.1131	1.0283	0.8637	6.1700e-003		0.0782	0.0782		0.0782	0.0782		1,233.8953	1,233.8953	0.0237	0.0226	1,241.2277
Regional Shopping Center	145.973	1.5700e-003	0.0143	0.0120	9.0000e-005		1.0900e-003	1.0900e-003		1.0900e-003	1.0900e-003		17.1733	17.1733	3.3000e-004	3.1000e-004	17.2753
User Defined Recreational	61466.3	0.6629	6.0261	5.0619	0.0362		0.4580	0.4580		0.4580	0.4580		7,231.3296	7,231.3296	0.1386	0.1326	7,274.3018
Total		**0.9553**	**8.6845**	**7.2950**	**0.0521**		**0.6600**	**0.6600**		**0.6600**	**0.6600**		**10,421.3763**	**10,421.3763**	**0.1998**	**0.1910**	**10,483.3053**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Fast Food Restaurant w/o Drive Thru	1.4983	0.0162	0.1469	0.1234	8.8000e-004		0.0112	0.0112		0.0112	0.0112		176.2708	176.2708	3.3800e-003	3.2300e-003	177.3182
Fast Food Restaurant with Drive Thru	4.4949	0.0485	0.4407	0.3702	2.6400e-003		0.0335	0.0335		0.0335	0.0335		528.8123	528.8123	0.0101	9.6900e-003	531.9547
High Turnover (Sit Down Restaurant)	10.4881	0.1131	1.0283	0.8637	6.1700e-003		0.0782	0.0782		0.0782	0.0782		1,233.8953	1,233.8953	0.0237	0.0226	1,241.2277
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	10.4881	0.1131	1.0283	0.8637	6.1700e-003		0.0782	0.0782		0.0782	0.0782		1,233.8953	1,233.8953	0.0237	0.0226	1,241.2277
Regional Shopping Center	0.145973	1.5700e-003	0.0143	0.0120	9.0000e-005		1.0900e-003	1.0900e-003		1.0900e-003	1.0900e-003		17.1733	17.1733	3.3000e-004	3.1000e-004	17.2753
User Defined Recreational	61.4663	0.6629	6.0261	5.0619	0.0362		0.4580	0.4580		0.4580	0.4580		7,231.3296	7,231.3296	0.1386	0.1326	7,274.3018
Total		**0.9553**	**8.6845**	**7.2950**	**0.0521**		**0.6600**	**0.6600**		**0.6600**	**0.6600**		**10,421.3763**	**10,421.3763**	**0.1998**	**0.1910**	**10,483.3053**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.6561	1.1400e-003	0.1268	1.0000e-005		4.5000e-004	4.5000e-004		4.5000e-004	4.5000e-004		0.2736	0.2736	7.0000e-004		0.2912
Unmitigated	3.0371	1.1400e-003	0.1268	1.0000e-005		4.5000e-004	4.5000e-004		4.5000e-004	4.5000e-004		0.2736	0.2736	7.0000e-004		0.2912

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.7226					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.3029					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0116	1.1400e-003	0.1268	1.0000e-005		4.5000e-004	4.5000e-004		4.5000e-004	4.5000e-004		0.2736	0.2736	7.0000e-004		0.2912
Total	**3.0371**	**1.1400e-003**	**0.1268**	**1.0000e-005**		**4.5000e-004**	**4.5000e-004**		**4.5000e-004**	**4.5000e-004**		**0.2736**	**0.2736**	**7.0000e-004**		**0.2912**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.3416					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.3029					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0116	1.1400e-003	0.1268	1.0000e-005		4.5000e-004	4.5000e-004		4.5000e-004	4.5000e-004		0.2736	0.2736	7.0000e-004		0.2912
Total	**2.6561**	**1.1400e-003**	**0.1268**	**1.0000e-005**		**4.5000e-004**	**4.5000e-004**		**4.5000e-004**	**4.5000e-004**		**0.2736**	**0.2736**	**7.0000e-004**		**0.2912**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Emergency Generator	3	0	30	2923	0.73	Diesel

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
Boiler	3	12	4380	0.5	CNG

User Defined Equipment

Equipment Type	Number

10.1 Stationary Sources

Unmitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	lb/day										lb/day					
Boiler - CNG (0 - 2 MMBTU)	0.1941	0.8640	3.4589	0.0212		0.2682	0.2682		0.2682	0.2682		4,235.3665	4,235.3665	0.0812		4,237.3959
Emergency Generator - Diesel (750 - 9999 HP)	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.1941**	**0.8640**	**3.4589**	**0.0212**		**0.2682**	**0.2682**		**0.2682**	**0.2682**		**4,235.3665**	**4,235.3665**	**0.0812**		**4,237.3959**

11.0 Vegetation

Agua Caliente Cathedral City FTT Casino Project - Alternative D Cumulative

Riverside-Salton Sea County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	1,150.00	Space	10.35	460,000.00	0
Fast Food Restaurant w/o Drive Thru	2.00	1000sqft	0.00	2,000.00	0
Fast Food Restaurant with Drive Thru	6.00	1000sqft	0.00	6,000.00	0
High Turnover (Sit Down Restaurant)	14.00	1000sqft	0.00	14,000.00	0
Quality Restaurant	14.00	1000sqft	0.00	14,000.00	0
User Defined Recreational	40.00	User Defined Unit	3.70	40,000.00	0
Regional Shopping Center	24.00	1000sqft	0.00	24,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2040
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Agua Caliente Cathedral City FTT Casino Project - Alternative D Cumulative - Riverside-Salton Sea County, Winter

Project Characteristics -

Land Use - Project Description; lot acreage for all recreational and retail space is all included within the User Defined Recreational land use.

Construction Phase - Construction phasing based on a 12-month construction schedule.

Grading - MSA Consulting, Inc., 2018d (See Table 2, CalEEMod Inputs)

Vehicle Trips - See Table 3, CalEEMod Inputs. Trip generation rates are derived from the TIS (Appendix TIS).

Energy Use - Electricity energy and natural gas intensity for the user defined recretational land use determined from similar projects and scaled by square footage

Water And Wastewater - Water demand is based off of similar projects and scaled by square footage

Solid Waste - Section 4.9 of the EA

Construction Off-road Equipment Mitigation - Construction Mitigation

Area Mitigation - MDAQMD Rule 1113 Architectural Coatings (based on nonflat coating)

Energy Mitigation -

Water Mitigation -

Waste Mitigation - Tribe will use the Salton City Landfill's facilities and will divert 50 percent of waste from the landfill.

Stationary Sources - Emergency Generators and Fire Pumps - Based on like project emergency generator size and use

Stationary Sources - Process Boilers - Based on like project boiler size and use

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	250	100
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	100
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	9.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3

Agua Caliente Cathedral City FTT Casino Project - Alternative D Cumulative - Riverside-Salton Sea County, Winter

tblConstructionPhase	NumDays	10.00	2.00
tblEnergyUse	NT24E	0.00	3.37
tblEnergyUse	NT24NG	0.00	560.88
tblLandUse	LandUseSquareFeet	0.00	40,000.00
tblLandUse	LotAcreage	0.05	0.00
tblLandUse	LotAcreage	0.14	0.00
tblLandUse	LotAcreage	0.32	0.00
tblLandUse	LotAcreage	0.32	0.00
tblLandUse	LotAcreage	0.00	3.70
tblLandUse	LotAcreage	0.55	0.00
tblSolidWaste	SolidWasteGenerationRate	0.00	375.95
tblStationaryBoilersUse	AnnualHeatInput	0.00	4,380.00
tblStationaryBoilersUse	BoilerRatingValue	0.00	0.50
tblStationaryBoilersUse	DailyHeatInput	0.00	12.00
tblStationaryBoilersUse	NumberOfEquipment	0.00	3.00
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	2,923.00
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	30.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	3.00
tblVehicleTrips	CC_TTP	0.00	80.00
tblVehicleTrips	CNW_TTP	0.00	5.00
tblVehicleTrips	CW_TTP	0.00	15.00
tblVehicleTrips	DV_TP	37.00	0.00
tblVehicleTrips	DV_TP	21.00	0.00
tblVehicleTrips	DV_TP	20.00	0.00
tblVehicleTrips	DV_TP	18.00	0.00
tblVehicleTrips	DV_TP	35.00	0.00
tblVehicleTrips	PB_TP	12.00	0.00

tblVehicleTrips	PB_TP	50.00	0.00
tblVehicleTrips	PB_TP	43.00	0.00
tblVehicleTrips	PB_TP	44.00	0.00
tblVehicleTrips	PB_TP	11.00	0.00
tblVehicleTrips	PR_TP	51.00	100.00
tblVehicleTrips	PR_TP	29.00	100.00
tblVehicleTrips	PR_TP	37.00	100.00
tblVehicleTrips	PR_TP	38.00	100.00
tblVehicleTrips	PR_TP	54.00	100.00
tblVehicleTrips	PR_TP	0.00	100.00
tblVehicleTrips	ST_TR	696.00	288.38
tblVehicleTrips	ST_TR	722.03	159.63
tblVehicleTrips	ST_TR	158.37	45.55
tblVehicleTrips	ST_TR	94.36	17.20
tblVehicleTrips	ST_TR	49.97	36.34
tblVehicleTrips	ST_TR	0.00	93.00
tblVehicleTrips	SU_TR	500.00	288.38
tblVehicleTrips	SU_TR	542.72	159.63
tblVehicleTrips	SU_TR	131.84	45.55
tblVehicleTrips	SU_TR	72.16	17.20
tblVehicleTrips	SU_TR	25.24	36.34
tblVehicleTrips	SU_TR	0.00	93.00
tblVehicleTrips	WD_TR	716.00	288.38
tblVehicleTrips	WD_TR	496.12	159.63
tblVehicleTrips	WD_TR	127.15	45.55
tblVehicleTrips	WD_TR	89.95	17.20
tblVehicleTrips	WD_TR	42.70	36.34

tblVehicleTrips	WD_TR	0.00	93.00
tblWater	IndoorWaterUseRate	0.00	15,931,489.00
tblWater	OutdoorWaterUseRate	0.00	6,928,889.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	4.4130	45.6215	22.5719	0.0394	18.2169	2.3913	20.6082	9.9706	2.2000	12.1706	0.0000	3,904.9356	3,904.9356	1.1955	0.0000	3,934.8237
Maximum	**4.4130**	**45.6215**	**22.5719**	**0.0394**	**18.2169**	**2.3913**	**20.6082**	**9.9706**	**2.2000**	**12.1706**	**0.0000**	**3,904.9356**	**3,904.9356**	**1.1955**	**0.0000**	**3,934.8237**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	0.0000	8.1481	23.9099	0.0394	8.2804	-1.1062	7.1742	4.5088	-0.9973	3.5115	0.0000	3,904.9356	3,904.9356	1.1955	0.0000	3,934.8237
Maximum	**0.0000**	**8.1481**	**23.9099**	**0.0394**	**8.2804**	**-1.1062**	**7.1742**	**4.5088**	**-0.9973**	**3.5115**	**0.0000**	**3,904.9356**	**3,904.9356**	**1.1955**	**0.0000**	**3,934.8237**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**100.00**	**82.14**	**-5.93**	**0.00**	**54.55**	**146.26**	**65.19**	**54.78**	**145.33**	**71.15**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	3.0371	1.1400e-003	0.1268	1.0000e-005		4.5000e-004	4.5000e-004		4.5000e-004	4.5000e-004		0.2736	0.2736	7.0000e-004		0.2912
Energy	0.9553	8.6845	7.2950	0.0521		0.6600	0.6600		0.6600	0.6600		10,421.3763	10,421.3763	0.1997	0.1911	10,483.3053
Mobile	4.3726	48.3959	44.1740	0.2972	28.7771	0.1043	28.8815	7.6906	0.0973	7.7879		30,671.5735	30,671.5735	1.3800		30,706.0738
Stationary	0.1941	0.8640	3.4589	0.0212		0.2682	0.2682		0.2682	0.2682		4,235.3665	4,235.3665	0.0812		4,237.3959
Total	**8.5591**	**57.9456**	**55.0547**	**0.3705**	**28.7771**	**1.0330**	**29.8102**	**7.6906**	**1.0261**	**8.7166**		**45,328.5899**	**45,328.5899**	**1.6616**	**0.1911**	**45,427.0662**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.6561	1.1400e-003	0.1268	1.0000e-005		4.5000e-004	4.5000e-004		4.5000e-004	4.5000e-004		0.2736	0.2736	7.0000e-004		0.2912
Energy	0.9553	8.6845	7.2950	0.0521		0.6600	0.6600		0.6600	0.6600		10,421.3763	10,421.3763	0.1997	0.1911	10,483.3053
Mobile	4.3726	48.3959	44.1740	0.2972	28.7771	0.1043	28.8815	7.6906	0.0973	7.7879		30,671.5735	30,671.5735	1.3800		30,706.0738
Stationary	0.1941	0.8640	3.4589	0.0212		0.2682	0.2682		0.2682	0.2682		4,235.3665	4,235.3665	0.0812		4,237.3959
Total	**8.1781**	**57.9456**	**55.0547**	**0.3705**	**28.7771**	**1.0330**	**29.8102**	**7.6906**	**1.0261**	**8.7166**		**45,328.5899**	**45,328.5899**	**1.6616**	**0.1911**	**45,427.0662**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**4.45**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/1/2019	1/2/2019	5	2	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 10.35

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use DPF for Construction Equipment

Use Soil Stabilizer

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	4.3350	45.5727	22.0630	0.0380		2.3904	2.3904		2.1991	2.1991		3,766.4529	3,766.4529	1.1917		3,796.2445
Total	**4.3350**	**45.5727**	**22.0630**	**0.0380**	**18.0663**	**2.3904**	**20.4566**	**9.9307**	**2.1991**	**12.1298**		**3,766.4529**	**3,766.4529**	**1.1917**		**3,796.2445**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0780	0.0488	0.5089	1.3900e-003	0.1506	9.6000e-004	0.1516	0.0400	8.8000e-004	0.0408		138.4827	138.4827	3.8600e-003		138.5791
Total	**0.0780**	**0.0488**	**0.5089**	**1.3900e-003**	**0.1506**	**9.6000e-004**	**0.1516**	**0.0400**	**8.8000e-004**	**0.0408**		**138.4827**	**138.4827**	**3.8600e-003**		**138.5791**

3.2 Site Preparation - 2019

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.1298	0.0000	8.1298	4.4688	0.0000	4.4688			0.0000			0.0000
Off-Road	-0.7693	8.0993	23.4010	0.0380		-1.1072	-1.1072		-0.9982	-0.9982	0.0000	3,766.4529	3,766.4529	1.1917		3,796.2445
Total	**-0.7693**	**8.0993**	**23.4010**	**0.0380**	**8.1298**	**-1.1072**	**7.0226**	**4.4688**	**-0.9982**	**3.4707**	**0.0000**	**3,766.4529**	**3,766.4529**	**1.1917**		**3,796.2445**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0780	0.0488	0.5089	1.3900e-003	0.1506	9.6000e-004	0.1516	0.0400	8.8000e-004	0.0408		138.4827	138.4827	3.8600e-003		138.5791
Total	**0.0780**	**0.0488**	**0.5089**	**1.3900e-003**	**0.1506**	**9.6000e-004**	**0.1516**	**0.0400**	**8.8000e-004**	**0.0408**		**138.4827**	**138.4827**	**3.8600e-003**		**138.5791**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	4.3726	48.3959	44.1740	0.2972	28.7771	0.1043	28.8815	7.6906	0.0973	7.7879		30,671.5735	30,671.5735	1.3800		30,706.0738
Unmitigated	4.3726	48.3959	44.1740	0.2972	28.7771	0.1043	28.8815	7.6906	0.0973	7.7879		30,671.5735	30,671.5735	1.3800		30,706.0738

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Fast Food Restaurant w/o Drive Thru	576.76	576.76	576.76	955,755	955,755
Fast Food Restaurant with Drive Thru	957.78	957.78	957.78	1,607,402	1,607,402
High Turnover (Sit Down Restaurant)	637.70	637.70	637.70	1,191,602	1,191,602
Parking Lot	0.00	0.00	0.00		
Quality Restaurant	240.80	240.80	240.80	475,420	475,420
Regional Shopping Center	872.16	872.16	872.16	1,835,241	1,835,241
User Defined Recreational	3,720.00	3,720.00	3720.00	7,454,210	7,454,210
Total	7,005.20	7,005.20	7,005.20	13,519,631	13,519,631

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Fast Food Restaurant w/o Drive	12.50	4.20	5.40	1.50	79.50	19.00	100	0	0
Fast Food Restaurant with Drive	12.50	4.20	5.40	2.20	78.80	19.00	100	0	0
High Turnover (Sit Down	12.50	4.20	5.40	8.50	72.50	19.00	100	0	0
Parking Lot	12.50	4.20	5.40	0.00	0.00	0.00	0	0	0
Quality Restaurant	12.50	4.20	5.40	12.00	69.00	19.00	100	0	0
Regional Shopping Center	12.50	4.20	5.40	16.30	64.70	19.00	100	0	0
User Defined Recreational	12.50	4.20	5.40	15.00	80.00	5.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Fast Food Restaurant w/o Drive Thru	0.566189	0.033707	0.192293	0.100413	0.008756	0.004001	0.016522	0.070107	0.001420	0.001057	0.004327	0.000696	0.000512
Fast Food Restaurant with Drive Thru	0.566189	0.033707	0.192293	0.100413	0.008756	0.004001	0.016522	0.070107	0.001420	0.001057	0.004327	0.000696	0.000512
High Turnover (Sit Down Restaurant)	0.566189	0.033707	0.192293	0.100413	0.008756	0.004001	0.016522	0.070107	0.001420	0.001057	0.004327	0.000696	0.000512
Parking Lot	0.566189	0.033707	0.192293	0.100413	0.008756	0.004001	0.016522	0.070107	0.001420	0.001057	0.004327	0.000696	0.000512
Quality Restaurant	0.566189	0.033707	0.192293	0.100413	0.008756	0.004001	0.016522	0.070107	0.001420	0.001057	0.004327	0.000696	0.000512
Regional Shopping Center	0.566189	0.033707	0.192293	0.100413	0.008756	0.004001	0.016522	0.070107	0.001420	0.001057	0.004327	0.000696	0.000512
User Defined Recreational	0.566189	0.033707	0.192293	0.100413	0.008756	0.004001	0.016522	0.070107	0.001420	0.001057	0.004327	0.000696	0.000512

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Install High Efficiency Lighting

Agua Caliente Cathedral City FTT Casino Project - Alternative D Cumulative - Riverside-Salton Sea County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.9553	8.6845	7.2950	0.0521		0.6600	0.6600		0.6600	0.6600		10,421.3763	10,421.3763	0.1997	0.1911	10,483.3053
NaturalGas Unmitigated	0.9553	8.6845	7.2950	0.0521		0.6600	0.6600		0.6600	0.6600		10,421.3763	10,421.3763	0.1997	0.1911	10,483.3053

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Fast Food Restaurant w/o Drive Thru	1498.3	0.0162	0.1469	0.1234	8.8000e-004		0.0112	0.0112		0.0112	0.0112		176.2708	176.2708	3.3800e-003	3.2300e-003	177.3182
Fast Food Restaurant with Drive Thru	4494.9	0.0485	0.4407	0.3702	2.6400e-003		0.0335	0.0335		0.0335	0.0335		528.8123	528.8123	0.0101	9.6900e-003	531.9547
High Turnover (Sit Down Restaurant)	10488.1	0.1131	1.0283	0.8637	6.1700e-003		0.0782	0.0782		0.0782	0.0782		1,233.8953	1,233.8953	0.0237	0.0226	1,241.2277
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	10488.1	0.1131	1.0283	0.8637	6.1700e-003		0.0782	0.0782		0.0782	0.0782		1,233.8953	1,233.8953	0.0237	0.0226	1,241.2277
Regional Shopping Center	145.973	1.5700e-003	0.0143	0.0120	9.0000e-005		1.0900e-003	1.0900e-003		1.0900e-003	1.0900e-003		17.1733	17.1733	3.3000e-004	3.1000e-004	17.2753
User Defined Recreational	61466.3	0.6629	6.0261	5.0619	0.0362		0.4580	0.4580		0.4580	0.4580		7,231.3296	7,231.3296	0.1386	0.1326	7,274.3018
Total		**0.9553**	**8.6845**	**7.2950**	**0.0521**		**0.6600**	**0.6600**		**0.6600**	**0.6600**		**10,421.3763**	**10,421.3763**	**0.1998**	**0.1910**	**10,483.3053**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Fast Food Restaurant w/o Drive Thru	1.4983	0.0162	0.1469	0.1234	8.8000e-004		0.0112	0.0112		0.0112	0.0112		176.2708	176.2708	3.3800e-003	3.2300e-003	177.3182
Fast Food Restaurant with Drive Thru	4.4949	0.0485	0.4407	0.3702	2.6400e-003		0.0335	0.0335		0.0335	0.0335		528.8123	528.8123	0.0101	9.6900e-003	531.9547
High Turnover (Sit Down Restaurant)	10.4881	0.1131	1.0283	0.8637	6.1700e-003		0.0782	0.0782		0.0782	0.0782		1,233.8953	1,233.8953	0.0237	0.0226	1,241.2277
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	10.4881	0.1131	1.0283	0.8637	6.1700e-003		0.0782	0.0782		0.0782	0.0782		1,233.8953	1,233.8953	0.0237	0.0226	1,241.2277
Regional Shopping Center	0.145973	1.5700e-003	0.0143	0.0120	9.0000e-005		1.0900e-003	1.0900e-003		1.0900e-003	1.0900e-003		17.1733	17.1733	3.3000e-004	3.1000e-004	17.2753
User Defined Recreational	61.4663	0.6629	6.0261	5.0619	0.0362		0.4580	0.4580		0.4580	0.4580		7,231.3296	7,231.3296	0.1386	0.1326	7,274.3018
Total		**0.9553**	**8.6845**	**7.2950**	**0.0521**		**0.6600**	**0.6600**		**0.6600**	**0.6600**		**10,421.3763**	**10,421.3763**	**0.1998**	**0.1910**	**10,483.3053**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.6561	1.1400e-003	0.1268	1.0000e-005		4.5000e-004	4.5000e-004		4.5000e-004	4.5000e-004		0.2736	0.2736	7.0000e-004		0.2912
Unmitigated	3.0371	1.1400e-003	0.1268	1.0000e-005		4.5000e-004	4.5000e-004		4.5000e-004	4.5000e-004		0.2736	0.2736	7.0000e-004		0.2912

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.7226					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.3029					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0116	1.1400e-003	0.1268	1.0000e-005		4.5000e-004	4.5000e-004		4.5000e-004	4.5000e-004		0.2736	0.2736	7.0000e-004		0.2912
Total	**3.0371**	**1.1400e-003**	**0.1268**	**1.0000e-005**		**4.5000e-004**	**4.5000e-004**		**4.5000e-004**	**4.5000e-004**		**0.2736**	**0.2736**	**7.0000e-004**		**0.2912**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.3416					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.3029					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0116	1.1400e-003	0.1268	1.0000e-005		4.5000e-004	4.5000e-004		4.5000e-004	4.5000e-004		0.2736	0.2736	7.0000e-004		0.2912
Total	**2.6561**	**1.1400e-003**	**0.1268**	**1.0000e-005**		**4.5000e-004**	**4.5000e-004**		**4.5000e-004**	**4.5000e-004**		**0.2736**	**0.2736**	**7.0000e-004**		**0.2912**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Emergency Generator	3	0	30	2923	0.73	Diesel

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
Boiler	3	12	4380	0.5	CNG

User Defined Equipment

Equipment Type	Number

10.1 Stationary Sources

Unmitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	lb/day										lb/day					
Boiler - CNG (0 - 2 MMBTU)	0.1941	0.8640	3.4589	0.0212		0.2682	0.2682		0.2682	0.2682		4,235.3665	4,235.3665	0.0812		4,237.3959
Emergency Generator - Diesel (750 - 9999 HP)	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.1941**	**0.8640**	**3.4589**	**0.0212**		**0.2682**	**0.2682**		**0.2682**	**0.2682**		**4,235.3665**	**4,235.3665**	**0.0812**		**4,237.3959**

11.0 Vegetation

Agua Caliente Cathedral City FTT Casino Project - Alternative D Cumulative

Riverside-Salton Sea County, Mitigation Report

Construction Mitigation Summary

Phase	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Site Preparation	1.16	0.82	-0.06	0.00	1.46	1.45	0.00	0.00	0.00	0.00	0.00	0.00

OFFROAD Equipment Mitigation

Equipment Type	Fuel Type	Tier	Number Mitigated	Total Number of Equipment	DPF	Oxidation Catalyst
Rubber Tired Dozers	Diesel	Tier 3	4	3	Level 3	0.00
Tractors/Loaders/Backhoes	Diesel	Tier 3	9	4	Level 3	0.00

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	Unmitigated tons/yr						Unmitigated mt/yr					
Rubber Tired Dozers	3.40000E-003	3.62200E-002	1.28500E-002	3.00000E-005	1.77000E-003	1.62000E-003	0.00000E+000	2.30088E+000	2.30088E+000	7.30000E-004	0.00000E+000	2.31908E+000
Tractors/Loaders/Backhoes	9.30000E-004	9.35000E-003	9.21000E-003	1.00000E-005	6.20000E-004	5.70000E-004	0.00000E+000	1.11599E+000	1.11599E+000	3.50000E-004	0.00000E+000	1.12482E+000

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	Mitigated tons/yr						Mitigated mt/yr					
Rubber Tired Dozers	-2.90000E-004	4.18000E-003	1.38400E-002	3.00000E-005	-4.90000E-004	-4.40000E-004	0.00000E+000	2.30088E+000	2.30088E+000	7.30000E-004	0.00000E+000	2.31908E+000
Tractors/Loaders/Backhoes	-4.80000E-004	3.92000E-003	9.57000E-003	1.00000E-005	-6.20000E-004	-5.50000E-004	0.00000E+000	1.11599E+000	1.11599E+000	3.50000E-004	0.00000E+000	1.12481E+000

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Rubber Tired Dozers	1.08529E+000	8.84594E-001	-7.70428E-002	0.00000E+000	1.27684E+000	1.27160E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Tractors/Loaders/Backhoes	1.51613E+000	5.80749E-001	-3.90879E-002	0.00000E+000	2.00000E+000	1.96491E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	8.89031E-006

Fugitive Dust Mitigation

Yes/No	Mitigation Measure	Mitigation Input		Mitigation Input		Mitigation Input	
Yes	Soil Stabilizer for unpaved Roads	PM10 Reduction	10.00	PM2.5 Reduction	10.00		
No	Replace Ground Cover of Area Disturbed	PM10 Reduction	0.00	PM2.5 Reduction	0.00		
Yes	Water Exposed Area	PM10 Reduction	55.00	PM2.5 Reduction	55.00	Frequency (per day)	2.00
No	Unpaved Road Mitigation	Moisture Content %	0.00	Vehicle Speed (mph)	15.00		
No	Clean Paved Road	% PM Reduction	0.00				

		Unmitigated		Mitigated		Percent Reduction	
Phase	Source	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5
Site Preparation	Fugitive Dust	0.02	0.01	0.01	0.00	0.55	0.55
Site Preparation	Roads	0.00	0.00	0.00	0.00	0.00	0.00

Operational Percent Reduction Summary

Category	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Architectural Coating	52.73	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electricity	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.70	3.70	3.75	3.66	3.70
Hearth	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Landscaping	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mobile	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Natural Gas	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Water Indoor	0.00	0.00	0.00	0.00	0.00	0.00	20.00	15.88	16.11	19.97	19.73	16.73
Water Outdoor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Operational Mobile Mitigation

Project Setting:

Mitigation	Category	Measure	% Reduction	Input Value 1	Input Value 2	Input Value
No	Land Use	Increase Density	0.00			
No	Land Use	Increase Diversity	0.11	0.33		
No	Land Use	Improve Walkability Design	0.00			
No	Land Use	Improve Destination Accessibility	0.00			
No	Land Use	Increase Transit Accessibility	0.25			
No	Land Use	Integrate Below Market Rate Housing	0.00			
	Land Use	Land Use SubTotal	0.00			

No	Neighborhood Enhancements	Improve Pedestrian Network				
No	Neighborhood Enhancements	Provide Traffic Calming Measures				
No	Neighborhood Enhancements	Implement NEV Network	0.00			
	Neighborhood Enhancements	Neighborhood Enhancements Subtotal	0.00			
No	Parking Policy Pricing	Limit Parking Supply	0.00			
No	Parking Policy Pricing	Unbundle Parking Costs	0.00			
No	Parking Policy Pricing	On-street Market Pricing	0.00			
	Parking Policy Pricing	Parking Policy Pricing Subtotal	0.00			
No	Transit Improvements	Provide BRT System	0.00			
No	Transit Improvements	Expand Transit Network	0.00			
No	Transit Improvements	Increase Transit Frequency	0.00			
	Transit Improvements	Transit Improvements Subtotal	0.00			
		Land Use and Site Enhancement Subtotal	0.00			
No	Commute	Implement Trip Reduction Program				
No	Commute	Transit Subsidy				
No	Commute	Implement Employee Parking "Cash Out"				
No	Commute	Workplace Parking Charge				
No	Commute	Encourage Telecommuting and Alternative Work Schedules	0.00			
No	Commute	Market Commute Trip Reduction Option	0.00			
No	Commute	Employee Vanpool/Shuttle	0.00		2.00	
No	Commute	Provide Ride Sharing Program				
	Commute	Commute Subtotal	0.00			

No	School Trip	Implement School Bus Program	0.00			
		Total VMT Reduction	0.00			

Area Mitigation

Measure Implemented	Mitigation Measure	Input Value
No	Only Natural Gas Hearth	
No	No Hearth	
No	Use Low VOC Cleaning Supplies	
No	Use Low VOC Paint (Residential Interior)	250.00
No	Use Low VOC Paint (Residential Exterior)	250.00
Yes	Use Low VOC Paint (Non-residential Interior)	100.00
Yes	Use Low VOC Paint (Non-residential Exterior)	100.00
No	Use Low VOC Paint (Parking)	250.00
No	% Electric Lawnmower	0.00
No	% Electric Leafblower	0.00
No	% Electric Chainsaw	0.00

Energy Mitigation Measures

Measure Implemented	Mitigation Measure	Input Value 1	Input Value 2
No	Exceed Title 24	0.00	
Yes	Install High Efficiency Lighting	16.00	
No	On-site Renewable	0.00	0.00

Appliance Type	Land Use Subtype	% Improvement
ClothWasher		30.00
DishWasher		15.00
Fan		50.00
Refrigerator		15.00

Water Mitigation Measures

Measure Implemented	Mitigation Measure	Input Value 1	Input Value 2
No	Apply Water Conservation on Strategy	0.00	0.00
No	Use Reclaimed Water	0.00	0.00
No	Use Grey Water	0.00	
Yes	Install low-flow bathroom faucet	32.00	
Yes	Install low-flow Kitchen faucet	18.00	
Yes	Install low-flow Toilet	20.00	
Yes	Install low-flow Shower	20.00	
No	Turf Reduction	0.00	
No	Use Water Efficient Irrigation Systems	6.10	
No	Water Efficient Landscape	0.00	0.00

Solid Waste Mitigation

Mitigation Measures	Input Value

Institute Recycling and Composting Services Percent Reduction in Waste Disposed	50.00

APPENDIX O

DRAFT CONFORMITY DETERMINATION

DRAFT GENERAL CONFORMITY DETERMINATION
FOR THE
AGUA CALIENTE CATHEDRAL CITY
FEE-TO-TRUST PROJECT

August 2018

DRAFT

AGUA CALIENTE CATHEDRAL CITY
FEE-TO-TRUST CASINO PROJECT
DRAFT GENERAL CONFORMITY DETERMINATION

TABLE OF CONTENTS

1.0 INTRODUCTION 1
2.0 GENERAL CONFORMITY – REGULATORY BACKGROUND 1
2.1 General Conformity Process 1
3.0 APPLICABILITY OF NON-GAMING ALTERNATIVE 3
3.1 Emissions 3
3.2 Attainment/Nonattainment Area 3
3.3 Exemption 3
3.4 De Minimis Thresholds 4
4.0 CONFORMITY DETERMINATION: OZONE PRECURSOR NO_X 5
4.1 Analysis 5
4.2 Mitigation 6
5.0 CONCLUSION 7
6.0 REFERENCES 8

Table 1 Unmitigated Operational Emissions of Significant Criteria Pollutants 4

DRAFT

1.0 INTRODUCTION

A Draft Environmental Assessment (EA) has been prepared pursuant to the National Environmental Policy Act (NEPA) to assess the environmental consequences of the U.S. Bureau of Indian Affairs (BIA) taking land located in Cathedral City, California into federal trust on behalf of the Agua Caliente Band of Cahuilla Indians (Tribe) (Federal Action). The effects of five alternatives identified below are analyzed within the EA.

- Proposed Project Alternative (Casino and Mixed Use Facilities)
- Reduced Intensity Alternative
- Non-Gaming Alternative
- South Site Alternative
- No Action Alternative

As explained further below, operational emissions associated with the Proposed Project Alternative, the Reduced Intensity Alternative, the South Site Alternative, and the No Action Alternative, do not exceed *de minimis* thresholds and are therefore not analyzed in this conformity determination. Only emissions resulting from the Non-Gaming Alternative, exceed the applicable *de minimis* thresholds. Thus the general conformity determination requirements apply only to the Non-Gaming Alternative.

2.0 GENERAL CONFORMITY – REGULATORY BACKGROUND

The United States Environmental Protection Agency (USEPA) promulgated the General Conformity Rule on November 30, 1993, to implement the conformity provision of Title I, Section 176(c)(1) of the federal Clean Air Act (CAA), which requires that the federal government not engage, support or provide financial assistance for licensing or permitting, or approving any activity not conforming to an approved CAA implementation plan for compliance with the National Ambient Air Quality Standards (NAAQS). NAAQS have been developed for carbon monoxide (CO), lead (Pb), coarse and fine particulate matter (PM_{10} or $PM_{2.5}$, respectively), sulfur oxides (SOx), and nitrogen dioxide (NO_2), ozone (O_3) and its precursors, oxides of nitrogen (NOx) and reactive organic gasses (ROGs). CAA conformity is an issue that may be addressed during the NEPA process, and USEPA recommends that the conformity process be coupled with NEPA analysis.

2.1 GENERAL CONFORMITY PROCESS

The general conformity process will be addressed in two phases. The first phase is the conformity applicability process, which evaluates whether the conformity regulations apply to the federal action (i.e., whether a determination is warranted). The second phase is the conformity determination process, which demonstrates how a federal action conforms to the applicable State Implementation Plan (SIP).

Phase One

The purpose of a conformity review is to evaluate whether the general conformity determination requirements apply to a federal action under 40 Code of Federal Regulations (CFR) 93.153. There are four steps in the review process. The first three steps can be performed in any order; the four steps are listed below:

1. Determine whether the proposed action causes emissions of criteria pollutants.
2. Determine whether the emissions of a criteria pollutant or its precursor (i.e., NOx and ROGs for ozone) would occur in a nonattainment or maintenance area for that pollutant.
3. Determine whether the federal action or activities to be conducted under the federal action are exempt from the conformity requirement per 40 CFR 93.153(c)(2).
4. Estimate the total emissions of the pollutants of concern from the federal action and compare the estimates to the *de minimis* thresholds of 40 CFR 93.153(b)(1) and (2) and to the nonattainment or maintenance area's emissions inventory for each criteria pollutant of concern.

Operational emissions associated with the Proposed Project Alternative, the Reduced Intensity Alternative, the South Site Alternative, and the No Action Alternative, do not exceed *de minimis* thresholds and are therefore not analyzed in this conformity determination. Only emissions resulting from the Non-Gaming Alternative, exceed the applicable *de minimis* thresholds.

Phase Two

The purpose of the conformity determination is to show if the the Non-Gaming Alternative conforms to the California SIP. Conformity can be shown for ozone (precursor: NOx) by meeting one or more of following four requirements:

1. The applicable SIP specifically includes an allowance for emissions of the Non-Gaming Alternative, 40 CFR 93.158(a)(1).
2. Offset emission credits are purchased for the total direct and indirect emissions, which fully offsets within the same nonattainment or maintenance area (or nearby area of equal or higher classification provided the emissions from that area contribute to the violations or have contributed in the past, in the area of the Federal Action) so that there is no net increase in emissions, 40 CFR 93.158(a)(2).
3. NOx and ROG emissions from the Non-Gaming Alternative coupled with the current emissions in the nonattainment area would not exceed the emissions budget in the SIP, 40 CFR 93.158(a)(5)(i)(A).
4. The project proponent can request that the SIP be changed by the State Governor or the State Governor's designee to include the emissions budget of the federal action, 40 CFR 93.158(a)(5)(i)(B).

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Conformity can be shown for particulate matter 10 microns in size or smaller (PM_{10}) by one of following two options:

1. The applicable SIP specifically includes an allowance for emissions of the Non-Gaming Alternative, 40 CFR 93.158(a)(1).
2. Modeling of directly emitted PM_{10} shows that the action does not cause or contribute to any new violation of any standard in any area or increase the frequency or severity of any existing violation of any standard in any area, 40 CFR 93.159(a)(4)(i) and (b).

Even if a project is shown to conform to the SIP by one of the above methods, the project may not be determined to conform to the applicable SIP unless the total of the direct and indirect emissions of the federal action is in compliance or consistent with all relevant requirements and milestones contained in the applicable SIP, including but not limited to the use of baseline emissions that reflect the historical activity levels that occurred in the geographic area, reasonable further progress schedules, assumptions specified in the attainment or maintenance demonstration, prohibitions, numerical emission limits, and work practice requirements (40 CFR 93.158[c]).

3.0 APPLICABILITY OF NON-GAMING ALTERNATIVE

3.1 EMISSIONS

The Non-Gaming Alternative's emissions are evaluated in two phases: construction and operation. The two phases would not overlap. Criteria pollutants will be emitted during both phases. The pollutants of concern are $PM_{10,}$ and the ozone precursors ROG and NOx. Construction emissions include ROG and NOx, which are generally a product of combustion, in this case from heavy equipment. PM_{10} is generated during site grading and though diesel exhaust. Operational emissions are mainly emitted from customer and employee vehicles driving to and from the casino/hotel and also consist of ROG, NOx, and PM_{10}. Area emissions and stationary sources are typically minor compared to mobile emissions during operations of facilities such as casinos and hotels. The EA gives a detailed account of both operational and construction emissions.

3.2 ATTAINMENT/NONATTAINMENT AREA

The Non-Gaming Alternative would be constructed within the boundaries of the Salton Sea Air Basin (SSAB), which is currently in attainment or unclassified for $PM_{2.5}$, CO, NO_2, SO_2, and Pb. The SSAB is currently designated serious nonattainment for PM_{10} and Severe 15 nonattainment for 8-hour ozone (ROGs and NOx) (USEPA, 2018).

3.3 EXEMPTION

The Federal Action that is described in **Section 1.0** (Non-Gaming Alternative) is not exempt for the following reasons: (1) the action results in emission levels of at least one criteria pollutant exceeding the applicable *de minimis* thresholds; (2) the action does not have criteria pollutant emissions that are

associated with a conforming program; (3) the action cannot be analyzed under certain other environmental regulation; and/or (4) the action is not in response to an emergency or natural disaster. The area and stationary source emissions of the Non-Gaming Alternative would require the Tribe to apply for a tribal minor new source review (NSR) permit under the NSR program if exceeded and, therefore, are exempt emissions under exemption 40 CFR 93.153(d)(1). While these exempt emissions are presented in **Table 1** below, the emissions are not included in the total annual emissions of the Non-Gaming Alternative to determine conformity. The energy use and mobile emissions from the Non-Gaming Alternative are not exempt from a conformity determination under 40 CFR 93.153(c)(2) and are thereby considered the total annual emissions that must be compared to the *de minimis* thresholds.

TABLE 1
UNMITIGATED OPERATIONAL EMISSIONS OF SIGNIFICANT CRITERIA POLLUTANTS[1]

Sources	ROGs	NOx	PM_{10}
	tons per year (tpy)[1]		
Exempt Emissions			
Stationary	0	1	0
Area	1	0	0
Total Exempt Emissions	**1**	**1**	**0**
Non-Exempt Emissions			
Energy	0	1	0
Mobile	3	26	2
Waste[2]	0	0	0
Water[2]	0	0	0
Total Non-Exempt Emissions[3]	**3**	**27**	**2**
Applicable Conformity Threshold	25	25	70
Exceedance of Threshold	*No*	*Yes*	*No*

Notes:
1 – NOx, ROGs, and PM_{10} emissions values were estimated using CalEEMod.2016.3.2 air modeling program approved by the USEPA and CARB (see Appendix N of the Draft EA).
2 – Emissions from waste and water are negligible and round to zero.
3 – Excludes exempt emissions in accordance with 40 CFR 93.153(d)(1).
Source: AES, 2018.

3.4 DE MINIMIS THRESHOLDS

Emissions estimates were provided in the EA for both construction and operation (mobile, area, stationary, and energy) of the Non-Gaming Alternative. EA Sections 3.0, 4.3, and 5.0 give a more in-depth analysis. Because operation and construction would not overlap, their emissions were evaluated separately by using the most up-to-date USEPA and California Air Resources Board (CARB)-approved land use based California Emissions Estimator Model (CalEEMod) air model. Stationary source emissions (area and stationary) were estimated using CalEEMod.2016.3.2. Construction emissions were below the 25 tons per year (tpy) *de minimis* thresholds for ozone precursors ROGs and NOx and the 70 tpy *de minimis* threshold for PM_{10}. Accordingly, no Conformity Determination is required for

construction emissions. **Table 1** presents the estimated total annual emissions for pollutants of concern during operation. Operational emissions for NOx would exceed the 25 tpy threshold established under 40 CFR 93.153(b)(1), while ROGs would be below the 25 tpy *de minimis* threshold. For PM_{10}, emissions were below the *de minimis* level of 70 tpy.

A conformity determination is required for ozone precursor NOx. This requirement is due to the Non-Gaming Alternative being located in a nonattainment area for ozone and the total NOx emissions being greater than the *de minimis* levels shown in **Table 1**.

4.0 CONFORMITY DETERMINATION: OZONE PRECURSOR NO_X

4.1 ANALYSIS

Air modeling analysis was performed for the EA and the general conformity determination concurrently. The results of this analysis can be found in the Draft EA Section 4.3 and Appendix N. As stated above, a general conformity determination is required for ozone precursor NOx. Conformity for NOx can be shown by complying with the criteria detailed in **Section 2.0**, under phase two.

Analysis – Ozone Precursor NOx

On June 15, 2004, the Riverside County, Coachella Valley area was designated as a "Subpart 2/Severe 15" nonattainment area for the federal 1997, 8-hour ozone standard. However, the 1997, 8-hour ozone NAAQS was revoked on April 6, 2015, and replaced with the 2008, 8-hour ozone NAAQS (USEPA, 2016a). On July 20, 2012, the USEPA designated and classified the Riverside County, Coachella Valley planning area in the SSAB as "Severe 15" nonattainment for the federal 2008, 8-hour ozone standard (USEPA, 2016b).

The South Coast Air Quality Management District (SCAQMD) submitted a final Air Quality Management Plan (AQMP) for achieving the federal 2008, 8-hour ozone air quality standards in 2016. The SCAQMD recently approved the 2016 AQMP on March 3, 2017. An addendum to the 2016 AQMP in the South Coast Air Basin (SCAB) and the Coachella Valley, released March 23, 2017 (Resolution No. 17-8), indicates that the deadline to attain the 8-hour ozone NAAQS in the Coachella Valley area is 2026. The Resolution concludes that the 2016 AQMP meets the requirements of the CAA related to ozone for the Coachella Valley nonattainment area (CARB, 2016).

A conformity determination is required for this project due to the Non-Gaming Alternative emissions exceeding the current conformity thresholds of 25 tpy of NOx. As shown in **Table 1,** project related ROG emissions are less than the *de minimis* level; therefore, a conformity determination for ROG is not required. A conformity determination for the Non-Gaming Alternative is required for NOx because project related emissions exceed the *de minimis* levels within the SSAB.

DRAFT

SIP Allowance for Project Emissions

Emission control measures and regulations that have been included in the 2016 AQMP do not include the estimated emissions of the Non-Gaming Alternative; therefore, conformity cannot be determined though inclusion of the project's emissions in the most recent applicable SIP.

Offsets

Conformity can be achieved by fully offsetting the Non-Gaming Alternative's mitigated operational emissions through the acquisition of emission reduction credits (ERCs) for ozone precursor NOx, which shall be real, surplus, permanent, quantifiable, enforceable, and must be obtained and used in accordance with the federally approved SIP for SSAB, or an equally enforceable measure. The Non-Gaming Alternative does not include the purchase of offset credits for NOx in the EA project description, but this purchase of offset credits is included as mitigation in Section 5.0 of the EA.

As stated above, ERCs fully offset project emissions and must be purchased within the same nonattainment or maintenance area (or nearby area of equal or higher classification provided the emissions from that area contribute to the violations or have contributed in the past, in the area of the federal action) so that there is no net increase in emissions. Therefore, ERCs can be purchased from the SSAB or adjacent air basin that meets the above criteria such as the SCAB.

Emission Budget

The NOx emissions of the Non-Gaming Alternative coupled with the most recent SSAB emissions inventory (2013) exceeds the applicable ozone SIP's emission budget (CARB, 2013).

Addendum to SIP

The Non-Gaming Alternative does not anticipate that the Governor or State Governor designee will approve an addendum to applicable provisions of the SIP, which would include the Non-Gaming Alternative's estimated NOx emissions. Therefore, conformity will not be determined using this option.

4.2 MITIGATION

BMPs to reduce project emissions have been included in the design of the Non-Gaming Alternative (Section 2.2.3) and mitigation measures for emissions of NOx are outlined in Section 5.0 of the Final EA. According to the EA, no operational mitigation is available that would quantifiably reduce NOx emissions.

To reduce impacts under NEPA, the BIA shall demonstrate conformity for the Non-Gaming Alternative through the purchase by the Tribe of 27 tons of NOx ERCs in the SSAB and/or another adjacent district with an equal or higher nonattainment classification (extreme) meeting the requirements outlined in 40 CFR 93.158(a)(2). This ensures compliance with the applicable federal, state, and SCAQMD requirements. Real, surplus, permanent, quantifiable, and enforceable ERCs will be purchased prior to

opening day of the restaurants and retail businesses. This will not necessarily be done prior to or during construction, as the anticipated NOx emissions presented in **Table 1** are associated with operation of the Non-Gaming Alternative and not with construction of the facilities. The Tribe will provide the BIA, and thereby the USEPA and other agencies, with documentation necessary to support the emissions reductions through offset purchase, such as certification of ERC purchase or a binding agreement requiring ERC purchase prior to operation.

5.0 CONCLUSION

If the BIA elects to select the Non-Gaming Alternative as the preferred alternative, then prior to issuing a decision, this Draft General Conformity Determination will be submitted to all required parties in accordance with 40 CFR 93.155(a) and (b) and made available for public comment in accordance with 40 CFR 93.0156. In compliance with the mitigation measures detailed in the EA, it is recommended that if the Non-Gaming Alternative is selected as the preferred alternative, the Tribe commits to purchasing 27 tons of NOx ERCs prior to operation of the recreational and retail businesses, an amount which will be sufficient to offset the operational effects in accordance with the federally approved SIP for the SSAB and the applicable general conformity requirements. After the comment period for this Draft General Conformity Determination, the BIA will make a Final Conformity Determination per 40 CFR 93.150(b), which will include detailed information on the purchase of NOx ERCs. At the time these credits are purchased by the Tribe, the Non-Gaming Alternative will have met the requirements of conformity and conformed to the applicable SIP.

The BIA expects to receive documentation supporting conformity before issuing a decision to proceed with the Non-Gaming Alternative, pursuant to 40 CFR 93.150. Upon receipt of documentation supporting conformity, the BIA will issue a Final Conformity Determination.

DRAFT

6.0 REFERENCES

California Air Resources Board (CARB), 2013. Almanac Emission Projection Data (Published in 2013); 2012 Estimated Annual Average Emissions – Salton Sea Air Basin. Available online at: https://www.arb.ca.gov/app/emsinv/2013/emseic1_query.php?F_DIV=-4&F_YR=2012&F_SEASON=A&SP=2013&F_AREA=AB&F_AB=SS&F_DD=Y. Accessed June 11, 2018.

CARB, 2016. 2016 Air Quality Management Plan for Ozone and $PM_{2.5}$ in the South Coast Air Basin and the Coachella Valley. Available online at: https://www.arb.ca.gov/board/res/2017/res17-8.pdf. Accessed June 12, 2018.

United States Environmental Protection Agency (USEPA), 2016a. Green Book 8-Hour Ozone (1997). Available online at: https://www.epa.gov/green-book/green-book-8-hour-ozone-1997-area-information-naaqs-revoked. Accessed June 12, 2018.

USEPA, 2016b. Green Book 8-Hour Ozone (2008). Available online at: https://www.epa.gov/green-book/green-book-8-hour-ozone-2008-area-information. Accessed June 12, 2018.

USEPA, 2018. Nonattainment Areas for Criteria Pollutants (Green Book). Available online at: https://www.epa.gov/green-book. Accessed June 11, 2018.

DRAFT

APPENDIX P

RESPONSE TO COMMENTS

RESPONSE TO COMMENTS

FOR THE

AGUA CALIENTE BAND OF CAHUILLA INDIANS

CATHEDRAL CITY FEE-TO-TRUST CASINO PROJECT

July 2019

TABLE OF CONTENTS

AGUA CALIENTE BAND OF CAHUILLA INDIANS
CATHEDRAL CITY FEE-TO-TRUST CASINO PROJECT
RESPONSE TO COMMENTS

1.0 INTRODUCTION 1-1
2.0 COMMENTS 2-1
3.0 RESPONSE TO COMMENTS 3-1
3.1 Response to Comment Letter A1 – City of Rancho Mirage 3-1
3.2 Response to Comment Letter A2 – County of Riverside 3-2
3.3 Response to Comment Letter A3 – Sunline Transit Agency 3-5

SECTION 1.0
INTRODUCTION

The Draft EA dated October 18, 2018 (SCH #2017124002) was submitted to the State Clearinghouse and released to the public and agencies for a 45-day comment period beginning on October 19, 2018, and ending on December 3, 2018. Comments on the Draft EA were carefully reviewed and are addressed in this **Appendix P** of the Final EA. As required by Section 11.4 of the Compact, this Final EA includes comments (**Section 2.0**) and responses to comments (**Section 3.0**). Any resulting updates, modifications, or revisions to the Draft EA as were warranted after review of the comments received are incorporated within the Final EA.

SECTION 2.0
COMMENTS

Comments received on the Draft EA are listed in **Table 2-1**, and provided in their entirety on the following pages. Issues are individually bracketed and numbered in the margins of the comment letters. Responses to comments are provided in **Section 3.0**.

TABLE 2-1
LIST OF COMMENTERS

Comment Number	Individual or Signatory	Affiliation	Address	Date
Written Comment Letters				
A1	William Enos, City Engineer	City of Rancho Mirage	69-825 Highway 111, Rancho Mirage, CA 92270	12/3/2018
A2	Gregory P. Priamos, County Counsel	County of Riverside	3960 Orange Street, Suite 500, Riverside, CA 92501	12/3/2018
A3	Victor A. Duran, Transit Planning Manger	Sunline Transit Agency	32-505 Harry Oliver Trail, Thousand Palms, CA 92276	10/30/2018

COMMENT LETTER A1

CITY OF RANCHO MIRAGE

---------- Forwarded message ---------
From: **William Enos, P.E.** <bille@ranchomirageca.gov>
Date: Mon, Dec 3, 2018 at 4:50 PM
Subject: [EXTERNAL] Review of Draft Environmental Assessment-Traffic Impact Analysis (TIA) For Agua Caliente Casino
To: chad.broussard@bia.gov <chad.broussard@bia.gov>
Cc: Bud Kopp, AICP <budk@ranchomirageca.gov>, Jeremy Gleim, AICP <jeremyg@ranchomirageca.gov>, Jesse Eckenroth <jessee@ranchomirageca.gov>

Mr. Broussard,

I have reviewed the TIA for the Agua Caliente Casino prepared by Webb Associates dated July 2018 and have the following questions and comments:

- Page 1-3, Buildout Year 2040 Conditions, second paragraph, states that Level of Service for several segments along East Palm Canyon Drive, including #5 Date Palm to Frank Sinatra and #6 Frank Sinatra to Country Club, are expected to continue to operate at unacceptable levels of service (LOS E or F). This conflicts with the TIA for the City of Rancho Mirage General Plan 2017 Update. Please address. A1-1
- Page 1-8, Table 1-5, the last two roadway segments in the table are largely within the jurisdiction of the City of Rancho Mirage. A1-2
- Page 3-2, second paragraph, Frank Sinatra Drive is located in Rancho Mirage. A1-3
- Page 3-6, Figure 3-A, there are two additional existing traffic signals on East Palm Canyon between Date Palm and Frank Sinatra that are close to the project that are not shown on the map. One at the entrance to Palm Springs Ford and the other at One Mirage Place. Do these intersections impact the capacity of the roadway and Level of Service? Should they be included in the TIA? A1-4
- Page 5-8, Table 5-5, Row 5 Date Palm to Frank Sinatra, Year 2020 LOS is shown as E for the segment, yet no improvements are proposed. Please address. A1-5

Thank you for the opportunity to review and comment.

William Enos, P.E.
City Engineer
Phone: 760-770-3224 Ext. 270
Cell: 760-578-9455
E-mail: bille@RanchoMirageCA.gov
69-825 Highway 111, Rancho Mirage, California, 92270
www.RanchoMirageCa.gov

COMMENT LETTER A2

COUNTY OF RIVERSIDE

OFFICE OF COUNTY COUNSEL
COUNTY OF RIVERSIDE

3960 ORANGE STREET, SUITE 500
RIVERSIDE, CA 92501-3674
TELEPHONE: 951/955-6300
FAX: 951/955-6322 & 951/955-6363

VIA U.S. POSTAL SERVICE

November 28, 2018

Thomas J. Davis
Agua Caliente Band of Cahuilla Indians
5401 Dinah Shore Dr.
Palm Springs, CA 92264

Amy Dutschke
Bureau of Indian Affairs, Pacific Region
2800 Cottage Way
Sacramento, CA 95825

Re: County of Riverside Comments on the Cathedral City Fee-to-Trust Casino Project Draft Tribal Environmental Impact Report

Dear Mr. Davis:

Thank you for providing the County of Riverside ("County") the opportunity to review and comment on the Agua Caliente Band of Cahuilla Indians' ("the Tribe") Draft Tribal Environmental Impact Report ("TEIR") for the proposed Cathedral City Fee-to-Trust Casino Project ("the Project"). According to the TEIR, the Project includes taking 13.6 acres contiguous to the Tribe's reservation into trust for the Tribe for gaming purposes, as well as construction and operation of a casino, parking, bars, restaurants, retail, and mixed-use space. We hope that the issues mentioned in the attachments to this letter are helpful to the Tribe and are part of an ongoing dialog about the Project and TEIR, which can continue throughout the environmental review process and beyond. Also, we remain very interested in continuing to work in a cooperative manner with the Tribe on these issues and the Intergovernmental Agreement ("IGA") negotiations.

The TEIR was disseminated to a number of County departments and to Riverside County Flood Control & Water Conservation District ("Flood"). While most departments have no significant comments on the Draft TEIR, there are three that submitted a memorandum with comments. The Office of County Counsel has attached these comments to this letter for ease of reference. We are happy to discuss and work with the Tribe on all of the issues addressed in these memoranda and believe they can all be resolved informally. We look forward to working with the Tribe on the IGA, and, even after Project and IGA approval, we hope that there can be a continuing dialog between the County and the Tribe to ensure full understanding of the issues each other faces and continued cooperation on ongoing regional issues. A2-1

To the extent the Tribe has any questions, department representatives would be happy to sit down and discuss these issues with the hope that we can come to an understanding about them prior to the completion of the Final TEIR. County staff with specialized knowledge in the above areas are happy to work with the Tribe and consultants to assist in making sure the Final TEIR analysis and mitigation are of the highest

quality. Please feel free to contact me at any time at mcushman@rivco.org or 951-955-6300 for referral to the appropriate County staff with specialized knowledge about particular resource areas or to discuss some of the specific issues raised above.

A2-1 (Cont.)

Sincerely,

GREGORY P. PRIAMOS
County Counsel

MELISSA R. CUSHMAN
Deputy County Counsel

Attachments

Cc: Supervisor V. Manuel Perez, 4th District, Riverside County Board of Supervisors
George Johnson, County Executive Officer
Juan Perez, Asst. CEO-HR, EDA, TLMA, CIO/IS
Jennifer Sargent, Principal Management Analyst

RECEIVED
DEC 03 2018

JASON E. UHLEY
General Manager-Chief Engineer

1995 MARKET STREET
RIVERSIDE, CA 92501
951.955.1200
FAX 951.788.9965
www.rcflood.org

223290

RIVERSIDE COUNTY FLOOD CONTROL
AND WATER CONSERVATION DISTRICT

November 8, 2018

Riverside County Executive Office
4080 Lemon Street, 4th Floor
Riverside, CA 92501

Attention: Jennifer Sargent

Re: Agua Caliente Band of Cahuilla Indians
Cathedral City Fee-to-Trust Casino Project
Environmental Assessment/Tribal EIR

The District does not normally recommend conditions for land divisions or other land use cases in incorporated cities. The District also does not plan check City land use cases, or provide State Division of Real Estate letters or other flood hazard reports for such cases. District comments/recommendations for such cases are normally limited to items of specific interest to the District including District Master Drainage Plan facilities, other regional flood control and drainage facilities which could be considered a logical component or extension of a master plan system, and District Area Drainage Plan fees (development mitigation fees). In addition, information of a general nature is provided.

The District's review is based on the above-referenced project transmittals, received November 1, 2018. The District **has not** reviewed the proposed project in detail, and the following comments do not in any way constitute or imply District approval or endorsement of the proposed project with respect to flood hazard, public health and safety, or any other such issue:

☐ This project would not be impacted by District Master Drainage Plan facilities, nor are other facilities of regional interest proposed.

☐ This project involves District Master Plan facilities, namely _____ from _____ to _____. The District will accept ownership of such facilities on written request of the City. Facilities must be constructed to District standards, and District plan check and inspection will be required for District acceptance. Plan check, inspection, and administrative fees will be required.

☐ This project proposes channels, storm drains 36 inches or larger in diameter, or other facilities that could be considered regional in nature and/or a logical extension of the adopted Cathedral City Master Drainage Plan. The District would consider accepting ownership of such facilities on written request of the City. Facilities must be constructed to District standards, and District plan check and inspection will be required for District acceptance. Plan check, inspection, and administrative fees will be required.

☒ An encroachment permit shall be obtained for any construction related activities occurring within District right of way or facilities, namely, Cathedral Canyon Channel – East and West, and Cathedral Canyon Channel – North. For further information, contact the District's Encroachment Permit section at 951.955.1266.

A2-2

223290

City of Cathedral City - 2 - November 8, 2018
Re: Agua Caliente Band of Cahuilla Indians
Cathedral City Fee-to-Trust Casino Project
Environmental Assessment/Tribal EIR

☐ The District's previous comments are still valid.

☒ Other: The project site is currently located in FEMA Zone X protected by levee on FIRM 06065C1589G. The levees along West Cathedral, North Cathedral and East Cathedral Channels are currently being reviewed by FEMA. Once the review is complete, the levees will be certified and the site will remain in FEMA Zone X protected by levee. A2-3

GENERAL INFORMATION

This project may require a National Pollutant Discharge Elimination System (NPDES) permit from the State Water Resources Control Board. Clearance for grading, recordation, or other final approval should not be given until the City has determined that the project has been granted a permit or is shown to be exempt.

If this project involves a Federal Emergency Management Agency (FEMA) mapped floodplain, then the City should require the applicant to provide all studies, calculations, plans, and other information required to meet FEMA requirements, and should further require that the applicant obtain a Conditional Letter of Map Revision (CLOMR) prior to grading, recordation, or other final approval of the project and a Letter of Map Revision (LOMR) prior to occupancy. A2-4

If a natural watercourse or mapped floodplain is impacted by this project, the City should require the applicant to obtain a Section 1602 Agreement from the California Department of Fish and Wildlife and a Clean Water Act Section 404 Permit from the U.S. Army Corps of Engineers, or written correspondence from these agencies indicating the project is exempt from these requirements. A Clean Water Act Section 401 Water Quality Certification may be required from the local California Regional Water Quality Control Board prior to issuance of the Corps 404 permit.

Very truly yours,

Deborah de Chambeau

DEBORAH DE CHAMBEAU
Engineering Project Manager

c: Riverside County Planning Department
Attn: John Hildebrand

HY:blm

RIVERSIDE COUNTY
DEPARTMENT OF
WASTE RESOURCES

November 8, 2018

TO: Melissa Cushman, Deputy County Counsel
Office of County Counsel

FROM: Ryan Ross, Principal Planner
Department of Waste Resources

RE: **Review of Draft Tribal Environmental Impact Report (TEIR) for the Agua Caliente Band of Mission Indians Casino Project (Project)**

The Riverside County Department of Waste Resources (RCDWR) has reviewed the Draft TEIR for Project. We have included comments and waste related information for consideration.

Solid Waste Analysis and Discussion

1. While the Draft TEIR incorrectly identifies the Salton City Landfill as the disposal facility for the Project (see comment 2), based on the Project scope, it is unlikely that the Project would have an adverse impact upon the County's solid waste system and overall waste reduction compliance. A2-5

2. Pages 20, 42, and 58 of the Draft TEIR identifies the Salton City Landfill, located in Imperial County, as the waste disposal facility for the Project. While the TEIR correctly identifies that waste services for the Project will be provided by Burrtec, which will deliver Project waste to the Edom Hill Transfer Station (EHTS), the Waste Delivery Agreement for the EHTS requires solid waste to be disposed of at a Riverside County facility, primarily the Lamb Canyon Landfill, located at 16411 Lamb Canyon Rd., Beaumont, CA, 92223. A2-6

3. To further reduce potential impacts to solid waste services, the RCDWR offers the following suggestions for consideration, which were developed to meet the goals and standards of State legislation and regulations addressing solid waste, including recycling and organics management:

   - Prior to construction, develop a Waste Recycling Plan (WRP) that identifies the materials (i.e., concrete, asphalt, wood, etc.) that will be generated by construction and development, the projected amounts, the measures/methods that will be taken to recycle, reuse, and/or reduce the amount of materials, the facilities and/or haulers that will be utilized, and the targeted recycling or reduction rate.
   - Ensure that the trash enclosures constructed for the Project are sized appropriately to house multiple bins for collection of trash, recyclables, and organic materials. A2-7
   - Subscribe to a recycling service for recyclables and organics with the waste hauler servicing the Project site.
   - The use of mulch and/or compost in the development and maintenance of landscaped areas within the project boundaries is recommended. Recycle green waste through either onsite composting of grass, i.e., leaving the grass clippings on the lawn, or sending separated green waste to a composting facility.

- Consider xeriscaping and the use of drought tolerant low maintenance vegetation in all landscaped areas of the project.
- Hazardous materials are not accepted at the Riverside County landfills. Any hazardous wastes, including paint, used during construction must be properly disposed of at a licensed facility in accordance with local, state and federal regulations.

A2-7 (Cont.)

Memorandum

To: Jennifer Sargent

From: Assistant District Attorney Elaina Bentley

Through: Supervising Deputy District Attorney Quinn Baranski

Date: 11/28/2018

Re: Impacts and increased costs to the Office of the District Attorney resulting from the proposed expansion of the Agua Caliente Band of Cahuilla Indians

---

Riverside County is the birthplace of Indian gaming and boasts the largest number of Indian casinos in California. The gaming industry here has boosted California's economy and increased the quality of life for tribal and non-tribal members. Indian casinos have become true resort destinations, and Riverside County has become a national model for government-to-government relations. This Tribal Unit (TU) is comprised of dedicated prosecutors, investigators, and support staff. The TU has formed close ties with sovereign Indian gaming tribes across the county for a common goal: Keeping criminals out of Riverside County casinos and off tribal lands. To achieve this goal, the TU vigorously prosecutes all casino-related crimes. Recently, the TU expanded to include the prosecution of all crimes that occur or have a nexus to any tribal land, not just those occurring in the casino.

The Riverside County Tribal Unit is currently staffed by portions of the following classifications:

A2-8

- Managing Deputy District Attorney ("MDDA")
- Deputy District Attorneys ("DDA")
- District Attorney Investigators
- Senior Investigative Technician ("IT")
- Government Relations Officer

Approximately 60% of our Eastern region DDA is devoted to Agua Caliente Casinos. Approximately, 33% of this number are criminal matters that originate from the Agua Caliente Spa Resort Casino (SRC).

In Fiscal Year 2017/2018, our office reviewed 124 criminal filings from the Agua Caliente Casinos and filed 90 criminal cases (11 felonies/79 misdemeanors), of which 24 (3 felonies/21 misdemeanors) arose from crimes occurring on the property of the SRC. It should also be noted

that since July 8, 2014, SRC has been operating without a functioning hotel. Our prosecutorial efforts during the FY 17/18 resulted in 50 total convictions from the Agua Caliente Casinos consisting of 15 felony convictions, 35 misdemeanor convictions and 6 prison commitments. At the end of FY 17/18, our Eastern Tribal DDA had an active caseload of 27 criminal cases arising out of the Agua Caliente Casinos of which 11 were felonies and 16 were misdemeanors.

These numbers once again bear out the impact of Proposition 47, codified in Penal Code section 1170.18, on our Tribal Gaming Unit. Proposition 47 reclassified numerous crimes, including felony drug possession and theft crimes, as misdemeanors. Our Tribal Gaming Unit continues to handle an increasingly large number of misdemeanor drug and theft crimes. In fact, at the end of FY 16/17, the number of misdemeanor filings in our Tribal Gaming Unit had reached triple digits for the fifth straight quarter.

A2-8 (Cont.)

From January 2018, through October 2018, the assigned DDA has reviewed 123 filing requests from Agua Casinos. Our office filed 99 of the cases submitted resulting in 13 felony cases and 86 misdemeanor cases (SPA casino contributed 29 cases for review, 24 filed resulting in 3 felony cases and 21 misdemeanors.) These 2018 filing numbers from the Agua Casino have already exceed the 2017 filing numbers in which our office reviewed 103 filing requests from the Agua Casinos. Of those cases reviewed our office filed 67 cases of which 12 were felony cases and 55 were misdemeanors (SPA casino contributed 42 cases for review, 33 filed resulting in 7 felony cases and 21 misdemeanors.)

The proposed renovation and expansion of the Agua Caliente Casinos includes casino expansion of 65,000 square feet of new gaming space. The 65,000 square feet of casino expansion will consist of 40,000 square feet of gaming floor, 17,500 square feet of housing and support, 5,000 square feet of restaurants and 2,500 square feet of retail. Other new construction associated with the proposed Project includes a 60,000 square feet of mixed used development and parking lot expansion of 1,000 spaces.

Based on the statistics from Fiscal Year 17/18, it is fair to predict that the number of criminal cases that will be generated is significant because of the entire expansion. The proposed project would increase the current square footage from 70,000 square feet to include a proposed additional 125,000 square feet (65,000 casino plus 60,000 mixed use), to create a total site square footage of 195,000 square feet. This would constitute 179% square foot increase.

A2-9

Proportionally the expansion would equate to an additional 71 cases from the Agua Caliente Casinos to the Riverside County District Attorney caseload. Given the increased external growth (as opposed to casino / gaming growth), it is reasonably projected that the percentage of "quality of life" crimes will increase, with a resultant increase in our commitment of prosecutorial and investigative resources needed to combat such crimes.

At a minimum, 70% of a DDA and 70% of a DA Investigator would be appropriate and necessary to address the anticipated increase in criminal activities that will be generated as an unavoidable result of the SRC expansion. Of course since the final effects of criminal activity

due to this expansion are unknown, the estimated additional resources above will need to be adjusted once the projects are completed, and the facilities are up and running.

The District Attorney's Office appreciates having the opportunity to response to this request and will be available to address any questions that arise as a result of this feedback.

A2-9 (Cont.)

COMMENT LETTER A3

SUNLINE TRANSIT AGENCY

SunLine TRANSIT AGENCY

A Public Agency

MEMBERS: Desert Hot Springs, Palm Springs, Cathedral City, Rancho Mirage, Palm Desert, Indian Wells, La Quinta, Indio, Coachella, Riverside County

Reg Dir
Dep RD Trust
Dep RD IS
Route 111
Response Required
Due Date
Memo Ltr
Fax

October 30, 2018

Amy Dutschke, Regional Director
Bureau of Indian Affairs, Pacific Region
2800 Cottage Way
Sacramento, CA 95825

RE: Agua Caliente Band of Cahuilla Indian Cathedral City Fee-to-Trust Casino Project

Dear Ms. Amy Dutschke:

This letter responds to your request for comments regarding Cathedral City Fee-to-Trust Casino Project . As you are aware, SunLine Transit Agency (SunLine) currently operates fixed route service along Hwy 111 and Date Palm Drive, with transit service provided within the project area.

After future review of transit amenities within the defined project area, it indicates that the proposed Fee-to-Trust Casino Project will impact transit amenities utilized by passengers. Therefore, we are recommending the City of Cathedral City work with SunLine on the following issues:

A. Impacts to Existing Bus Stops

Based on our review, the existing bus stop #234 located on the northwest corner of Highway 111 at Allen maybe impacted by the improvement project, as well as, bus stop #46 at Date Palm at Grove. According to the proposed plans, bus stops #234 and #46 may need to be temporarily closed while work is being performed at those locations. Please have the contractor performing work for this project contact SunLine at least thirty (30) days in advance of work commencing so arrangements can be made to have the existing amenities (bench and waste container) removed.

A3-1

Please note internal transit-friendly pedestrian access can be accomplished by following the guiding principles below:

- Pedestrian walkways to bus stops should be designed to meet the needs of all passengers, including the disabled, seniors and children. All pedestrian walkways should be designed to be direct from the street network to the main entrance of buildings.

32-505 Harry Oliver Trail, Thousand Palms, California 92276 Phone 760-343-3456 Fax 760-343-1986 www.sunline.org

Victor A. Duran
Transit Planning Manager

32-505 Harry Oliver Trail, Thousand Palms, California 92276 Phone 760-343-3456 Fax 760-343-1986 www.sunline.org

SunLine TRANSIT AGENCY

MEMBERS: Desert Hot Springs Palm Springs Cathedral City Rancho Mirage
Palm Desert Indian Wells La Quinta Indio Coachella Riverside County

A Public Agency

- Pedestrian walkways should be designed to provide convenient connections between destinations, including residential areas, schools, shopping centers, public services and institutions, recreation, and transit.
- Provide a dedicated sidewalk and/or bicycle paths through new development that are direct to the nearest bus stop or transit facilities.
- Provide shorter distance between building and the bus stop by including transit friendly policies that address transit accessibility concerns to encourage transit-oriented development. These policies can be achieved through zoning policies, setback guidelines, building orientation guidelines, and parking requirements
- Limit the use of elements that impede pedestrian movement such as meandering sidewalks, walled communities, and expansive parking lots.
- Eliminate barriers to pedestrian activities, including sound walls, berms, fences, and landscaping which obstructs pedestrian access or visibility. Gates should be provided at restricted areas to provided access to those using transit services.
- Pedestrian pathways should be paved to ensure that they are accessible to everyone. Accessible circulation and routes should include curb cuts, ramps, visual guides and railing where necessary. ADA compliant ramps should be placed at each corner of an intersection.
- A minimum horizontal clearance of 48 inches (preferable 60 inches) should be maintained along the entire pathway.
- A vertical clearance of 84 inches (preferable 96 inches) should also be maintained along the pathway.

A3-1 (Cont.)

Should you have any questions or concerns regarding our comments, please do not hesitate to contact me. You may reach me at 760-343-3456, ext. 1603.

Respectfully,

Victor A. Duran
Transit Planning Manager

32-505 Harry Oliver Trail, Thousand Palms, California 92276 Phone 760-343-3456 Fax 760-343-1986 www.sunline.org

SECTION 3.0
RESPONSE TO COMMENTS

3.1 RESPONSE TO COMMENT LETTER A1 – CITY OF RANCHO MIRAGE

Response to Comment A1-1

Comment noted. The Traffic Impact Analysis (TIA) analyzed the roadway segments of East Palm Canyon Drive between Date Palm to Frank Sinatra and Frank Sinatra to Country Club using traffic volumes from the Cathedral City General Plan. Under these conditions, the TIA indicates that these road segments are expected to continue to operate at unacceptable levels of service.

It is acknowledged that using the forecasted 2040 traffic volumes from the City of Rancho Mirage General Plan 2017 Update for road segment #5 Date Palm to Frank Sinatra and #6 Frank Sinatra to County Club would yield acceptable levels of service. However, the traffic volumes used in the TIA represent a more conservative estimate of future traffic conditions.

The traffic volumes used in the TIA were obtained from Cathedral City's General Plan Circulation Element which utilized a refined version of the Coachella Valley Area Transportation Study (CVATS) forecasting model. The model outputs were then extrapolated to Year 2040 using an annual growth rate of 1.5 percent per year (See page 4-7 of the TIA). The Rancho Mirage traffic volumes are based on the Riverside County Transportation Analysis Model (RivTAM) which has not had a major update since 2009. Furthermore, the Rancho Mirage General Plan Update assumed minimal growth over existing 2016 traffic conditions, resulting in the relatively lower 2040 traffic volume forecasts. These assumptions result in a generously low traffic volume forecast in comparison to the Cathedral City volumes.

The forecasted traffic volumes from the Cathedral City General Plan, used in the TIA, provide a reasonable estimate of future traffic conditions. No changes to the TIA or Draft EA are warranted.

Response to Comment A1-2

Comment noted. The TIA analyzed the roadway segments of East Palm Canyon Drive between Date Palm to Frank Sinatra and Frank Sinatra to Country Club using guidelines from the Cathedral City General Plan, which are more conservative than Rancho Mirage Guidelines. As such, the "jurisdiction" identified in Table 1-5 of the TIA for the roadway segments was incorrectly identified as Cathedral City. The roadway segments are, in fact, largely within the jurisdiction of the City of Rancho Mirage. However, this error does not impact the analysis or conclusions of the TIA.

Response to Comment A1-3

Comment noted. While Frank Sinatra Drive is located in the City of Rancho Mirage, it is classified as a major highway in the Cathedral City General Plan. This classification is consistent with the roadway classification in the Rancho Mirage General Plan 2017 Update. Therefore, no changes to the TIA or Draft EA are warranted.

Response to Comment A1-4

Figure 3-A of the TIA identifies the study intersections and roadways that were analyzed within the traffic model. While three signalized intersections exist along East Palm Canyon between Date Palm and Frank Sinatra, the intersecting roadways (Sungate Way, Officer Jermaine Gibson Avenue, One Mirage Place) are not considered General Plan Roadways and thus were not included in the analysis. In general, only General Plan Roadway intersections and intersections with potential LOS issues are analyzed in traffic impact analyses. The size and potential volume of these three intersecting streets was determined to not be significant enough to warrant analysis. In addition, nearby intersections with much higher volumes (Date Palm Drive and Frank Sinatra Drive) were analyzed and resulted in acceptable LOS.

Response to Comment A1-5

Refer to Section 3.7 of the TIA, Determination of Significant Impact, on page 3-16. If a roadway segment is currently operating unacceptably with a vehicle-to-capacity ratio less than 1.0 and the project increases the overall vehicle-to-capacity ratio to greater than 1.0, this would constitute a significant impact on the roadway segment. This criterion is consistent with surrounding agencies' policies and other recent similar traffic impact studies.

Table 5-5 on page 5-8 of the TIA indicates that road segment #5 Date Palm to Frank Sinatra is currently operating at an unacceptable LOS with a vehicle-to-capacity ratio of 0.82. Under Alternative A, the roadway segment would continue to operate at an unacceptable LOS with an increased vehicle-to-capacity ratio of 0.85. Given that the vehicle-to-capacity ratio would remain below 1.0, this increase would not constitute a significant impact. Therefore, no improvements are proposed.

3.2 RESPONSE TO COMMENT LETTER A2 – COUNTY OF RIVERSIDE

Response to Comment A2-1

Comment noted.

Response to Comment A2-2

Comment noted. Refer to Table 1-1 of the Draft EA regarding potential permits required for the Proposed Project.

Response to Comment A2-3

Comment noted. Refer to Section 4.2.1 of the Draft EA for discussion of potential floodplain impacts.

Response to Comment A2-4

Comment noted. Refer to Table 1-1 and Section 4.2 of the Draft EA. The Proposed Project will not require a NPDES permit, but will require coverage under the existing NPDES General Construction Permit from the U.S. Environmental Protection Agency (USEPA) for Stormwater Discharges. The Proposed Project does not involve a Federal Emergency Management Act (FEMA) mapped floodplain, and thus does not require further related studies such as a Letter of Map Revision. Additionally, the project alternatives will not impact a natural watercourse or mapped floodplain, and thus will not require a Clean Water Act permit from the U.S. Army Corps of Engineers or a 401 Water Quality Certification from the USEPA. It should be noted that state permitting requirements do not apply on federal trust lands.

Response to Comment A2-5

Comment noted. Commenter acknowledges that the Proposed Project is unlikely to have an impact on the County's solid waste system and waste reduction compliance, which is consistent with the discussion in Section 4.9 of the Draft EA.

Response to Comment A2-6

Comment noted. The Draft EA has been revised to reflect that solid waste will be disposed of at the Lamb Canyon Landfill. Refer to **Section 4.0 Errata Sheet** for revisions to pages 20, 42, and 58 of the Draft EA. As noted in Comment A2-5, the Lamb Canyon landfill has sufficient capacity to accept waste from the Proposed Project and therefore the conclusions of the Draft EA with respect to less than significant solid waste effects remain valid.

Response to Comment A2-7

Comment noted. Refer to Section 4.9.1 of the Draft EA regarding impacts to solid waste services. Impacts to solid waste services from both construction and operation of the Proposed Project were determined to be less than significant, and therefore do not warrant mitigation measures. Best management practices, green construction methods as adopted under the Tribal Building and Safety Code, and voluntary measures that would be implemented by the Tribe, including strategies to reduce waste,

have been incorporated into the design of the Proposed Project and are discussed in Table 2-2 of the Draft EA.

Response to Comment A2-8

Comment noted. No response is required. Commenter provides background information on law enforcement and criminal activity in Riverside County.

Response to Comment A2-9

The commenter is mistaken in characterizing the Proposed Project as a "renovation and expansion of the Agua Caliente Casinos." As described in Section 2.2 of the Draft EA, the Proposed Project consists of the fee-to-trust transfer of the 13.6-acre North Site and subsequent development of a new casino and related facilities, wholly located within the City of Cathedral City.

As stated in Section 4.6 of the Draft EA, criminal incidents may increase in the vicinity of the Proposed Project, as with any other development of this size. The commenter's calculations of anticipated additional criminal cases were incorrectly calculated from an assumption of a casino expansion rather than a new casino facility; moreover, the methodology for the commenter's calculations was not explained and cannot be confirmed. The commenter notes that the Palm Springs Spa Resort Casino operated by the Tribe contributed 42 cases in 2017 for review by the Riverside County District Attorney, and 29 from January 2018 through October 2018. The proposed Cathedral City Casino would be smaller in size than the Palm Springs Spa Resort Casino and thus is likely to generate fewer cases than the 71 cases estimated by the commenter. As detailed in Section 4.9 of the Draft EA and the Community Impact Analysis (Appendix E of the Draft EA), the Proposed Project is projected to generate approximately 164 to 269 annual calls for law enforcement service beginning in its first year of operation, between a 0.3 and 0.5 percent increase over Cathedral City Police Department's most recent (2017) annual call volume. Mitigation measures are provided in Section 5.0 of the Draft EA to avoid potential fiscal impacts that would offset the increased cost of law enforcement services.

In accordance with Section 11.7 of the Compact and mitigation within the Draft EA, prior to the commencement of the Proposed Project, the Tribe shall offer to commence negotiations with the County related to the provision of public services to meet the increase in demands resulting from the project. Refer to Section 1.4.2 of the Draft EA for information about the Compact requirements.

3.3 RESPONSE TO COMMENT LETTER A3 – SUNLINE TRANSIT AGENCY

Response to Comment A3-1

Comment noted. Potential impacts to transit service in the vicinity of the North Site are addressed in Section 4.7 of the Draft EA and Section 3.11 of the TIA. Potential impacts to transit facilities would be mitigated by contributions to transit development funds, as outlined in Section 5.0 of the Draft EA. Additionally, the Best Management Practices outlined in Table 2-2 of the Draft EA provide measures that would promote pedestrian friendly design and transit accessibility throughout operation of the Proposed Project.

Additional BMPs related to coordination with SunLine Transit Agency to temporarily remove, replace, and/or relocate the bus stops have been added to Table 2-2 of the revised Draft EA. Please refer to the errata sheets in **Section 4.0** of this Final EA.