Appendix J
Transportation Study

Transportation Study

Elephant Hill Project

JULY 2025

Prepared for:

CITY OF POMONA

PLANNING DIVISION

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Acronyms and Abbreviations

Acronym	Definition
CEQA	California Environmental Quality Act
City	City of Pomona
HCM	Highway Capacity Manual
ITE	Institute of Transportation Engineers
LOS	level of service
OPR	Governor's Office of Planning and Research
SGVCOG	San Gabriel Valley Council of Governments
TAZ	traffic analysis zone
TS	Transportation Study
VMT	vehicle miles traveled

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1 Introduction

1.1 Purpose and Scope

The purpose of this Transportation Study (TS) is to identify traffic effects and transportation impacts associated with the proposed Elephant Hill Project (project) in the City of Pomona (City), in Los Angeles County. This TS has been prepared per City of Pomona Transportation Study Guidelines for Vehicle Miles Traveled and Level of Service Assessment (October 2020) and complies with the City of Pomona General Plan (City of Pomona 2014) consistency requirements.

Pursuant to Senate Bill (SB) 743, the focus of transportation analyses has shifted from vehicle delay (and level of service [LOS]) to vehicle miles traveled (VMT) under the California Environmental Quality Act (CEQA). The City used the information produced through the San Gabriel Valley Council of Governments (SGVCOG) Implementation Study to adopt a methodology and significance thresholds for CEQA compliance. Given the need to prepare VMT-based CEQA transportation impact analyses per SB 743, as well as the need to evaluate the performance of the roadway system based on delay and LOS for General Plan Policy requirements, the City's Transportation Study Guidelines for Vehicle Miles Traveled and Level of Service Assessment (Transportation Study Guidelines) were released in October 2020. The City's guidelines provide analysis methodology and thresholds for assessment for General Plan Consistency (e.g., non-CEQA LOS analysis) and CEQA compliance (e.g., VMT analysis), as well as the format for the transportation study. The objectives of this study are to provide both, non-CEQA and CEQA assessments of the project per analysis methodology described in the Transportation Study Guidelines (City of Pomona 2020) as listed below:

Non-CEQA Assessment

- Estimate trip generation, distribution, and assignment characteristics of the project
- Document existing roadway, pedestrian, bicycle, and transit facilities in the study area
- Document Existing and Opening Year traffic conditions (without and with project), including intersection LOS at the study area intersections and project driveways
- Analyze the potential for LOS effects to occur as a result of the project under the Existing and Opening Year conditions
- Describe if any operational or physical network improvements are needed for General Plan consistency
- Provide a sight distance and signal warrant analyses for project access driveways as part of the safety evaluation for the project
- Provide a summary of on-site parking spaces for the project
- Provide findings and recommendations based on the site access and safety evaluation of the project

CEQA Assessment

- Provide a VMT analysis per SB 743, CEQA requirements, and City's Transportation Study Guidelines
- Provide off-ramp queuing analysis for California Department of Transportation (Caltrans) facilities near the project
- Identify improvement measures for any significant transportation impacts

The scope of the non-CEQA and CEQA analysis has been approved by the City's Public Works Department. A copy of the scoping document is provided in Appendix A.

1.2 Project Description and Location

The 120.6-acre project site is located at Elephant Hill, a largely undeveloped foothill within the City of Pomona (see Figure 1, project Location and Study Area). Specifically, the project site is located directly to the east of State Route (SR)-57, south of the Union Pacific Railroad tracks right-of-way, north of Mission Boulevard, and approximately 370 feet west of Humane Way. The project site consists of three parcels (Assessors' Parcel Numbers 8707-020-001, 8707-020-008, and 8708-021-058). The project site is designated by the General Plan as Open Space and Urban Neighborhood (City of Pomona 2014). The northern portion of the project site is zoned as Open Space (O) while the southern portion of the site is zoned as Planned Residential Development (PRD). A small portion of the site adjacent to Mission Road is within the Phillips Ranch Specific Plan - Multiple Family Residential (PRSP). The site is also located in the Senate Bill 330 overlay, which provides enhanced streamlining and the vesting of development standards to qualifying housing development projects seeking discretionary approval. While the project site is primarily undeveloped, the site is surrounded residential uses to the south and southwest, industrial and commercial uses to the west past SR-57, public facilities to the southeast, and the Union Pacific Railroad right-of-way, Spadra Cemetery and the Pomona Water Reclamation Plant to the north. Development further north of the Southern Pacific Railroad tracks consists of largely commercial uses.

The proposed project's development would be focused within the southwestern area of the site (development area) that is designated as Urban Neighborhood (Figure 2, Site Plan). The development area would include single- and multi-family residential units, a recreational center; developed and undeveloped open space, including landscaped slopes and fuel modification areas; utility infrastructure; and circulation and parking. In addition, the project would include a trail with outlooks along the western perimeter of the development area. The remaining area of the project site would remain as undeveloped open space (open space area). Biological habitat mitigation is proposed within the northern portion of open space area.

The proposed project would include 228 residential dwelling units, with 68 single-family units and 160 multi-family units, to be located within the approximately 11.57-acre residential areas. The proposed multi-family residential units would be comprised of 94 two-story duplexes and 66 three-story townhomes. The project would include a series of internal private streets that would connect to the public street system at Sorrento Drive and Mission Boulevard, both located to the south of the development area. On-site parking would include 666 parking spaces in garages and 210 parking spaces in the open areas, and would include surface head-in parking, garage parking, and on-street parking. On-site utility improvements would include stormwater, water, sewer, electrical, and other dry utilities, to be located within the development area. In addition, off-site utility connections would be required within the nearby Mission Boulevard and Sorrento Drive, as well as an off-site sewer connection to the Humane Society property, located to the southeast of the project site.

Figure 1 shows the project location and Figure 2 illustrates the project's site plan.

Regional access to the project would be via SR-57 and SR-71. Local access to the project is provided via Mission Boulevard and Sorrento Drive. As shown on the site plan, two full-access project driveways are proposed for the project. The access driveway from Sorrento Drive would provide access to Areas 1, 2, and 3 (as shown on Figure 2) and the driveway from Mission Boulevard would provide access to Area 4 (as shown on Figure 2).

1.3 Analysis Methodology and Thresholds

The analysis methodology and thresholds used in the project's non-CEQA and CEQA assessment are described below.

1.3.1 Non-CEQA Assessment for General Plan Consistency

LOS is a metric used to describe the operating characteristics of the street system in terms of the level of congestion or delay experienced by vehicles with service levels range from LOS A through LOS F.

Analysis Methodology for Intersections

The Highway Capacity Manual, 6th Edition (HCM 6) (TRB 2016) methodology was used to assess level of service for signalized and unsignalized study intersections within the study area. The HCM analysis methodology describes the operation of an intersection using a range of LOS from LOS A (free-flow conditions) to LOS F (severely congested conditions), based on the corresponding control delay experienced per vehicle for unsignalized intersections. The Synchro 10 LOS software was used to determine intersection LOS. Synchro is consistent with the HCM 6 methodology. Table 1 shows the LOS values by delay ranges for unsignalized and signalized intersections under the HCM methodology.

Table 1. Levels of Service for Intersections Using HCM Methodology

Level of Service	HCM Average Delay (seconds per vehicle) Unsignalized Intersections	HCM Average Delay (seconds per vehicle) Signalized Intersections
A	< 10.0	< 10.0
B	> 10.0 to < 15.0	> 10.0 to < 20.0
C	> 15.0 to < 25.0	> 20.0 to < 35.0
D	> 25.0 to < 35.0	> 35.0 to < 55.0
E	> 35.0 to < 50.0	> 55.0 to < 80.0
F	> 50.0	> 80.0

Source: TRB 2016.
Note: HCM = Highway Capacity Manual

A queuing analysis using SimTraffic 11 software was conducted to assess the adequacy of the existing storage pockets at the off-ramp intersections of Caltrans facilities near the project. The queuing analysis is consistent with HCM methodology and calculates the 95th percentile queue which is also considered to be the "design queue". The 95th percentile queues are then compared to the provided storage lane lengths to determine whether the queue can be adequately stored.

City of Pomona LOS Criteria

The study area intersections are located within the jurisdiction of the City of Pomona; therefore, the following consistency requirements would apply. Per City's Transportation Study Guidelines (City of Pomona 2020), the acceptable LOS for intersections in the City is LOS D or better as established in the City's General Plan (City of Pomona 2014). Any intersection operating at a LOS of E or F is considered deficient.

Signalized intersections will require improvements if one of the following conditions is met:

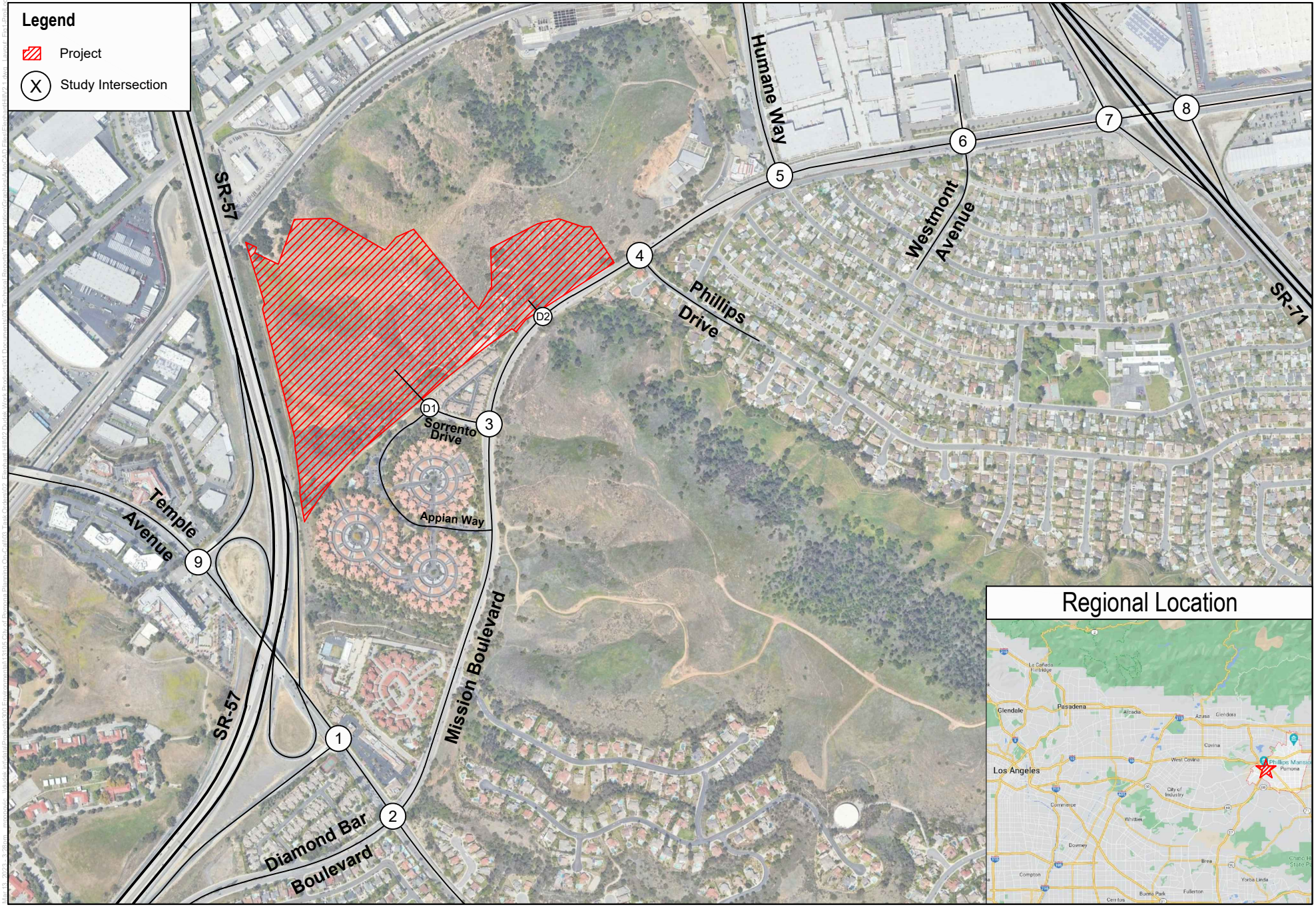
- Any study intersection that is operating at a LOS D or better for any study scenario without project traffic in which the addition of project traffic causes the intersection to degrade to a LOS E or F shall improve the deficiency so as to bring the intersection back to at least LOS D.
- Any study intersection that is operating at a LOS E or F for any study scenario without project traffic shall improve any deficiencies so as to bring the intersection back to the overall level of delay established prior to project traffic being added.

Unsignalized intersections will require improvements if both of the following conditions is met:

- A deficient intersection requires improvements if the study determines that either section a) or both sections b) and c) occur.
    a. The addition of project related traffic causes the intersection to move from a LOS D or better to a LOS E or worse OR
    b. The project contributes additional traffic to an intersection that is already projected to operate at an LOS E or F with background traffic AND
    c. One or both of the following conditions are met:
        1. The project adds 10 or more trips to any approach.
        2. The intersection meets the peak hour traffic signal warrant after the addition of project traffic.

Project Access, Sight Distance, Signal Warrant and Other Analyses

An analysis of project access, sight distance and traffic signal warrant analysis for any unsignalized intersections around the project has been included per City's requirement. The analysis was conducted using the currently available version of California Manual of Uniform Traffic Control Devices (Caltrans 2014) for Traffic Signal Warrants 1 through 10. A review of traffic calming strategies and measures included in the City's General Plan and standard traffic engineering practice was conducted per City's request.



SOURCE: Google Maps 2021

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FIGURE 1

Project Location and Study Area

Elephant Hill Project

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SOURCE: Bassenian & Lagoni Architects 2022

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FIGURE 2

Project Site Plan

Elephant Hill Project

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1.3.2 CEQA Assessment for Transportation Impacts

VMT Analysis

On September 27, 2013, SB 743 was signed into law, which created a process to change the way that transportation impacts are analyzed under CEQA. SB 743 required the Governor's Office of Planning and Research (OPR) to amend the CEQA Guidelines to provide an alternative to LOS for evaluating transportation impacts. Under the new transportation guidelines, LOS, or vehicle delay, is no longer considered an environmental impact under CEQA. OPR recommended VMT as the most appropriate measure of project transportation impacts for land use projects and land use plans. The updates to the CEQA Guidelines required under SB 743 were approved on December 28, 2018.

Under the new guidelines, VMT has been adopted as the most appropriate measure of transportation impacts under CEQA. The OPR's regulatory text indicates that a public agency may immediately commence implementation of the new transportation impact guidelines, and that the guidelines must be implemented statewide by July 1, 2020.

SGVCOG is the regional planning agency for the San Gabriel Valley. They are a joint powers authority comprised of 31 incorporated cities, unincorporated communities in Los Angeles County Supervisorial Districts 1, 4, and 5, and three San Gabriel Valley Municipal Water Districts (San Gabriel Valley Municipal Water District, Three Valleys Municipal Water District, and Upper San Gabriel Valley Municipal Water District. The City of Pomona is one of the incorporated cities included as a member agency. To assist member agencies with complying to SB 743 mandates, the SGVCOG worked with member agencies and undertook the SB 743 Implementation Study to assist with implementation questions about the methodology, thresholds, and mitigation approaches for VMT impact analysis in its member agencies. The study analyzed existing traffic conditions in the region to develop a baseline standard that determines significance CEQA thresholds for future land use and transportation projects. As part of the process, a web-based tool (SGVCOG VMT Screening Tool) was developed to determine whether a proposed project would require a full VMT analysis based on each City's adopted CEQA criteria.

The City of Pomona has adopted VMT-specific guidelines and the City is also a member agency of SGVCOG. Therefore, the SGVCOG VMT Screening Tool has been used for the proposed project's VMT analysis to determine its CEQA specific transportation impact and to identify feasible mitigation measures to reduce the Project's VMT. The details of applicable screening and VMT analysis methodology has been provided in Chapter 7 of the TS.

City of Pomona VMT Impact Criteria

A project would result in a significant project-generated VMT impact if either of the following conditions are satisfied:

1. A significant impact would occur if the VMT rate generated by the project exceeds a level of 15% below the SGVCOG Southeast Subarea baseline VMT rate for the traffic analysis zone where the project is located.
2. The project results in a higher future VMT rate for the City than the future No project.

Per City's guidelines, the cumulative no project shall reflect the adopted Regional Transportation Plan/Sustainable Communities Strategies. As such, if a project is consistent with the Southern California Association of Governments (SCAG) Regional Transportation Plan/Sustainable Communities Strategies, then the cumulative impacts (project effect on VMT) shall be considered less than significant subject to consideration of other substantial evidence.

Caltrans Facilities Impact Threshold

The Traffic Safety Bulletin 20-02-R1: Interim Local Development Intergovernmental Review Safety Review Practitioners Guidance, February 2024, applies to proposed land use projects and plans affecting the state highway system (Caltrans 2024). This Guidance establishes the recommended transportation safety impact review process for Caltrans and lead agencies for evaluating proposed land use projects. The intent of the Interim Safety Review is also to provide an outline for when queuing should be reviewed for traffic safety impacts. A review does not necessitate the need for traffic safety mitigation but evaluates whether a significant safety impact based on speed differential would occur, and then the significance of that traffic safety impact by the project must be determined on a case-by-case basis.

Per Appendix A, Freeway Queuing Analysis, of the Caltrans guide, to review a location for traffic safety impacts, following criteria can be used (Caltrans 2024).

If the project adds two or more car lengths to the ramp queue in the peak hour that will extend into the freeway mainline, then the location must be reviewed for traffic safety impacts which include a review for speed differential between the off-ramp queue and the mainline of the freeway during the same peak hour.

1.4 Study Area and Scenarios

The study area and scenarios for non-CEQA (LOS Analysis) and CEQA (VMT analysis) assessment were identified per City's Transportation Study Guidelines (City of Pomona 2020) as well as through scoping completed in coordination with the City Traffic Engineer (Appendix A).

1.4.1 LOS Analysis

The study area for the non-CEQA assessment including the LOS analysis was scoped with the City to include key intersections, on which the proposed project will add 50 or more trips during any peak hour. As shown on Figure 1, the study area is comprised of the following 8 intersections and two project driveways.

1. SR-57 northbound off-ramp/Temple Avenue
2. Mission Boulevard - Diamond Bar Boulevard/Temple Avenue
3. Sorrento Drive/Mission Boulevard Sanderson Avenue/Page Plaza Place
4. Phillips Drive/Mission Boulevard
5. Humane Way/Mission Boulevard
6. Westmont Avenue/Mission Boulevard
7. SR-71 southbound ramps/Mission Boulevard
8. SR-71 northbound ramps/Mission Boulevard
9. SR-57 SB off-ramp/Temple Avenue[1]
10. Project Driveway 1 - Sorrento Drive/Appian Way
11. Project Driveway 2 -Mission Boulevard

[1] This ramp intersection was added per Caltrans facilities analysis requirements. The project does not add 50 or more peak hour trips to the intersection.

The study area intersections are analyzed for the following scenarios:

Existing Conditions

The existing condition includes an operational analysis of existing traffic volumes at the study area intersections during the weekday AM and PM peak hour conditions. The existing condition is representative of Year 2022 conditions.

Existing plus Project Conditions

This condition includes analysis of traffic operations under existing conditions with project-related traffic added to the existing AM and PM peak hour intersection traffic volumes at the study area intersections and project access driveways during the weekday AM and PM peak hour conditions. The traffic effects specific to the project under this condition were used as the basis for determining if the project would be required to implement improvements to the study area intersections.

Opening Year Conditions

The Opening Year conditions include a short-term horizon year when the project would be constructed and fully operational which is anticipated to be year 2028. The traffic growth factor per City's Transportation Study Guidelines was applied to the weekday AM and PM peak hour intersection volumes in the study area and analyzed under Opening Year conditions, which are representative of Year 2028.

Opening Year Plus Project Conditions

This condition includes analysis of traffic operations under Opening Year conditions with project-related traffic added to the AM and PM peak-hour traffic volumes. This traffic was distributed and assigned to the intersections in the study area and analyzed under Opening Year Plus project conditions. The traffic effects specific to the project under this condition were used as the basis for determining if the project would be required to implement or fund improvements to the study area intersections.

1.4.2 VMT Analysis

The VMT analysis was conducted by using the SGVCOG VMT Assessment Tool for the project per scoping agreement and approval of the City. The study area for the VMT analysis is the traffic analysis zone (TAZ) of the project and the SGVCOG southeast subarea within which the City of Pomona is located. The analysis was conducted for base year 2025.

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2 Project Trip Generation

This section documents the trip generation, distribution, and assignment of project traffic in the study area.

2.1 Project Trip Generation

Trip generation estimates for the project is based on the daily and AM and PM peak hour trip generation rates obtained from the Institute of Transportation Engineers (ITE) Trip Generation Handbook, 11th Edition (2021) for single-family (detached) and single-family (attached) uses. To estimate project's trip generation, the single family detached unit trip rate was used for cluster homes and the single family attached unit trip rate was used for duplexes and townhomes. Trip generation rates and resulting trip generation estimates are summarized in Table 2.

Table 2. Project Trip Generation

Trip Generation Rates									
Land Use	ITE[1] Code	Size/ Unit	Daily	AM Peak Hour			PM Peak Hour		
				% In	% Out	Total	% In	% Out	Total
Single-family (detached)	210	DU	9.43	0.18	0.52	0.70	0.59	0.35	0.94
Single-family (attached)	215	DU	7.20	0.15	0.33	0.48	0.32	0.25	0.57
Trip Generation									
Single Family Cluster Homes	210	68 DU	641	12	36	48	40	24	64
Duplexes	215	94 DU	677	14	31	45	31	23	54
Townhomes	215	66 DU	475	10	22	32	22	16	38
Total Trip Generation			**1,793**	**36**	**89**	**125**	**93**	**63**	**156**

Notes:
DU = Dwelling Unit
[1] Trip rates from the Institute of Transportation Engineers, Trip Generation, 11th Edition, 2021

As shown in Table 2, the project would generate 1,793 daily trips, 125 AM peak hour trips (36 inbound and 89 outbound), and 156 net PM peak hour trips (93 inbound and 63 outbound).

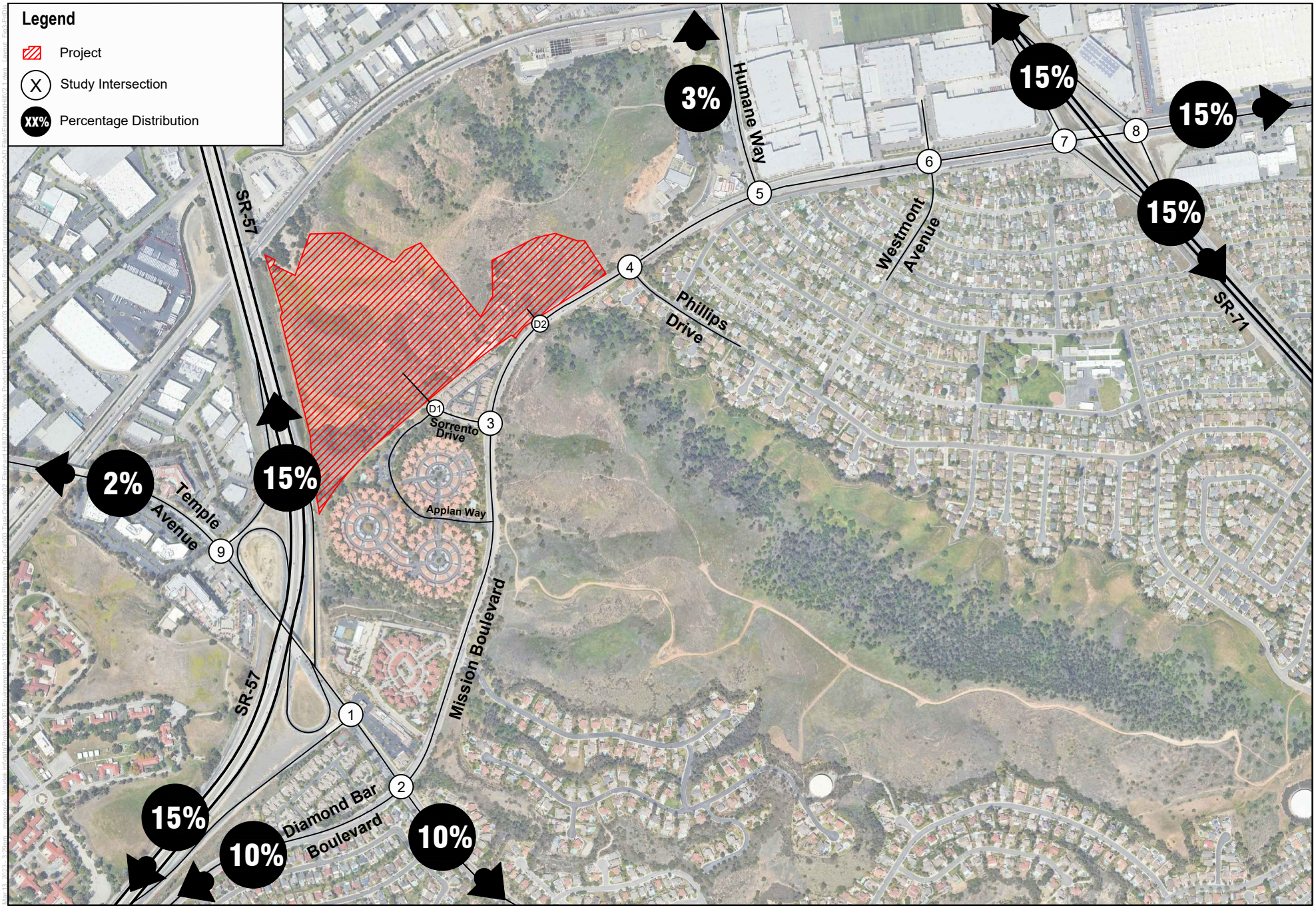
2.2 Trip Distribution and Assignment

Project trip distribution percentages were based on logical travel paths to commute corridors in the study area; since the project is a typical residential development, the project traffic was distributed by reviewing the surrounding land uses and availability of regional and local roadway network.

Project traffic would use the project driveways along Sorrento Drive and Mission Boulevard to access project site. The project traffic was distributed on the two access driveways based on the number of units proposed in Areas 1, 2, 3 and 4. Approximately 52% of the total project traffic was estimated to travel westbound along Mission Boulevard and 48% of the total project traffic was estimated to travel eastbound along Mission Boulevard. The project trip distribution percentages are shown on Figure 3.

Project trips were assigned to the study area intersections by applying the above-referenced project trip generation estimates to the trip distribution percentages at the study area intersections and proposed project access driveways. The resulting project trip assignment at study area intersections is shown on Figure 4.

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SOURCE: Google Maps 2021

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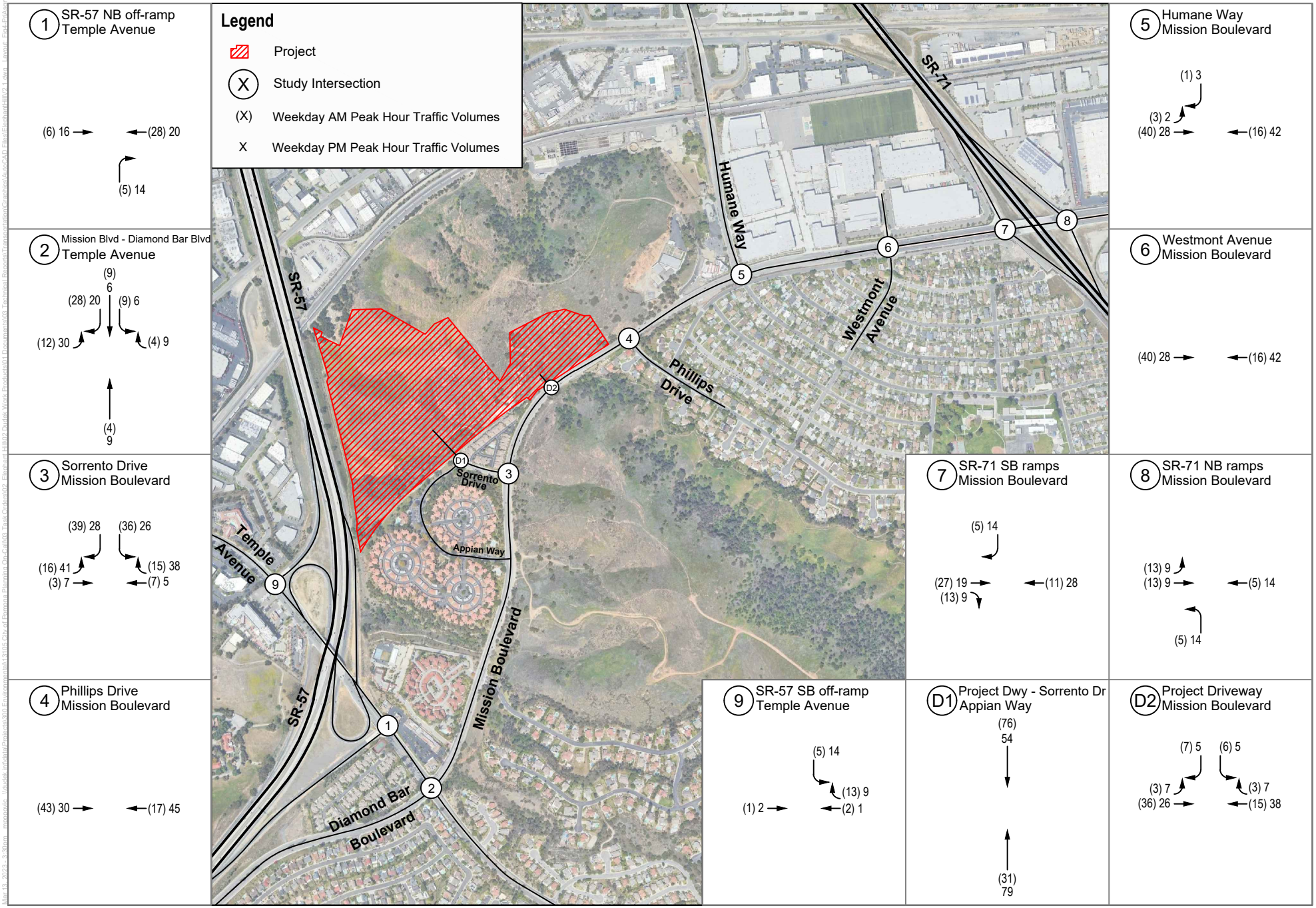
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FIGURE 3

Project Trip Distribution

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SOURCE: Google Maps 2021

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FIGURE 4

Project Trip Assignment

Elephant Hill Project

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3 Existing Setting

This section describes existing conditions within the identified study area. Characteristics are provided for the existing street system, transit system, pedestrian and bike facilities, existing traffic volumes, and traffic operations.

3.1 Existing Street System

Figure 1 provides a regional location map and the traffic study area. Regional access to the project is provided by SR-57 and SR-71. The arterial and collector street system near the site includes Mission Boulevard, Sorrento Drive, Temple Avenue, and Humane Way. Characteristics of the main roadways in the study area described below.

Mission Boulevard. Mission Boulevard is. classified as a Major Arterial within the City boundary per City of Pomona 2014 General Plan Update. In the vicinity of the project, Mission Boulevard currently has two lanes in each direction with a center turn lane. The posted speed limit is 45 mph in the eastbound direction and 50 mph in the westbound direction near the proposed project. Per traffic volumes collected in April 2022, approximately 18,100 vehicles per day were observed along Mission Boulevard, west of Phillips Drive (see Appendix A for raw traffic counts).

Sorrento Drive. Sorrento Drive is a two-lane local street, north of Mission Boulevard and would provide access to the project site. There is no posted speed limit along this roadway segment. Parking is permitted on both sides of Sorrento Drive. Per traffic volumes collected in April 2022, approximately 370 vehicles per day were observed along Sorrento Drive, north of Mission Boulevard (see Appendix A for raw traffic counts).

Figure 5 illustrates the existing traffic controls and geometrics of the traffic study area intersections.

3.2 Transit System

Public transit system in Pomona consists of both bus and rail service. The existing and proposed transit facilities (rail and bus) near the project are shown in Figure 6.

The City is traversed by an east west Union Pacific/Amtrak/Metrolink-Riverside rail line (which runs north of the project) with a Downtown Pomona Station. There is an east-west Metrolink-San Bernardino line running through the northern part of the City, with a Pomona North station. A new Metro L (previously Gold) Line extension station along with an additional Metrolink station is planned within the City. The proposed Pomona station is part of the Metro L Line from Glendora to Montclair and will be located west of Garey Avenue and east of Fulton Road, northeast of the existing Pomona North Metrolink station. A potential high-speed railway operation linking northern California to southern California and Las Vegas may also include a station in the City.

Foothill Transit provides bus transit service in the City of Pomona and surrounding cities and destinations. Following bus lines provide service in the vicinity of the project.

- **Line 286** serves Pomona, Diamond Bar, and Brea Mall via Diamond Bar Boulevard and Temple Avenue. Popular destinations include Brea Olinda High School, Diamond Bar High School, Mt. San Antonio College, Cal Poly Pomona, Park West High School, Pomona Community Center, Pomona Civic Center, and Pomona Library. This line operates from approximately 6:20 a.m. to 10:20 p.m. on weekdays at a service frequency of 60 minutes. On weekends and holidays, the bus line operates from 7:35 a.m. to approximately 7:35 p.m., at a frequency of 60 minutes.

- **Line 480** serves Montclair, Pomona, and West Covina via Mission Boulevard. Popular destinations include Montclair Plaza, Claremont Colleges, Claremont Village, Pomona Library, Cal Poly Pomona, I-Poly High School, Via Verde Park & Ride, Bonelli Regional County Park, Mt. San Antonio College, Plaza West Covina, and Eastland Center. This line operates from 5:00 a.m. to 11:00 p.m. on weekdays at a service frequency of 20 minutes from 7:00 a.m. to 1:00 p.m. and 30 minutes after 1:00 p.m. On weekends and holidays, the bus line operates from 5:00 a.m. to approximately 10:00 p.m., at a frequency of 30–60 minutes.
- **Line 482** serves Pomona, Diamond Bar, Walnut, Baldwin Park, and Industry. Popular destinations include Pomona Community Center, Pomona Civic Center, Pomona Library, DeVry University, Cal Poly Pomona, Via Verde Park & Ride, Bonelli Regional County Park, Diamond Bar Park & Ride, Farm Store at Kellogg Ranch, I-Poly High School, South Coast Air Quality Management District, Diamond Bar Library, University of Phoenix, and Eastwood Village Shopping Center. This line operates from 4:00 a.m. to 10:30 p.m. on weekdays at a service frequency of 20 minutes between 5:00 a.m. and 7:00 a.m. and 30 minutes thereafter. On weekends and holidays, the bus line operates from 6:30 a.m. to approximately 10:30 p.m., at a frequency of 30 minutes.
- **Line 195** serves primarily the City of Pomona. Popular destinations include Park West High School, Pomona Community Center, Pomona Civic Center, Pomona Library, Cal Poly Pomona, I-Poly High School, DeVry University Pomona, and Diamond Ranch High School. This line operates from 5:30 a.m. to approximately 7:30 p.m. on weekdays at a service frequency of 60 minutes. On weekends and holidays, the bus line operates from approximately 6:00 a.m. to 7:00 p.m., at a frequency of 60 minutes.
- **Line 854** serves Diamond Bar, Philips Ranch, and Chino Hills. Destinations along this line include South Coast Air Quality Management District, Diamond Bar Library, Diamond Bar City Hall, University of Phoenix, Diamond Bar Park & Ride, Mt. San Antonio College, and Cal Poly Pomona. Currently, this line operates Monday through Friday only and provides limited service only two times per day.

Currently, the nearest bus stops to the project for Line 286 are located along Mission Boulevard, approximately 0.3 miles west and 0.8 miles east of the Sorrento Drive/Mission Boulevard intersection. Bus stops are also located along Humane Way, at Mission Boulevard/Westmont Avenue intersection and at the Temple Avenue/Mission Boulevard intersection.

Pomona Valley Transportation Authority provides specialized transportation services to fulfill the unmet needs of Pomona Valley residents. Get About, Get About Ready Now, and Get About One-Step Over the Line are services that provide a variety of door-to-door shared ride service through a reservation-based transportation service for seniors and persons with disabilities.

3.3 Bike and Pedestrian Facilities

The California Department of Transportation (Caltrans) standards provide for three distinct types of bikeway facilities as generally described below and used by the City as well.

Class I Bicycle Paths. Class I bikeways are completely separated from motor vehicle traffic, as in the case of an off-street path along a river or railroad corridor. Class I bikeways have varying widths, generally between 8 and 12 feet. A sidewalk bicycle path would not be considered a Class I facility unless properly designed and separated from the roadway by an appropriate buffer. Pedestrians are allowed on Class I paths.

Class II Bicycle Lanes. Class II bikeways are located on streets and allow bicyclists to utilize a separate lane of travel, usually 5 feet wide, separated from motor vehicle traffic by a 6-inch white stripe.

Class III Bicycle Routes. Class III bikeways are designated by signs only. Cyclists share the travel lane with motor vehicle traffic on these routes. Some Class III routes have a wide outer curb lane while others carry low volumes of motor vehicle traffic, making a separate bicycle lane or wide curb lane unnecessary.

Bicycle Boulevard. Bicycle Boulevard is generally a modified Class III route in which cars are allowed but bicycles have priority, and where bicycles have a relatively stop free, low conflict route to their destinations.

There are no existing bicycle facilities in the vicinity of the project. The City's Active Transportation Plan (City of Pomona 2012) includes a Bicycle Master and Pedestrian Master Plan. Additionally, Pomona's Corridors Specific Plan (City of Pomona 2018) establishes a vision for 13 miles of Pomona's major arterial corridors—Foothill Boulevard, Garey Avenue, Holt Avenue, and Mission Boulevard.

City of Pomona has a comprehensive network of sidewalks in most part; however, outside of the central district there are some gaps in the sidewalk network. Mission Boulevard has a discontinuous paved sidewalk along both sides of the roadway. There are curb ramps at the unsignalized intersection of Sorrento Drive/Mission Boulevard, however, there is no crosswalk for pedestrians on any approach of the intersection. Also, Mission Boulevard does not have paved sidewalk along its south side in the vicinity of the project. There are notably potential constraints with installing a sidewalk along Mission Boulevard, including the slope along the northern side of the roadway.

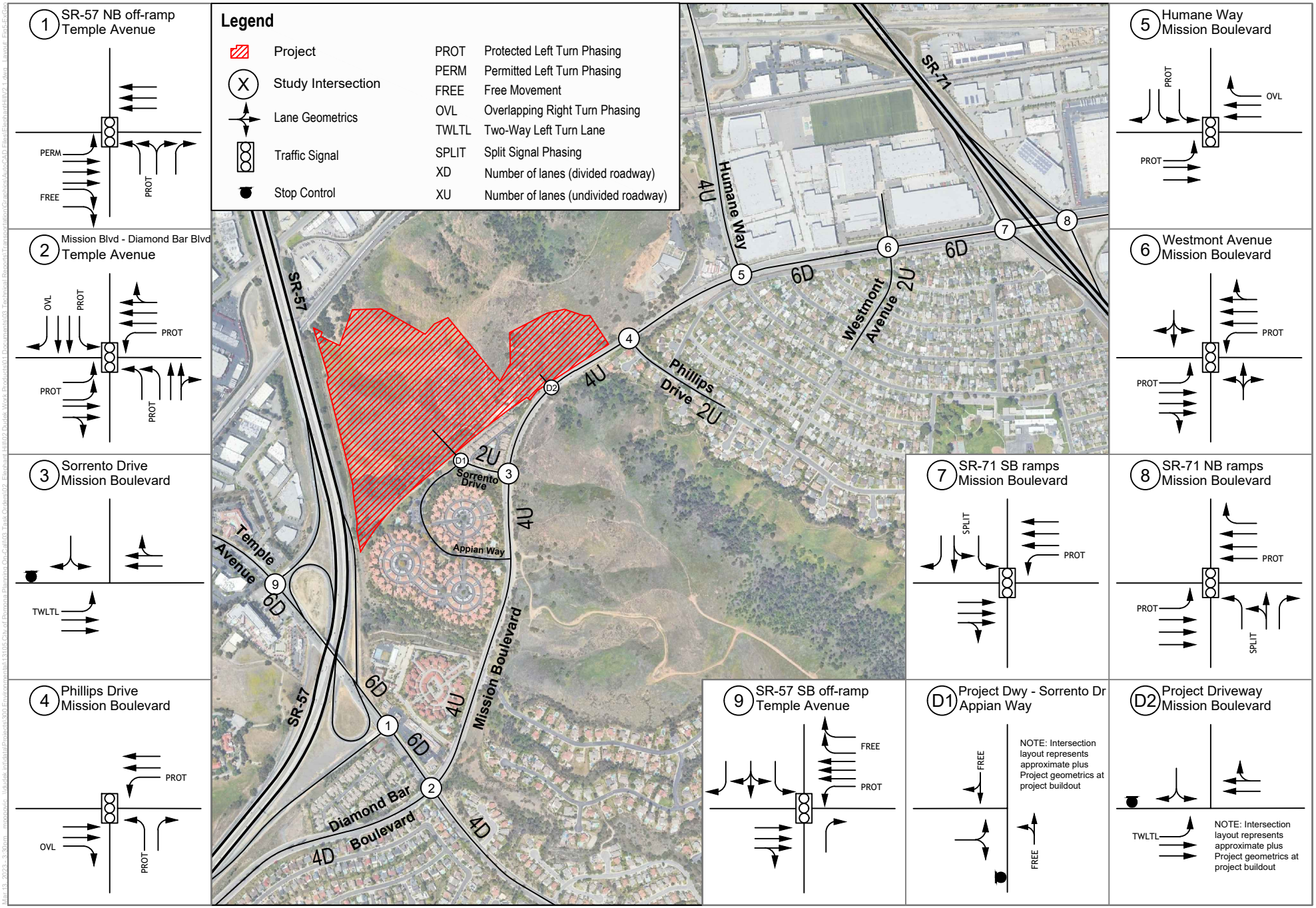
The existing and proposed bike facilities near the project are shown in Figure 7.

Pedestrian and Bicycle Volumes

Traffic counts conducted in the study area in April 2022, during a typical non-holiday week while area schools were in session, indicate nominal pedestrians and bike volumes in the study area. The traffic count worksheets are provided in Appendix B.

At the Sorrento Drive/Mission Boulevard intersection, only three and two pedestrians were counted during the AM and the PM peak hours, respectively. Two bicyclists were observed during the AM peak hour, and three bicyclists were counted during the PM peak hour. There were no pedestrians or bicyclists observed during AM or PM peak hours at the Oak Glen Road/Colorado Street intersection. As such, there is low pedestrian and bicycle activity near the project.

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SOURCE: Google Maps 2021

FIGURE 5

Existing Traffic Controls and Geometrics

Elephant Hill Project

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SOURCE: Google Maps 2021

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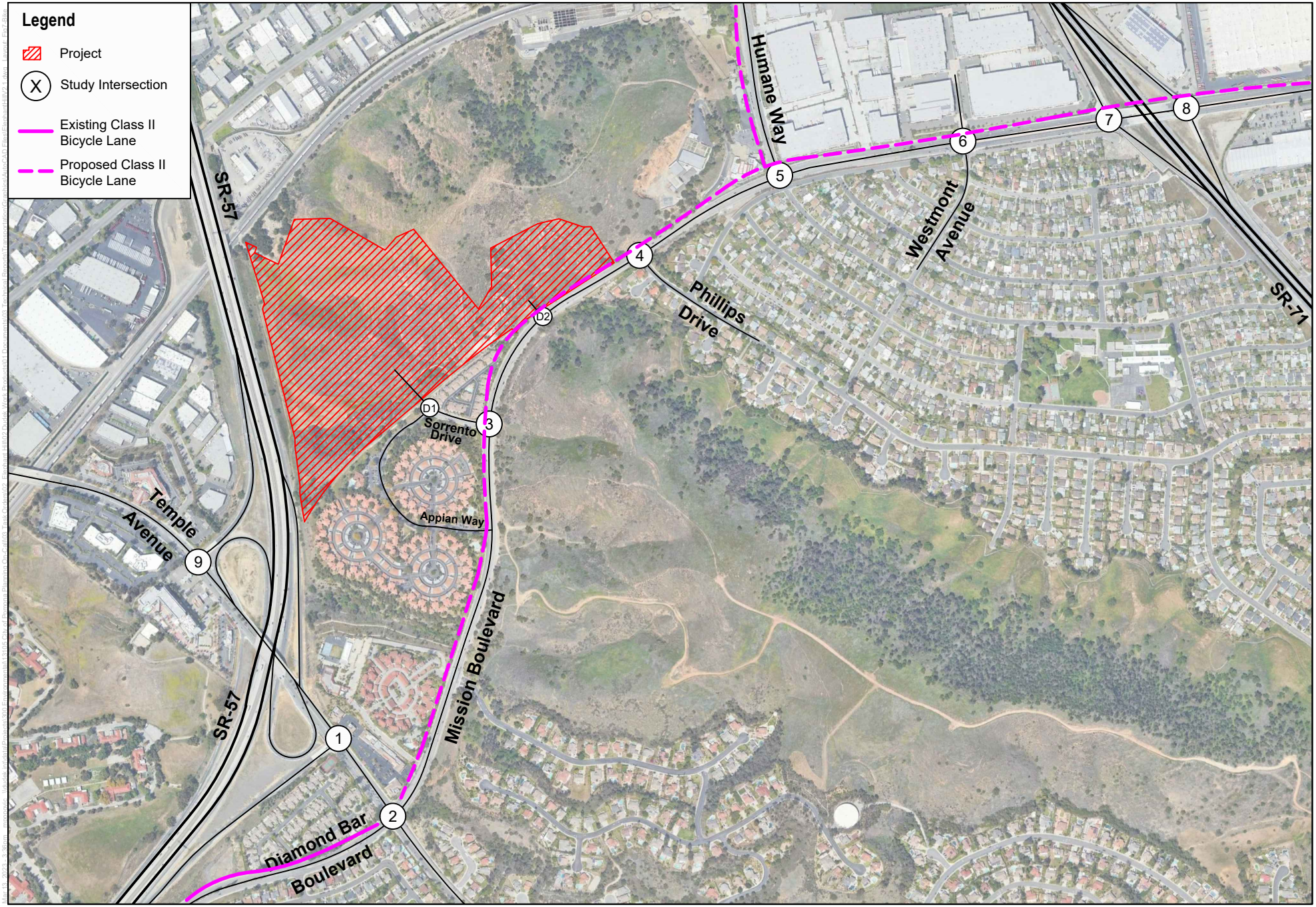
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FIGURE 6

Transit Facilities

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SOURCE: Google Maps 2021

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FIGURE 7

Bicycle Facilities (Existing and Proposed)

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4 Existing Year Traffic Conditions

This section presents the results of existing traffic conditions analysis that was conducted for the Year 2022 without and with project. This section describes conditions in the current year assuming the project construction would be complete the project would be fully operational.

4.1 Existing Year

Traffic Volumes

The existing traffic controls and geometrics at the study area intersections is shown in Figure 5. Existing weekday peak hour turning movement counts at the study intersection and roadway segments of Mission Boulevard and Sorrento Drive were collected in April 2022, on a typical non-holiday week while area schools were in-session. The AM and PM peak hour count at the SR-57 SB off-ramp/Temple Avenue intersection was collected in January, 2023. The counts were collected when COVID-19 restrictions were removed, and therefore no adjustments were made to the traffic counts.

This analysis focuses on the weekday daily, AM (7:00 a.m. to 9:00 a.m.) and the PM (4:00 p.m. to 6:00 p.m.) peak periods. The peak periods represent the highest volume of traffic for the adjacent street system. Raw traffic count worksheets are provided in Appendix A.

Existing weekday AM and PM peak hour volumes at the study area intersections are shown on Figure 8.

Intersection Operations

An intersection LOS analysis was prepared for the existing conditions using HCM 6 methodology via the Synchro LOS software. Table 3 shows the results of the existing conditions analysis. LOS worksheets are provided in Appendix C.

Table 3. Existing Peak Hour Intersection Level of Service

No.	Intersection	Control	Existing			
			AM Peak		PM Peak	
			Delay[1]	LOS	Delay[1]	LOS
1	SR-57 NB off-ramp/Temple Avenue	Signal	8.9	A	7.5	A
2	Mission Blvd - Diamond Bar Blvd/Temple Avenue	Signal	33.3	C	24.2	C
3	Sorrento Drive/Mission Blvd	Stop-Control	17.0	C	15.4	C
4	Phillips Drive/Mission Blvd	Signal	12.9	B	15.9	B
5	Humane Way/Mission Blvd	Signal	16.9	B	15.8	B
6	Westmont Avenue/Mission Blvd	Signal	22.2	C	24.7	C
7	SR-71 SB ramps/Mission Blvd	Signal	12.4	B	16.5	B
8	SR-71 NB ramps/Mission Blvd	Signal	35.5	D	11.1	B
9	SR-57 SB off-ramp/Temple Avenue[2]	Signal	21.0	C	32.7	C

Notes: LOS = level of service; SR = State Route

1 Delay in seconds per vehicle

2 This intersection was added per Caltrans facilities analysis requirements. The project would not add 50 or more peak hour trips to the intersection.

As shown in the table, all study area intersections currently operate at LOS C or better under existing conditions during both AM and PM peak hours. As the City's General Plan (City of Pomona 2014) indicates LOS D is adequate, these existing levels of service are consistent with the General Plan roadway operation goals.

4.2 Existing plus Project LOS

Traffic Volumes

This section documents effects on study area intersections related to project traffic under Existing plus project conditions. Existing traffic volumes are shown in Figure 9. The project's total trip assignment shown in Figure 4 for project traffic was added to the Existing traffic volumes (shown on Figure 8) to derive the Existing plus project traffic volumes. Figure 9 illustrates the Existing plus project traffic volumes.

Intersection Operations

An intersection operations analysis was conducted for the study area to evaluate the Existing plus project weekday AM and PM peak hour conditions. Table 4 shows the results of the Existing plus project LOS analysis and provides a comparison to the Existing (without project) conditions for the weekday peak hours using HCM methodology for intersections. Detailed LOS worksheets are included in Appendix D.

As shown in the table, the study area intersections are forecast to continue to operate at LOS D or better with the addition of the traffic from the project. Because study area intersections are forecast to operate at LOS D or better, the project would not cause any deficient LOS effects, and therefore no improvements are required.

Table 4. Existing Peak Hour Intersection Level of Service

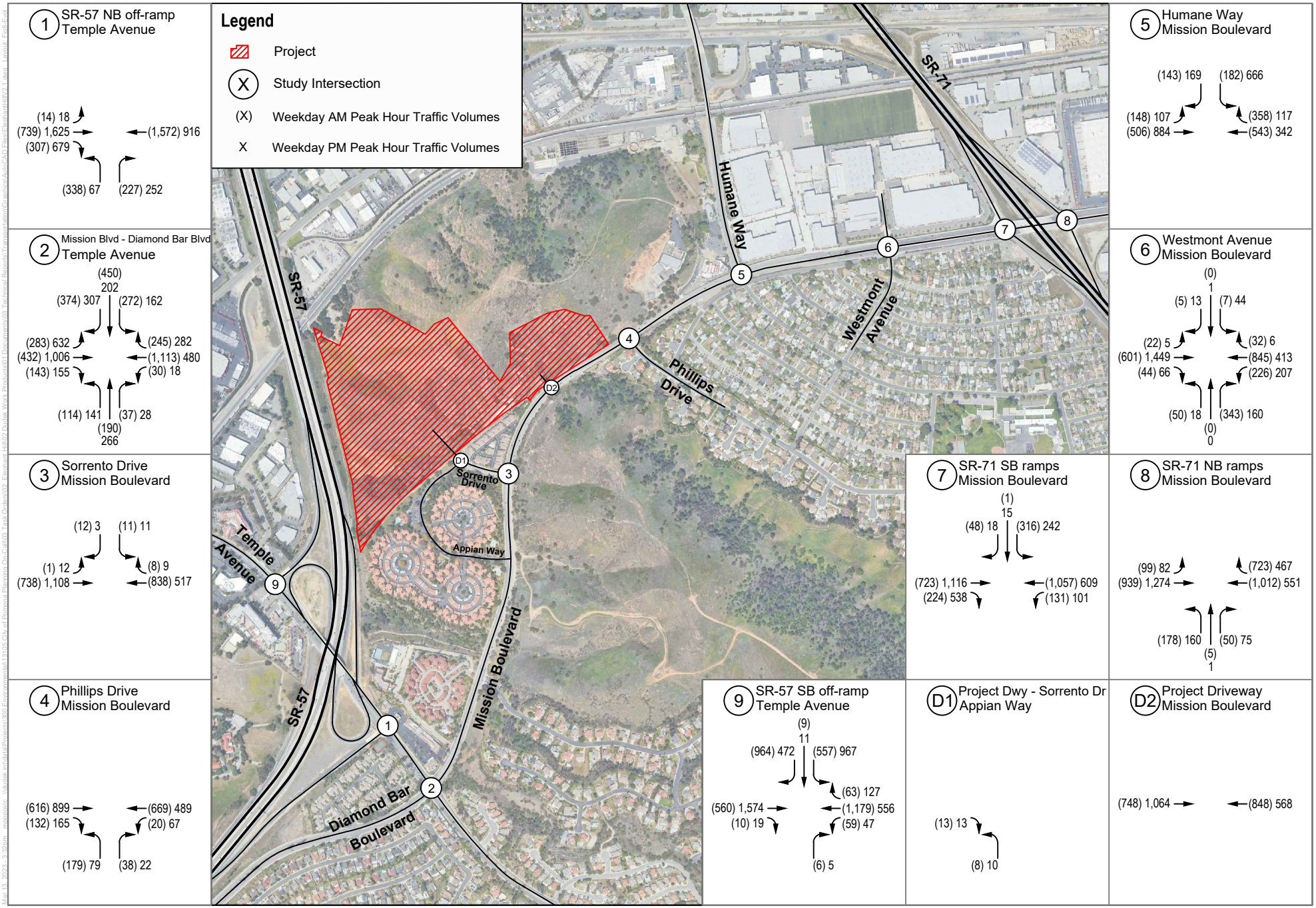
No.	Intersection	Control	Existing				Existing plus Project				Inconsistent with City's LOS criteria?
			AM Peak		PM Peak		AM Peak		PM Peak		
			Delay[1]	LOS	Delay[1]	LOS	Delay[1]	LOS	Delay[1]	LOS	
1	SR-57 NB off-ramp/Temple Avenue	Signal	8.9	A	7.5	A	9.0	A	7.6	A	No
2	Mission Blvd - Diamond Bar Blvd/ Temple Avenue	Signal	33.3	C	24.2	C	35.5	D	25.3	C	No
3	Sorrento Drive/Mission Boulevard	Stop-control	17.0	C	15.4	C	23.5	C	16.5	C	No
4	Phillips Drive/Mission Boulevard	Signal	12.9	B	15.9	B	13.2	B	16.3	B	No
5	Humane Way/Mission Boulevard	Signal	16.9	B	15.8	B	17.1	B	16.1	B	No
6	Westmont Avenue/Mission Boulevard	Signal	22.2	C	24.7	C	22.4	C	24.8	C	No
7	SR-71 SB ramps/Mission Boulevard	Signal	12.4	B	16.5	B	12.5	B	16.8	B	No
8	SR-71 NB ramps/Mission Boulevard	Signal	35.5	D	11.1	B	36.0	D	11.3	B	No
9	SR-57 SB off-ramp/Temple Avenue[2]	Signal	21.0	C	32.7	C	21.0	C	33.3	C	No
D1	Project Driveway - Sorrento Dr/ Appian Way	Stop-control	does not exist				8.8	A	8.8	A	No
D2	Project Driveway/Mission Boulevard	Stop-control	does not exist				15.5	C	14.1	B	No

Notes: LOS = level of service; SR = State Route.

1 Delay in seconds per vehicle

2 This intersection was added per Caltrans facilities analysis requirements. The project would not add 50 or more peak hour trips to the intersection.

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SOURCE: Google Maps 2021

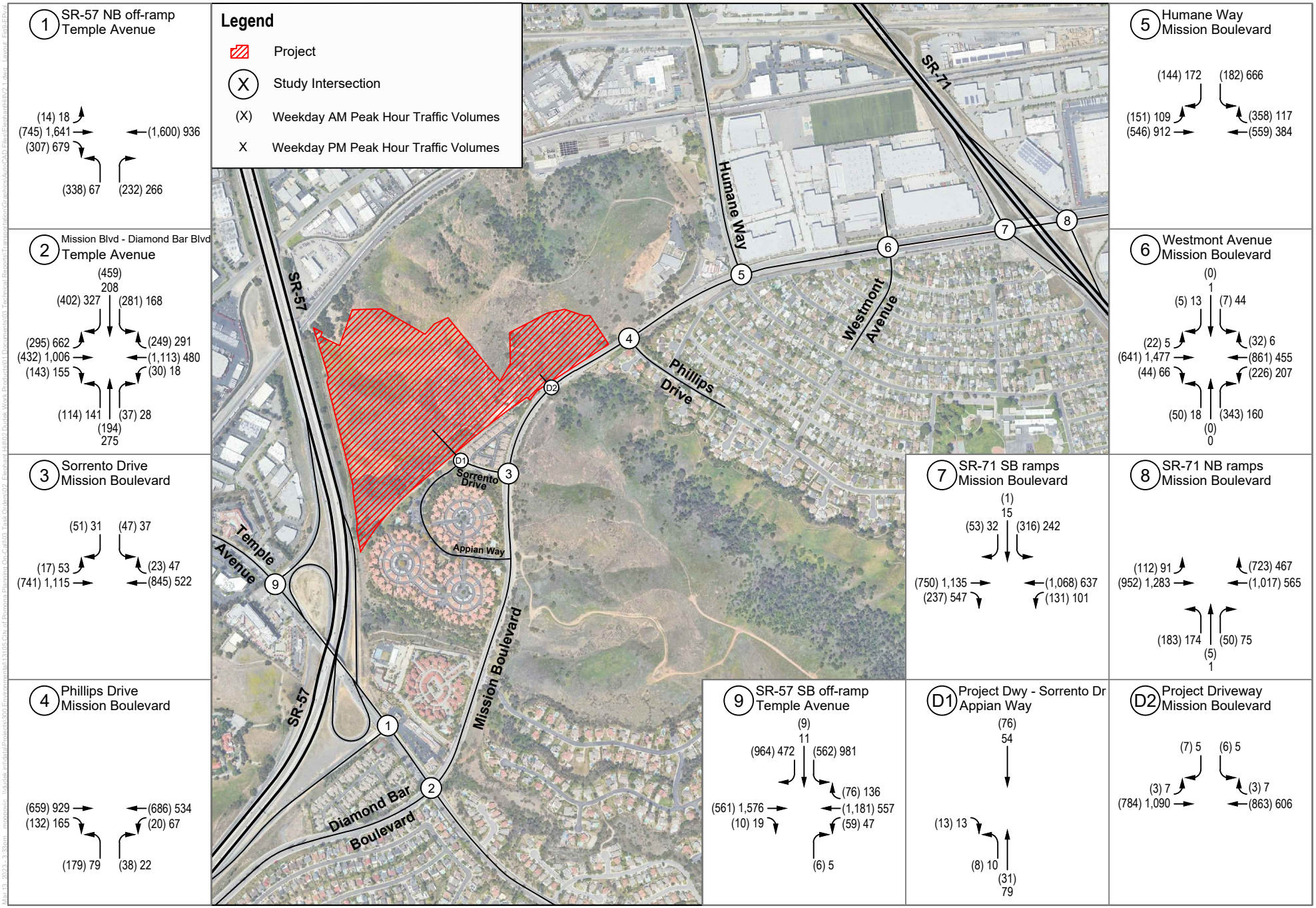
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FIGURE 8

Existing Peak Hour Traffic Volumes

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SOURCE: Google Maps 2021

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FIGURE 9

Existing plus Project Peak Hour Traffic Volumes

Elephant Hill Project

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5 Opening Year Traffic Conditions

This section presents the results of a cumulative condition analysis that was conducted for a short-term horizon year during the opening year of the project. This section describes conditions within the study area in the short-term (estimated to be Year 2027) when the project construction would be complete and the project would be fully operational.

5.1 Opening Year LOS

Traffic Volumes

The City recommends that for developments projected to generate fewer than 200 gross peak hour trips, the future project opening year base traffic volumes shall be estimated using an annual growth factor of 2% per year or as directed by the City Traffic Engineer. Therefore, as shown in the Traffic Study Scoping Form (Appendix A), the opening year traffic volumes were estimated by increasing the existing traffic counts by a growth factor of 2% per year recommended in the City's Transportation Study Guidelines.

The project's opening year is anticipated to be 2028. Therefore, a growth factor of 2% per year for a period of 6 years was applied to the peak-hour intersection volumes to reflect Year 2028 conditions. This growth would account for any growth that would occur in the study area and provide a conservative analysis of the project's opening year traffic conditions. The estimated opening year traffic volumes are shown in Figure 10 and were analyzed to provide an analysis of opening year intersection operations.

Intersection Operations

Table 5 shows the results of the Opening Year traffic conditions LOS analysis using HCM methodology for the study area intersections. Detailed LOS worksheets are included in Appendix E. As shown in Table 5, all study area intersections would continue to operate at LOS D or better under Opening Year conditions during both peak hours.

Table 5. Opening Year Peak Hour Intersection Level of Service

No.	Intersection	Control	Opening Year			
			AM Peak		PM Peak	
			Delay[1]	LOS	Delay[1]	LOS
1	SR-57 NB off-ramp/Temple Avenue	Signal	9.7	A	7.7	A
2	Mission Blvd - Diamond Bar Blvd/Temple Avenue	Signal	41.0	D	27.4	C
3	Sorrento Drive/Mission Boulevard	Stop-control	18.8	C	16.6	C
4	Phillips Drive/Mission Boulevard	Signal	13.3	B	17.7	B
5	Humane Way/Mission Boulevard	Signal	17.6	B	16.4	B
6	Westmont Avenue/Mission Boulevard	Signal	24.1	C	27.8	C
7	SR-71 SB ramps/Mission Boulevard	Signal	12.8	B	19.3	B
8	SR-71 NB ramps/Mission Boulevard	Signal	48.2	D	11.7	B
9	SR-57 SB off-ramp/Temple Avenue[2]	Signal	28.9	C	49.3	D

Notes: LOS = level of service; SR = State Route.

1 Delay in seconds per vehicle

2 This intersection was added per Caltrans facilities analysis requirements. The project would not add 50 or more peak hour trips to the intersection.

5.2 Opening Year plus Project LOS

Traffic Volumes

The project's trip assignment shown in Figure 4 for project traffic was added to the opening day traffic volumes (shown on Figure 10) to derive the Opening Year plus project traffic volumes. Figure 11 illustrates the volumes that were used to evaluate Opening Year plus project traffic conditions.

Intersection Operations

Table 6 shows the results of the Opening Year plus project traffic conditions LOS analysis using HCM methodology for the study area intersections. Detailed LOS worksheets are included in Appendix C. As shown in Table 5, the study area intersections are forecast to continue to operate at LOS D or better with the addition of the traffic from the project. Because study area intersections are forecast to operate at LOS D or better, the project would not cause any deficient LOS effects, and therefore no improvements are required.

Table 6. Opening Year plus Project Peak Hour Intersection Level of Service

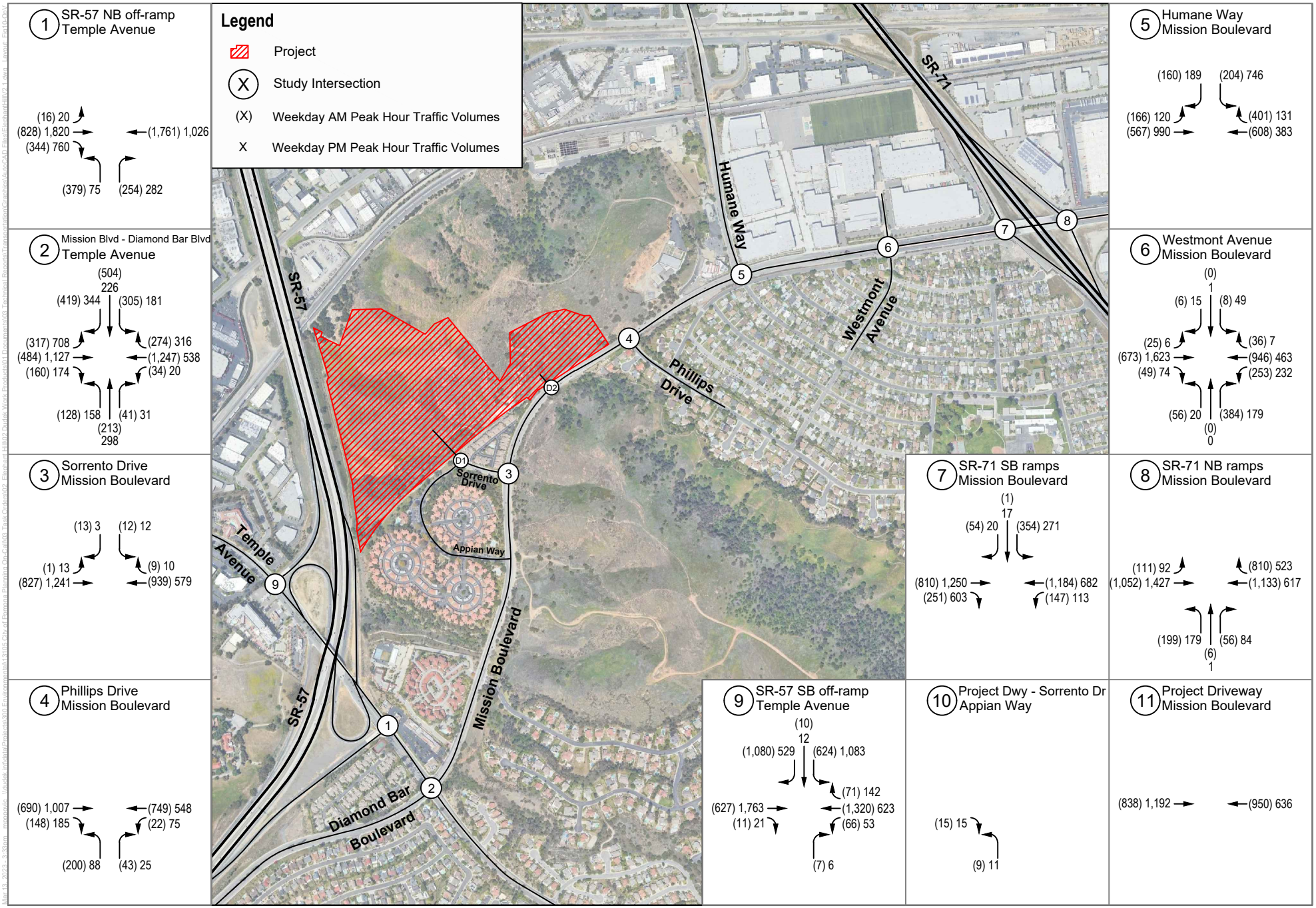
No.	Intersection	Control	Opening Year				Opening Year plus Project				Inconsistent with City's LOS criteria?
			AM Peak		PM Peak		AM Peak		PM Peak		
			Delay[1]	LOS	Delay[1]	LOS	Delay[1]	LOS	Delay[1]	LOS	
1	SR-57 NB off-ramp/ Temple Avenue	Signal	9.7	A	7.7	A	9.8	A	7.7	A	No
2	Mission Blvd - Diamond Bar Blvd/Temple Avenue	Signal	41.0	D	27.4	C	44.0	D	28.9	C	No
3	Sorrento Drive/ Mission Boulevard	Stop-control	18.8	C	16.6	C	27.5	D	17.8	C	No
4	Phillips Drive/ Mission Boulevard	Signal	13.3	B	17.7	B	13.6	B	18.4	B	No
5	Humane Way/ Mission Boulevard	Signal	17.6	B	16.4	B	17.8	B	16.7	B	No
6	Westmont Avenue/ Mission Boulevard	Signal	24.1	C	27.8	C	24.5	C	28.1	C	No
7	SR-71 SB ramps/ Mission Boulevard	Signal	12.8	B	19.3	B	12.9	B	19.9	B	No
8	SR-71 NB ramps/ Mission Boulevard	Signal	48.2	D	11.7	B	48.5	D	11.9	B	No
9	SR-57 SB off-ramp/Temple Avenue[2]	Signal	28.9	C	49.3	D	29.2	C	50.8	D	No
D1	Project Driveway - Sorrento Dr/Appian Way	Stop-control	does not exist				8.8	A	8.8	A	No
D2	Project Driveway/ Mission Boulevard	Stop-control	does not exist				16.7	C	14.9	B	No

Notes: LOS = level of service; SR = State Route.

1 Delay in seconds per vehicle

2 This intersection was added per Caltrans facilities analysis requirements. The project would not add 50 or more peak hour trips to the intersection.

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SOURCE: Google Maps 2021

FIGURE 10

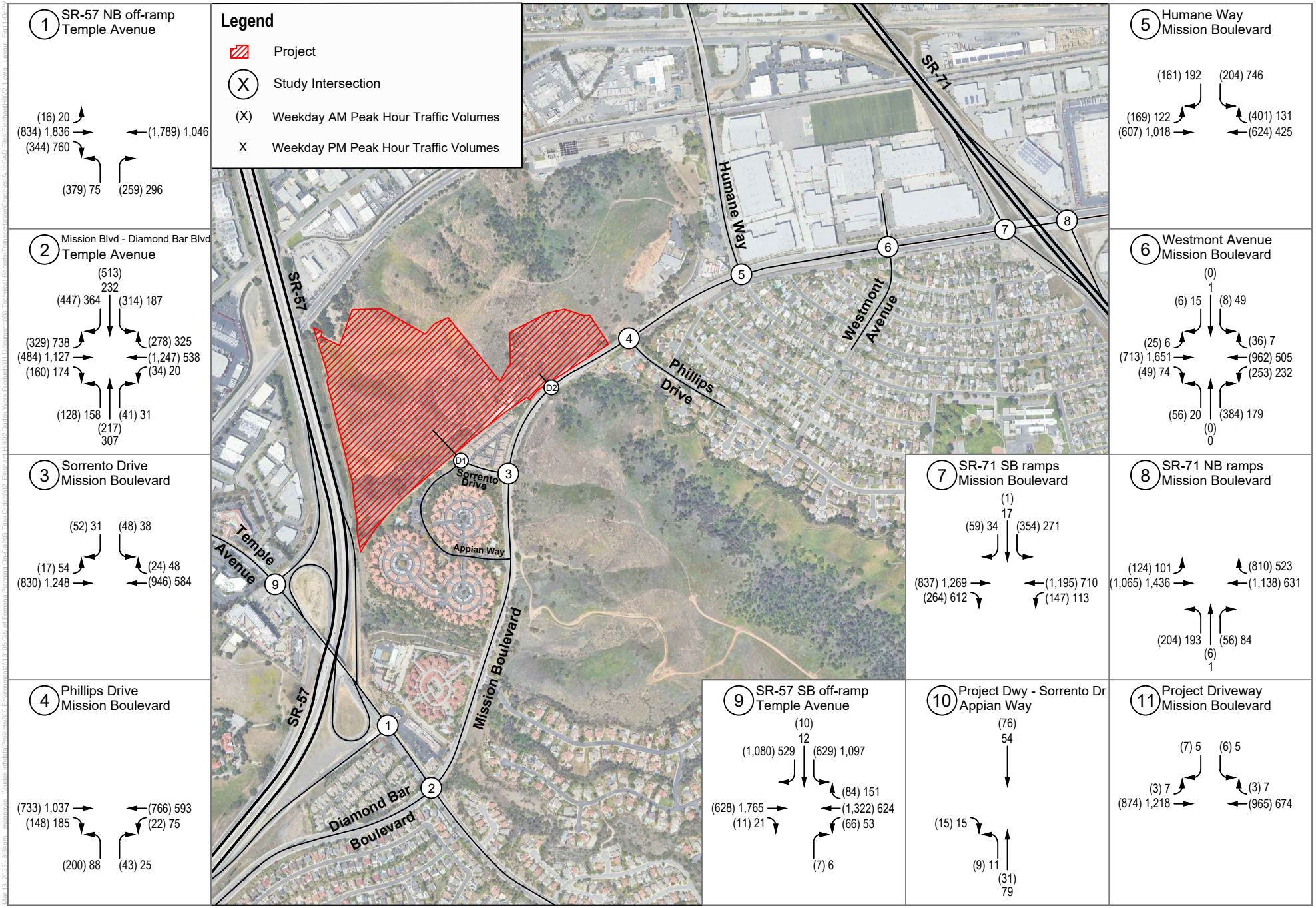
Opening Year Peak Hour Traffic Volumes

Elephant Hill Project

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SOURCE: Google Maps 2021

FIGURE 11

Opening Year plus Project Peak Hour Traffic Volumes

Elephant Hill Project

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6 Access, Signal Warrant, Sight Distance, and Other Operational Characteristics

This section provides an evaluation of the project's access, circulation and parking, signal warrant analysis to determine operational improvement requirements and sight distance analysis at project driveways to ensure safety of all road users.

6.1 Project Access, Circulation, and Parking

As shown on the site plan, two full-access project access driveways are proposed for the project. The access driveway from Sorrento Drive would provide access to Areas 1, 2, and 3 and the driveway from Mission Boulevard would provide access to Area 4. The levels of service results at the two project access driveways are provided in Table 4 for Existing plus project conditions and Table 6 for Opening Year plus project conditions. Both driveways would provide full-access, and due to low volumes, the vehicles would not experience substantial delays. The LOS analysis above indicates that both project driveways would operate at LOS C or better during both AM and PM peak hours. The detailed LOS worksheets for project access driveways are included in Appendix D and F.

As discussed in the traffic signal warrant analysis below, the Sorrento Drive/Mission Boulevard intersection would warrant signalization under Existing plus project conditions.

On-site circulation and access to Areas 1,2,3, and 4 of the project will be provided by a network of local streets and private driveways or alleys (see Figure 2). The details of the street and driveway cross-sections are included on the project's Tentative Tract Map 72653. The on-site local streets and driveways will be designed per City's Standard Drawings and requirements of the Fire Code. As such, the local streets connect all the private driveways and alleys in Areas 1,2,3, and 4 and provide turn arounds for fire truck and apparatus to access all parts of the site. Additionally, the site plan review and fire code review will address any deficiencies identified in access requirements for the project.

The project would be responsible for constructing sidewalks along internal roadways and along Area 4 frontage along Mission Boulevard and connect to the existing sidewalk that leads to Sorrento Drive. The project would also install crosswalks to improve pedestrian circulation at the Sorrento Drive/Mission Boulevard intersection.

The parking ratio used to calculate on-site parking requirements is consistent with the R-3 zone (medium density residential) as described in Section 503-H-D.I. Property Development Standards for R-3 Multiple Family Zones of the Pomona Zoning Code (City of Pomona March 2012). Per code, at least two parking spaces in a private garage per dwelling unit and one guest parking space per very four dwelling units (or 0.25 guest parking space per unit) throughout the development would be required for the project. This results in a parking ratio of 2.25 spaces per unit. The project would require a total of 513 parking spaces (i.e., 456 covered spaces and 57 uncovered spaces) for 228 dwelling units. The project would provide a total of 666 parking spaces including 456 covered and 210 uncovered parking spaces. As such, the project would provide adequate or above code parking spaces.

6.2 Signal Warrant Analysis

A peak hour traffic signal warrant was reviewed under AM and PM peak hour conditions for Existing and Opening Year conditions with and without project, to determine whether the installation of a traffic signal may be warranted at the Sorrento Drive/Mission Boulevard and Driveway 2/Mission Boulevard intersections.

It should be ne noted that the unsignalized intersections of Sorrento Drive/Mission Boulevard and Driveway 2/ Mission Boulevard have acceptable operating conditions with the addition of project traffic under both Existing and Opening Year conditions. However, per City's requirement for analysis of unsignalized intersection and adding a new driveway along an arterial road, a traffic signal warrant analysis has been conducted. Appendix G includes a detailed investigation of the need for a traffic signal per currently available version of California Manual of Uniform Traffic Control Devices (Caltrans 2014). An evaluation of Warrants 1 through 10 for the Sorrento Drive/Mission Boulevard is provided in Appendix G. Driveway 2/ Mission Boulevard was evaluated only for the peak hour because of limited data available for this proposed driveway along Mission Boulevard. Appendix G includes traffic signal warrant analysis for the following warrants at the Sorrento Drive/Mission intersection under the Existing and Existing plus project conditions.

Table 7. Summary of Signal Warrant Analysis –Sorrento Drive/Mission Boulevard

Signal Warrant	Warrant Met?
Warrant 1, Eight-Hour Vehicular Volume:	Satisfied under Existing plus Project Conditions
Warrant 2, Four-Hour Vehicular Volume:	Satisfied under Existing plus Project Conditions
Warrant 3, Peak Hour:	Partially Satisfied under Existing plus Project Conditions
Warrant 4, Pedestrian Volume:	Not Satisfied
Warrant 5, School Crossing:	Not Applicable
Warrant 6, Coordinated Signal System:	Not Applicable
Warrant 7, Crash Experience:	Partially Satisfied under Existing and Existing plus Project Conditions
Warrant 8, Roadway Network:	Not Satisfied
Warrant 9, Intersection Near a Grade Crossing:	Not Applicable
Warrant 10, Criteria for School Crossings Traffic Signals	Not Applicable

Source: CA MUTCD 2014 Edition

Based on the detailed signal warrant analysis and summary provided in Table 7 above, it is recommended that a traffic signal be installed at the Sorrento Drive/Mission Boulevard intersection.

The Peak Hour Signal Warrant (warrant 3, 70% Factor) is shown in Table 8. Since the posted speed limit along Mission Boulevard exceeds 40 mph, the 70% factor criteria for peak hour warrant was used. The peak hour volume on minor street approach (one direction only) should equal or exceed 75 vehicles per hour (vph) for one lane of traffic to warrant a traffic signal.

As shown in Table 8, under the Existing plus project conditions and Opening Year plus project conditions, the project would add trips to Sorrento Drive/Mission Boulevard intersection. However, the minor street approach (i.e., Sorrento Drive), would equal the 75 vph threshold during the AM peak hour under Existing plus project

conditions during the AM peak hour. Therefore, the intersection would meet the peak hour signal warrant under Opening Year plus project conditions during the AM peak hour.

Table 8. Peak Hour Signal Warrant Analysis–Sorrento Drive/Mission Boulevard

Scenario	Major Street[1]	Minor Street[2]	Warrant Met?
	Mission Boulevard (2-lane Approach)	Sorrento Drive (1-lane Approach)	
Existing AM	1,585	23	No
Existing PM	1,646	14	No
Existing plus project AM	1,626	98	Yes
Existing plus project PM	1,737	68	No

Source: CA MUTCD 2014 Edition
Notes:
1 Traffic volume for the Major Street approach is the total volume of both approaches.
2 Traffic volume for the Minor Street approach is the highest volume approach.

Driveway 2 would be constructed and operational only under plus project conditions. As shown in Table 9, under the Opening Year plus project conditions, the project would add trips to project Driveway 2/Mission Boulevard intersection. However, the minor street approach (i.e., project driveway), is below the 75 vph threshold during both peak hours under Opening Year plus project AM and PM conditions. Therefore, the project Driveway 2/Mission Boulevard intersection would not meet the peak hour signal warrant. Based on the low traffic and pedestrian volumes, it is anticipated that this driveway would not meet any other traffic signal warrant. Therefore, a traffic signal would not be warranted at the project Driveway 2/Mission Boulevard intersection.

Table 9. Peak Hour Signal Warrant Analysis–Project Access/Mission Boulevard

Scenario	Major Street[1]	Minor Street[2]	Warrant Met?
	Mission Boulevard (2-lane Approach)	Project Driveway (D2) (1-lane Approach)	
Opening Year plus project AM	1,845	13	No
Opening Year plus project PM	1,906	10	No

Source: CA MUTCD 2014 Edition
Notes:
1 Traffic volume for the Major Street approach is the total volume of both approaches.
2 Traffic volume for the Minor Street approach is the highest volume approach.

6.3 Sight Distance Analysis

A sight distance analysis was conducted using the methodology from the American Association of State Highway Transportation Officials' (AASHTO 2018) Geometric Design of Highways and Streets ("Green Book") and the City of Pomona Public Works Department Standard Drawings A-34-11 Intersection Sight Distance (August 2011). Stopping sight distance is the distance needed for a vehicle traveling at a specified design speed to react, assess, and then stop when an object crosses its path of travel. Sight distance for vehicles entering a major road from a driveway or minor road should exceed stopping sight distance to enhance traffic operations and provide sufficient sight distance to anticipate and avoid collisions. Therefore, sight distance for project access driveways was determined by using City's standards for corner sight distance and stopping sight distance as shown in Table 10.

The posted speed limit on Mission Boulevard near Philips Drive is 50 mph, and the design speed in the project vicinity was assumed to be 55 mph. The adequacy of corner sight distance at Sorrento Drive/Mission Boulevard intersection and stopping sight distance at Driveway 2/Mission Boulevard were evaluated.

Table 10. Sight Distance Standards for City of Pomona

Design Speed (mph)	Public Streets[1] Corner Sight Distance (feet)	Private Roads and Driveway[2] Stopping Sight Distance (feet)
50	550	430
55	605	500
60	660	580

Source: City of Pomona Public Works Department Intersection Sight Distance Standard STD. No. A-34-11
Notes:
1 Sorrento Drive is a Public Streets, therefore Corner Sight Distance is used in the analysis.
2 Project Driveway 2 would constructed per standards of a Private Road, therefore Stopping Sight Distance is used in the analysis.

Figure 12, Sight Distance - Sorrento Drive/ Mission Boulevard Intersection and Figure 13 Sight Distance – project Driveway 2/Mission Boulevard Intersection, illustrates the sight distance analysis at the proposed project driveways.

As shown on the Figure 12, for vehicles turning left or right from Sorrento Drive, recommended corner sight distance along Mission Boulevard would be 605 feet for design speed of 55 mph. The intersection has an adequate corner sight distance to allow vehicles to exit Sorrento Drive and make a left or right turn and travel eastbound or westbound along Mission Boulevard.

As shown on the Figure 13, for vehicles turning left or right from project Driveway 2, recommended stopping sight distance along Mission Boulevard would be 500 feet for design speed of 55 mph. The proposed project driveway would have adequate stopping sight distance to allow vehicles traveling along Mission Boulevard to safely stop to allow a vehicle exiting from the project driveway. However, some existing shrubs or trees that could potentially encroach the sight line, therefore, it is recommended that vegetation be reviewed in the field and trimmed appropriately to provide the clear 500-foot sight distance.

As shown on Figures 12 and 13, the sight distance triangles do not indicate any obstruction. It is recommended that within the sight triangle of Driveway 2 any signage such as stop sign or monument sign be installed outside of the sight triangle and any proposed landscaping near the access driveway be height restricted.

6.4 Traffic Calming

As mentioned in its General Plan (City of Pomona 2014), the City will consider developing a program to consistently identify appropriate traffic calming measures throughout Pomona. The City requested that installation of traffic calming strategies or measures be considered along the roadway segment of Mission Boulevard in the vicinity of the project site. Traffic calming strategies include adding physical design features to the traveled way in an effort to control vehicle speeds, moderate driver behavior, and improve general safety for all street users. Examples of traffic calming tools include traffic circles, curb bulb-outs, pavement material changes, narrower roadway widths, on-street bicycle lanes, and parking lane striping.

As mentioned in the General Plan's Mobility and Access chapter, there is additional capacity along the four-lane roadway of Mission Boulevard, because the average daily traffic is less than 22,000 vehicles. Additionally, the LOS analysis shows that all study area intersections operate acceptably under Existing and Opening year conditions with and without the project. Therefore, per City's General Plan, a road diet can be implemented along this roadway as

a traffic calming measure by reducing the number of travel lanes and accommodating bicycle lanes, on-street parking, wide medians, wide sidewalks, and/or other streetscape improvements.

Mission Boulevard has a posted speed limit of 45 to 50 mph in the vicinity of the project. Pedestrian and bicycle volumes at Sorrento Drive and Philips Drive intersections along Mission Boulevard were observed to be nominal. The project does not have frontage along the entire Mission Boulevard segment to construct the missing sidewalks. Additionally, construction of sidewalk along Mission Boulevard to fill missing gaps along the north side has been considered. While still under review, the installation of sidewalk along this segment of Mission Boulevard may not be feasible. Portions of this roadway abut a slope where major cuts would potentially be required to provide a sidewalk. In addition, potential rockfall or slope stability could affect safety. Per discussion with the City, it was indicated that currently there are no plans to install a bicycle facility along Mission Boulevard in the near-term but the City ultimately envisions a bike route along this segment.

A review of collision data from the Transportation Injury Mapping System was conducted for Mission Boulevard near its intersection with Sorrento Drive, Phillips Drive and Appian Way for the period between 2019 and 2021. The reason for most crashes reported at these locations was improper turning or signal violation. Crash and collision data summary reports are provided in Appendix H.

Although not considered a traffic calming measure, installation of a signal and associated intersection improvements would facilitate better traffic control and operation along Mission Boulevard in the vicinity of the project. Adjusting signal timing to a shorter cycle length would facilitate slower speeds and lessen tendency of vehicles to operate at higher speeds along Mission Boulevard. A potential traffic calming measure that can also be used to enhance the pedestrian connectivity in the vicinity of the project is striping a pedestrian crosswalk along the west leg at the Sorrento Drive/Mission Boulevard intersection. It is also recommended that the existing striping/roadway markings along Mission Boulevard be improved from the project access driveway (D2) to north of the Sorrento Avenue/Mission Boulevard intersection, in the vicinity of the project site. The City could also review including edge lines to reduce the perceived width of the roadway as a possible traffic calming measure.

Additionally, installation of speed radar signs along Mission Boulevard near its intersection with Sorrento Drive/ Mission Boulevard intersection is recommended as a measure to monitor and reduce speeds along this roadway. This measure will also support traffic calming along Mission Boulevard.

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SOURCE: Google Maps 2021; AutoTurn Pro 11

FIGURE 12

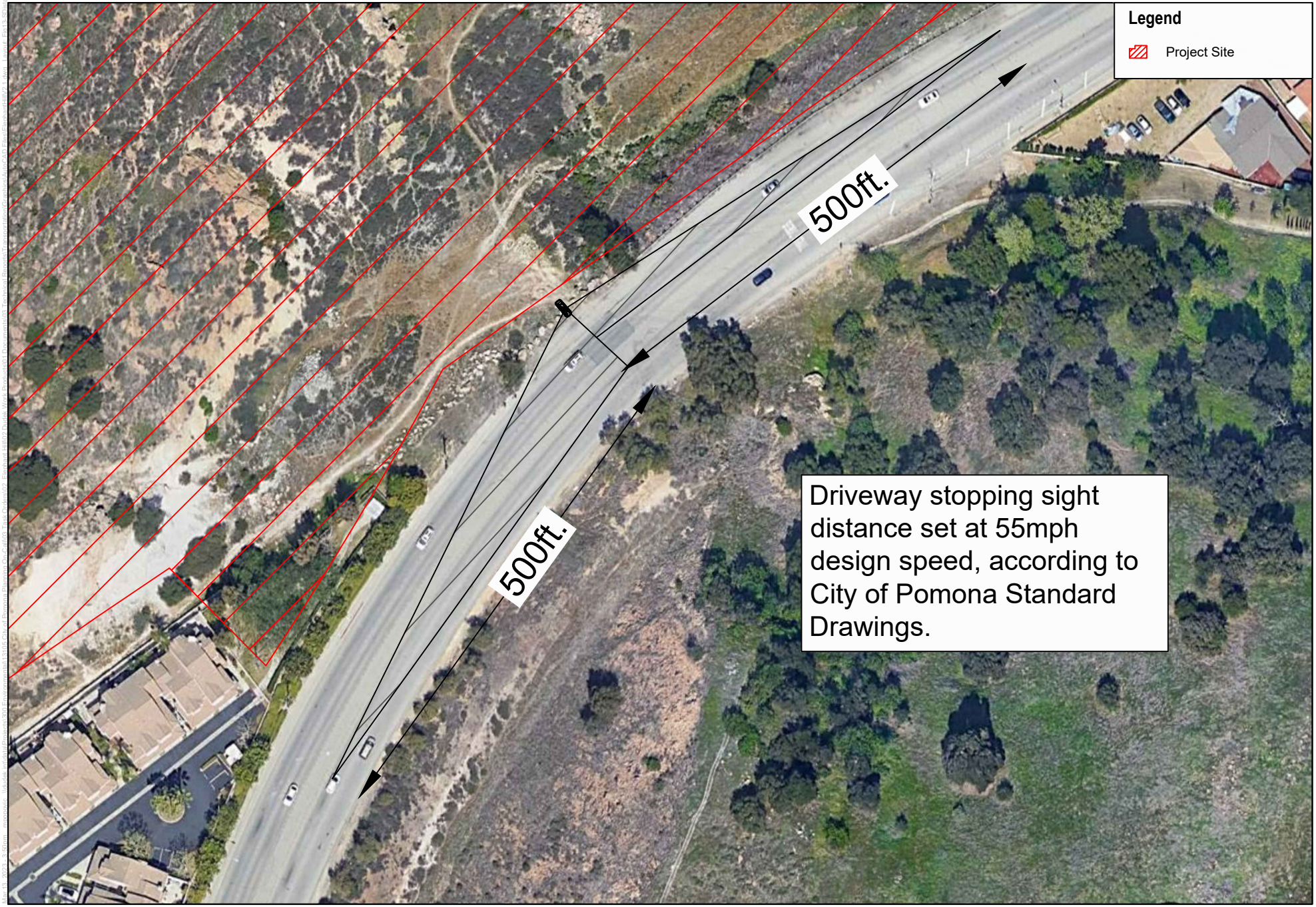
Sight Distance - Sorrento Drive/Mission Boulevard Intersection

Elephant Hill Project

DUDEK

Not to Scale

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SOURCE: Google Maps 2021; AutoTurn Pro 11

FIGURE 13

Sight Distance – Project Driveway 2/Mission Boulevard Intersection

Elephant Hill Project

DUDEK

Not to Scale

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7 Vehicle Miles Traveled Analysis

7.1 Background and Methodology

OPR approved the addition of new Section 15064.3, "Determining the Significance of Transportation Impacts" to the State's CEQA Guidelines, compliance with which was required beginning July 1, 2020. The Updated CEQA Guidelines state that "…generally, vehicle miles traveled (VMT) is the most appropriate measure of transportation impacts…" and define VMT as "…the amount and distance of automobile travel attributable to a project…". It should be noted that "automobile" refers to on-road passenger vehicles, specifically cars and light trucks. Heavy-duty truck VMT could be included for modeling convenience and ease of calculation (for example, where models or data provide combined auto and heavy truck VMT). Other relevant considerations may include the effects of the project on transit and non-motorized travel.

Section 15064.3 (b)(1), Criteria for Analyzing Transportation Impacts, includes presumptions that certain projects (including residential, retail, office, and mixed-use projects) proposed within 0.5 miles of an existing major transit stop or along a high-quality transit corridor will have a less-than-significant impact on VMT. Projects that decrease vehicle miles traveled in the project area compared to existing conditions should be presumed to have a less than significant transportation impact. If the specified presumption does not apply, VMT should be analyzed through a qualitative or quantitative analysis. The Updated CEQA Guidelines are accompanied by the Technical Advisory (OPR Technical Advisory), which includes specifications for how to estimate and forecast VMT and provides lead agencies suggestions regarding methodologies to analyze VMT associated with a project. However, CEQA generally defers to lead agencies on the choice of methodology to analyze impacts.

As mentioned in Chapter 1, SGVCOG VMT Tool for the sole use of SGVCOG member agencies such as City of Pomona has been utilized in screening and VMT analysis of the project.

The SGVOCG screening tool (available at https://apps.fehrandpeers.com/SGVCOGVMT/) and the following steps have been used in the project's VMT assessment:

- Identify the Accessor Parcel Number (APN)[2] or TAZ [3]and jurisdiction associated with the project location.
- Determine if the project meets screening criteria related to being located within a transit priority area[4].
- Determine if project meets screening criteria related to being located within a low VMT-generating TAZ.

[2] APNs are numbers assigned to parcels of real property by the tax assessor of a particular jurisdiction for purposes of identification and record-keeping.

[3] TAZs are geographic polygons similar to Census block groups used to represent areas of homogenous travel behavior within a travel demand model.

[4] A TPA is defined as a half mile area around an existing major transit stop or an existing stop along a high quality transit corridor per the definitions below. PRC Section 21099(a)(7) and PRC Section 21064.3 - 'Major transit stop' means a site containing an existing rail transit station, a ferry terminal served by either a bus or rail transit service, or the intersection of two or more major bus routes with a frequency of service interval of 15 minutes or less during the morning and afternoon peak commute periods. It should be noted that this interval for headways for major transit stop was amended from 15 to 20 minutes per AB 2553 in September 2024.
PRC Section 21155 - For purposes of this section, a 'high-quality transit corridor' means a corridor with fixed route bus service with service intervals no longer than 15 minutes during peak commute hours.

- Determine if the project meets project type screening criteria such as projects generating less than 110 daily vehicle trips[5], local serving uses retail, schools and parks, affordable housing, assisted living facilities etc. A list of screened projects is provided in the City's Transportation Study Guidelines.
- If a project does not screen out, then provide baseline estimates of project generated VMT based on TAZ VMT averages and compare to the subarea VMT average to determine significance of VMT impact and estimate reductions required to mitigate the impact.

7.2 VMT Screening

The City's recently adopted guidelines includes methodology, screening criteria, analysis procedures and mitigation measures for conducting a CEQA VMT analysis for projects located within the City. There are three types of screening that may be applied to screen projects from conducting a detailed project-level assessment:

A. **Transit Priority Area (TPA) Screening:** projects located within a TPA may be presumed to have a less than significant impact absent substantial evidence to the contrary. Foothill Transit provides bus service within approximately ½ mile of the project The bus stops located at the intersection of Mission Boulevard/ Westmont Avenue, along Mission Boulevard, just east of Humane Way for Routes 286 and 480 meet the definition of a major transit stop because of the 20-minute headway between the two service routes. However, a portion of undevelopable part of the project site is within a ½ mile of these bus stops. Additionally, the project is located in a high VMT area per SGVCOG VMT tool, it does not include 100% affordable housing and provides vehicular parking per code requirements. Therefore, substantial evidence does not support the presumption of a less than significant VMT impact per TPA screening.

B. **Project Type Screening:** Some project types such as local-serving retail, schools, parks, assisted living, senior housing, and projects generating less than 110 daily trips may be presumed to have a less than significant impact absent substantial evidence to the contrary. The proposed project is not screened out using project type criteria. As shown in Table 2, using the ITE trip rates, the project is estimated to generate a total of 1,793 daily trips. Therefore, the project cannot be screened out using 110 daily project trips criterion.

C. **Low VMT Area Screening:** Residential and office projects located within a low VMT-generating area may be presumed to have a less than significant impact absent substantial evidence to the contrary. In addition, other employment-related and mixed-use land use projects may qualify for the use of screening if the project can reasonably be expected to generate VMT per resident, per worker, or per service population that is similar to the existing land uses in the low VMT area. As shown in the VMT analysis below, the project would not be screened out using the SGVCOG VMT Evaluation tool.

Overall, the project is not screened out of VMT analysis. As such, the VMT analysis of the project is provided in Section 7.3 below.

[5] This threshold ties directly to the OPR technical advisory and notes that CEQA provides a categorical exemption for existing facilities, including additions to existing structures of up to 10,000 square feet, so long as the project is in an area where public infrastructure is available to allow for maximum planned development and the project is not in an environmentally sensitive area. (CEQA Guidelines, Section 15301[e][2]). Typical project types for which trip generation increases relatively linearly with building footprint (i.e., general office building, single tenant office building, office park, and business park) generate or attract an additional 110 – 124 trips per 10,000 square feet. Therefore, absent substantial evidence otherwise, it is reasonable to conclude that the addition of 110 or fewer trips could be considered not to lead to a significant impact.

7.3 VMT Analysis

The SGVCOG tool uses the SCAG travel forecasting model to measure VMT performance for individual TAZs. The VMT Screening Tool published by SGVCOG was used to determine the VMT of TAZ in which the proposed project is located. Because the project is proposing residential use, the home-based VMT per capita[6] at the TAZ level was used for comparing with the VMT thresholds at subarea level. There are existing residential uses in the project's TAZ. Therefore, the project's TAZ and corresponding VMT per capita would provide a reliable estimate of project's VMT under baseline conditions. Hence, as discussed with the City, it was determined that a project-specific travel demand run would not be necessary for the proposed project.

The project site is designated as Urban Neighborhood and open space by the City's General Plan. The project is consistent with the existing and proposed land use per the General Plan.

Appendix J provides the SGVCOG VMT Evaluation Tool Report. The project is located within TAZ 22418200 of the SCAG model and is comprised of 3 APNs. Both of the project's parcels, APNs 8707-021-058, 8707-020-008 and 8707-020-001, are located in TAZ 22418200 of the SCAG model. As shown in Table 11, the home-based VMT per capita of this TAZ is 26.18 which is higher than the SGVCOG Southeast subarea baseline VMT of 19.50. Per City's VMT impact criteria, a project would result in a significant impact because the VMT per capita generated by the project exceeds a level of 15% below the SGVCOG Southeast Subarea baseline VMT for the traffic analysis zone where the project is located. Because the project generated home-based VMT per capita exceeds the baseline VMT, the project is considered to have a significant VMT impact.

Table 11. Project VMT Summary

Criteria	Home-based VMT per capita
Subarea Average (Baseline) VMT	22.94
VMT Threshold (15% below Baseline)	19.50
Project VMT	26.18
VMT with Reduction Measures	25.58
Potentially Significant Impact with Mitigation	**Yes**

Note: VMT - Vehicle Miles Traveled

The VMT threshold (15% less than sub areas baseline VMT of 22.94) is 19.50 and therefore, as shown in Table 11 Project VMT Summary, the project would require a reduction from 26.18 VMT per capita to 19.50 VMT per capita or below to result in a less-than-significant VMT impact.

7.4 VMT Reduction Measures

Per City's Transportation Study Guidelines, following mitigation strategies can be considered to reduce VMT impacts:

1. Modify the project's-built environment characteristics to reduce VMT generated by the project.
2. Implement Transportation Demand Management measures to reduce VMT generated by the project.

[6] All home-based auto vehicle trips and hence VMT are traced back to the residence of the trip-maker (non-home-based trips are excluded) and then divided by the population within the geographic area to get the efficiency metric of home-based VMT per capita (or per resident).

3. Participate in a VMT fee program[7] and/or VMT mitigation exchange/banking program[8] to reduce VMT from the project or other land uses to achieve acceptable levels.

The VMT reductions should be evaluated as part of the VMT impact analysis using state-of-the-practice methodologies recognizing that many of the Transportation Demand Management strategies are dependent on building tenant performance over time. As such, actual VMT reduction cannot be reliably predicted, and monitoring may be necessary to gauge performance related to mitigation expectations.

Dudek coordinated with the City and the applicant to determine the appropriate VMT reduction strategies for the project. The updated SGVCOG VMT Tool uses the 2021 California Air Pollution Control Officers Association (CAPCOA) Handbook for Analyzing Greenhouse Gas Emission Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Safety, which has actions and changes to project features that reduce VMT. This tool includes transportation measures at the project/site scale and/or at the plan/community scale that can be combined. Transportation measures are also separated into six subsectors: Land Use, Neighborhood Design, Trip Reduction Programs, , Transit, and Parking or Road Pricing/Management,. Appendix J includes the project's VMT summary with VMT reduction strategy.

[7] Per recently amended AB 1244 (April 23,2025), a development project required to mitigate transportation impacts could elect to contribute an amount, at a price per vehicle miles traveled (VMT), for purposes of the Transit Oriented Development (TOD) program. This bill authorizes a project, to the extent the project is required to mitigate transportation impacts as determined by VMT, to satisfy the mitigation requirement by electing to contribute an amount, at a price per VMT to be determined, by July 1, 2026, by the Office of Land Use and Climate Innovation (LCI), to the TOD Implementation Fund for purposes of the TOD Implementation Program or the Affordable Housing and Sustainable Communities Program (AHSC). These funds shall be available to the Department of Housing and Community Development (HCD), upon appropriation by the Legislature, to fund developments located within the same region as the project, in a specified priority order. The bill requires HCD to post on its website, as part of the list of TOD Implementation Program awards posted to its website at the conclusion of each funding round, all of the following information:

(a) the name, location, and number of units in each development funded;
(b) the total development cost and the amount of funds awarded to each development, including the amount of funds contributed pursuant to this bill;
(c) the reduction in VMT estimated for each development and attributable to the award using the same method as that employed for AHSC; and
(d) the VMT mitigation obligations of each project that contributed funds pursuant to this bill awarded during that round.

As such, adequate information about the program is not available at the time of this writing to implement this fee for the project. However, the City may consult with HCD in the near future for applicability of this program to development projects to mitigate VMT impacts of projects.

[8] Previously, SGVOCG has prepared a Mitigation Program Feasibility Study Findings (May 21,2023) report which consists of a review of possible VMT mitigation program, a discussion of administration options, process options for identifying and selecting projects, and potential risks. The preferred framework identified by the participating cities in the SGVCOG region is VMT mitigation bank which would allow VMT fees to be pooled to implement larger projects or programs similar to traditional "fair share" calculations to mitigate LOS impacts. A VMT Bank can include a prequalified primary list of capital improvements and quantifiable programmatic actions (e.g., subsidized transit passes, carpool programs) that have substantial evidence to demonstrate a VMT reduction. The costs of all the mitigation actions on the primary list would be summed up, along with the total VMT reduction of all mitigation actions and divided to establish a VMT reduction credit and associated price. Applicants would then pay a per-VMT cost for as many VMT credits as they need, which would include administrative costs as a fixed percentage. An applicant could claim full mitigation if that applicant pays for full VMT reduction amount needed from the primary list. More risk and ongoing monitoring and reporting is associated with programmatic mitigation actions compared to capital improvements.
After a detailed and thorough analysis of proposed projects in the region, the study found that there is insufficient demand for development to warrant a pilot project and has recommended that SGVCOG withhold from conducting a pilot program until or unless development activity warrants it. At this time, SGVCOG will continue to monitor and participate in other regional efforts to explore similar VMT mitigation program concepts.

Based on the review of applicable trip reduction measures to the project and discussion with the City and the applicant, the following measures have been selected to include in the tool to estimate VMT reduction:

T-18 Provide Pedestrian Network Improvement

T-23 Provide Community-Based Travel Planning (CBTP)

The project would also be implementing some of the measures that are not considered quantifiable per latest research included in the CAPCOA 2021. Therefore, no credit has been taken towards Project's VMT reduction. These measures have been included and would be implemented as good faith effort of the project.

- **T-32.** Orient Project Toward Transit, Bicycle, or Pedestrian Facilities: The project is located along a transit route for Line 286. The project would be improving pedestrian connectivity in the area by constructing pedestrian crosswalk at the Sorrento Drive/Mission Boulevard intersection.
- **T-35.** Provide Traffic Calming Measures: As discussed in Section 6.4 and Section 9.2, the project would construct a pedestrian crosswalk along the west leg at the pedestrian crosswalk at the Sorrento Drive/ Mission Boulevard intersection. It is also recommended that the existing striping/roadway markings along Mission Boulevard be improved from project access driveway (D2) to north of the Sorrento Avenue/Mission Boulevard intersection, in the vicinity of the project site. The City could also review including edge lines to reduce the perceived width of the roadway as a possible traffic calming measure.
- **T-50.** Required Project Contributions to transportation Infrastructure Improvement: As discussed in Section 9.2, the project would be implementing recommended improvements to improve access, safety, and circulation near the site.

As shown in Table 11 and Appendix J, with the quantifiable VMT reducing measures, the project's VMT would be reduced to 25.58 VMT per capita which is significantly above the threshold of 19.50 VMT per capita. See Section 7.5 for project's VMT impact determination and mitigation measures.

7.5 VMT Impact Determination and Mitigation Measures

Per City's VMT impact criteria, a project would result in a significant impact because the VMT per capita generated by the project exceeds a level of 15% below the SGVCOG Southeast Subarea baseline VMT for the traffic analysis zone where the project is located.

The VMT threshold (15% less than sub areas baseline VMT of 22.94) is 19.50 and therefore, as shown in Table 11 Project VMT Summary, the project would require a reduction of 19.55% to result in a less-than-significant VMT impact. Based on discussion with the City and the applicant, the following mitigation measures are proposed by the project.

MM-TRA-1 Construct a Sidewalk Facility: The project will construct sidewalk on the north side of Mission Boulevard along the project frontage. This would provide a continuous sidewalk along the project frontage which would connect to the existing sidewalk along the north side of Mission Boulevard and Sorrento Drive, connectivity for which is enhanced by the provision of a new crosswalk across Sorrento (PDF TR-5.

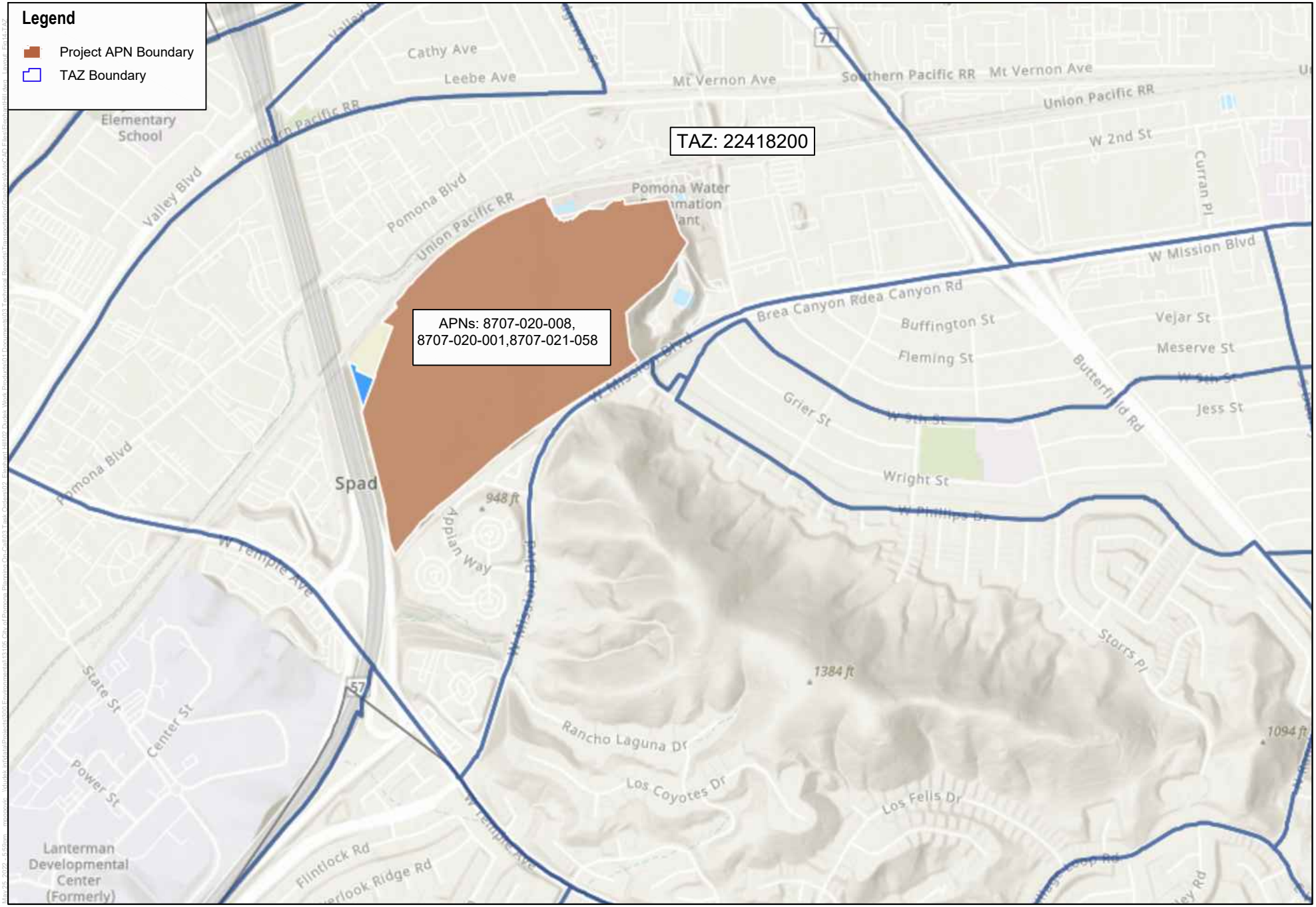
MM-TRA-2 Implement Community Based Travel Planning (CBTP): Prior to the issuance of first Certificate of Occupancy, the applicant will prepare a CBTP program. The program shall detail how residences

within project will be provided with customized information, incentives, and support to encourage the use of transportation alternatives in place of single occupancy vehicles. The program shall also include the frequency and duration of the CBTP program and the personnel/organization that would be responsible for implementing CBTP for the project.

With the VMT reduction measures described above and shown in Table 11, the Project's VMT would be reduced from 26.18 VMT per capita to 25.58 VMT per capita. As the project's VMT would not be reduced to below the significance threshold under Existing or baseline conditions, the project's VMT impact would remain **significant and unavoidable**.

7.6 Cumulative Impact

Per City's guidelines, if a project is consistent with the Southern California Association of Governments (SCAG) Regional Transportation Plan/Sustainable Communities Strategies (RTP/SCS), then the cumulative impacts (project effect on VMT) shall be considered less than significant subject to consideration of other substantial evidence. SCAG's Connect SoCal (2020–2045 RTP/SCS) was adopted on September 3, 2020. Connect SoCal incorporates local land use projections and circulation networks in city and county general plans. Typically, a project would be consistent with Connect SoCal if a project does not exceed the underlying growth assumptions within Connect SoCal. The proposed project is consistent with the current and proposed General Plan use for the site i.e., residential use and is not deemed to be inconsistent with the RTP/SCS. Additionally, the project would improve mobility and accessibility for people by providing housing near established transportation networks and close to various employment opportunities. It would enhance connectivity with the existing transportation system by adding sidewalks within the development and along the project frontage. It would increase the jobs-housing balance in the City and region. Because of the park and open space proposed within the development, the project would support healthy and equitable community development. Therefore, impacts related to consistency with RTP/SCS or cumulative VMT impact would be less than significant. Even though the Project's VMT would not be reduced to below the significance threshold, the Project would not be inconsistent with the RTP/SCS and thus would not result in cumulatively considerable impacts.



SOURCE: SGVCOG VMT Evaluation Tool, 2022

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FIGURE 14

Project Traffic Analysis Zone (TAZ) Location

Elephant Hill Project

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8 Caltrans Facilities Analysis

The following discussion describes the potential for increased hazards as a result of geometric design features of the Project, and/or as a result of the addition of project traffic to Caltrans facilities. A queuing analysis (using SimTraffic 11 software) was conducted to assess the adequacy of the existing storage pockets at the Caltrans facilities (i.e. SR-57 and SR-71) near the project. The 95th percentile vehicle queues were assessed at the off-ramps to determine potential queuing deficiencies at the freeway ramp intersections. Specifically, the queuing analysis was used to identify any potential queuing and spill back onto the SR-57 and/or SR-71 mainline from the off-ramps which would be considered a hazard.

Queuing Analysis

A queuing analysis was performed for the off-ramps at the SR-57 northbound and southbound off-ramps at Temple Avenue and at the SR-71 southbound and northbound ramps at Mission Boulevard. Specifically, the analysis was conducted to identify any potential queuing and spill back onto the SR-57 and/or SR-71 mainline from the off-ramps. The analysis was conducted for Existing and Opening Year without and with project conditions. The geometric configuration of the ramp intersections was assumed to be same for all the analysis scenarios.

Tables 12 and 13 summarize the queuing analysis conducted at the off-ramp intersections under Existing Year and Opening Year conditions, respectively. As shown in the tables below, there are no movements where the 95th percentile queues would exceed their storage lengths during the weekday AM or weekday PM peak hours for Existing without and with Project traffic conditions (Year 2022), Opening Year (Year 2028) without and with Project traffic conditions, The analysis indicates there are currently no queuing issues that may potentially spill back onto the SR-57 or SR-71 mainline nor add two or more car lengths to the ramp queues in the peak hours that would extend into the freeway mainline per Caltrans criteria, under without or with project conditions.

The SimTraffic queuing reports are provided in Appendix K. Caltrans signal timing sheets are provided in Appendix L.

Table 12. Peak Hour Freeway Off-Ramp Queuing Summary for Existing Conditions

Intersection	Movement	Available Stacking Distance (Feet)	Existing				Existing plus Project			
			95th Percentile Queue (Feet)[a]		Acceptable?[b]		95th Percentile Queue (Feet)		Acceptable?[b]	
			AM Peak Hour	PM Peak Hour	AM	PM	AM Peak Hour	PM Peak Hour	AM	PM
SR-57 NB off-ramp/ Temple Avenue	NBL	2,270[c]	166	63	Yes	Yes	151	68	Yes	Yes
	NBLR	2,270[c]	161	142	Yes	Yes	151	149	Yes	Yes
	NBR	435	79	72	Yes	Yes	77	81	Yes	Yes
SR-57 SB off-ramp/ Temple Avenue	SBL	1,330[c]	395	437	Yes	Yes	372	407	Yes	Yes
	SBLTR	1,330[c]	484	511	Yes	Yes	462	472	Yes	Yes
	SBR	530	449	441	Yes	Yes	425	410	Yes	Yes

Table 12. Peak Hour Freeway Off-Ramp Queuing Summary for Existing Conditions

Intersection	Movement	Available Stacking Distance (Feet)	Existing				Existing plus Project			
			95th Percentile Queue (Feet)[a]		Acceptable?[b]		95th Percentile Queue (Feet)		Acceptable?[b]	
			AM Peak Hour	PM Peak Hour	AM	PM	AM Peak Hour	PM Peak Hour	AM	PM
SR-71 SB ramps/ Mission Boulevard	SBL	1,185[c]	61	39	Yes	Yes	103	33	Yes	Yes
	SBLT	1,185[c]	205	162	Yes	Yes	229	172	Yes	Yes
	SBR	650	45	26	Yes	Yes	43	34	Yes	Yes
SR-71 NB ramps/ Mission Boulevard	NBL	925[c]	65	62	Yes	Yes	71	62	Yes	Yes
	NBLT	925[c]	111	67	Yes	Yes	108	74	Yes	Yes
	NBR	250	44	53	Yes	Yes	47	54	Yes	Yes

Notes: SR = State Route; NBL = Northbound left; NBLR = Shared Northbound Left-Right; NBR = Northbound Right; SBL = Southbound left; SBLTR = Shared Southbound Left-Through-Right; SBR = Southbound Right; SBLTR = Shared Southbound Left- Right

[a] 95th percentile queue analyzed; due to variation in the simulations, in some cases there may be a 1-2 car length decrease in total queue even where traffic volumes are higher. A car length is equivalent to 25 feet.

[b] Stacking distance is acceptable if the required stacking distance is less than or equal to the stacking distance provided. An additional 15 feet of stacking which is assumed to be provided in the transition for turn pockets is reflected in the stacking distance shown on this table, where applicable

[c] Stacking distance includes all lanes up until the mainline of the freeway. Distance is measured from the gore point.

Table 13. Peak Hour Freeway Off-Ramp Queuing Summary for Opening Year Conditions

Intersection	Movement	Available Stacking Distance (Feet)	Opening Year				Opening Year plus Project			
			95th Percentile Queue (Feet)[a]		Acceptable?[b]		95th Percentile Queue (Feet)		Acceptable?[b]	
			AM Peak Hour	PM Peak Hour	AM	PM	AM Peak Hour	PM Peak Hour	AM	PM
SR-57 NB off-ramp/ Temple Avenue	NBL	2,270[c]	176	76	Yes	Yes	192	74	Yes	Yes
	NBLR	2,270 [c]	174	169	Yes	Yes	195	178	Yes	Yes
	NBR	435	88	77	Yes	Yes	107	107	Yes	Yes
SR-57 SB off-ramp/ Temple Avenue	SBL	1,330 [c]	482	480	Yes	Yes	484	513	Yes	Yes
	SBLTR	1,330 [c]	641	552	Yes	Yes	614	587	Yes	Yes
	SBR	530	555	507	Yes	Yes	535	509	Yes	Yes
SR-71 SB ramps/ Mission Boulevard	SBL	1,185 [c]	95	45	Yes	Yes	112	35	Yes	Yes
	SBLT	1,185 [c]	242	174	Yes	Yes	255	185	Yes	Yes
	SBR	650	43	30	Yes	Yes	42	40	Yes	Yes

Table 13. Peak Hour Freeway Off-Ramp Queuing Summary for Opening Year Conditions

Intersection	Movement	Available Stacking Distance (Feet)	Opening Year				Opening Year plus Project			
			95th Percentile Queue (Feet)[a]		Acceptable?[b]		95th Percentile Queue (Feet)		Acceptable?[b]	
			AM Peak Hour	PM Peak Hour	AM	PM	AM Peak Hour	PM Peak Hour	AM	PM
SR-71 NB ramps/ Mission Boulevard	NBL	925[c]	54	69	Yes	Yes	63	66	Yes	Yes
	NBLT	925[c]	100	86	Yes	Yes	104	88	Yes	Yes
	NBR	250	49	56	Yes	Yes	50	55	Yes	Yes

Notes: SR = State Route; NBL = Northbound left; NBLR = Shared Northbound Left-Right; NBR = Northbound Right; SBL = Southbound left; SBLTR = Shared Southbound Left-Through-Right; SBR = Southbound Right; SBLTR = Shared Southbound Left- Right

[a] 95th percentile queue analyzed; due to variation in the simulations in some cases there may be a 1-2 car length decrease in total queue even where traffic volumes are higher.

[b] Stacking distance is acceptable if the required stacking distance is less than or equal to the stacking distance provided. An additional 15 feet of stacking which is assumed to be provided in the transition for turn pockets is reflected in the stacking distance shown on this table, where applicable

[c] Stacking distance includes all lanes up until the mainline of the freeway. Distance is measured from the gore point.

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9 Findings and Recommendations

Based on the results of this analysis, the following summarizes the findings and recommendations for the project.

9.1 Findings

- The project would generate 1,793 daily trips, 125 AM peak hour trips (36 inbound and 89 outbound), and 156 net PM peak hour trips (93 inbound and 63 outbound).
- All study area intersections currently operate at LOS C or better under existing conditions during both AM and PM peak hours. The study area intersections are forecast to continue to operate at LOS D or better with the addition of the traffic from the project under Existing plus project conditions. The study area intersections operate at better than LOS D, consistent with the City's criteria, the project would not cause any operational transportation effect, and no operational improvements are required under Existing plus project conditions.
- All study area intersections are forecast to operate at LOS D or better under Opening Year conditions during both AM and PM peak hours. The study area intersections are forecast to continue to operate at LOS D or better with the addition of the traffic from the project under Opening Year plus project conditions. The study area intersections operate at better than LOS D, consistent with the City's criteria, the project would not cause any operational transportation effect, and no operational improvements are required under Opening Year plus project conditions.
- Based on the queuing analysis for the Existing and Opening Year condition without and with project, none of the queues would exceed the existing storage length during the weekday AM or PM peak hours at the SR-57 off ramp intersection at Temple Avenue and SR-71 off ramp intersections at Mission Boulevard.
- The home-based VMT per capita of the project is 26.18 which is higher than the subarea baseline VMT of 22.94. The project would require a reduction to 19.50 VMT per capita or below to result in a less-than-significant VMT impact. As shown in Section 7.5, the project shall implement MM-TRA-1 Construct a Sidewalk Facility, and MM-TRA-2 Implement Community Based Travel Planning. However, the VMT reduction measures would not reduce the VMT to 15% below sub-area average.. Therefore, project's VMT impact would remain significant and unavoidable.

9.2 Recommendations

- The following improvements measures would be implemented by the project to improve access, safety, and circulation near the site. These improvement measures would be imposed as Conditions of Approval or Project Design Features as part of the project's Conditions of Approval:
  - Install a traffic signal and associated improvements at the Sorrento Drive/Mission Boulevard intersection.
  - Install a signal ahead warning sign (W3-3) along Mission Boulevard between Phillips Drive and Sorrento Drive to warn the traffic of control device ahead.
  - Install speed radar signs along Mission Boulevard near its intersection with Sorrento Drive/Mission Boulevard intersection. The sign should be installed along both eastbound and westbound directions of the roadway, at locations approved by the City's Traffic Engineer.

- Install signage (such as a stop sign and monument sign) outside of the sight triangle of Driveway 2 to maintain adequate sight distance along Mission Boulevard. Install landscaping that is height-restricted and does not interfere with the sight triangle of Driveway 2.
- Stripe pedestrian crosswalk at the pedestrian crosswalk (along the west leg) at the Sorrento Drive/Mission Boulevard intersection.
- Re-stripe roadway markings along Mission Boulevard from project access driveway (D2) to north of the Sorrento Avenue/Mission Boulevard intersection, in the vicinity of the project site.

The following mitigation measure would be implemented to reduce the project's VMT impact:

MM-TRA-1 Construct a Sidewalk Facility: The project will construct sidewalk on the north side of Mission Boulevard along the project frontage. This would provide a continuous sidewalk along the north project frontage which would connect to the existing sidewalk along the north side of Mission Boulevard and Sorrento Drive and provide better pedestrian connectivity in the area.

MM -TRA -2 Implement Community Based Travel Planning (CBTP): Prior to the issuance of first Certificate of Occupancy, the applicant will prepare a CBTP program. The program shall detail how residences within project will be provided with customized information, incentives, and support to encourage the use of transportation alternatives in place of single occupancy vehicles. The program shall also include the frequency and duration of the CBTP program and the personnel/organization that would be responsible for implementing CBTP for the project.

10 References

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Appendix A

Traffic Study Scoping Form

Attachment E: Traffic Study Scoping Form

Following items are included with this Traffic Study Scoping Form -

1. Exhibit B Traffic Impact Study Scope
2. Table 1 - Project Trip Generation
3. VMT Analysis Worksheets using SGVCOG Screening Tool
4. Figures 1-3
    - Figure 1 Site Plan
    - Figure 2 Project Trip Distribution
    - Figure 3 Project Trip Assignment

Exhibit B

TRAFFIC IMPACT STUDY SCOPE

CITY OF POMONA

Project Name:	Elephant Hill Residential Development
Project Address:	2889 W Mission Boulevard
Project Description:	The project proposes to construct 68 single family, 94 duplexes, and 66 row town homes, for a total of 228 residential units. (See Figure 1 Site Plan)

	Consultant	Developer
Name:	Dudek	Trumark Homes
Address:	605 Third Street, Encinitas, CA 92024	450 Newport Center Drive, Suite 300, Newport Beach, CA 92660
Telephone: E-mail:	Ph: 760-479-4109 stewani@dudek.com	Ph: 949-999-9800

A. Trip Generation

Existing Land Use	Vacant Space	Proposed Land Use	PRD and Open Space
Existing Zoning	PRD and Open Space	Proposed Zoning	PRD and Open Space

	In	Out	Total
AM Peak Hour	36	89	125
PM Peak Hour	93	63	156

B. Trip Distribution

Attach graphical representation - See Figure 2

C. Background Traffic

Project Opening year:	Year 2027	Growth Rate:	2% per year

D. Study Intersections

1.SR-57 northbound off-ramp/Temple Avenue	5. Humane Way/Mission Boulevard
2.Temple Avenue/Mission Boulevard	6. Westmont Avenue/Mission Boulevard
3.Sorrento Drive/Mission Boulevard	7.SR-71 southbound ramps/Mission Boulevard
4.Phillips Drive/Mission Boulevard	8.SR-71 northbound ramps/Mission Boulevard

E. Specific issues to be addressed in the Study

VMT Analysis using SGVCOG Tool	See attached VMT summary worksheets
Other traffic related issues	See additional comments below

Approved By:

City of Pomona Traffic Engineering:	
Date:	

Pedestrian and bicycle circulation / connectivity.
Sight distance analysis for D2 and #3.Sorrento Drive/Mission Boulevard
Signal warrant analysis for D2 and #3.Sorrento Drive/Mission Boulevard
Traffic calming measures for Mission.

Table 1
Project Trip Generation Summary

Trip Rates									
				AM Peak Hour			**PM Peak Hour**		
Land Use	**ITE Code**	**Size/Unit**	**Daily**	*In*	*Out*	*Total*	*In*	*Out*	*Total*
Single-family (detached)	210	per DU	9.43	0.18	0.52	0.70	0.59	0.35	0.94
Single-family (attached)	215	per DU	7.20	0.15	0.33	0.48	0.32	0.25	0.57
Trip Generation									
Single Family Cluster Homes	210	68 DUs	641	12	36	48	40	24	64
Duplexes	215	94 DUs	677	14	31	45	31	23	54
Town-homes	215	66 DUs	475	10	22	32	22	16	38
		Total	**1,793**	**36**	**89**	**125**	**93**	**63**	**156**

Notes:

Trip rates from the Institute of Transportation Engineers (ITE), *Trip Generation, 11th Edition* , 2021.

SGVCOG VMT Evaluation Tool Report

Project Details

Timestamp of Analysis: April 13, 2022, 09:47:10 AM

Project Name: Elephant Hill Residential

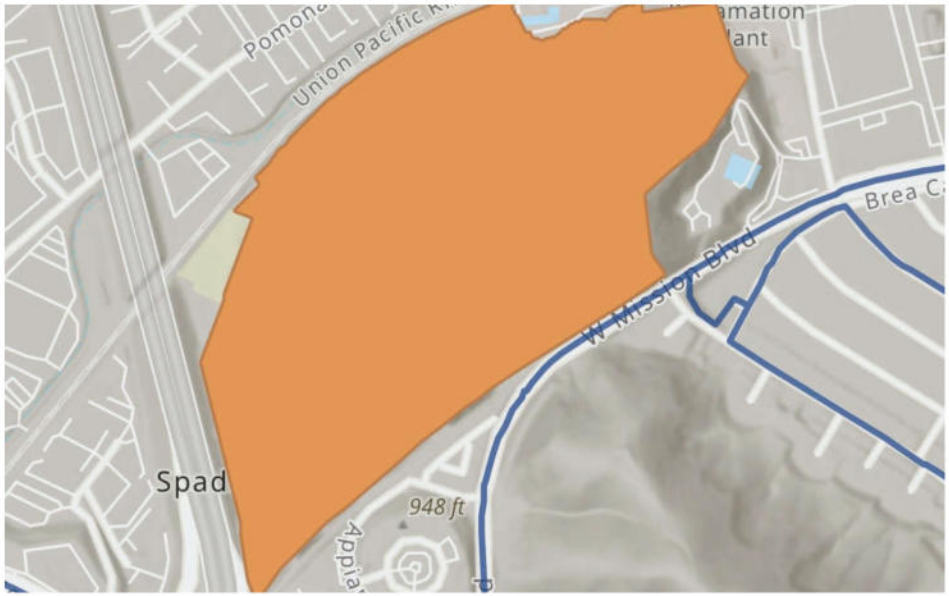
Project Description: 228 Residential units

Project Location

jurisdiction:
Pomona

apn	TAZ
8707-020-008	22418200

Inside a TPA?
No (Fail)



Analysis Details

Data Version: SCAG Regional Travel Demand Model
2016 RTP Base Year 2012

Analysis Methodology: TAZ

Baseline Year: 2022

Project Land Use

Residential:

Single Family DU:	68
Multifamily DU:	160
Total DUs:	228

Non-Residential:

Office KSF:

Local Serving Retail KSF:

Industrial KSF:

Residential Affordability (percent of all units):

Extremely Low Income:	0 %
Very Low Income:	0 %
Low Income:	10 %

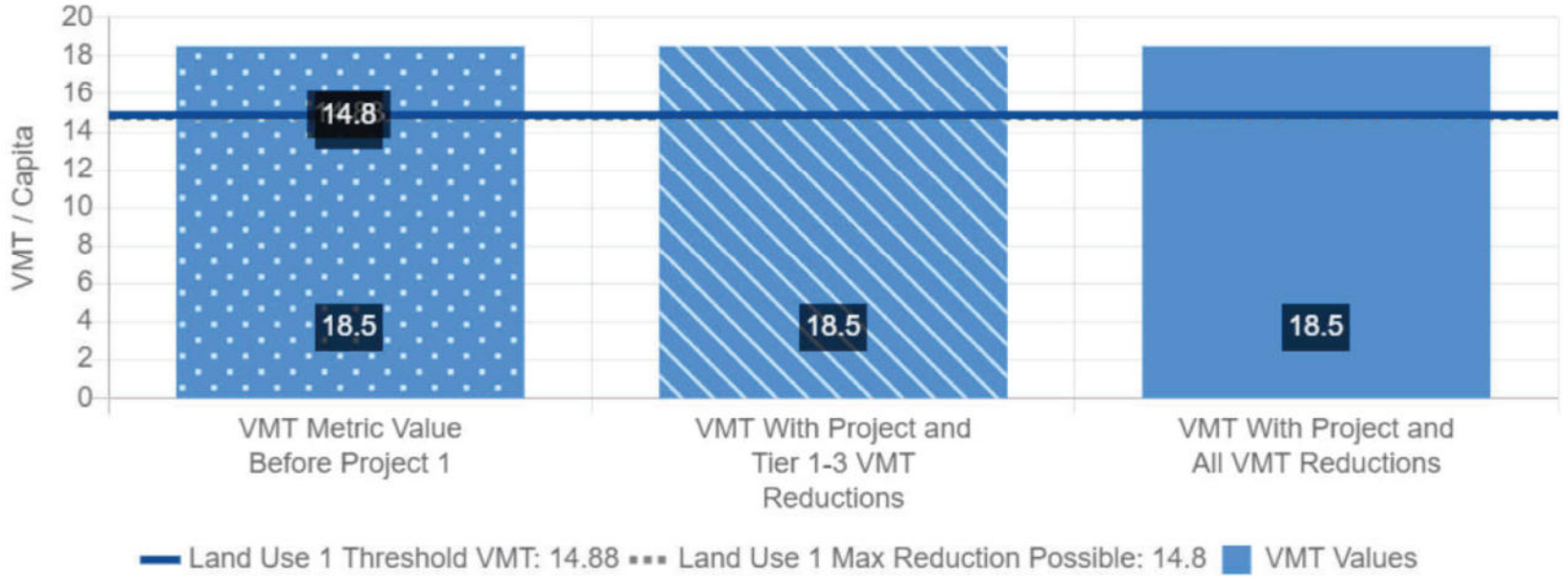
Parking:

Motor Vehicle Parking:	661
Bicycle Parking:	

Residential Vehicle Miles Traveled (VMT) Screening Results

Land Use Type 1:	Residential
VMT Without Project 1:	Home-based VMT per Capita
VMT Baseline Description 1:	Subarea Average
VMT Baseline Value 1:	17.51
VMT Threshold Description 1:	-15%
Land Use 1 has been Pre-Screened by the Local Jurisdiction:	N/A

	Without Project	With Project & Tier 1-3 VMT Reductions	With Project & All VMT Reductions
Project Generated Vehicle Miles Traveled (VMT) Rate	18.5	18.5	18.5
Low VMT Screening Analysis	No (Fail)	No (Fail)	No (Fail)





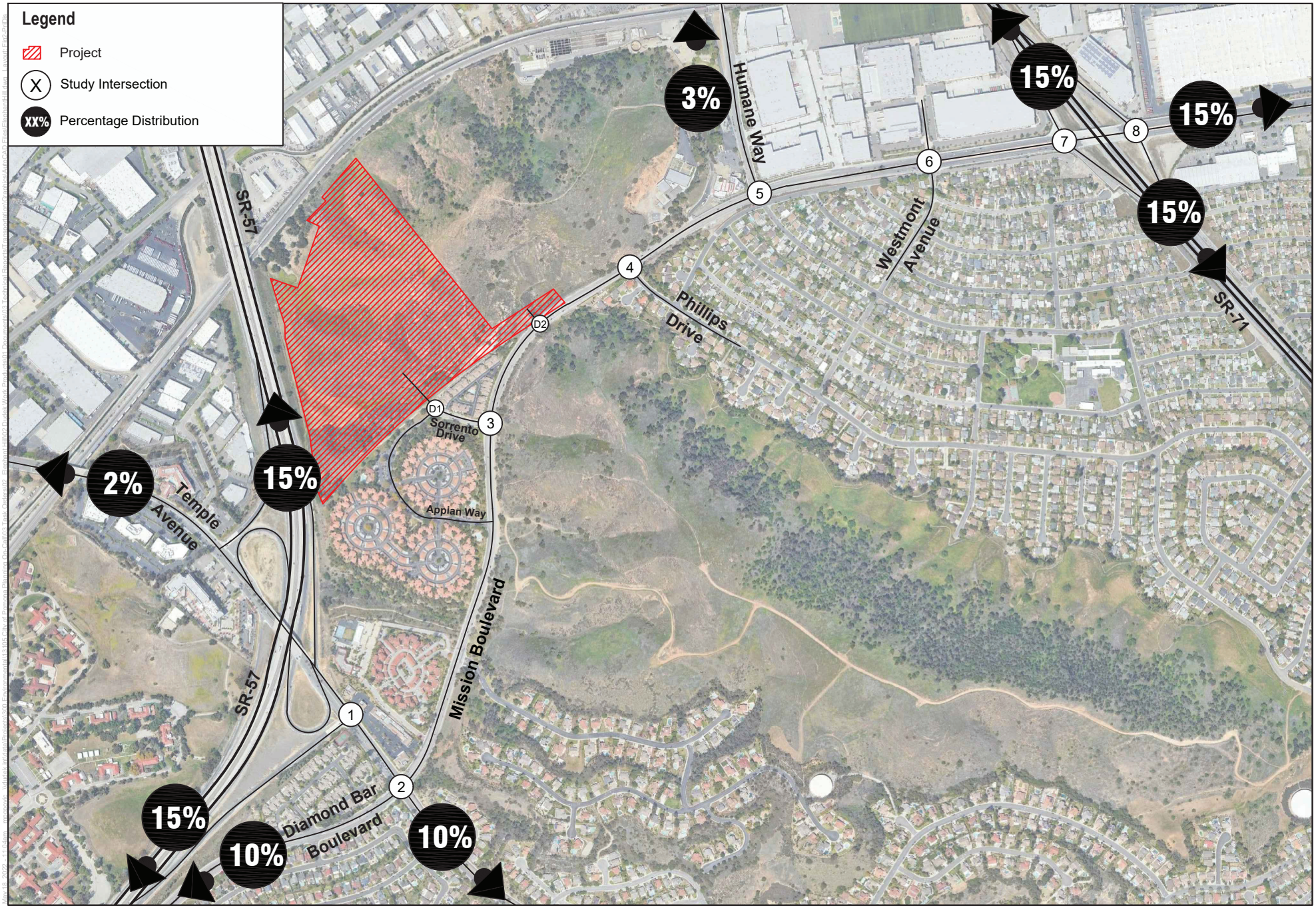
SOURCE: Bassenian & Lagoni Architects 2022

DUDEK NOT TO SCALE

FIGURE 1

Project Site Plan

Elephant Hill Project



SOURCE: Google Maps 2021

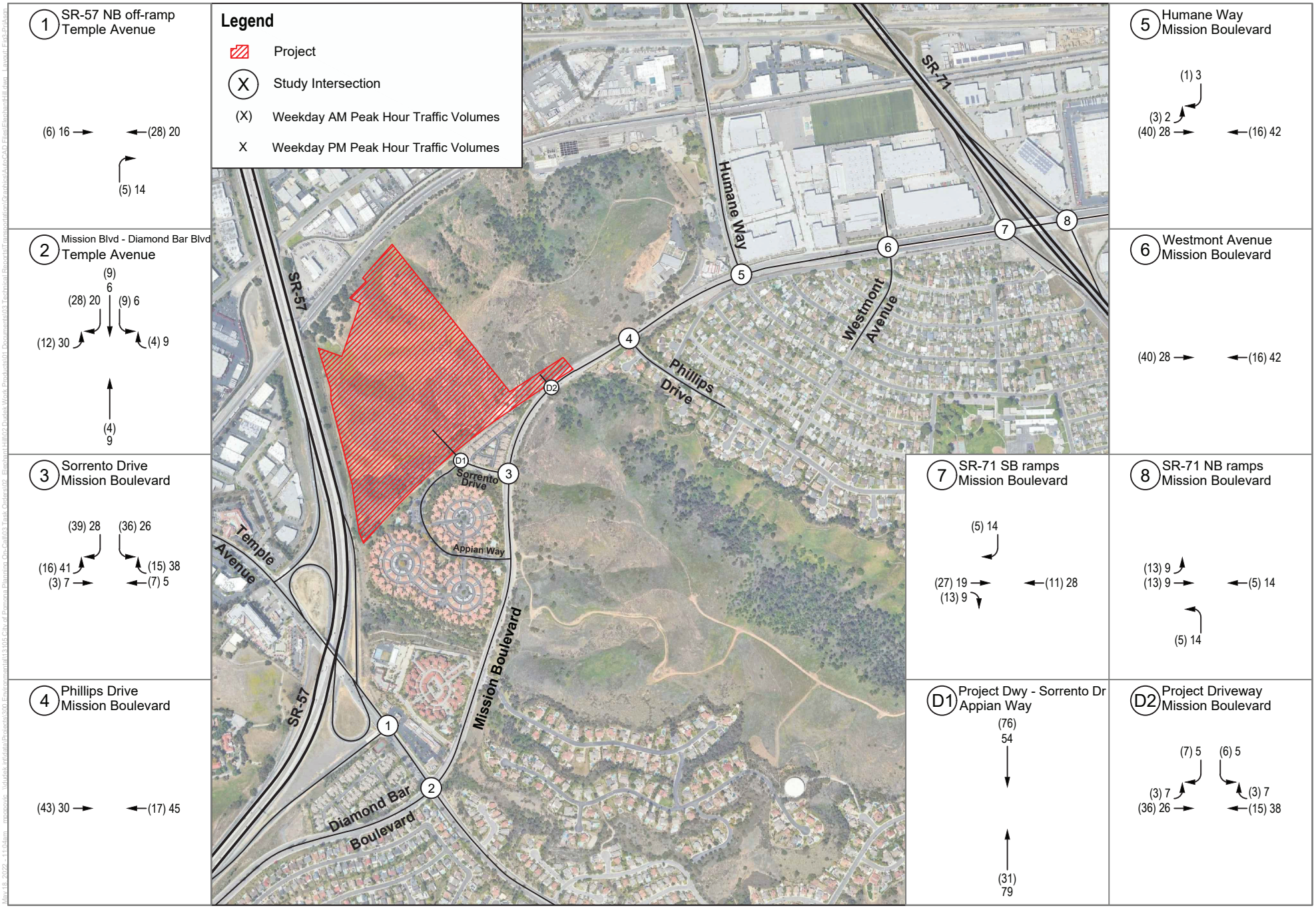
DUDEK

Not to Scale

FIGURE 2

Project Trip Distribution

Elephant Hill Project



SOURCE: Google Maps 2021

DUDEK

Not to Scale

FIGURE 3

Project Trip Assignment

Elephant Hill Project

Appendix B
Raw Traffic Counts

A1119

24-HOUR ROADWAY SEGMENT COUNTS (WITH FHWA CLASSIFICATION)

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Tuesday, April 05, 2022
JOB #: SC3362

CITY# Pomona
CLASS1 Mission west of Phillips

AM	EASTBOUND													
TIME	1	2	3	4	5	6	7	8	9	10	11	12	13	TOTAL
0:00	0	21	1	0	0	0	0	0	1	0	0	0	0	23
0:15	1	21	2	0	1	4	0	0	1	0	0	0	0	30
0:30	0	20	2	0	1	0	0	0	1	0	0	0	0	24
0:45	0	11	2	0	0	0	0	0	0	0	0	0	0	13
1:00	0	20	2	0	3	0	0	0	0	0	0	0	0	25
1:15	0	25	2	0	0	0	0	0	0	0	0	0	0	27
1:30	0	17	0	0	1	0	0	0	0	0	0	0	0	18
1:45	0	16	1	0	0	0	0	0	0	0	0	0	0	17
2:00	0	13	1	0	0	0	0	0	0	0	0	0	0	14
2:15	0	32	2	0	0	0	0	0	1	0	0	0	0	35
2:30	0	102	12	0	1	0	0	0	0	0	0	0	0	115
2:45	0	25	2	0	0	0	0	0	2	0	0	0	0	29
3:00	0	15	2	0	0	0	0	0	0	0	0	0	0	17
3:15	0	7	0	0	1	0	0	0	1	0	0	0	0	9
3:30	0	8	0	0	0	0	0	0	1	0	0	0	0	9
3:45	0	5	1	0	0	1	0	0	0	0	0	0	0	7
4:00	0	22	2	1	0	0	0	0	3	0	0	0	0	28
4:15	0	11	5	0	1	0	0	0	1	0	0	0	0	18
4:30	0	16	1	0	0	0	0	0	0	0	0	0	0	17
4:45	0	14	1	2	1	0	0	0	0	0	0	0	0	18
5:00	0	10	4	2	1	1	0	0	2	0	0	0	0	20
5:15	0	12	2	0	1	1	0	0	3	0	1	0	0	20
5:30	0	14	2	1	1	2	0	0	4	0	0	0	0	24
5:45	1	20	4	0	2	1	0	0	5	0	1	1	0	35
6:00	0	15	1	0	3	4	0	0	4	0	0	0	0	27
6:15	0	25	4	3	7	5	0	1	7	0	0	0	0	52
6:30	1	45	7	0	8	5	0	0	1	0	0	0	0	67
6:45	2	80	11	1	10	4	0	2	2	0	0	0	0	112
7:00	0	34	21	3	22	5	0	1	5	0	1	0	0	92
7:15	1	53	13	0	19	4	0	0	4	0	1	0	1	96
7:30	1	111	12	5	10	3	0	1	6	0	0	0	0	149
7:45	2	183	7	0	4	2	0	0	5	1	1	0	0	205
8:00	0	153	14	0	10	6	0	0	4	0	2	0	0	189
8:15	0	175	11	0	9	3	0	0	7	0	1	0	0	206
8:30	0	102	12	1	6	4	0	1	7	0	0	0	0	133
8:45	0	112	9	1	9	3	0	0	6	0	1	0	0	141
9:00	0	16	4	0	5	2	0	0	2	0	1	0	0	30
9:15	1	23	5	1	6	5	0	2	6	0	0	0	0	49
9:30	0	26	7	3	8	3	0	0	7	0	1	0	0	55
9:45	0	24	6	0	2	3	0	0	9	0	1	0	0	45
10:00	0	20	8	2	1	4	0	1	9	0	1	0	0	46
10:15	0	16	8	1	5	4	0	1	10	0	1	0	0	46
10:30	1	21	7	1	3	6	0	1	5	0	1	0	0	46
10:45	0	25	7	4	8	2	0	0	6	0	1	0	0	53
11:00	1	24	10	1	2	3	0	0	6	0	1	0	0	48
11:15	1	22	5	0	5	7	0	1	6	0	4	0	0	51
11:30	1	20	5	0	3	1	0	0	3	0	0	1	0	34
11:45	0	26	8	2	6	4	0	2	7	0	1	0	0	56
TOTAL	14	1,828	255	35	186	102	0	14	160	1	22	2	1	2,620

AM PEAK HOUR	7:30 AM
AM PEAK VOLUME	749

PM	EASTBOUND													
Time	1	2	3	4	5	6	7	8	9	10	11	12	13	TOTAL
12:00	0	112	7	2	3	2	0	2	8	0	0	0	0	136
12:15	0	108	6	0	8	4	0	0	8	0	1	0	0	135
12:30	0	104	7	1	11	4	0	1	7	0	0	0	0	135
12:45	0	94	11	0	1	3	0	1	5	0	0	0	0	115
13:00	0	91	6	1	0	3	0	2	7	0	1	0	0	111
13:15	0	117	8	0	3	4	0	1	9	0	0	0	0	142
13:30	0	153	15	1	5	4	0	0	6	0	1	1	0	186
13:45	0	110	12	0	8	8	0	0	10	0	0	0	0	148
14:00	0	119	10	1	9	2	0	4	4	0	0	0	0	149
14:15	0	114	12	1	9	1	0	1	2	0	1	0	0	141
14:30	1	142	19	1	10	3	0	0	8	0	0	0	0	184
14:45	0	149	20	3	10	4	0	0	3	0	2	0	0	191
15:00	1	148	18	0	12	1	0	0	1	0	0	0	0	181
15:15	3	159	11	0	13	5	1	0	7	0	0	0	0	199
15:30	2	171	17	1	8	7	0	1	4	0	0	1	0	212
15:45	0	189	21	0	13	9	0	0	6	0	0	0	0	238
16:00	0	197	26	1	8	2	0	0	3	0	0	0	0	237
16:15	0	230	20	2	16	6	0	0	4	0	0	0	0	278
16:30	0	240	14	0	12	4	0	1	2	0	0	0	0	273
16:45	0	246	21	2	3	3	0	0	4	1	0	0	0	280
17:00	0	253	17	1	8	6	0	0	3	0	0	0	0	288
17:15	1	214	16	2	7	5	0	0	2	0	0	0	0	247
17:30	0	219	15	0	7	5	0	1	1	0	0	0	0	248
17:45	0	258	12	1	6	5	0	0	3	0	0	0	0	285
18:00	0	190	10	1	6	1	0	0	2	0	0	0	0	210
18:15	0	186	9	2	2	4	0	0	1	0	0	0	0	204
18:30	0	176	6	0	3	2	0	0	5	0	0	0	0	192
18:45	0	173	7	0	0	4	0	0	1	0	0	0	0	185
19:00	0	171	5	0	3	1	0	2	3	0	0	0	0	185
19:15	0	164	4	0	1	3	0	0	2	0	0	0	0	174
19:30	0	173	1	0	1	1	0	0	3	0	0	0	0	179
19:45	0	135	1	0	3	2	0	0	3	0	0	0	0	144
20:00	0	97	2	0	1	0	0	0	0	0	0	0	0	100
20:15	0	67	2	0	0	1	0	0	4	0	0	0	0	74
20:30	0	70	4	0	0	0	0	0	2	0	0	0	0	76
20:45	0	62	4	0	1	0	0	0	3	0	0	0	0	70
21:00	0	60	2	0	1	0	0	0	0	0	0	0	0	63
21:15	0	58	1	0	0	0	0	0	0	0	0	0	0	59
21:30	0	61	1	0	0	0	0	0	2	0	0	0	0	64
21:45	0	62	1	0	1	0	0	0	4	0	0	0	0	68
22:00	0	35	3	0	0	4	0	0	6	0	0	0	0	48
22:15	0	27	1	0	0	0	0	0	2	0	0	0	0	30
22:30	0	27	1	0	1	0	0	0	4	0	0	0	0	33
22:45	0	26	4	0	2	0	0	0	1	0	0	0	0	33
23:00	0	36	1	0	0	1	0	0	0	0	0	0	0	38
23:15	0	35	5	0	1	1	0	0	3	0	0	0	0	45
23:30	0	41	2	0	0	0	0	0	1	0	0	0	0	44
23:45	0	33	0	0	0	0	0	0	0	0	0	0	0	33
TOTAL	8	6,102	418	24	217	125	1	17	169	1	6	2	0	7,090

PM PEAK HOUR	4:15 PM
PM PEAK VOLUME	1,119

CLASS 1	Class 1 — Motorcycles	**CLASS 8**	3 to 4 Axles, Single Trailer
CLASS 2	Passenger Cars	**CLASS 9**	5 Axles, Single Trailer
CLASS 3	2 Axles, 4-Tire Single Units	**CLASS 10**	6 or More Axles, Single Trailer
CLASS 4	Buses	**CLASS 11**	5 or Less Axles, Multi-Trailers
CLASS 5	2 Axles, 6-Tire Single Units	**CLASS 12**	6 Axles, Multi-Trailers
CLASS 6	3 Axles, Single Unit	**CLASS 13**	7 or More Axles, Multi-Trailers
CLASS 7	4 or More Axles, Single Unit		

TOTAL: AM+PM	22	7,930	673	59	403	227	1	31	329	2	28	4	1	9,710
% OF TOTAL	0.2%	81.7%	6.9%	0.6%	4.2%	2.3%	0.0%	0.3%	3.4%	0.0%	0.3%	0.0%	0.0%	100.0%

Class	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	
TOTAL: ALL	30	14,096	2,021	105	1,098	304	10	41	352	4	34	5	8	18,108
% OF TOTAL	0.2%	77.8%	11.2%	0.6%	6.1%	1.7%	0.1%	0.2%	1.9%	0.0%	0.2%	0.0%	0.0%	100.0%

24-HOUR ROADWAY SEGMENT COUNTS (WITH FHWA CLASSIFICATION)

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Tuesday, April 05, 2022
JOB #: SC3362

CITY# Pomona
CLASS1 Mission west of Phillips

AM	WESTBOUND													
TIME	1	2	3	4	5	6	7	8	9	10	11	12	13	TOTAL
0:00	0	6	1	0	0	0	0	0	0	0	0	0	0	7
0:15	0	10	3	0	1	1	0	0	0	0	0	0	0	15
0:30	0	5	1	0	0	1	0	0	0	0	0	0	0	7
0:45	0	8	2	0	0	0	0	0	0	0	0	0	0	10
1:00	0	4	2	0	0	0	0	0	0	0	0	0	0	6
1:15	0	5	1	0	0	1	0	0	0	0	0	0	0	7
1:30	0	4	1	0	1	0	0	0	0	0	0	0	0	6
1:45	0	6	4	0	0	0	0	0	0	0	0	0	0	10
2:00	0	2	2	0	2	0	0	0	0	0	0	0	0	6
2:15	0	5	0	0	2	0	0	0	0	0	0	0	0	7
2:30	0	5	5	0	0	0	0	0	1	0	0	0	0	11
2:45	0	8	0	0	0	0	0	0	0	0	0	0	0	8
3:00	0	7	4	0	1	0	0	0	0	0	0	0	0	12
3:15	0	9	3	0	1	0	0	0	0	0	0	0	0	13
3:30	0	16	3	0	1	0	0	0	0	0	0	0	0	20
3:45	0	19	5	0	3	0	0	0	0	0	0	0	0	27
4:00	0	18	6	1	3	0	0	0	0	0	0	0	0	28
4:15	0	21	14	1	10	0	0	0	0	0	0	0	0	46
4:30	0	32	9	0	8	0	0	0	0	0	0	0	0	49
4:45	0	37	11	1	10	0	0	0	0	0	0	0	0	59
5:00	0	43	19	0	9	1	0	0	0	0	0	0	0	72
5:15	0	45	20	0	10	0	0	0	0	0	0	0	0	75
5:30	0	56	15	1	12	0	0	0	2	0	0	0	0	86
5:45	0	58	20	0	12	5	0	0	1	0	0	0	0	96
6:00	0	57	21	1	15	1	0	0	0	0	0	0	0	95
6:15	0	94	23	1	14	2	1	0	1	0	0	0	1	137
6:30	0	86	16	1	19	2	0	0	0	0	1	0	1	126
6:45	0	77	18	2	28	1	1	0	0	1	0	0	0	128
7:00	0	131	14	1	11	0	1	0	0	0	0	0	1	159
7:15	0	186	26	2	13	5	1	0	0	0	0	0	0	233
7:30	1	181	37	0	20	3	0	0	0	0	1	0	0	243
7:45	0	222	28	1	17	5	0	1	0	0	2	0	1	277
8:00	1	137	22	0	12	1	1	0	1	1	0	1	0	177
8:15	0	119	15	2	11	1	0	0	1	0	0	0	0	149
8:30	0	92	16	3	11	4	0	0	2	0	0	0	1	129
8:45	0	91	21	2	9	3	0	0	0	0	0	0	0	126
9:00	0	60	17	1	7	2	1	0	1	0	0	0	0	89
9:15	1	66	14	1	14	2	0	0	0	0	0	0	0	98
9:30	0	69	14	3	8	3	0	0	0	0	0	0	0	97
9:45	0	61	23	1	7	0	0	0	0	0	0	0	0	92
10:00	0	61	19	0	12	1	0	0	0	0	0	0	0	93
10:15	1	69	17	0	12	1	0	1	0	0	0	0	0	101
10:30	0	49	14	0	9	1	0	0	0	0	0	0	0	73
10:45	0	69	15	0	7	1	0	0	1	0	0	0	0	93
11:00	0	69	14	0	5	1	1	0	0	0	0	0	0	90
11:15	0	59	23	0	11	3	0	0	2	0	0	0	0	98
11:30	0	68	22	0	12	1	0	0	0	0	0	0	0	103
11:45	0	59	19	0	10	0	0	0	0	0	0	0	0	88
TOTAL	4	2,661	619	26	380	53	7	2	13	2	4	1	5	3,777

AM PEAK HOUR	7:15 AM
AM PEAK VOLUME	930

PM	WESTBOUND													
Time	1	2	3	4	5	6	7	8	9	10	11	12	13	TOTAL
12:00	0	91	23	1	5	1	0	1	1	0	0	0	0	123
12:15	0	81	15	0	12	0	1	0	0	0	0	0	0	109
12:30	0	83	19	0	15	0	0	0	1	0	0	0	0	118
12:45	0	85	12	1	10	1	0	0	0	0	0	0	0	109
13:00	0	58	24	1	6	2	0	0	0	0	1	0	0	92
13:15	0	66	21	0	9	0	0	1	0	0	0	0	0	97
13:30	0	92	12	2	9	1	1	0	0	0	0	0	0	117
13:45	0	70	21	1	9	0	0	1	1	0	0	0	0	103
14:00	0	121	24	1	15	2	0	0	1	0	0	0	0	164
14:15	0	113	18	1	10	2	0	0	0	0	0	0	0	144
14:30	0	105	31	1	10	1	0	0	0	0	0	0	0	148
14:45	1	106	19	0	11	1	0	0	0	0	0	0	1	139
15:00	0	118	19	0	10	0	0	1	0	0	0	0	0	148
15:15	0	87	24	1	14	0	0	0	0	0	0	0	0	126
15:30	0	89	19	0	4	0	0	1	1	0	0	0	0	114
15:45	1	92	20	0	8	1	0	0	0	0	0	0	0	122
16:00	0	105	14	1	9	0	0	0	0	0	0	0	0	129
16:15	0	132	19	1	8	0	0	1	0	0	0	0	0	161
16:30	1	118	19	0	3	0	0	0	0	0	0	0	0	141
16:45	0	132	15	0	15	1	0	0	1	0	0	0	0	164
17:00	0	148	21	1	9	0	0	1	0	0	0	0	0	180
17:15	1	143	28	0	9	2	0	0	0	0	1	0	0	184
17:30	0	144	19	0	4	1	0	0	0	0	0	0	0	168
17:45	0	131	14	0	4	0	0	0	0	0	0	0	0	149
18:00	0	82	19	1	5	2	0	0	0	0	0	0	0	109
18:15	0	77	16	0	8	1	0	0	0	0	0	0	0	102
18:30	0	72	13	0	9	1	0	0	0	0	0	0	0	95
18:45	0	69	21	0	8	0	0	0	0	0	0	0	0	98
19:00	0	65	13	1	9	0	0	0	0	0	0	0	0	88
19:15	0	61	8	2	5	1	0	0	0	0	0	0	0	77
19:30	0	50	25	0	11	0	0	1	0	0	0	0	0	87
19:45	0	34	22	0	6	0	0	0	0	0	0	0	0	62
20:00	0	49	15	0	5	1	0	0	0	0	0	0	0	70
20:15	0	45	19	1	3	0	0	0	0	0	0	0	0	68
20:30	0	50	12	0	3	0	0	0	0	0	0	0	0	65
20:45	0	39	7	0	5	0	0	0	0	0	0	0	0	51
21:00	0	46	6	1	4	0	0	0	1	0	0	0	0	58
21:15	0	36	10	0	2	0	0	0	0	0	0	0	0	48
21:30	0	27	10	0	1	0	0	0	0	0	0	0	0	38
21:45	0	36	4	0	3	0	0	0	0	0	0	0	0	43
22:00	0	35	8	1	2	0	0	0	0	0	0	0	0	46
22:15	0	20	5	0	2	1	0	0	0	0	0	0	0	28
22:30	0	27	4	0	2	0	0	0	1	0	0	0	0	34
22:45	0	16	9	0	1	0	0	0	0	0	0	0	0	26
23:00	0	20	1	0	2	0	0	0	0	0	0	0	0	23
23:15	0	16	5	0	0	0	0	0	1	0	0	0	1	23
23:30	0	13	5	0	1	0	0	0	1	0	0	0	0	20
23:45	0	10	2	0	0	1	0	0	0	0	0	0	0	13
TOTAL	4	3,505	729	20	315	24	2	8	10	0	2	0	2	4,621

PM PEAK HOUR	4:45 PM
PM PEAK VOLUME	696

CLASS 1	Class 1 — Motorcycles	**CLASS 8**	3 to 4 Axles, Single Trailer
CLASS 2	Passenger Cars	**CLASS 9**	5 Axles, Single Trailer
CLASS 3	2 Axles, 4-Tire Single Units	**CLASS 10**	6 or More Axles, Single Trailer
CLASS 4	Buses	**CLASS 11**	5 or Less Axles, Multi-Trailers
CLASS 5	2 Axles, 6-Tire Single Units	**CLASS 12**	6 Axles, Multi-Trailers
CLASS 6	3 Axles, Single Unit	**CLASS 13**	7 or More Axles, Multi-Trailers
CLASS 7	4 or More Axles, Single Unit		

	1	2	3	4	5	6	7	8	9	10	11	12	13	TOTAL
TOTAL: AM+PM	8	6,166	1,348	46	695	77	9	10	23	2	6	1	7	8,398
% OF TOTAL	0.1%	73.4%	16.1%	0.5%	8.3%	0.9%	0.1%	0.1%	0.3%	0.0%	0.1%	0.0%	0.1%	100.0%

Class	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**

A1119

24-HOUR ROADWAY SEGMENT COUNTS (WITH FHWA CLASSIFICATION)

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Tuesday, April 05, 2022
JOB #: SC3362

CITY# Pomona
CLASS2 Sorrento north of Mission

AM	NORTHBOUND													
TIME	1	2	3	4	5	6	7	8	9	10	11	12	13	TOTAL
0:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
0:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0:45	0	2	0	0	0	0	0	0	0	0	0	0	0	2
1:00	0	5	0	0	0	0	0	0	0	0	0	0	0	5
1:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30	1	0	0	0	0	0	0	0	0	0	0	0	0	1
1:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15	0	2	0	0	0	0	1	0	0	0	0	0	0	3
4:30	0	1	0	0	0	0	0	0	0	0	0	0	0	1
4:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15	0	3	0	0	0	0	0	0	0	0	0	0	0	3
5:30	1	0	0	0	0	0	0	0	0	0	0	0	0	1
5:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00	1	5	0	0	0	0	0	0	0	0	0	0	0	6
6:15	0	3	0	0	0	0	0	0	0	0	0	0	0	3
6:30	0	4	0	0	0	0	0	0	0	0	0	0	0	4
6:45	0	3	0	0	0	0	1	0	0	0	0	0	0	4
7:00	0	2	0	0	0	0	0	0	0	0	0	0	0	2
7:15	0	1	0	0	0	0	0	0	0	0	0	0	0	1
7:30	0	2	0	0	0	1	0	0	0	0	0	0	0	3
7:45	1	2	0	0	0	0	1	0	0	0	0	0	0	4
8:00	0	3	0	0	0	0	0	0	0	0	0	0	0	3
8:15	0	2	0	0	0	0	0	0	0	0	0	0	0	2
8:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45	0	1	0	0	0	0	0	0	0	0	0	0	0	1
9:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15	0	1	0	0	0	0	0	0	0	0	0	0	0	1
9:30	0	2	0	0	0	0	0	0	0	0	0	0	0	2
9:45	1	9	0	0	0	0	0	0	0	0	0	0	0	10
10:00	0	3	0	0	0	0	0	0	0	0	0	0	0	3
10:15	0	1	0	0	0	0	0	0	0	0	0	0	0	1
10:30	0	0	0	0	0	0	1	0	0	0	0	0	0	1
10:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00	1	0	0	0	0	0	1	0	0	0	0	0	0	2
11:15	0	6	0	0	0	0	0	0	0	0	0	0	0	6
11:30	1	5	0	0	0	0	0	0	0	0	0	0	0	6
11:45	1	1	0	0	0	0	0	0	0	0	0	0	0	2
TOTAL	8	70	0	0	0	1	5	0	0	0	0	0	0	84

AM PEAK HOUR	6:00 AM
AM PEAK VOLUME	17

PM	NORTHBOUND													
Time	1	2	3	4	5	6	7	8	9	10	11	12	13	TOTAL
12:00	1	4	0	0	0	0	0	0	0	0	0	0	0	5
12:15	2	5	0	0	0	0	0	0	0	0	0	0	0	7
12:30	1	4	0	0	0	0	0	0	0	0	0	0	0	5
12:45	0	4	0	0	0	2	0	0	0	0	0	0	0	6
13:00	0	8	0	0	0	0	0	0	0	0	0	0	0	8
13:15	0	2	0	0	0	0	0	0	0	0	0	0	0	2
13:30	0	6	0	0	0	0	0	0	0	0	0	0	0	6
13:45	0	1	0	0	0	0	0	0	0	0	0	0	0	1
14:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:30	1	2	0	0	0	0	0	0	0	0	0	0	0	3
14:45	1	1	0	0	0	1	0	0	0	0	0	0	0	3
15:00	0	0	1	0	0	0	0	0	0	0	0	0	0	1
15:15	0	2	0	0	0	0	0	0	0	0	0	0	0	2
15:30	0	0	0	0	0	0	2	0	0	0	0	0	0	2
15:45	0	8	0	0	0	0	1	0	0	0	0	0	0	9
16:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:15	0	5	0	0	0	0	0	0	0	0	0	0	0	5
16:30	0	1	0	0	0	0	0	0	0	0	0	0	0	1
16:45	1	3	0	0	0	0	0	0	0	0	0	0	0	4
17:00	0	2	0	0	1	0	0	0	0	0	0	0	0	3
17:15	0	4	0	0	0	0	1	0	0	0	0	0	0	5
17:30	1	3	0	0	0	0	0	0	0	0	0	0	0	4
17:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:00	0	2	0	0	0	0	0	0	0	0	0	0	0	2
18:15	1	2	0	0	0	0	0	0	0	0	0	0	0	3
18:30	2	1	0	0	0	0	0	0	0	0	0	0	0	3
18:45	0	4	1	0	0	0	0	0	0	0	0	0	0	5
19:00	1	3	0	0	0	0	0	0	0	0	0	0	0	4
19:15	1	2	0	0	0	0	0	0	0	0	0	0	0	3
19:30	0	4	0	0	0	0	0	0	0	0	0	0	0	4
19:45	0	2	0	0	0	0	0	0	0	0	0	0	0	2
20:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20:15	0	3	0	0	0	0	0	0	0	0	0	0	0	3
20:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20:45	1	2	0	0	0	0	0	0	0	0	0	0	0	3
21:00	0	3	0	0	0	0	0	0	0	0	0	0	0	3
21:15	0	5	0	0	0	0	0	0	0	0	0	0	0	5
21:30	1	2	0	0	0	0	0	0	0	0	0	0	0	3
21:45	0	2	0	0	0	0	0	0	0	0	0	0	0	2
22:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22:15	0	2	0	0	0	0	0	0	0	0	0	0	0	2
22:30	0	2	0	0	0	0	0	0	0	0	0	0	0	2
22:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:15	0	2	0	0	0	0	0	0	0	0	0	0	0	2
23:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	15	108	2	0	1	3	4	0	0	0	0	0	0	133

PM PEAK HOUR	12:15 PM
PM PEAK VOLUME	26

CLASS 1	Class 1 — Motorcycles	**CLASS 8**	3 to 4 Axles, Single Trailer
CLASS 2	Passenger Cars	**CLASS 9**	5 Axles, Single Trailer
CLASS 3	2 Axles, 4-Tire Single Units	**CLASS 10**	6 or More Axles, Single Trailer
CLASS 4	Buses	**CLASS 11**	5 or Less Axles, Multi-Trailers
CLASS 5	2 Axles, 6-Tire Single Units	**CLASS 12**	6 Axles, Multi-Trailers
CLASS 6	3 Axles, Single Unit	**CLASS 13**	7 or More Axles, Multi-Trailers
CLASS 7	4 or More Axles, Single Unit		

TOTAL: AM+PM	23	178	2	0	1	4	9	0	0	0	0	0	0	217
% OF TOTAL	10.6%	82.0%	0.9%	0.0%	0.5%	1.8%	4.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%

Class	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	
TOTAL: ALL	23	312	16	0	6	7	10	0	0	0	0	0	0	374
% OF TOTAL	6.1%	83.4%	4.3%	0.0%	1.6%	1.9%	2.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%

24-HOUR ROADWAY SEGMENT COUNTS (WITH FHWA CLASSIFICATION)

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Tuesday, April 05, 2022
JOB #: SC3362

CITY# Pomona
CLASS2 Sorrento north of Mission

AM	SOUTHBOUND													
TIME	1	2	3	4	5	6	7	8	9	10	11	12	13	TOTAL
0:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00	0	1	1	0	0	0	0	0	0	0	0	0	0	2
1:15	0	2	0	0	0	0	0	0	0	0	0	0	0	2
1:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45	0	2	0	0	0	0	0	0	0	0	0	0	0	2
4:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
4:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30	0	1	0	0	0	0	0	0	0	0	0	0	0	1
4:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15	0	2	0	0	0	0	0	0	0	0	0	0	0	2
5:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30	0	1	0	0	0	0	0	0	0	0	0	0	0	1
6:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00	0	2	0	0	0	0	0	0	0	0	0	0	0	2
7:15	0	1	0	0	0	0	0	0	0	0	0	0	0	1
7:30	0	1	0	0	0	0	0	0	0	0	0	0	0	1
7:45	0	3	0	0	0	0	0	0	0	0	0	0	0	3
8:00	0	5	0	0	0	0	0	0	0	0	0	0	0	5
8:15	0	2	0	0	0	0	0	0	0	0	0	0	0	2
8:30	0	0	2	0	0	0	0	0	0	0	0	0	0	2
8:45	0	1	0	0	0	0	0	0	0	0	0	0	0	1
9:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15	0	2	0	0	0	0	0	0	0	0	0	0	0	2
9:30	0	2	1	0	0	0	0	0	0	0	0	0	0	3
9:45	0	3	0	0	0	0	0	0	0	0	0	0	0	3
10:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15	0	2	0	0	0	0	0	0	0	0	0	0	0	2
10:30	0	3	0	0	1	0	0	0	0	0	0	0	0	4
10:45	0	1	1	0	0	0	0	0	0	0	0	0	0	2
11:00	0	0	1	0	0	0	1	0	0	0	0	0	0	2
11:15	0	1	1	0	0	0	0	0	0	0	0	0	0	2
11:30	0	2	0	0	0	0	0	0	0	0	0	0	0	2
11:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	41	7	0	1	0	1	0	0	0	0	0	0	50

AM PEAK HOUR	7:45 AM
AM PEAK VOLUME	12

PM	SOUTHBOUND													
Time	1	2	3	4	5	6	7	8	9	10	11	12	13	TOTAL
12:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
12:15	0	2	0	0	0	0	0	0	0	0	0	0	0	2
12:30	0	3	0	0	0	1	0	0	0	0	0	0	0	4
12:45	0	3	1	0	1	0	0	0	0	0	0	0	0	5
13:00	0	2	0	0	0	0	0	0	0	0	0	0	0	2
13:15	0	1	0	0	0	0	0	0	0	0	0	0	0	1
13:30	0	5	0	0	0	0	0	0	0	0	0	0	0	5
13:45	0	3	0	0	0	0	0	0	0	0	0	0	0	3
14:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
14:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:30	0	1	0	0	0	0	0	0	0	0	0	0	0	1
14:45	0	3	0	0	1	0	0	0	0	0	0	0	0	4
15:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
15:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:45	0	0	1	0	0	0	0	0	0	0	0	0	0	1
16:00	0	2	0	0	0	0	0	0	0	0	0	0	0	2
16:15	0	5	0	0	0	0	0	0	0	0	0	0	0	5
16:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:45	0	2	0	0	0	0	0	0	0	0	0	0	0	2
17:00	0	3	0	0	1	0	0	0	0	0	0	0	0	4
17:15	0	4	1	0	0	1	0	0	0	0	0	0	0	6
17:30	0	2	0	0	0	0	0	0	0	0	0	0	0	2
17:45	0	2	0	0	0	0	0	0	0	0	0	0	0	2
18:00	0	3	0	0	0	0	0	0	0	0	0	0	0	3
18:15	0	2	0	0	0	1	0	0	0	0	0	0	0	3
18:30	0	3	0	0	0	0	0	0	0	0	0	0	0	3
18:45	0	5	0	0	0	0	0	0	0	0	0	0	0	5
19:00	0	2	1	0	0	0	0	0	0	0	0	0	0	3
19:15	0	1	0	0	0	0	0	0	0	0	0	0	0	1
19:30	0	2	0	0	1	0	0	0	0	0	0	0	0	3
19:45	0	1	1	0	0	0	0	0	0	0	0	0	0	2
20:00	0	3	0	0	0	0	0	0	0	0	0	0	0	3
20:15	0	3	0	0	0	0	0	0	0	0	0	0	0	3
20:30	0	3	0	0	0	0	0	0	0	0	0	0	0	3
20:45	0	3	0	0	0	0	0	0	0	0	0	0	0	3
21:00	0	2	1	0	0	0	0	0	0	0	0	0	0	3
21:15	0	3	0	0	0	0	0	0	0	0	0	0	0	3
21:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21:45	0	1	0	0	0	0	0	0	0	0	0	0	0	1
22:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
22:15	0	2	1	0	0	0	0	0	0	0	0	0	0	3
22:30	0	4	0	0	0	0	0	0	0	0	0	0	0	4
22:45	0	1	0	0	0	0	0	0	0	0	0	0	0	1
23:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:15	0	2	0	0	0	0	0	0	0	0	0	0	0	2
23:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	93	7	0	4	3	0	0	0	0	0	0	0	107

PM PEAK HOUR	6:15 PM
PM PEAK VOLUME	14

TOTAL: AM+PM	0	134	14	0	5	3	1	0	0	0	0	0	0	157
% OF TOTAL	0.0%	85.4%	8.9%	0.0%	3.2%	1.9%	0.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%

Class	1	2	3	4	5	6	7	8	9	10	11	12	13

CLASS 1	Class 1 — Motorcycles	**CLASS 8**	3 to 4 Axles, Single Trailer
CLASS 2	Passenger Cars	**CLASS 9**	5 Axles, Single Trailer
CLASS 3	2 Axles, 4-Tire Single Units	**CLASS 10**	6 or More Axles, Single Trailer
CLASS 4	Buses	**CLASS 11**	5 or Less Axles, Multi-Trailers
CLASS 5	2 Axles, 6-Tire Single Units	**CLASS 12**	6 Axles, Multi-Trailers
CLASS 6	3 Axles, Single Unit	**CLASS 13**	7 or More Axles, Multi-Trailers
CLASS 7	4 or More Axles, Single Unit		

INTERSECTION TURNING MOVEMENT COUNTS

T218

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Tue, Apr 5, 22

LOCATION: Pomona
NORTH & SOUTH: SR-57 NB Off-Ramp
EAST & WEST: Temple

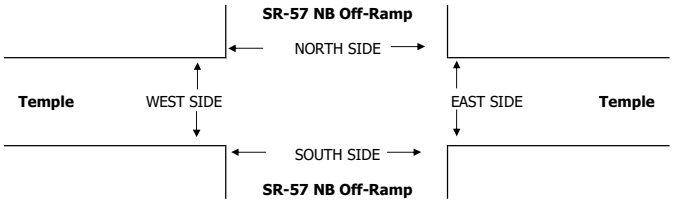
PROJECT #: SC3362
LOCATION #: 1
CONTROL: SIGNAL

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

☑ Add U-Turns to Left Turns

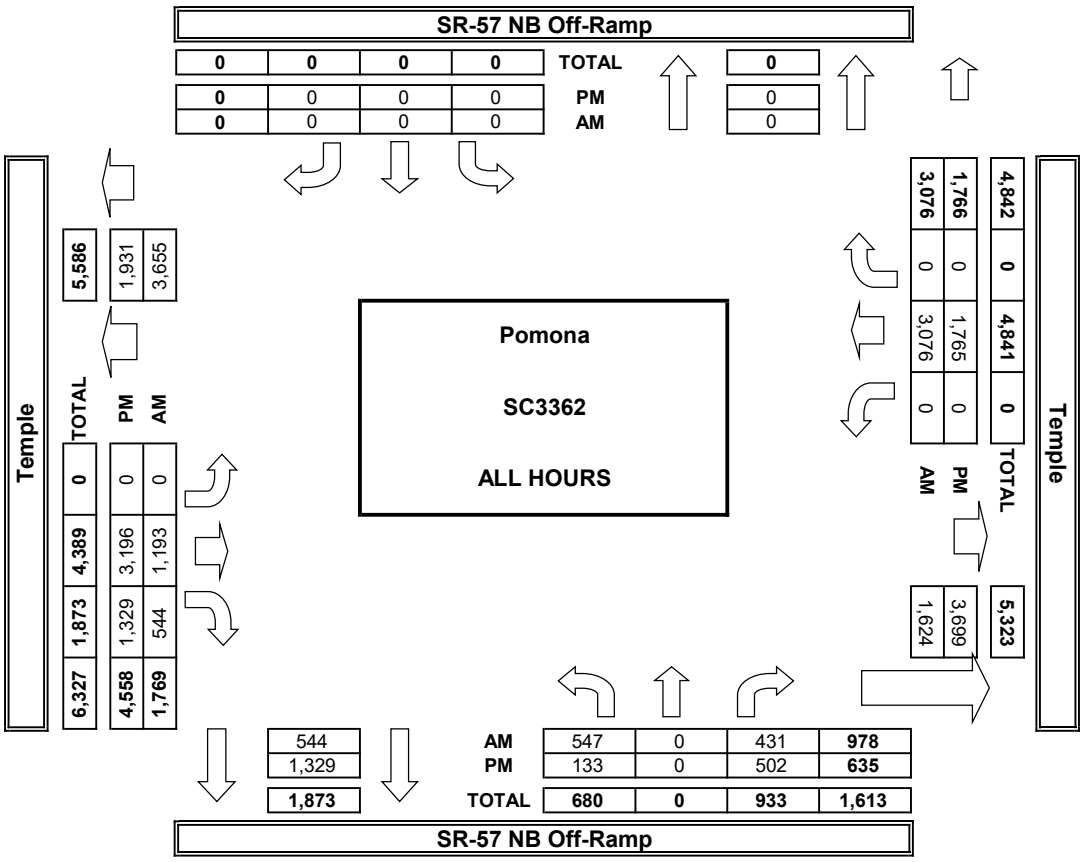
		NORTHBOUND SR-57 NB Off-Ramp			SOUTHBOUND SR-57 NB Off-Ramp			EASTBOUND Temple			WESTBOUND Temple				U-TURNS				
	LANES:	NL 1.5	NT X	NR 1.5	SL X	ST X	SR X	EL X	ET 3	ER 2	WL X	WT 3	WR X	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL
AM	7:00 AM	55	0	49	0	0	0	0	85	49	0	350	0	588	0	0	4	0	4
	7:15 AM	65	0	49	0	0	0	0	124	47	0	423	0	708	0	0	6	0	6
	7:30 AM	98	0	59	0	0	0	0	177	67	0	399	0	800	0	0	3	0	3
	7:45 AM	88	0	58	0	0	0	0	212	79	0	382	0	819	0	0	5	0	5
	8:00 AM	72	0	36	0	0	0	0	180	96	0	399	0	783	0	0	2	0	2
	8:15 AM	80	0	74	0	0	0	0	170	65	0	392	0	781	0	0	4	0	4
	8:30 AM	42	0	54	0	0	0	0	128	77	0	393	0	694	0	0	5	0	5
	8:45 AM	47	0	52	0	0	0	0	117	64	0	338	0	618	0	0	3	0	3
	VOLUMES	547	0	431	0	0	0	0	1,193	544	0	3,076	0	5,823	0	0	32	0	32
	APPROACH %	56%	0%	44%	0%	0%	0%	0%	67%	31%	0%	100%	0%						
	APP/DEPART	978	/	0	0	/	544	1,769	/	1,624	3,076	/	3,655	0					
	BEGIN PEAK HR		7:30 AM																
	VOLUMES	338	0	227	0	0	0	0	739	307	0	1,572	0	3,197					
	APPROACH %	60%	0%	40%	0%	0%	0%	0%	70%	29%	0%	100%	0%						
	PEAK HR FACTOR		0.900			0.000			0.895			0.985		0.970					
	APP/DEPART	565	/	0	0	/	307	1,060	/	966	1,572	/	1,924	0					
PM	4:00 PM	13	0	72	0	0	0	0	404	161	0	204	0	854	0	0	3	0	3
	4:15 PM	26	0	63	0	0	0	0	375	162	0	212	0	838	0	0	5	0	5
	4:30 PM	18	0	53	0	0	0	0	386	170	0	211	0	838	0	0	5	0	5
	4:45 PM	9	0	62	0	0	0	0	406	157	0	222	0	856	0	0	2	0	2
	5:00 PM	16	0	62	0	0	0	0	377	171	0	220	0	846	0	0	3	0	3
	5:15 PM	16	0	64	0	0	0	0	398	188	0	224	0	890	0	0	6	0	6
	5:30 PM	11	0	60	0	0	0	0	444	153	0	261	0	929	0	0	2	0	2
	5:45 PM	24	0	66	0	0	0	0	406	167	0	211	0	874	0	0	7	1	8
	VOLUMES	133	0	502	0	0	0	0	3,196	1,329	0	1,765	0	6,959	0	0	33	1	34
	APPROACH %	21%	0%	79%	0%	0%	0%	0%	70%	29%	0%	100%	0%						
	APP/DEPART	635	/	0	0	/	1,329	4,558	/	3,699	1,766	/	1,931	0					
	BEGIN PEAK HR		5:00 PM																
	VOLUMES	67	0	252	0	0	0	0	1,625	679	0	916	0	3,558					
	APPROACH %	21%	0%	79%	0%	0%	0%	0%	70%	29%	0%	100%	0%						
	PEAK HR FACTOR		0.886			0.000			0.969			0.878		0.955					
	APP/DEPART	319	/	0	0	/	679	2,322	/	1,878	917	/	1,001	0					

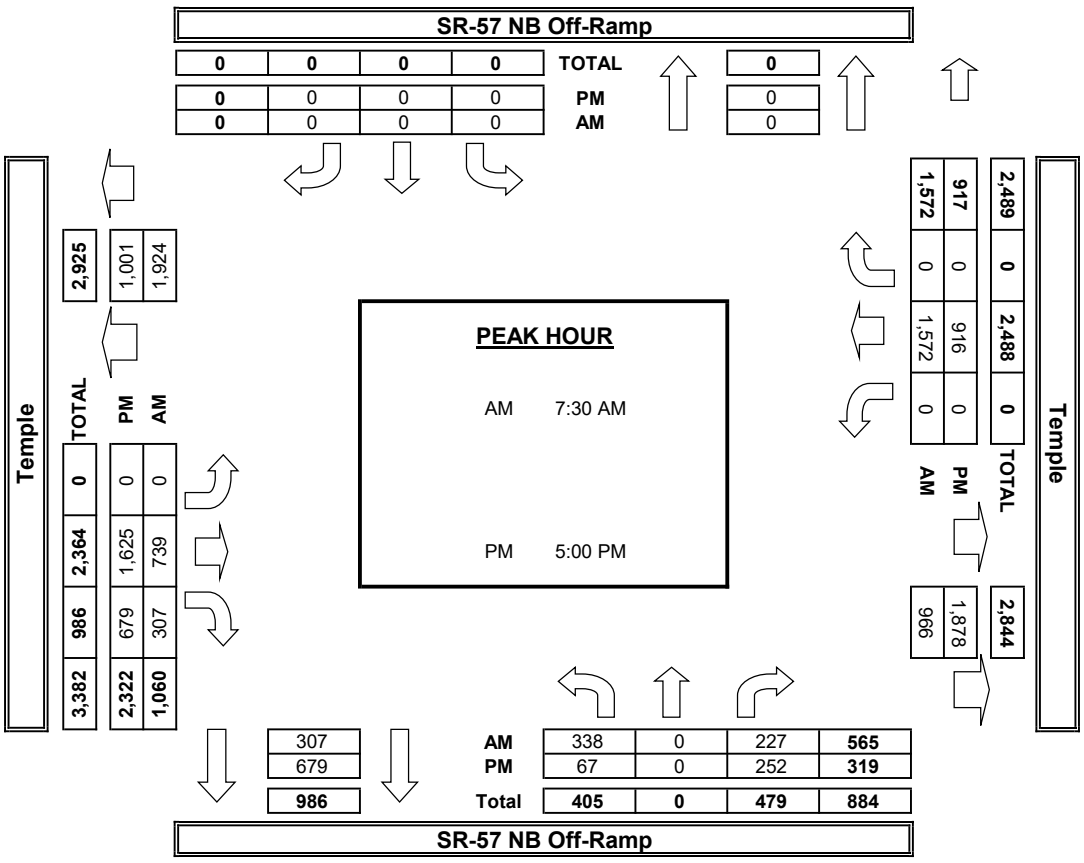


		PEDESTRIAN + BIKE CROSSINGS					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	2	0	0	2	0	0	0	0	0	0	2	0	0	2
	AM BEGIN PEAK HR			7:30 AM			0	0	0	0	0					
PM	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	2	0	0	2	0	0	0	0	0	0	2	0	0	2
	PM BEGIN PEAK HR			5:00 PM			0	0	0	0	0					

AimTD LLC

TURNING MOVEMENT COUNTS





INTERSECTION TURNING MOVEMENT COUNTS

T218

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Tue, Apr 5, 22

LOCATION: Pomona
NORTH & SOUTH: Mission
EAST & WEST: Temple

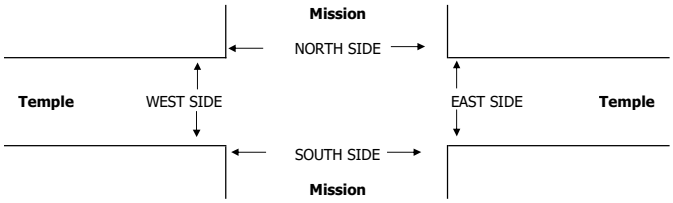
PROJECT #: SC3362
LOCATION #: 2
CONTROL: SIGNAL

NOTES:
Queue WB AM;

AM PM MD OTHER OTHER — ▲ N, ◄ W, E ►, S ▼

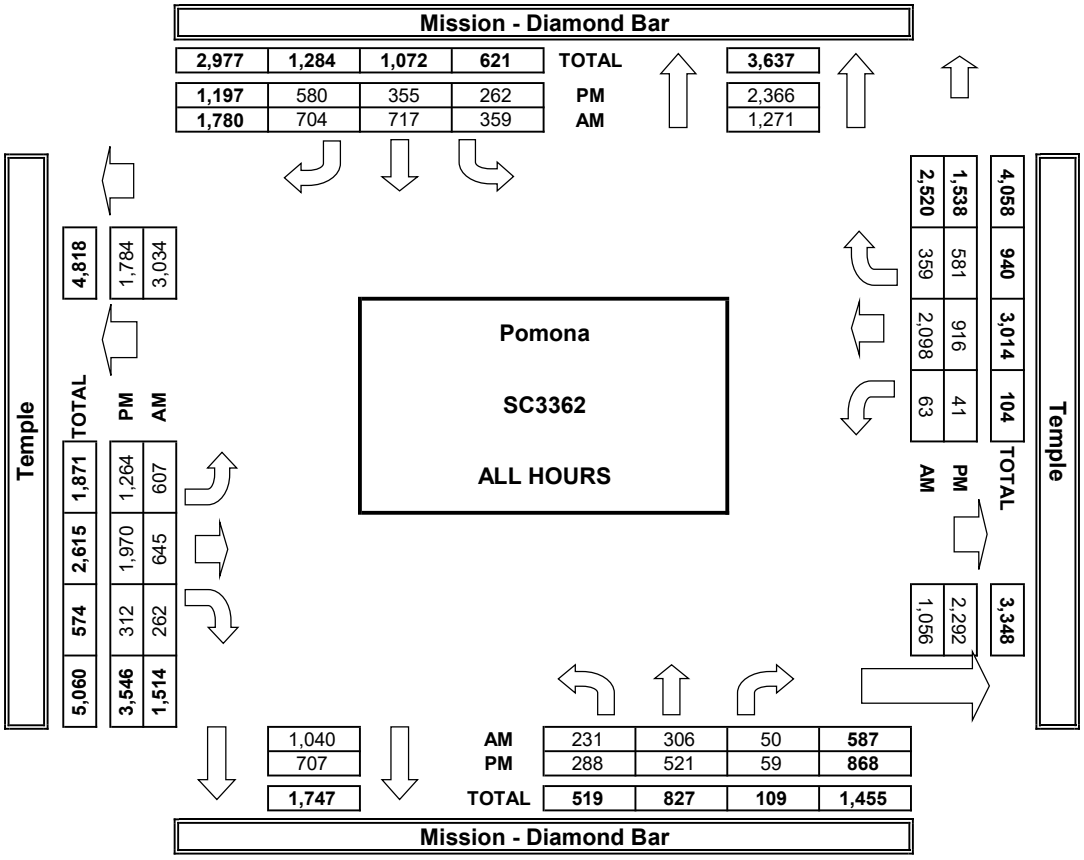
☑ Add U-Turns to Left Turns

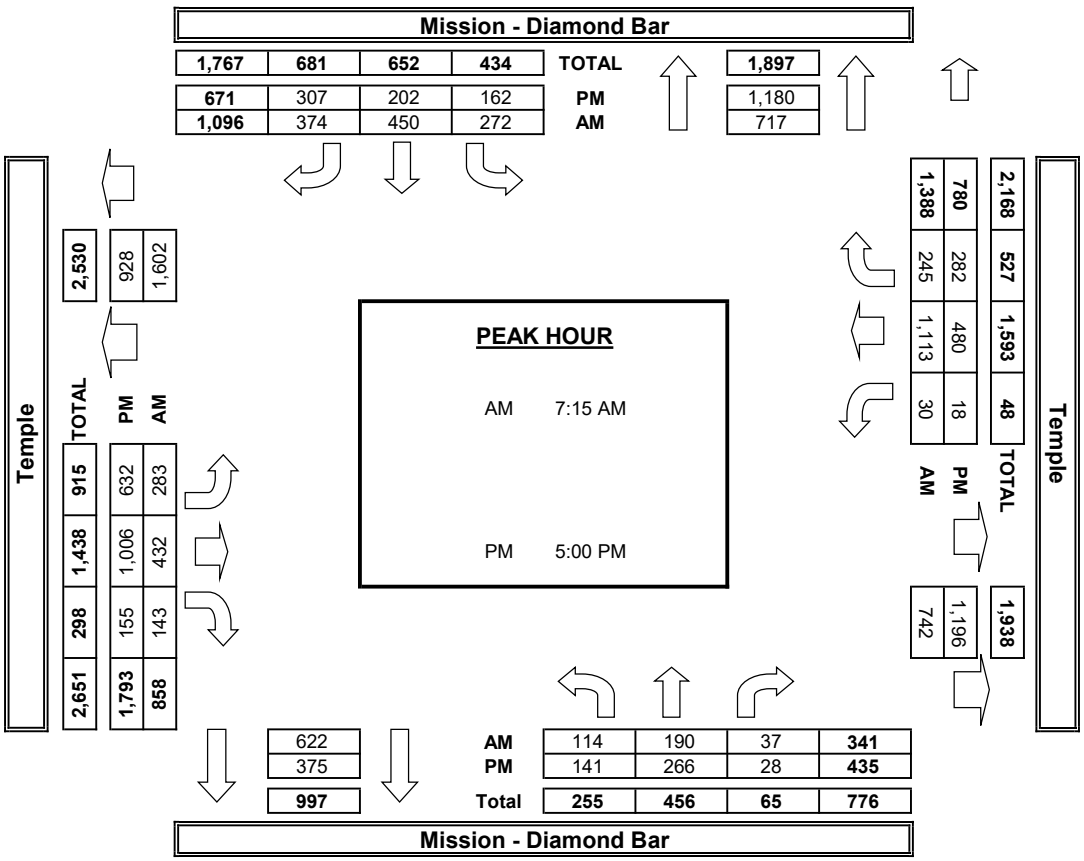
		NORTHBOUND Mission - Diamond Bar			SOUTHBOUND Mission - Diamond Bar			EASTBOUND Temple			WESTBOUND Temple				U-TURNS				
	LANES:	NL 2	NT 2	NR 0	SL 1	ST 2	SR 1	EL 2	ET 1.5	ER 0.5	WL 1	WT 3	WR 0	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL
AM	7:00 AM	24	17	2	23	92	101	65	42	22	6	235	12	641	0	0	0	0	0
AM	7:15 AM	29	25	3	47	101	123	61	71	28	2	282	22	794	0	0	1	0	1
AM	7:30 AM	20	49	19	88	152	75	76	117	30	3	273	43	945	0	0	0	1	1
AM	7:45 AM	23	69	7	100	137	93	56	133	57	7	261	88	1,031	0	0	0	0	0
AM	8:00 AM	42	47	8	37	60	83	90	111	28	18	297	92	913	0	0	0	0	0
AM	8:15 AM	35	37	3	27	64	86	116	67	38	16	239	49	777	0	0	0	1	1
AM	8:30 AM	35	33	6	21	57	74	60	56	28	4	284	25	683	0	0	0	0	0
AM	8:45 AM	23	29	2	16	54	69	83	48	31	7	227	28	617	0	0	0	0	0
AM	VOLUMES	231	306	50	359	717	704	607	645	262	63	2,098	359	6,401	0	0	1	2	3
AM	APPROACH %	39%	52%	9%	20%	40%	40%	40%	43%	17%	3%	83%	14%						
AM	APP/DEPART	587	/	1,271	1,780	/	1,040	1,514	/	1,056	2,520	/	3,034	0					
AM	BEGIN PEAK HR		7:15 AM																
AM	VOLUMES	114	190	37	272	450	374	283	432	143	30	1,113	245	3,683					
AM	APPROACH %	33%	56%	11%	25%	41%	34%	33%	50%	17%	2%	80%	18%						
AM	PEAK HR FACTOR		0.861			0.830			0.872			0.853		0.893					
AM	APP/DEPART	341	/	717	1,096	/	622	858	/	742	1,388	/	1,602	0					
PM	4:00 PM	39	64	5	25	35	65	156	253	43	3	94	67	849	0	0	0	0	0
PM	4:15 PM	38	55	6	26	43	67	163	238	34	2	116	78	866	0	0	0	0	0
PM	4:30 PM	41	69	10	24	36	67	148	220	45	10	113	76	859	0	0	0	0	0
PM	4:45 PM	29	67	10	25	39	74	165	253	35	8	113	78	896	0	0	0	1	1
PM	5:00 PM	28	70	8	44	61	77	172	234	35	6	97	67	899	0	0	0	0	0
PM	5:15 PM	29	50	8	44	49	72	161	259	35	3	137	77	924	0	0	0	0	0
PM	5:30 PM	54	72	5	44	45	92	134	254	40	5	124	73	942	0	0	0	0	0
PM	5:45 PM	30	74	7	30	47	66	165	259	45	4	122	65	914	0	0	0	0	0
PM	VOLUMES	288	521	59	262	355	580	1,264	1,970	312	41	916	581	7,149	0	0	0	1	1
PM	APPROACH %	33%	60%	7%	22%	30%	48%	36%	56%	9%	3%	60%	38%						
PM	APP/DEPART	868	/	2,366	1,197	/	707	3,546	/	2,292	1,538	/	1,784	0					
PM	BEGIN PEAK HR		5:00 PM																
PM	VOLUMES	141	266	28	162	202	307	632	1,006	155	18	480	282	3,679					
PM	APPROACH %	32%	61%	6%	24%	30%	46%	35%	56%	9%	2%	62%	36%						
PM	PEAK HR FACTOR		0.830			0.922			0.956			0.899		0.976					
PM	APP/DEPART	435	/	1,180	671	/	375	1,793	/	1,196	780	/	928	0					



		PEDESTRIAN + BIKE CROSSINGS					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
AM	7:00 AM	1	0	1	2	4	0	0	0	2	2	1	0	1	0	2
AM	7:15 AM	2	3	2	1	8	2	3	2	1	8	0	0	0	0	0
AM	7:30 AM	0	0	0	1	1	0	0	0	0	0	0	0	0	1	1
AM	7:45 AM	1	1	0	1	3	1	1	0	1	3	0	0	0	0	0
AM	8:00 AM	2	0	0	1	3	2	0	0	1	3	0	0	0	0	0
AM	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AM	8:30 AM	2	0	3	1	6	2	0	2	0	4	0	0	1	1	2
AM	8:45 AM	1	0	0	1	2	0	0	0	1	1	1	0	0	0	1
AM	TOTAL	9	4	6	8	27	7	4	4	6	21	2	0	2	2	6
	AM BEGIN PEAK HR			7:15 AM			5	4	2	3	14					
PM	4:00 PM	1	0	0	1	2	1	0	0	1	2	0	0	0	0	0
PM	4:15 PM	2	1	2	0	5	2	0	2	0	4	0	1	0	0	1
PM	4:30 PM	1	0	0	2	3	1	0	0	2	3	0	0	0	0	0
PM	4:45 PM	0	0	0	1	1	0	0	0	1	1	0	0	0	0	0
PM	5:00 PM	1	0	0	1	2	1	0	0	1	2	0	0	0	0	0
PM	5:15 PM	2	1	2	2	7	2	0	2	0	4	0	1	0	2	3
PM	5:30 PM	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1
PM	5:45 PM	2	1	1	3	7	1	0	1	1	3	1	1	0	2	4
PM	TOTAL	9	4	5	10	28	8	0	5	6	19	1	4	0	4	9
	PM BEGIN PEAK HR			5:00 PM			4	0	3	2	9					

AimTD LLC
TURNING MOVEMENT COUNTS





INTERSECTION TURNING MOVEMENT COUNTS

T218

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Tue, Apr 5, 22

LOCATION: Pomona
NORTH & SOUTH: Sorrento
EAST & WEST: Mission

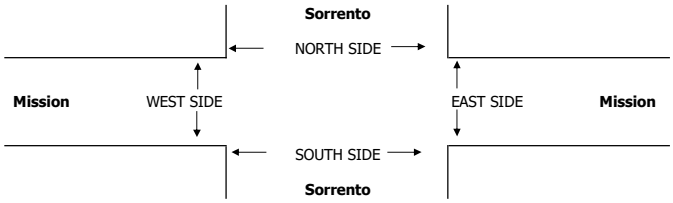
PROJECT #: SC3362
LOCATION #: 3
CONTROL: STOP S

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

☐ Add U-Turns to Left Turns

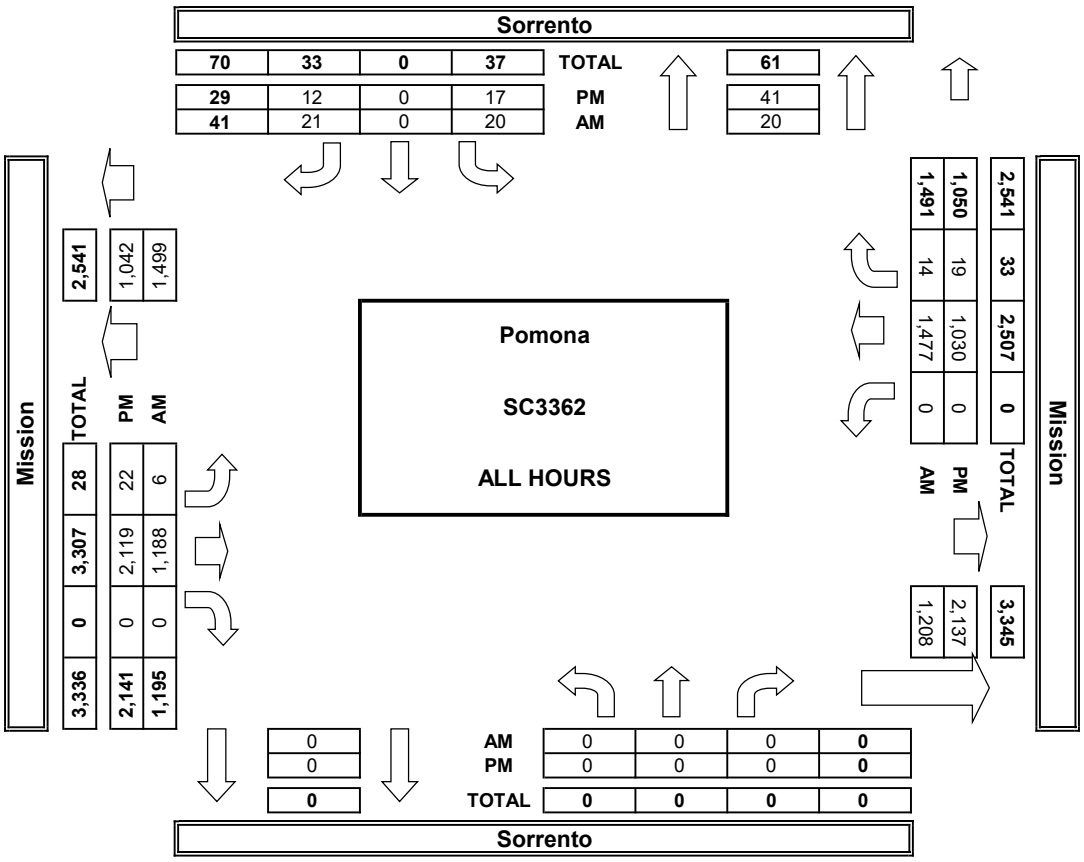
		NORTHBOUND Sorrento			SOUTHBOUND Sorrento			EASTBOUND Mission			WESTBOUND Mission				U-TURNS				
	LANES:	NL X	NT X	NR X	SL 0	ST X	SR 0	EL 1	ET 2	ER X	WL X	WT 2	WR 0	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL
AM	7:00 AM	0	0	0	3	0	4	1	89	0	0	158	1	256	0	0	0	0	0
	7:15 AM	0	0	0	2	0	2	1	94	0	0	229	2	330	0	0	0	0	0
	7:30 AM	0	0	0	3	0	2	0	146	0	0	242	1	394	0	0	0	0	0
	7:45 AM	0	0	0	1	0	5	0	204	0	0	275	2	487	0	0	0	0	0
	8:00 AM	0	0	0	2	0	1	1	187	0	0	173	4	368	0	0	1	0	1
	8:15 AM	0	0	0	5	0	4	0	201	0	0	148	1	359	0	0	0	0	0
	8:30 AM	0	0	0	3	0	2	2	127	0	0	128	1	263	0	0	0	0	0
	8:45 AM	0	0	0	1	0	1	1	140	0	0	124	2	269	0	0	0	0	0
	VOLUMES	0	0	0	20	0	21	6	1,188	0	0	1,477	14	2,727	0	0	1	0	1
	APPROACH %	0%	0%	0%	49%	0%	51%	1%	99%	0%	0%	99%	1%						
	APP/DEPART	0	/	20	41	/	0	1,195	/	1,208	1,491	/	1,499	0					
	BEGIN PEAK HR		7:30 AM																
	VOLUMES	0	0	0	11	0	12	1	738	0	0	838	8	1,609					
	APPROACH %	0%	0%	0%	48%	0%	52%	0%	100%	0%	0%	99%	1%						
	PEAK HR FACTOR		0.000			0.639			0.907			0.764		0.826					
	APP/DEPART	0	/	9	23	/	0	740	/	749	846	/	851	0					
PM	4:00 PM	0	0	0	0	0	1	1	237	0	0	103	2	344	0	0	0	0	0
	4:15 PM	0	0	0	1	0	1	5	277	0	0	129	3	416	0	0	0	0	0
	4:30 PM	0	0	0	1	0	0	2	272	0	0	113	1	389	0	0	0	0	0
	4:45 PM	0	0	0	3	0	2	1	277	0	0	129	3	415	0	0	0	0	0
	5:00 PM	0	0	0	6	0	0	4	282	0	0	146	2	440	0	0	0	1	1
	5:15 PM	0	0	0	4	0	2	4	243	0	0	139	4	396	0	0	0	0	0
	5:30 PM	0	0	0	1	0	4	3	247	0	0	141	3	399	0	0	0	0	0
	5:45 PM	0	0	0	1	0	2	2	284	0	0	130	1	420	0	0	0	0	0
	VOLUMES	0	0	0	17	0	12	22	2,119	0	0	1,030	19	3,220	0	0	0	1	1
	APPROACH %	0%	0%	0%	59%	0%	41%	1%	99%	0%	0%	98%	2%						
	APP/DEPART	0	/	41	29	/	0	2,141	/	2,137	1,050	/	1,042	0					
	BEGIN PEAK HR		4:15 PM																
	VOLUMES	0	0	0	11	0	3	12	1,108	0	0	517	9	1,661					
	APPROACH %	0%	0%	0%	79%	0%	21%	1%	99%	0%	0%	98%	2%						
	PEAK HR FACTOR		0.000			0.583			0.979			0.884		0.942					
	APP/DEPART	0	/	21	14	/	0	1,120	/	1,120	527	/	520	0					

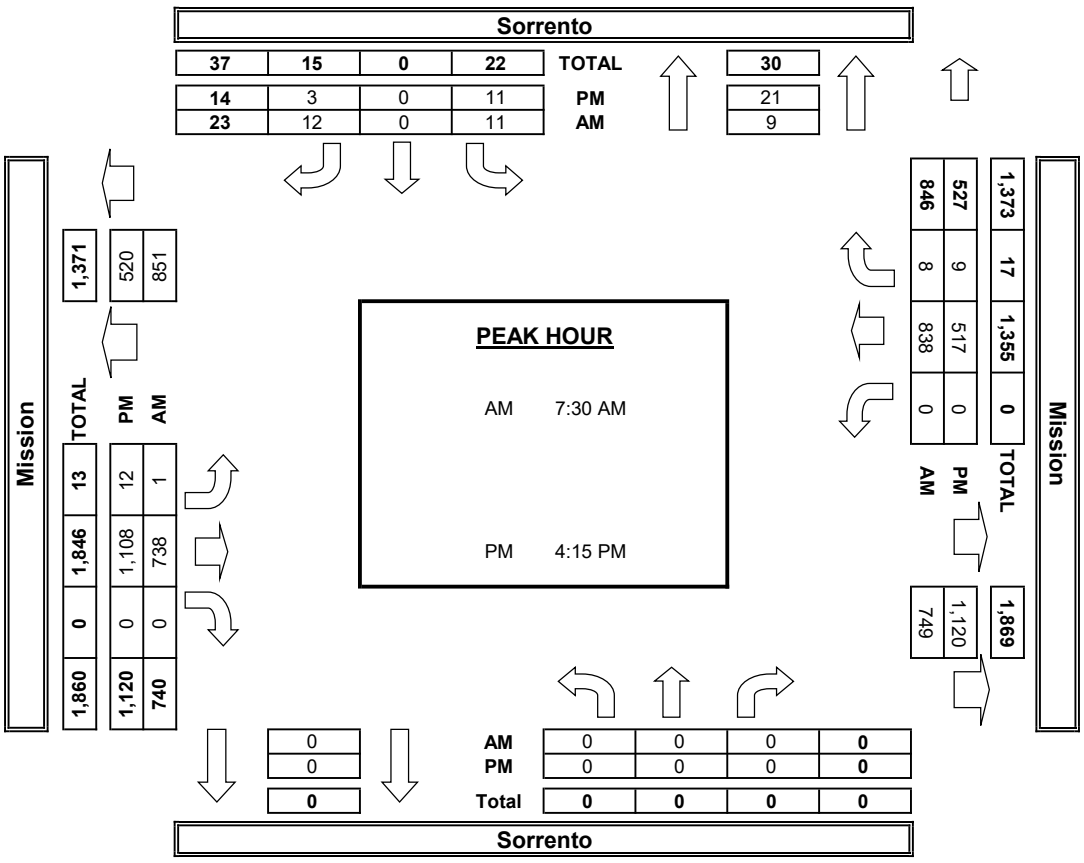


		PEDESTRIAN + BIKE CROSSINGS					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
AM	7:00 AM	3	0	0	0	3	2	0	0	0	2	1	0	0	0	1
	7:15 AM	1	0	0	0	1	1	0	0	0	1	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	1	0	0	0	1	0	0	0	0	0	1	0	0	0	1
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	5	0	0	0	5	3	0	0	0	3	2	0	0	0	2
	AM BEGIN PEAK HR	7:30 AM					0	0	0	0	0					
PM	4:00 PM	1	0	0	0	1	1	0	0	0	1	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	2	0	0	0	2	1	0	0	0	1	1	0	0	0	1
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	2	0	0	0	2	0	0	0	0	0	2	0	0	0	2
	TOTAL	5	0	0	0	5	2	0	0	0	2	3	0	0	0	3
	PM BEGIN PEAK HR	4:15 PM					0	0	0	0	0					

AimTD LLC

TURNING MOVEMENT COUNTS





INTERSECTION TURNING MOVEMENT COUNTS

T218

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Tue, Apr 5, 22

LOCATION: Pomona
NORTH & SOUTH: Phillips
EAST & WEST: Mission

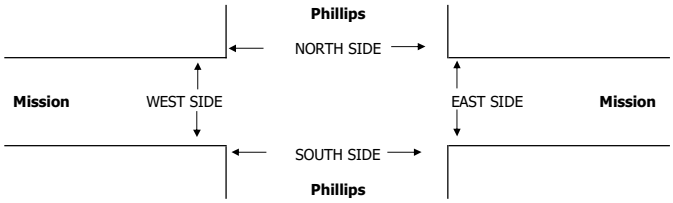
PROJECT #: SC3362
LOCATION #: 4
CONTROL: SIGNAL

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

☑ Add U-Turns to Left Turns

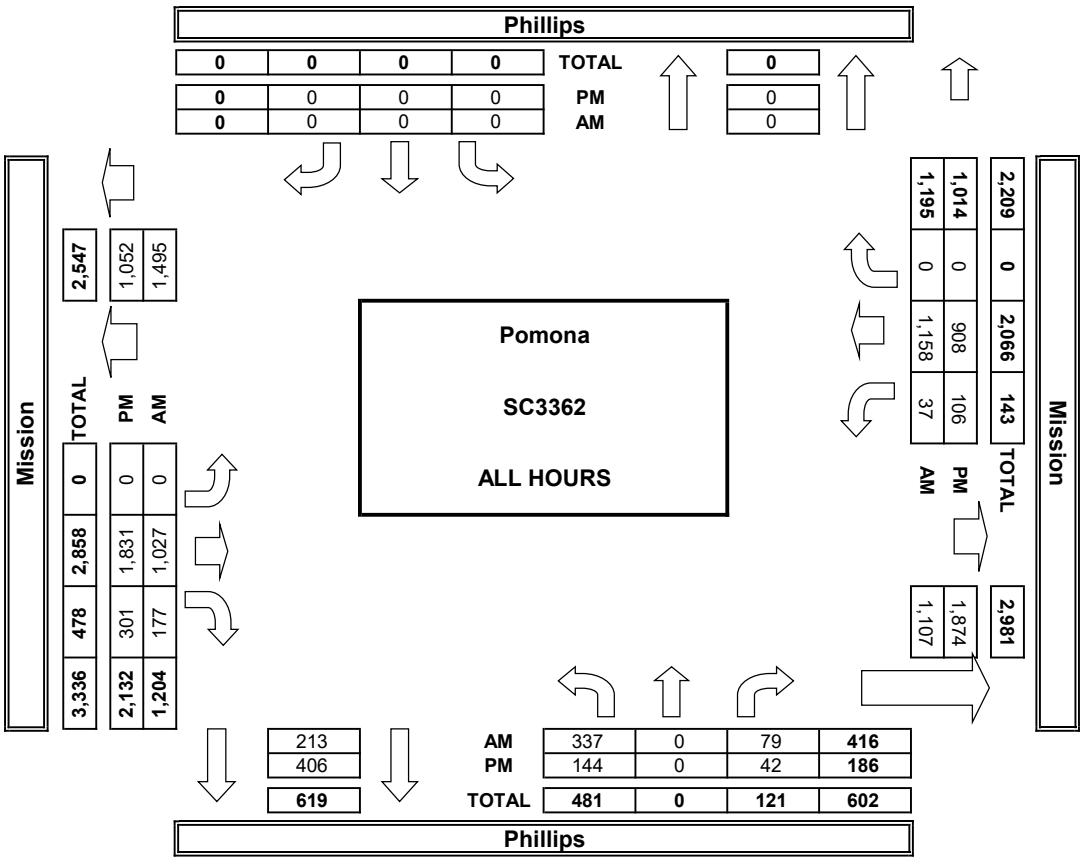
		NORTHBOUND (Phillips)			SOUTHBOUND (Phillips)			EASTBOUND (Mission)			WESTBOUND (Mission)				U-TURNS				
	LANES:	NL 1	NT X	NR 1	SL X	ST X	SR X	EL X	ET 2	ER 1	WL 1	WT 2	WR X	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL
AM	7:00 AM	43	0	10	0	0	0	0	85	7	6	116	0	267	0	0	0	0	0
	7:15 AM	59	0	15	0	0	0	0	87	9	3	172	0	345	0	0	0	0	0
	7:30 AM	62	0	13	0	0	0	0	118	31	5	183	0	412	0	0	0	0	0
	7:45 AM	59	0	11	0	0	0	0	162	42	5	218	0	497	0	0	0	0	0
	8:00 AM	30	0	5	0	0	0	0	157	32	7	147	0	378	0	0	0	1	1
	8:15 AM	28	0	9	0	0	0	0	179	27	3	121	0	367	0	0	0	0	0
	8:30 AM	31	0	7	0	0	0	0	115	15	5	100	0	273	0	0	0	0	0
	8:45 AM	25	0	9	0	0	0	0	124	14	3	101	0	276	0	0	0	0	0
	VOLUMES	337	0	79	0	0	0	0	1,027	177	37	1,158	0	2,815	0	0	0	1	1
	APPROACH %	81%	0%	19%	0%	0%	0%	0%	85%	15%	3%	97%	0%						
	APP/DEPART	416	/	0	0	/	213	1,204	/	1,107	1,195	/	1,495	0					
	BEGIN PEAK HR		7:30 AM																
	VOLUMES	179	0	38	0	0	0	0	616	132	20	669	0	1,654					
	APPROACH %	82%	0%	18%	0%	0%	0%	0%	82%	18%	3%	97%	0%						
	PEAK HR FACTOR		0.723			0.000			0.908			0.772		0.832					
	APP/DEPART	217	/	0	0	/	151	748	/	655	689	/	848	0					
PM	4:00 PM	12	0	6	0	0	0	0	208	29	8	93	0	356	0	0	0	0	0
	4:15 PM	19	0	5	0	0	0	0	231	47	11	113	0	426	0	0	0	0	0
	4:30 PM	16	0	4	0	0	0	0	248	25	6	99	0	398	0	0	0	0	0
	4:45 PM	18	0	5	0	0	0	0	245	35	14	114	0	431	0	0	0	1	1
	5:00 PM	27	0	6	0	0	0	0	249	37	24	121	0	464	0	0	0	0	0
	5:15 PM	23	0	9	0	0	0	0	211	36	14	120	0	413	0	0	0	0	0
	5:30 PM	16	0	5	0	0	0	0	199	49	14	128	0	411	0	0	0	0	0
	5:45 PM	13	0	2	0	0	0	0	240	43	15	120	0	433	0	0	0	0	0
	VOLUMES	144	0	42	0	0	0	0	1,831	301	106	908	0	3,332	0	0	0	1	1
	APPROACH %	77%	0%	23%	0%	0%	0%	0%	86%	14%	10%	90%	0%						
	APP/DEPART	186	/	0	0	/	406	2,132	/	1,874	1,014	/	1,052	0					
	BEGIN PEAK HR		5:00 PM																
	VOLUMES	79	0	22	0	0	0	0	899	165	67	489	0	1,721					
	APPROACH %	78%	0%	22%	0%	0%	0%	0%	84%	16%	12%	88%	0%						
	PEAK HR FACTOR		0.765			0.000			0.930			0.959		0.927					
	APP/DEPART	101	/	0	0	/	232	1,064	/	921	556	/	568	0					

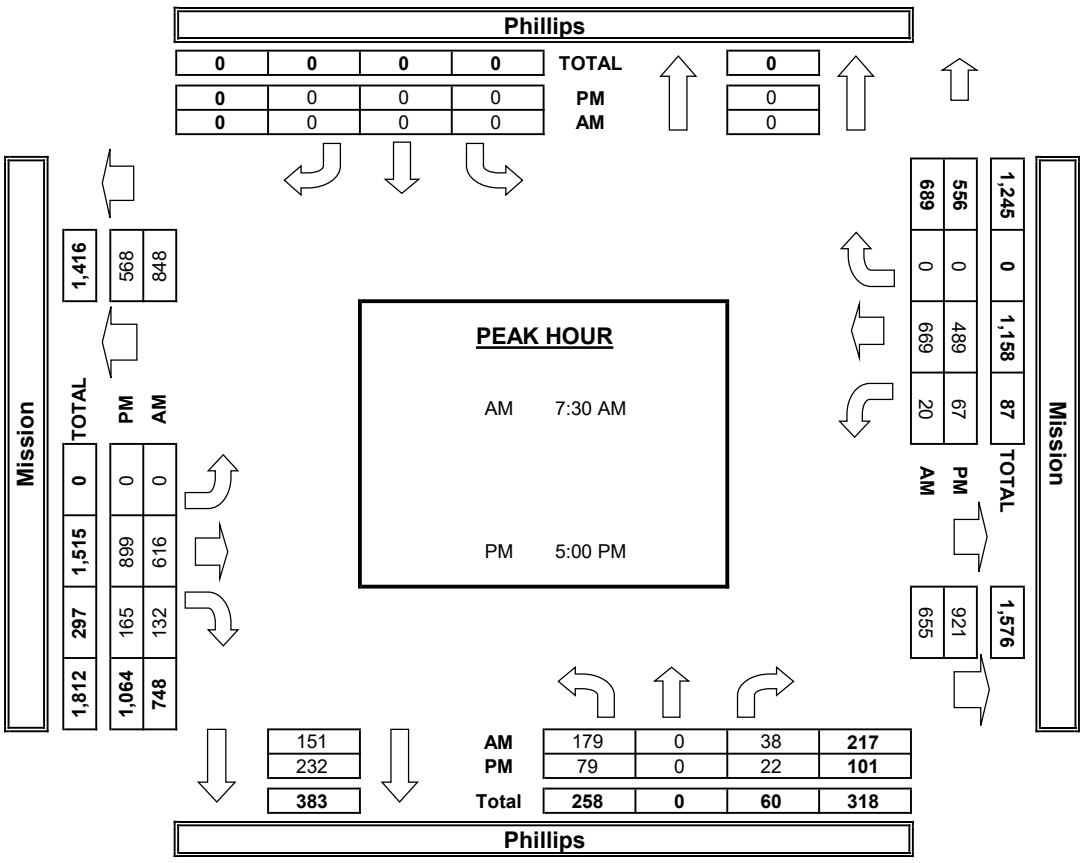


		PEDESTRIAN + BIKE CROSSINGS					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
AM	7:00 AM	0	0	0	1	1	0	0	0	1	1	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	1	1	0	0	0	1	1	0	0	0	0	0
	AM BEGIN PEAK HR			7:30 AM			0	0	0	0	0					
PM	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	1	0	0	1	0	1	0	0	1	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	2	0	0	0	2	0	0	0	0	0	2	0	0	0	2
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	2	0	1	0	3	0	0	0	0	0	2	0	1	0	3
	TOTAL	4	1	1	0	6	0	1	0	0	1	4	0	1	0	5
	PM BEGIN PEAK HR			5:00 PM			0	0	0	0	0					

AimTD LLC

TURNING MOVEMENT COUNTS





INTERSECTION TURNING MOVEMENT COUNTS

T218

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Tue, Apr 5, 22

LOCATION: Pomona
NORTH & SOUTH: Humane
EAST & WEST: Mission

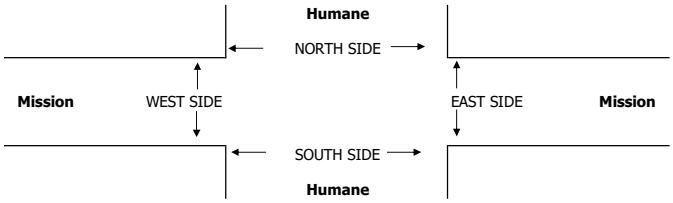
PROJECT #: SC3362
LOCATION #: 5
CONTROL: SIGNAL

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

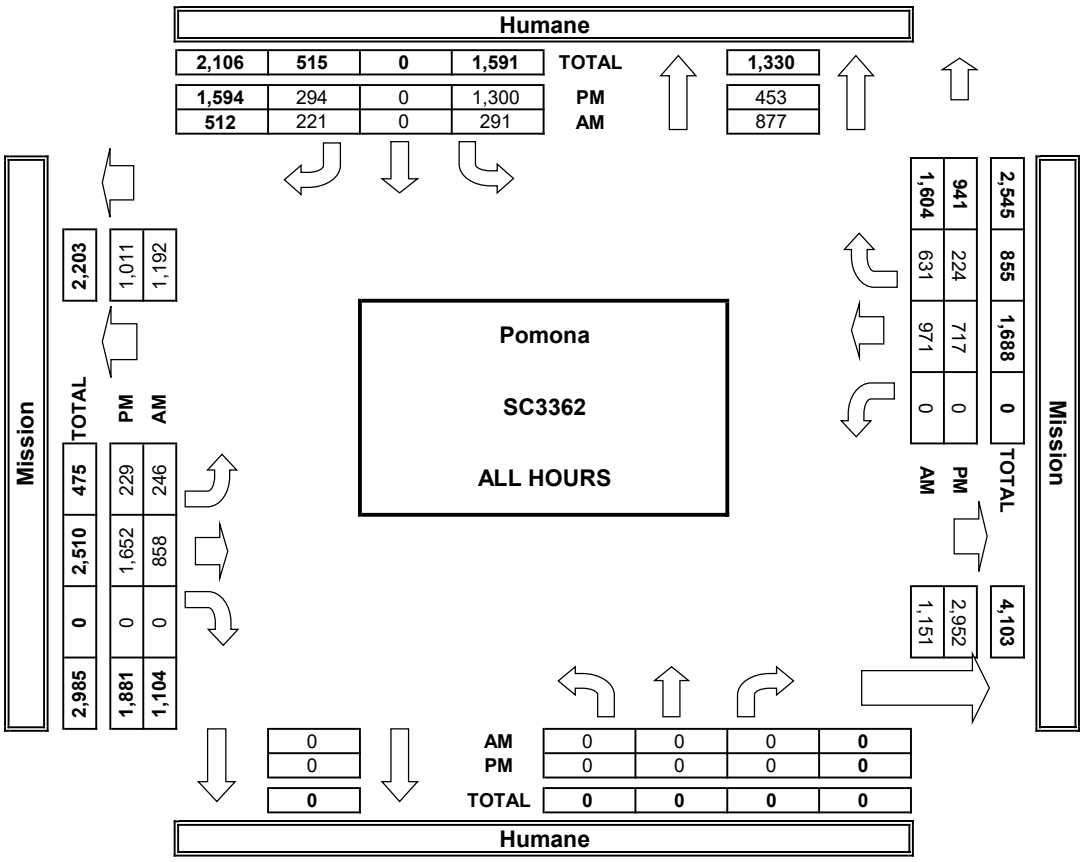
☐ Add U-Turns to Left Turns

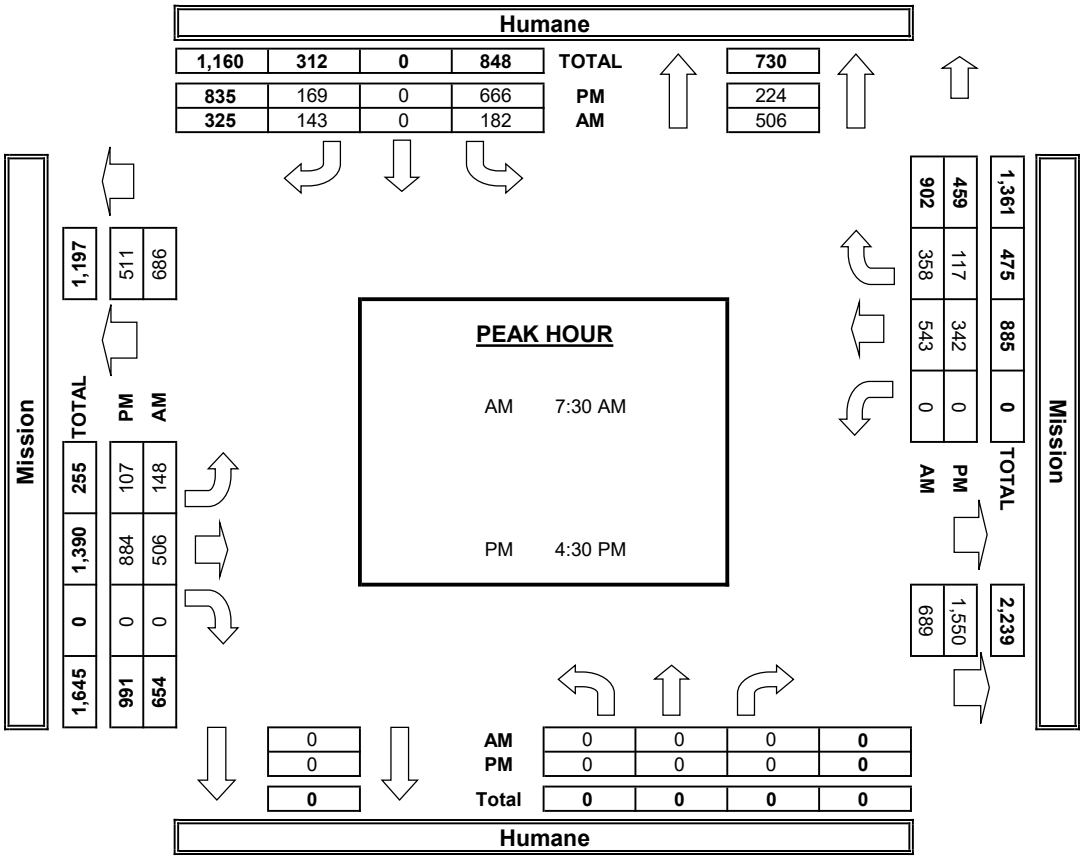
		NORTHBOUND (Humane)			SOUTHBOUND (Humane)			EASTBOUND (Mission)			WESTBOUND (Mission)				U-TURNS				
	LANES:	NL X	NT X	NR X	SL 2	ST X	SR 1	EL 1	ET 2	ER X	WL X	WT 2	WR 1	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL
AM	7:00 AM	0	0	0	29	0	18	18	75	0	0	103	70	313	0	0	0	0	0
	7:15 AM	0	0	0	22	0	22	27	74	0	0	154	83	382	0	0	0	0	0
	7:30 AM	0	0	0	35	0	46	28	98	0	0	161	103	471	0	0	0	0	0
	7:45 AM	0	0	0	56	0	53	50	129	0	0	158	115	561	0	0	0	0	0
	8:00 AM	0	0	0	46	0	31	40	131	0	0	112	79	439	0	0	0	1	1
	8:15 AM	0	0	0	45	0	13	30	148	0	0	112	61	409	0	0	0	0	0
	8:30 AM	0	0	0	33	0	24	24	99	0	0	91	53	324	0	0	0	1	1
	8:45 AM	0	0	0	25	0	14	29	104	0	0	80	67	319	0	0	0	0	0
	VOLUMES	0	0	0	291	0	221	246	858	0	0	971	631	3,220	0	0	0	2	2
	APPROACH %	0%	0%	0%	57%	0%	43%	22%	78%	0%	0%	61%	39%						
	APP/DEPART	0	/	877	512	/	0	1,104	/	1,151	1,604	/	1,192	0					
	BEGIN PEAK HR		7:30 AM																
	VOLUMES	0	0	0	182	0	143	148	506	0	0	543	358	1,881					
	APPROACH %	0%	0%	0%	56%	0%	44%	23%	77%	0%	0%	60%	40%						
	PEAK HR FACTOR		0.000			0.745			0.913			0.826		0.838					
	APP/DEPART	0	/	506	325	/	0	654	/	689	902	/	686	0					
PM	4:00 PM	0	0	0	162	0	28	37	186	0	0	75	27	515	0	0	0	0	0
	4:15 PM	0	0	0	148	0	31	34	197	0	0	95	28	533	0	0	0	0	0
	4:30 PM	0	0	0	184	0	30	21	234	0	0	82	36	587	0	0	0	0	0
	4:45 PM	0	0	0	165	0	39	23	226	0	0	83	26	562	0	0	0	0	0
	5:00 PM	0	0	0	143	0	53	34	218	0	0	87	30	565	0	0	0	0	0
	5:15 PM	0	0	0	174	0	47	29	206	0	0	90	25	571	0	0	0	0	0
	5:30 PM	0	0	0	164	0	37	20	180	0	0	111	27	539	0	0	0	0	0
	5:45 PM	0	0	0	160	0	29	31	205	0	0	94	25	544	0	0	0	0	0
	VOLUMES	0	0	0	1,300	0	294	229	1,652	0	0	717	224	4,416	0	0	0	0	0
	APPROACH %	0%	0%	0%	82%	0%	18%	12%	88%	0%	0%	76%	24%						
	APP/DEPART	0	/	453	1,594	/	0	1,881	/	2,952	941	/	1,011	0					
	BEGIN PEAK HR		4:30 PM																
	VOLUMES	0	0	0	666	0	169	107	884	0	0	342	117	2,285					
	APPROACH %	0%	0%	0%	80%	0%	20%	11%	89%	0%	0%	75%	25%						
	PEAK HR FACTOR		0.000			0.945			0.972			0.972		0.973					
	APP/DEPART	0	/	224	835	/	0	991	/	1,550	459	/	511	0					



		PEDESTRIAN + BIKE CROSSINGS					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	1	1	0	2	4	0	1	0	1	2	1	0	0	1	2
	7:30 AM	0	0	0	1	1	0	0	0	1	1	0	0	0	0	0
	7:45 AM	0	0	0	7	7	0	0	0	7	7	0	0	0	0	0
	8:00 AM	1	0	0	1	2	1	0	0	1	2	0	0	0	0	0
	8:15 AM	1	2	0	2	5	0	1	0	1	2	1	1	0	1	3
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	2	0	2	4	0	2	0	2	4	0	0	0	0	0
	TOTAL	3	5	0	15	23	1	4	0	13	18	2	1	0	2	5
	AM BEGIN PEAK HR			7:30 AM			1	1	0	10	12					
PM	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	1	0	0	0	1	1	0	0	0	1	0	0	0	0	0
	4:30 PM	0	1	0	3	4	0	1	0	3	4	0	0	0	0	0
	4:45 PM	1	0	0	1	2	1	0	0	1	2	0	0	0	0	0
	5:00 PM	0	1	0	10	11	0	1	0	10	11	0	0	0	0	0
	5:15 PM	0	0	0	1	1	0	0	0	1	1	0	0	0	0	0
	5:30 PM	0	0	0	1	1	0	0	0	1	1	0	0	0	0	0
	5:45 PM	1	2	0	2	5	1	2	0	2	5	0	0	0	0	0
	TOTAL	3	4	0	18	25	3	4	0	18	25	0	0	0	0	0
	PM BEGIN PEAK HR			4:30 PM			1	2	0	15	18					

AimTD LLC
TURNING MOVEMENT COUNTS





INTERSECTION TURNING MOVEMENT COUNTS

T218

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

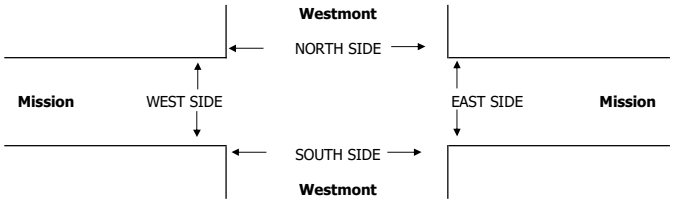
DATE:					
Tue, Apr 5, 22	LOCATION:	Pomona	PROJECT #:	SC3362	
	NORTH & SOUTH:	Westmont	LOCATION #:	6	
	EAST & WEST:	Mission	CONTROL:	SIGNAL	

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

☑ Add U-Turns to Left Turns

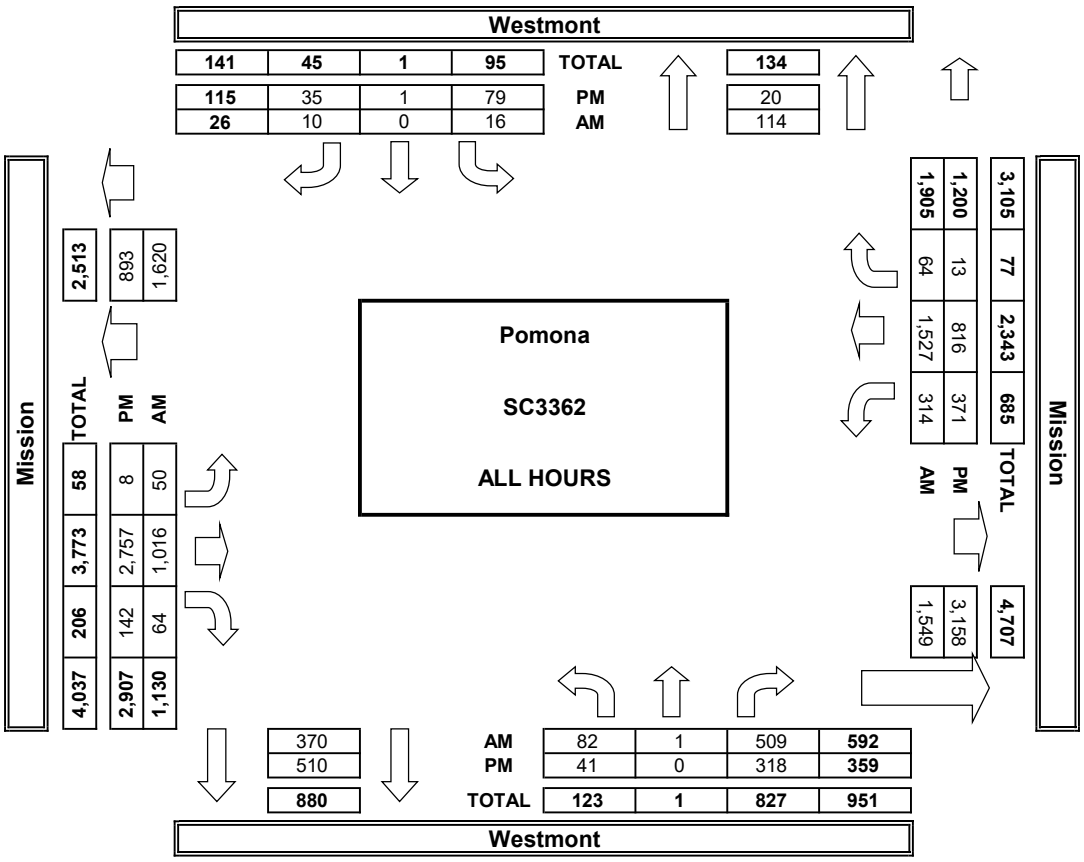
		NORTHBOUND Westmont			SOUTHBOUND Westmont			EASTBOUND Mission			WESTBOUND Mission				U-TURNS				
	LANES:	NL 0	NT 1	NR 0	SL 0	ST 1	SR 0	EL 1	ET 3	ER 0	WL 1	WT 3	WR 0	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL
AM	7:00 AM	10	0	45	1	0	0	9	96	2	19	166	9	357	0	0	0	0	0
	7:15 AM	13	0	49	2	0	2	8	78	5	26	212	12	407	0	0	0	1	1
	7:30 AM	12	0	89	1	0	4	8	111	7	49	245	9	535	0	0	0	2	2
	7:45 AM	13	0	110	1	0	1	7	133	18	89	256	8	636	0	0	0	2	2
	8:00 AM	15	0	101	0	0	0	4	175	15	53	199	9	571	0	0	1	0	1
	8:15 AM	10	0	43	5	0	0	3	182	4	35	145	6	433	0	0	0	1	1
	8:30 AM	5	0	35	2	0	1	4	134	9	20	156	3	369	0	0	0	0	0
	8:45 AM	4	1	37	4	0	2	7	107	4	23	148	8	345	0	0	0	2	2
	VOLUMES	82	1	509	16	0	10	50	1,016	64	314	1,527	64	3,653	0	0	1	8	9
	APPROACH %	14%	0%	86%	62%	0%	38%	4%	90%	6%	16%	80%	3%						
	APP/DEPART	592	/	114	26	/	370	1,130	/	1,549	1,905	/	1,620	0					
	BEGIN PEAK HR		7:30 AM																
	VOLUMES	50	0	343	7	0	5	22	601	44	226	845	32	2,175					
	APPROACH %	13%	0%	87%	58%	0%	42%	3%	90%	7%	20%	77%	3%						
	PEAK HR FACTOR		0.799			0.600			0.860			0.781		0.855					
	APP/DEPART	393	/	53	12	/	265	667	/	956	1,103	/	901	0					
PM	4:00 PM	5	0	40	15	0	11	2	297	13	29	99	4	515	0	0	0	0	0
	4:15 PM	5	0	33	25	1	7	1	340	16	67	105	3	603	0	0	0	0	0
	4:30 PM	5	0	43	4	0	3	1	385	11	50	99	0	601	0	0	0	2	2
	4:45 PM	5	0	44	8	0	0	2	384	24	44	101	0	612	0	0	0	1	1
	5:00 PM	3	0	40	7	0	3	1	340	15	46	108	3	566	0	0	0	0	0
	5:15 PM	4	0	34	9	0	4	0	349	26	40	95	2	563	0	0	0	0	0
	5:30 PM	8	0	40	6	0	5	1	330	17	42	107	0	556	0	0	1	0	1
	5:45 PM	6	0	44	5	0	2	0	332	20	53	102	1	565	0	0	0	1	1
	VOLUMES	41	0	318	79	1	35	8	2,757	142	371	816	13	4,581	0	0	1	4	5
	APPROACH %	11%	0%	89%	69%	1%	30%	0%	95%	5%	31%	68%	1%						
	APP/DEPART	359	/	20	115	/	510	2,907	/	3,158	1,200	/	893	0					
	BEGIN PEAK HR		4:15 PM																
	VOLUMES	18	0	160	44	1	13	5	1,449	66	207	413	6	2,382					
	APPROACH %	10%	0%	90%	76%	2%	22%	0%	95%	4%	33%	66%	1%						
	PEAK HR FACTOR		0.908			0.439			0.927			0.894		0.973					
	APP/DEPART	178	/	11	58	/	271	1,520	/	1,656	626	/	444	0					

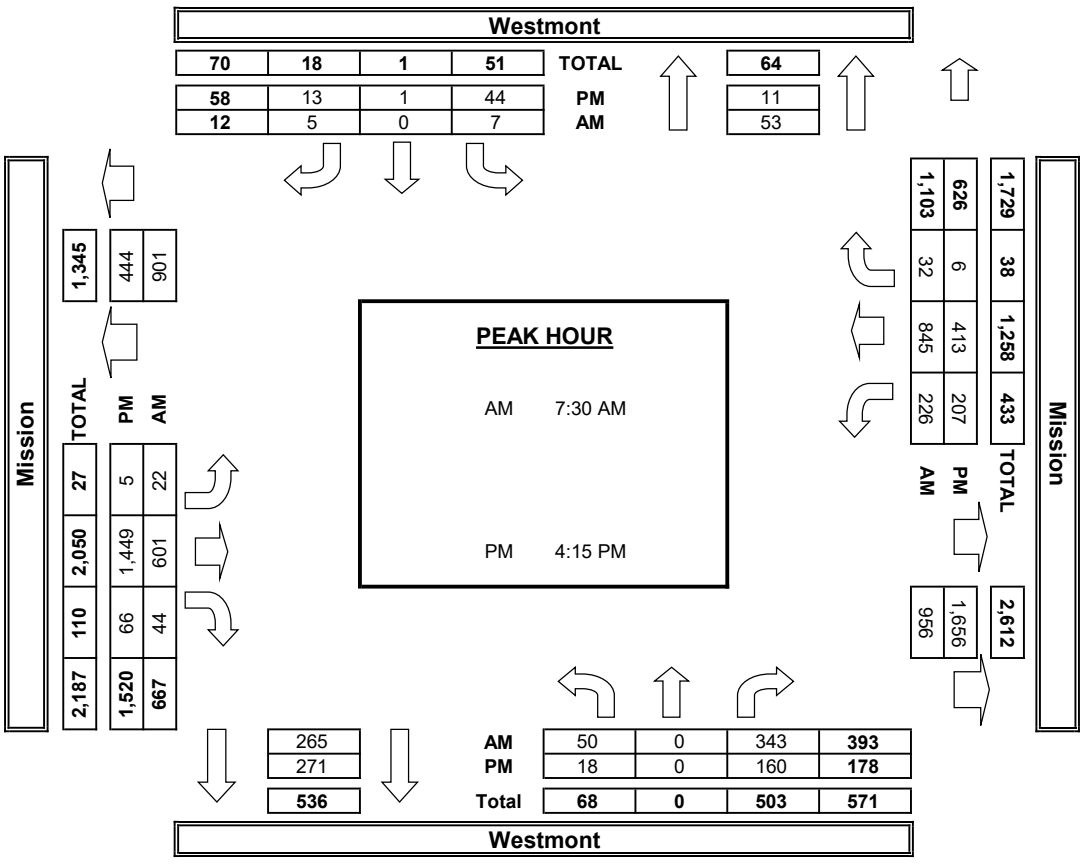


		PEDESTRIAN + BIKE CROSSINGS					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
AM	7:00 AM	0	1	0	1	2	0	0	0	1	1	0	1	0	0	1
	7:15 AM	2	0	0	0	2	1	0	0	0	1	1	0	0	0	1
	7:30 AM	0	1	0	0	1	0	1	0	0	1	0	0	0	0	0
	7:45 AM	1	0	0	2	3	0	0	0	2	2	1	0	0	0	1
	8:00 AM	2	0	0	0	2	0	0	0	0	0	2	0	0	0	2
	8:15 AM	1	0	0	0	1	0	0	0	0	0	1	0	0	0	1
	8:30 AM	0	3	0	1	4	0	3	0	1	4	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	6	5	0	4	15	1	4	0	4	9	5	1	0	0	6
	AM BEGIN PEAK HR	7:30 AM					0	1	0	2	3					
PM	4:00 PM	0	1	0	1	2	0	1	0	1	2	0	0	0	0	0
	4:15 PM	0	0	0	1	1	0	0	0	1	1	0	0	0	0	0
	4:30 PM	1	0	0	0	1	0	0	0	0	0	1	0	0	0	1
	4:45 PM	1	0	0	0	1	1	0	0	0	1	0	0	0	0	0
	5:00 PM	1	1	0	2	4	0	1	0	1	2	1	0	0	1	2
	5:15 PM	0	1	0	1	2	0	1	0	1	2	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	3	3	0	0	0	3	3	0	0	0	0	0
	TOTAL	3	3	0	8	14	1	3	0	7	11	2	0	0	1	3
	PM BEGIN PEAK HR	4:15 PM					1	1	0	2	4					

AimTD LLC

TURNING MOVEMENT COUNTS





INTERSECTION TURNING MOVEMENT COUNTS

T218

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Tue, Apr 5, 22

LOCATION: Pomona
NORTH & SOUTH: SR-71 SB Ramps
EAST & WEST: Mission

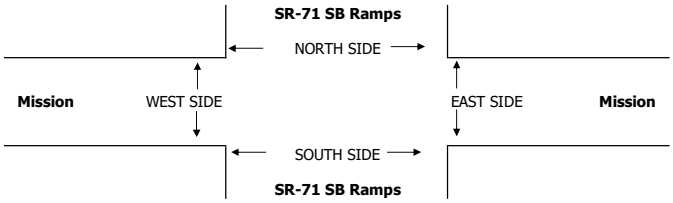
PROJECT #: SC3362
LOCATION #: 7
CONTROL: SIGNAL

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

☑ Add U-Turns to Left Turns

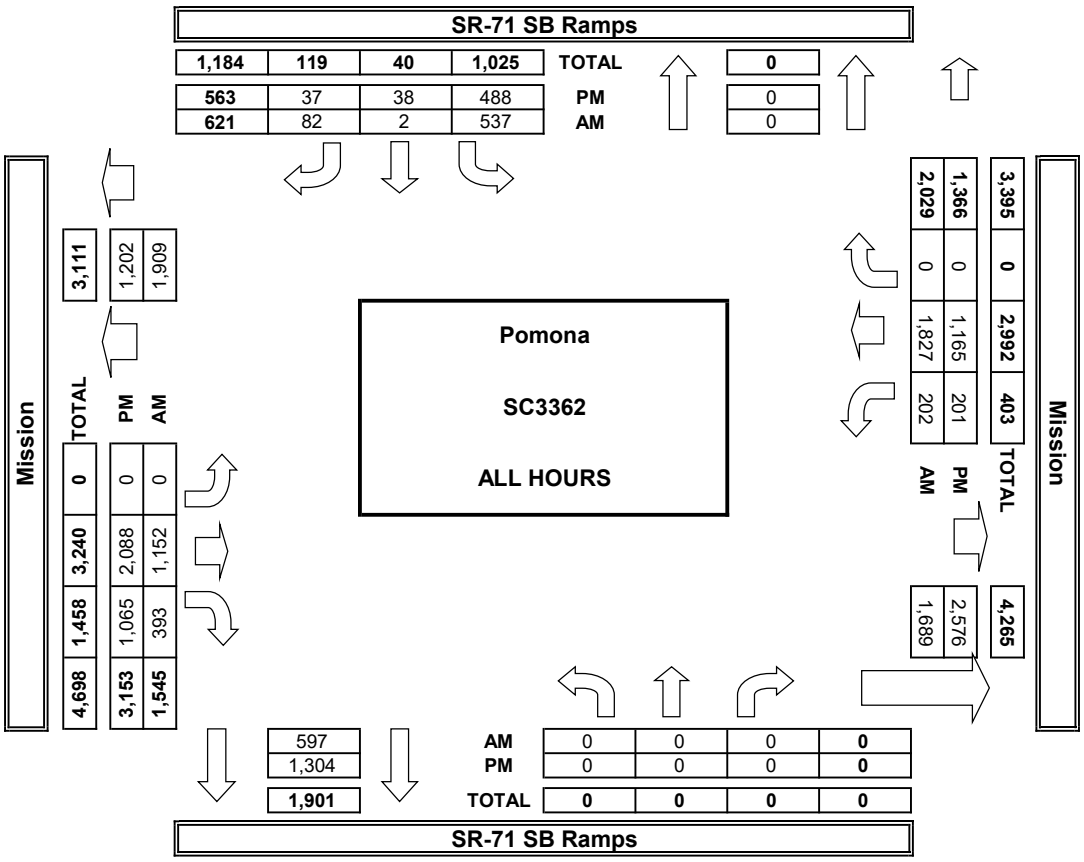
		NORTHBOUND SR-71 SB Ramps			SOUTHBOUND SR-71 SB Ramps			EASTBOUND Mission			WESTBOUND Mission				U-TURNS				
	LANES:	NL X	NT X	NR X	SL 1.5	ST 0.5	SR 1	EL X	ET 3	ER 0	WL 1	WT 3	WR X	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL
AM	7:00 AM	0	0	0	46	0	7	0	98	47	19	187	0	404	0	0	0	0	0
	7:15 AM	0	0	0	69	1	11	0	93	37	19	239	0	469	0	0	0	0	0
	7:30 AM	0	0	0	73	0	12	0	141	53	38	291	0	608	0	0	0	0	0
	7:45 AM	0	0	0	85	0	14	0	185	61	37	341	0	723	0	0	0	0	0
	8:00 AM	0	0	0	92	0	11	0	217	59	31	250	0	660	0	0	0	0	0
	8:15 AM	0	0	0	66	1	11	0	180	51	25	175	0	509	0	0	0	0	0
	8:30 AM	0	0	0	59	0	6	0	124	47	25	175	0	436	0	0	0	0	0
	8:45 AM	0	0	0	47	0	10	0	114	38	8	169	0	386	0	0	0	0	0
	VOLUMES	0	0	0	537	2	82	0	1,152	393	202	1,827	0	4,195	0	0	0	0	0
	APPROACH %	0%	0%	0%	86%	0%	13%	0%	75%	25%	10%	90%	0%						
	APP/DEPART	0	/	0	621	/	597	1,545	/	1,689	2,029	/	1,909	0					
	BEGIN PEAK HR		7:30 AM																
	VOLUMES	0	0	0	316	1	48	0	723	224	131	1,057	0	2,500					
	APPROACH %	0%	0%	0%	87%	0%	13%	0%	76%	24%	11%	89%	0%						
	PEAK HR FACTOR		0.000			0.886			0.858			0.786		0.864					
	APP/DEPART	0	/	0	365	/	356	947	/	1,039	1,188	/	1,105	0					
PM	4:00 PM	0	0	0	59	7	2	0	241	111	26	130	0	576	0	0	0	0	0
	4:15 PM	0	0	0	46	10	3	0	282	116	17	172	0	646	0	0	0	0	0
	4:30 PM	0	0	0	84	0	7	0	286	148	34	142	0	701	0	0	0	0	0
	4:45 PM	0	0	0	55	4	3	0	281	154	23	142	0	662	0	0	0	0	0
	5:00 PM	0	0	0	57	1	5	0	267	120	27	153	0	630	0	0	0	0	0
	5:15 PM	0	0	0	68	6	4	0	255	137	31	133	0	634	0	0	0	0	0
	5:30 PM	0	0	0	53	5	5	0	253	120	28	144	0	608	0	0	0	0	0
	5:45 PM	0	0	0	66	5	8	0	223	159	15	149	0	625	0	0	0	0	0
	VOLUMES	0	0	0	488	38	37	0	2,088	1,065	201	1,165	0	5,082	0	0	0	0	0
	APPROACH %	0%	0%	0%	87%	7%	7%	0%	66%	34%	15%	85%	0%						
	APP/DEPART	0	/	0	563	/	1,304	3,153	/	2,576	1,366	/	1,202	0					
	BEGIN PEAK HR		4:15 PM																
	VOLUMES	0	0	0	242	15	18	0	1,116	538	101	609	0	2,639					
	APPROACH %	0%	0%	0%	88%	5%	7%	0%	67%	33%	14%	86%	0%						
	PEAK HR FACTOR		0.000			0.755			0.951			0.939		0.941					
	APP/DEPART	0	/	0	275	/	654	1,654	/	1,358	710	/	627	0					

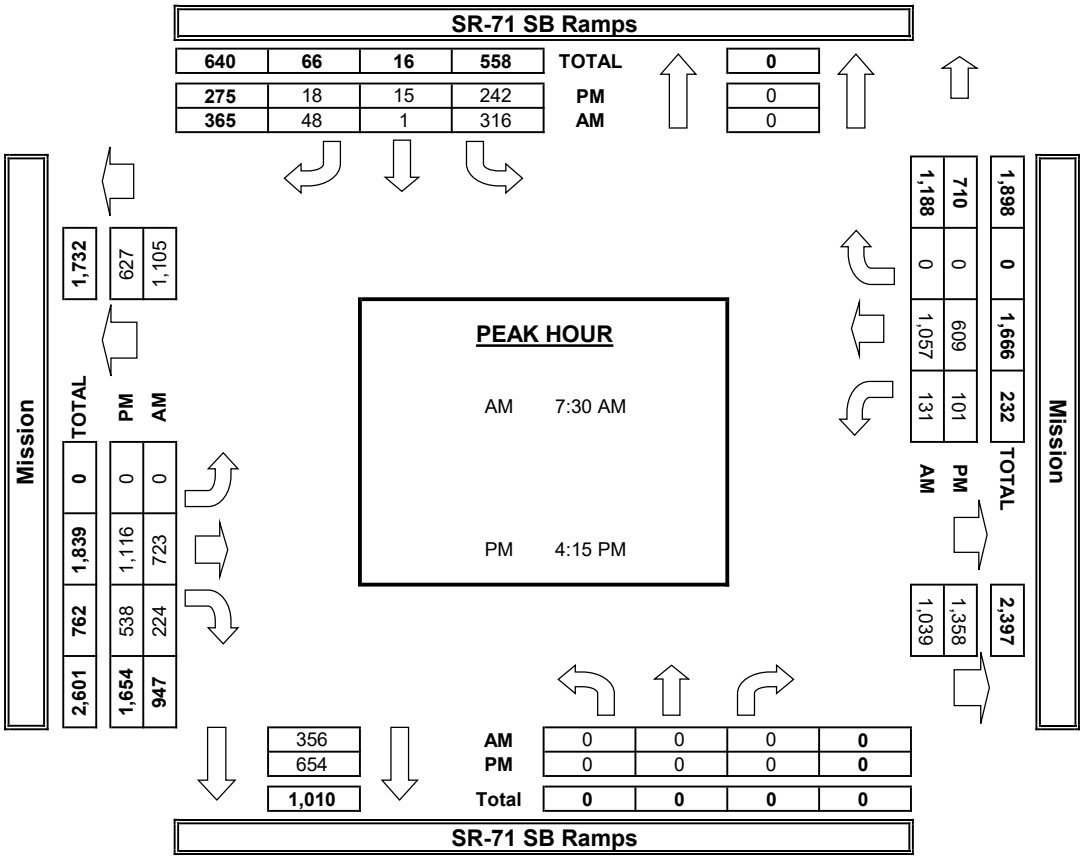


		PEDESTRIAN + BIKE CROSSINGS					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	1	2	0	0	3	0	2	0	0	2	1	0	0	0	1
	7:45 AM	1	0	0	0	1	0	0	0	0	0	1	0	0	0	1
	8:00 AM	0	1	0	0	1	0	1	0	0	1	0	0	0	0	0
	8:15 AM	3	1	0	0	4	0	1	0	0	1	3	0	0	0	3
	8:30 AM	0	1	0	0	1	0	1	0	0	1	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	5	5	0	0	10	0	5	0	0	5	5	0	0	0	5
	AM BEGIN PEAK HR			7:30 AM			0	4	0	0	4					
PM	4:00 PM	0	1	0	0	1	0	1	0	0	1	0	0	0	0	0
	4:15 PM	0	1	0	0	1	0	1	0	0	1	0	0	0	0	0
	4:30 PM	1	0	0	0	1	0	0	0	0	0	1	0	0	0	1
	4:45 PM	1	0	0	0	1	1	0	0	0	1	0	0	0	0	0
	5:00 PM	2	0	0	0	2	1	0	0	0	1	1	0	0	0	1
	5:15 PM	0	1	0	0	1	0	1	0	0	1	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	4	3	0	0	7	2	3	0	0	5	2	0	0	0	2
	PM BEGIN PEAK HR			4:15 PM			2	1	0	0	3					

AimTD LLC

TURNING MOVEMENT COUNTS





INTERSECTION TURNING MOVEMENT COUNTS

T218

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Tue, Apr 5, 22

LOCATION: Pomona
NORTH & SOUTH: SR-71 NB Ramps
EAST & WEST: Mission

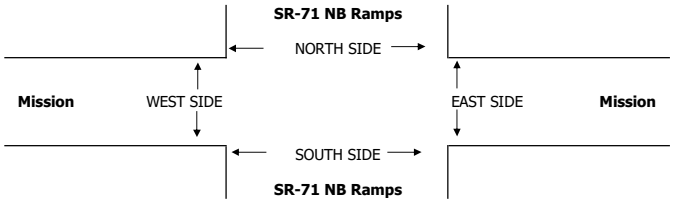
PROJECT #: SC3362
LOCATION #: 8
CONTROL: SIGNAL

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

☑ Add U-Turns to Left Turns

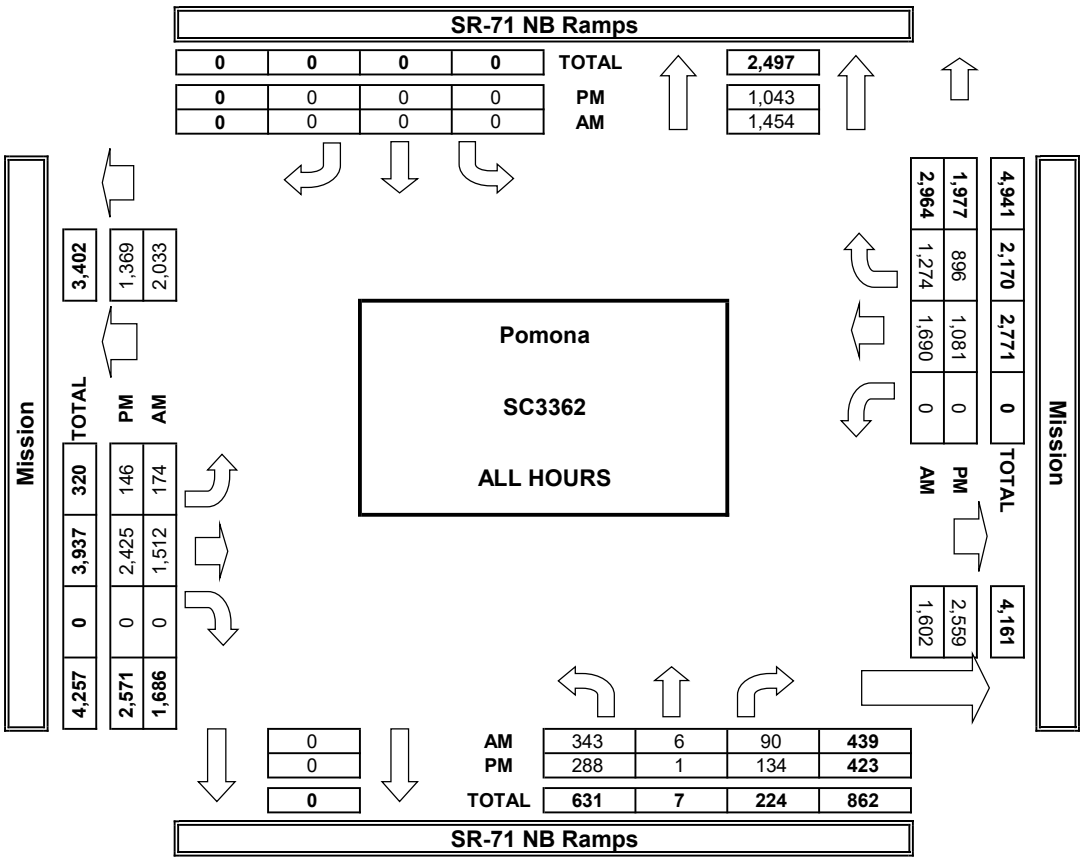
		NORTHBOUND SR-71 NB Ramps			SOUTHBOUND SR-71 NB Ramps			EASTBOUND Mission			WESTBOUND Mission				U-TURNS				
	LANES:	NL 1.5	NT 0.5	NR 1	SL X	ST X	SR X	EL 1	ET 3	ER X	WL X	WT 3	WR 1	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL
AM	7:00 AM	38	0	12	0	0	0	15	129	0	0	168	128	490	0	0	0	0	0
	7:15 AM	52	0	6	0	0	0	26	136	0	0	206	119	545	0	0	0	0	0
	7:30 AM	54	2	7	0	0	0	30	183	0	0	275	174	725	0	0	0	0	0
	7:45 AM	59	2	17	0	0	0	26	244	0	0	321	193	862	0	0	0	0	0
	8:00 AM	35	1	13	0	0	0	21	288	0	0	246	187	791	0	0	0	0	0
	8:15 AM	30	0	13	0	0	0	22	224	0	0	170	169	628	0	0	0	0	0
	8:30 AM	31	0	8	0	0	0	13	170	0	0	169	159	550	0	0	0	0	0
	8:45 AM	44	1	14	0	0	0	21	138	0	0	135	145	498	0	0	0	0	0
	VOLUMES	343	6	90	0	0	0	174	1,512	0	0	1,690	1,274	5,089	0	0	0	0	0
	APPROACH %	78%	1%	21%	0%	0%	0%	10%	90%	0%	0%	57%	43%						
	APP/DEPART	439	/	1,454	0	/	0	1,686	/	1,602	2,964	/	2,033	0					
	BEGIN PEAK HR		7:30 AM																
	VOLUMES	178	5	50	0	0	0	99	939	0	0	1,012	723	3,006					
	APPROACH %	76%	2%	21%	0%	0%	0%	10%	90%	0%	0%	58%	42%						
	PEAK HR FACTOR		0.747			0.000			0.840			0.844		0.872					
	APP/DEPART	233	/	827	0	/	0	1,038	/	989	1,735	/	1,190	0					
PM	4:00 PM	33	0	16	0	0	0	20	280	0	0	123	118	590	0	0	0	0	0
	4:15 PM	54	0	20	0	0	0	26	302	0	0	135	94	631	0	0	0	0	0
	4:30 PM	39	0	13	0	0	0	16	352	0	0	137	119	676	0	0	0	0	0
	4:45 PM	30	0	20	0	0	0	15	321	0	0	136	108	630	0	0	0	0	0
	5:00 PM	37	1	22	0	0	0	25	299	0	0	143	146	673	0	0	0	0	0
	5:15 PM	24	0	16	0	0	0	20	303	0	0	140	121	624	0	0	0	0	0
	5:30 PM	29	0	14	0	0	0	16	290	0	0	143	110	602	0	0	0	0	0
	5:45 PM	42	0	13	0	0	0	8	278	0	0	124	80	545	0	0	0	0	0
	VOLUMES	288	1	134	0	0	0	146	2,425	0	0	1,081	896	4,971	0	0	0	0	0
	APPROACH %	68%	0%	32%	0%	0%	0%	6%	94%	0%	0%	55%	45%						
	APP/DEPART	423	/	1,043	0	/	0	2,571	/	2,559	1,977	/	1,369	0					
	BEGIN PEAK HR		4:15 PM																
	VOLUMES	160	1	75	0	0	0	82	1,274	0	0	551	467	2,610					
	APPROACH %	68%	0%	32%	0%	0%	0%	6%	94%	0%	0%	54%	46%						
	PEAK HR FACTOR		0.797			0.000			0.921			0.881		0.965					
	APP/DEPART	236	/	550	0	/	0	1,356	/	1,349	1,018	/	711	0					

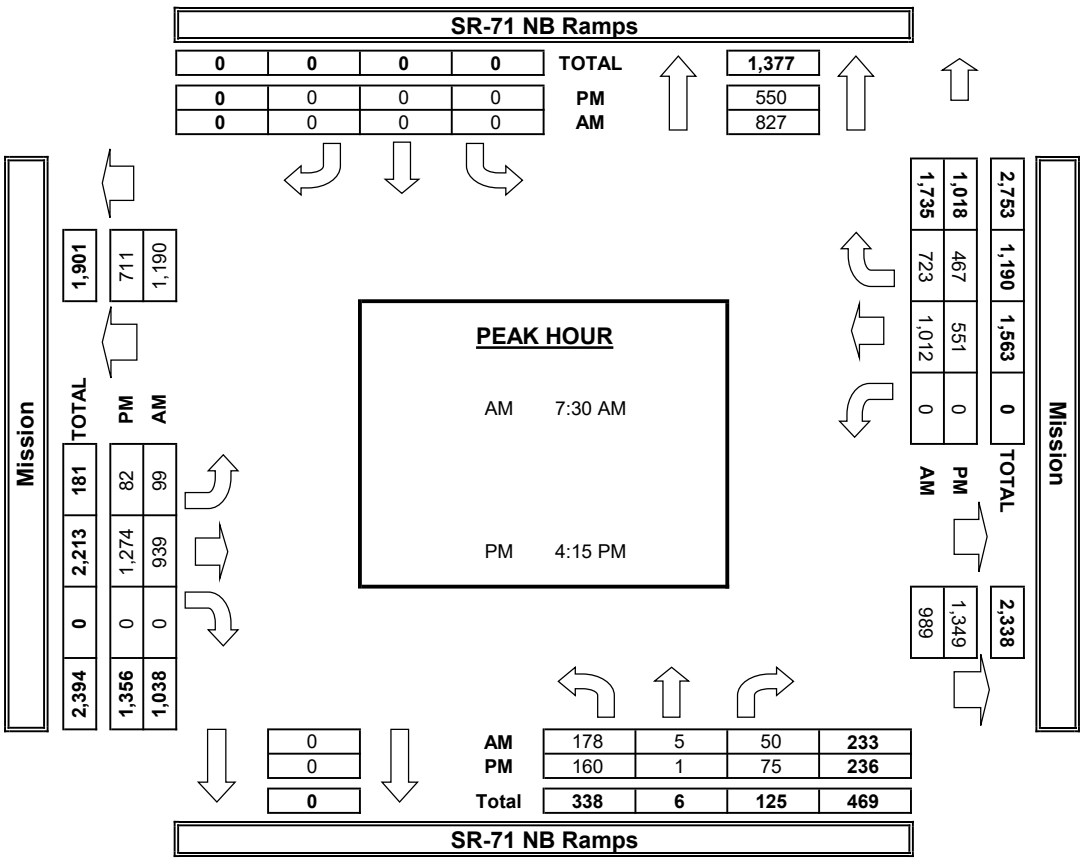


		PEDESTRIAN + BIKE CROSSINGS					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	1	0	1	0	2	0	0	1	0	1	1	0	0	0	1
	7:30 AM	0	2	0	0	2	0	2	0	0	2	0	0	0	0	0
	7:45 AM	1	0	0	0	1	0	0	0	0	0	1	0	0	0	1
	8:00 AM	0	3	0	0	3	0	1	0	0	1	0	2	0	0	2
	8:15 AM	2	2	0	0	4	0	2	0	0	2	2	0	0	0	2
	8:30 AM	1	0	2	0	3	0	0	1	0	1	1	0	1	0	2
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	5	7	3	0	15	0	5	2	0	7	5	2	1	0	8
	AM BEGIN PEAK HR			7:30 AM			0	5	0	0	5					
PM	4:00 PM	0	2	0	0	2	0	2	0	0	2	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	1	0	0	0	1	0	0	0	0	0	1	0	0	0	1
	4:45 PM	1	0	0	0	1	1	0	0	0	1	0	0	0	0	0
	5:00 PM	1	0	0	0	1	0	0	0	0	0	1	0	0	0	1
	5:15 PM	0	1	0	0	1	0	1	0	0	1	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	1	0	0	1	0	1	0	0	1	0	0	0	0	0
	TOTAL	3	4	0	0	7	1	4	0	0	5	2	0	0	0	2
	PM BEGIN PEAK HR			4:15 PM			1	0	0	0	1					

AimTD LLC

TURNING MOVEMENT COUNTS





INTERSECTION TURNING MOVEMENT COUNTS

T218

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Tue, Apr 5, 22

LOCATION: Pomona
NORTH & SOUTH: Sorrento
EAST & WEST: Appian

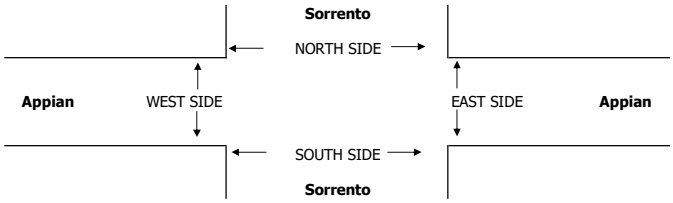
PROJECT #: SC3362
LOCATION #: 9
CONTROL: NO CONTROL

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

☑ Add U-Turns to Left Turns

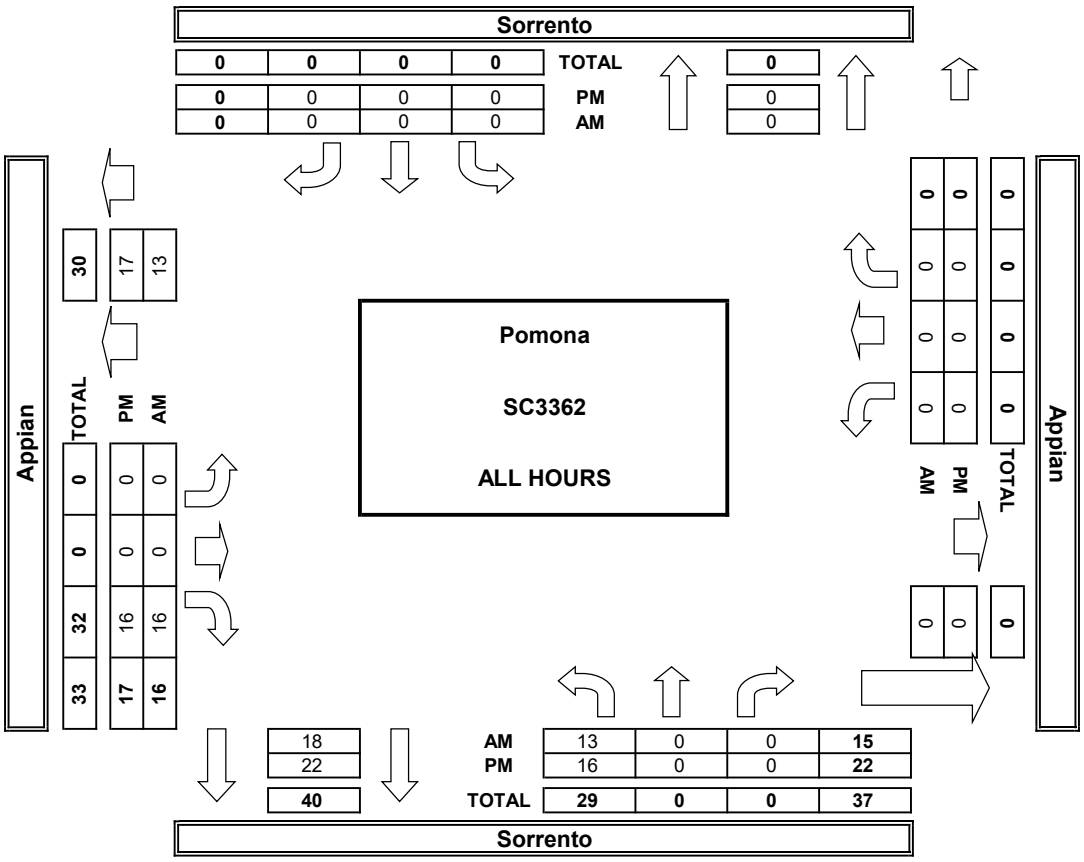
		NORTHBOUND Sorrento			SOUTHBOUND Sorrento			EASTBOUND Appian			WESTBOUND Appian				U-TURNS				
	LANES:	NL 0	NT X	NR X	SL X	ST X	SR X	EL X	ET X	ER 0	WL X	WT X	WR X	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL
AM	7:00 AM	1	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	1
	7:15 AM	1	0	0	0	0	0	0	0	2	0	0	0	3	0	0	0	0	0
	7:30 AM	2	0	0	0	0	0	0	0	3	0	0	0	5	0	0	0	0	0
	7:45 AM	3	0	0	0	0	0	0	0	4	0	0	0	7	0	0	0	0	0
	8:00 AM	3	0	0	0	0	0	0	0	3	0	0	0	6	1	0	0	0	1
	8:15 AM	0	0	0	0	0	0	0	0	3	0	0	0	3	0	0	0	0	0
	8:30 AM	2	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0
	8:45 AM	1	0	0	0	0	0	0	0	1	0	0	0	2	0	0	0	0	0
	VOLUMES	13	0	0	0	0	0	0	0	16	0	0	0	31	2	0	0	0	2
	APPROACH %	87%	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	0%						
	APP/DEPART	15	/	0	0	/	18	16	/	0	0	/	13	0					
	BEGIN PEAK HR		7:30 AM																
	VOLUMES	8	0	0	0	0	0	0	0	13	0	0	0	22					
	APPROACH %	89%	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	0%						
	PEAK HR FACTOR		0.563			0.000			0.813			0.000		0.786					
	APP/DEPART	9	/	0	0	/	14	13	/	0	0	/	8	0					
PM	4:00 PM	2	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0
	4:15 PM	3	0	0	0	0	0	0	0	2	0	0	0	5	2	0	0	0	2
	4:30 PM	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0
	4:45 PM	2	0	0	0	0	0	0	0	3	0	0	0	5	0	0	0	0	0
	5:00 PM	2	0	0	0	0	0	0	0	2	0	0	0	4	2	0	1	0	3
	5:15 PM	4	0	0	0	0	0	0	0	5	0	0	0	9	1	0	0	0	1
	5:30 PM	2	0	0	0	0	0	0	0	3	0	0	0	5	0	0	0	0	0
	5:45 PM	1	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	1
	VOLUMES	16	0	0	0	0	0	0	0	16	0	0	0	39	6	0	1	0	7
	APPROACH %	73%	0%	0%	0%	0%	0%	0%	0%	94%	0%	0%	0%						
	APP/DEPART	22	/	0	0	/	22	17	/	0	0	/	17	0					
	BEGIN PEAK HR		4:45 PM																
	VOLUMES	10	0	0	0	0	0	0	0	13	0	0	0	27					
	APPROACH %	77%	0%	0%	0%	0%	0%	0%	0%	93%	0%	0%	0%						
	PEAK HR FACTOR		0.650			0.000			0.700			0.000		0.675					
	APP/DEPART	13	/	0	0	/	16	14	/	0	0	/	11	0					

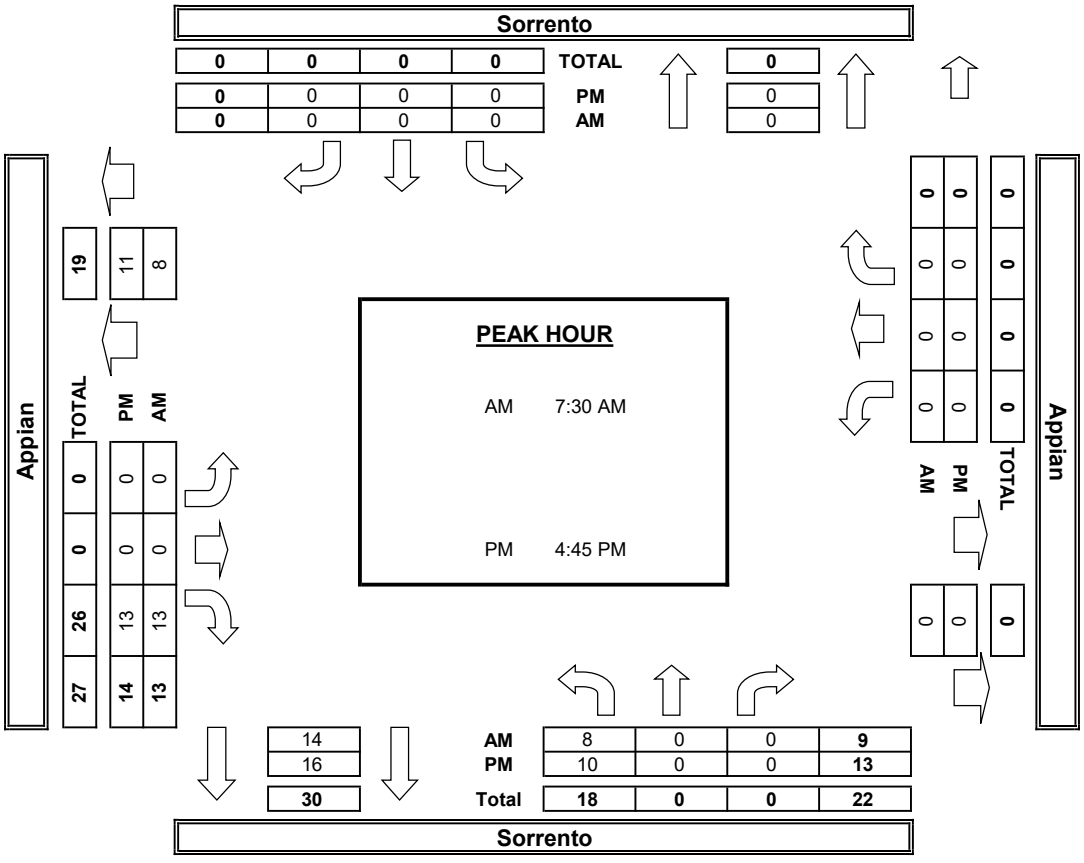


		PEDESTRIAN + BIKE CROSSINGS					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
AM	7:00 AM	0	3	0	0	3	0	3	0	0	3	0	0	0	0	0
	7:15 AM	0	0	0	2	2	0	0	0	2	2	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	2	0	2	0	0	2	0	2	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	3	2	2	7	0	3	2	2	7	0	0	0	0	0
	AM BEGIN PEAK HR			7:30 AM			0	0	2	0	2					
PM	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	2	2	0	4	0	2	2	0	4	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	1	0	0	1	0	1	0	0	1	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	1	0	1	2	0	1	0	1	2	0	0	0	0	0
	TOTAL	0	4	2	1	7	0	4	2	1	7	0	0	0	0	0
	PM BEGIN PEAK HR			4:45 PM			0	1	0	0	1					

AimTD LLC

TURNING MOVEMENT COUNTS





INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Tue, Jan 31, 23

LOCATION: Pomona
NORTH & SOUTH: SR-57 SB Ramps
EAST & WEST: Temple

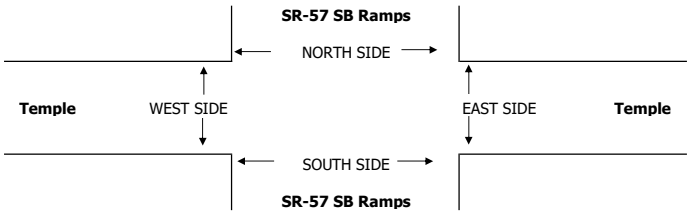
PROJECT #: SC3362
LOCATION #: 10
CONTROL: SIGNAL

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

☑ Add U-Turns to Left Turns

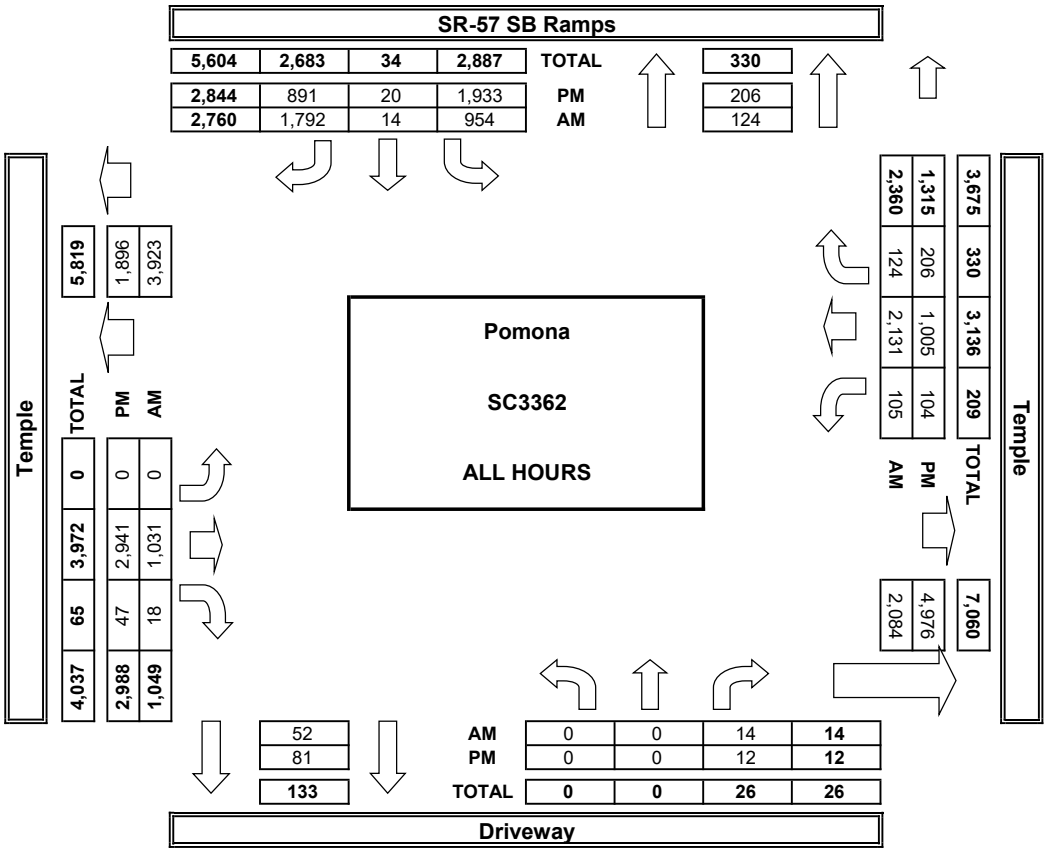
		NORTHBOUND (Driveway)			SOUTHBOUND (SR-57 SB Ramps)			EASTBOUND (Temple)			WESTBOUND (Temple)				U-TURNS				
	LANES:	NL 0	NT X	NR 0	SL 1.3	ST 0.3	SR 1.3	EL X	ET 3	ER 0	WL 1	WT 3	WR 1	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL
AM	7:00 AM	0	0	2	47	0	195	0	79	1	6	251	18	599	0	0	0	6	6
	7:15 AM	0	0	0	98	1	205	0	93	1	14	310	13	735	0	0	0	12	12
	7:30 AM	0	0	2	137	1	242	0	137	6	8	280	11	824	0	0	0	8	8
	7:45 AM	0	0	0	176	5	260	0	131	3	11	320	15	921	0	0	0	9	9
	8:00 AM	0	0	4	123	2	238	0	123	1	18	292	15	816	0	0	0	13	13
	8:15 AM	0	0	0	121	1	224	0	169	0	22	287	22	846	0	0	0	15	15
	8:30 AM	0	0	3	116	2	211	0	171	3	13	198	16	733	0	0	0	11	11
	8:45 AM	0	0	3	136	2	217	0	128	3	13	193	14	709	0	0	0	11	11
	VOLUMES	0	0	14	954	14	1,792	0	1,031	18	105	2,131	124	6,183	0	0	0	85	85
	APPROACH %	0%	0%	100%	35%	1%	65%	0%	98%	2%	4%	90%	5%						
	APP/DEPART	14	/	124	2,760	/	52	1,049	/	2,084	2,360	/	3,923	0					
	BEGIN PEAK HR		7:30 AM																
	VOLUMES	0	0	6	557	9	964	0	560	10	59	1,179	63	3,407					
	APPROACH %	0%	0%	100%	36%	1%	63%	0%	98%	2%	5%	91%	5%						
	PEAK HR FACTOR		0.375			0.867			0.843			0.940		0.925					
	APP/DEPART	6	/	63	1,530	/	33	570	/	1,168	1,301	/	2,143	0					
PM	4:00 PM	0	0	0	288	1	103	0	356	9	17	105	21	900	0	0	0	15	15
	4:15 PM	0	0	2	186	1	113	0	381	5	8	118	20	834	0	0	0	8	8
	4:30 PM	0	0	1	223	4	103	0	326	7	14	122	20	820	0	0	0	13	13
	4:45 PM	0	0	1	262	4	120	0	306	4	12	141	22	872	0	0	0	8	8
	5:00 PM	0	0	2	253	2	103	0	368	4	8	163	41	944	0	0	0	7	7
	5:15 PM	0	0	0	233	3	130	0	438	5	14	130	30	983	0	0	0	13	13
	5:30 PM	0	0	2	219	2	119	0	462	6	13	122	34	979	0	0	0	11	11
	5:45 PM	0	0	4	269	3	100	0	304	7	18	104	18	827	0	0	0	15	15
	VOLUMES	0	0	12	1,933	20	891	0	2,941	47	104	1,005	206	7,159	0	0	0	90	90
	APPROACH %	0%	0%	100%	68%	1%	31%	0%	98%	2%	8%	76%	16%						
	APP/DEPART	12	/	206	2,844	/	81	2,988	/	4,976	1,315	/	1,896	0					
	BEGIN PEAK HR		4:45 PM																
	VOLUMES	0	0	5	967	11	472	0	1,574	19	47	556	127	3,778					
	APPROACH %	0%	0%	100%	67%	1%	33%	0%	99%	1%	6%	76%	17%						
	PEAK HR FACTOR		0.625			0.939			0.851			0.861		0.961					
	APP/DEPART	5	/	127	1,450	/	38	1,593	/	2,585	730	/	1,028	0					

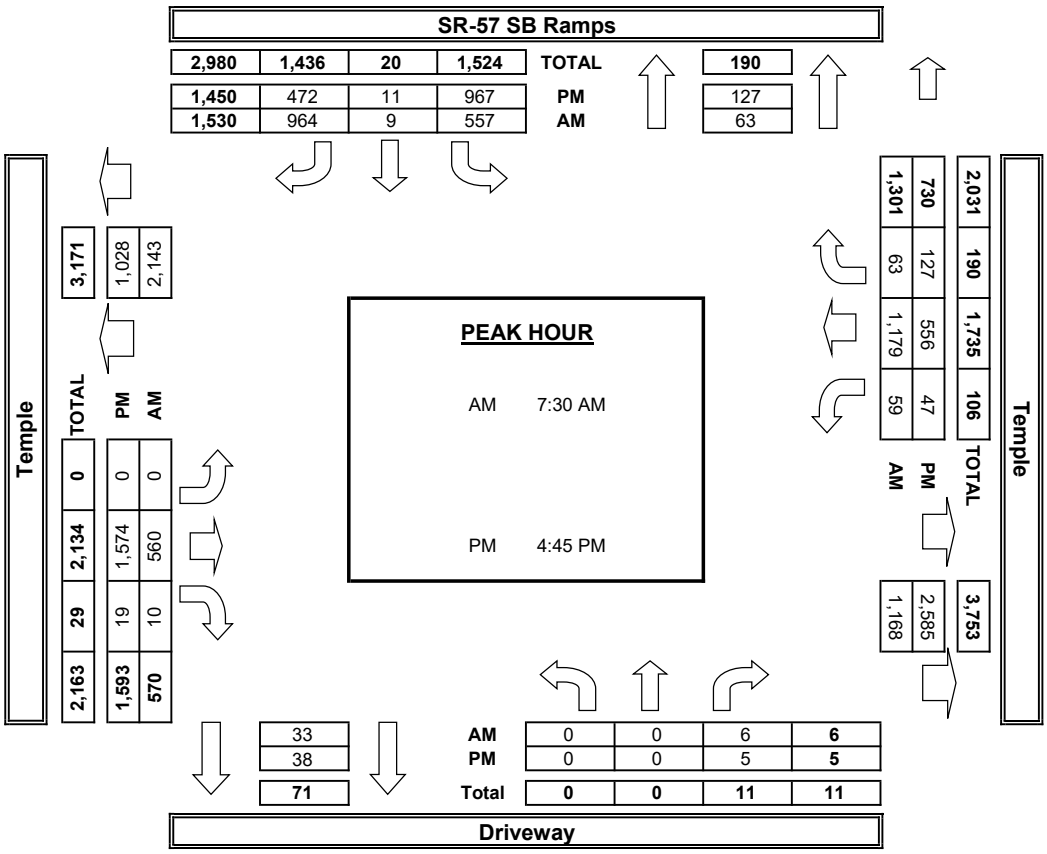


		PEDESTRIAN + BIKE CROSSINGS					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	1	1	0	0	0	1	1	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1
	8:00 AM	0	1	0	0	1	0	1	0	0	1	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1
	8:45 AM	0	1	0	0	1	0	1	0	0	1	0	0	0	0	0
	TOTAL	0	4	0	1	5	0	2	0	1	3	0	2	0	0	2
	AM BEGIN PEAK HR			7:30 AM			0	1	0	0	1					
PM	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	1	1	0	1	3	1	0	0	1	2	0	1	0	0	1
	4:45 PM	0	3	0	0	3	0	3	0	0	3	0	0	0	0	0
	5:00 PM	1	6	0	6	13	1	6	0	6	13	0	0	0	0	0
	5:15 PM	1	1	0	1	3	1	1	0	1	3	0	0	0	0	0
	5:30 PM	2	1	0	2	5	1	1	0	2	4	1	0	0	0	1
	5:45 PM	3	0	0	0	3	3	0	0	0	3	0	0	0	0	0
	TOTAL	8	12	0	10	30	7	11	0	10	28	1	1	0	0	2
	PM BEGIN PEAK HR			4:45 PM			3	11	0	9	23					

AimTD LLC

TURNING MOVEMENT COUNTS





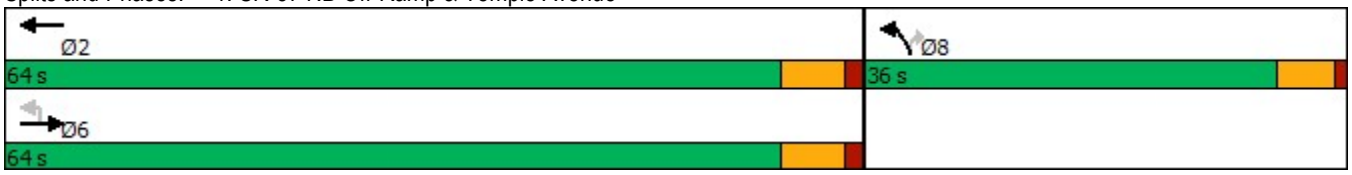
Appendix C

Synchro Worksheets – Existing Conditions

Phase Number	2	6	8
Movement	WBT	EBTU	NBL
Lead/Lag			
Lead-Lag Optimize			
Recall Mode	Min	Min	None
Maximum Split (s)	64	64	36
Maximum Split (%)	64.0%	64.0%	36.0%
Minimum Split (s)	40	40	30
Yellow Time (s)	4.8	4.8	4.4
All-Red Time (s)	1.5	1.5	1
Minimum Initial (s)	10	10	9
Vehicle Extension (s)	3	3	3
Minimum Gap (s)	2.5	2.5	3
Time Before Reduce (s)	0	0	0
Time To Reduce (s)	0	0	0
Walk Time (s)		7	
Flash Dont Walk (s)		15	
Dual Entry	Yes	Yes	Yes
Inhibit Max	Yes	Yes	Yes
Start Time (s)	0	0	64
End Time (s)	64	64	0
Yield/Force Off (s)	57.7	57.7	94.6
Yield/Force Off 170(s)	57.7	57.7	94.6
Local Start Time (s)	0	0	64
Local Yield (s)	57.7	57.7	94.6
Local Yield 170(s)	57.7	57.7	94.6

Intersection Summary	
Cycle Length	100
Control Type	Actuated-Uncoordinated
Natural Cycle	70

Splits and Phases: 1: SR-57 NB Off-Ramp & Temple Avenue





Movement	EBU	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations							
Traffic Volume (veh/h)	14	739	307	0	1572	338	227
Future Volume (veh/h)	14	739	307	0	1572	338	227
Initial Q (Qb), veh		0	0	0	0	0	0
Ped-Bike Adj(A_pbT)			1.00	1.00		1.00	1.00
Parking Bus, Adj		1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No	No	
Adj Sat Flow, veh/h/ln		1870	1870	0	1870	1870	1870
Adj Flow Rate, veh/h		762	0	0	1621	385	194
Peak Hour Factor		0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %		2	2	0	2	2	2
Cap, veh/h		2908		0	2908	686	305
Arrive On Green		0.57	0.00	0.00	0.57	0.19	0.19
Sat Flow, veh/h		5274	2790	0	5443	3563	1585
Grp Volume(v), veh/h		762	0	0	1621	385	194
Grp Sat Flow(s),veh/h/ln		1702	1395	0	1702	1781	1585
Q Serve(g_s), s		3.7	0.0	0.0	9.8	4.8	5.5
Cycle Q Clear(g_c), s		3.7	0.0	0.0	9.8	4.8	5.5
Prop In Lane			1.00	0.00		1.00	1.00
Lane Grp Cap(c), veh/h		2908		0	2908	686	305
V/C Ratio(X)		0.26		0.00	0.56	0.56	0.64
Avail Cap(c_a), veh/h		5991		0	5991	2217	986
HCM Platoon Ratio		1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)		1.00	0.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh		5.4	0.0	0.0	6.7	18.0	18.3
Incr Delay (d2), s/veh		0.0	0.0	0.0	0.2	0.7	2.2
Initial Q Delay(d3),s/veh		0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln		0.7	0.0	0.0	1.9	1.7	1.8
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh		5.4	0.0	0.0	6.8	18.7	20.5
LnGrp LOS		A		A	A	B	C
Approach Vol, veh/h		762			1621	579	
Approach Delay, s/veh		5.4			6.8	19.3	
Approach LOS		A			A	B	

Timer - Assigned Phs	2				6		8
Phs Duration (G+Y+Rc), s	34.3				34.3		14.9
Change Period (Y+Rc), s	6.3				6.3		5.4
Max Green Setting (Gmax), s	57.7				57.7		30.6
Max Q Clear Time (g_c+I1), s	11.8				5.7		7.5
Green Ext Time (p_c), s	16.2				5.6		1.9

Intersection Summary		
HCM 6th Ctrl Delay	8.9	
HCM 6th LOS	A	

Notes

User approved volume balancing among the lanes for turning movement.

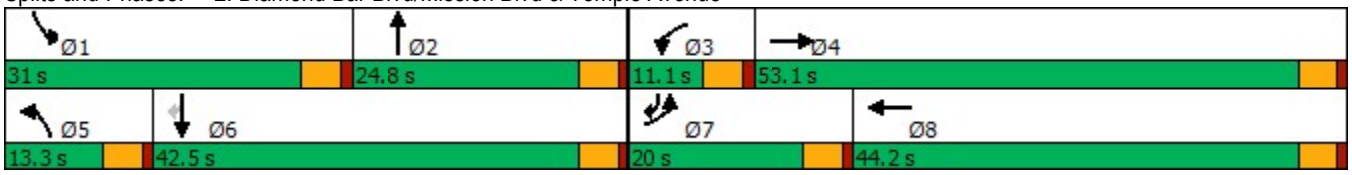
User approved ignoring U-Turning movement.

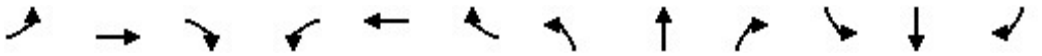
Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Phase Number	1	2	3	4	5	6	7	8
Movement	SBL	NBT	WBL	EBT	NBL	SBT	EBL	WBT
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Min	None	None	None	Min	None	None
Maximum Split (s)	31	24.8	11.1	53.1	13.3	42.5	20	44.2
Maximum Split (%)	25.8%	20.7%	9.3%	44.3%	11.1%	35.4%	16.7%	36.8%
Minimum Split (s)	9.5	22.5	9.5	22.5	9.5	22.5	9.5	22.5
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1	1	1	1	1	1	1	1
Minimum Initial (s)	5	5	5	5	5	5	5	5
Vehicle Extension (s)	3	3	3	3	3	3	3	3
Minimum Gap (s)	3	3	3	3	3	3	3	3
Time Before Reduce (s)	0	0	0	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0	0	0	0
Walk Time (s)		7				7		7
Flash Dont Walk (s)		11				11		11
Dual Entry	No	Yes	No	Yes	No	Yes	No	Yes
Inhibit Max	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Start Time (s)	0	31	55.8	66.9	0	13.3	55.8	75.8
End Time (s)	31	55.8	66.9	0	13.3	55.8	75.8	0
Yield/Force Off (s)	26.5	51.3	62.4	115.5	8.8	51.3	71.3	115.5
Yield/Force Off 170(s)	26.5	51.3	62.4	115.5	8.8	51.3	71.3	104.5
Local Start Time (s)	89	0	24.8	35.9	89	102.3	24.8	44.8
Local Yield (s)	115.5	20.3	31.4	84.5	97.8	20.3	40.3	84.5
Local Yield 170(s)	115.5	20.3	31.4	84.5	97.8	20.3	40.3	73.5

Intersection Summary	
Cycle Length	120
Control Type	Actuated-Uncoordinated
Natural Cycle	90

Splits and Phases: 2: Diamond Bar Blvd/Mission Blvd & Temple Avenue





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	283	432	143	30	1113	245	114	190	37	272	450	374
Future Volume (veh/h)	283	432	143	30	1113	245	114	190	37	272	450	374
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	318	485	161	34	1251	275	128	213	42	306	506	420
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	398	1175	388	55	1519	334	194	423	82	345	995	625
Arrive On Green	0.12	0.45	0.45	0.03	0.36	0.36	0.06	0.14	0.14	0.19	0.28	0.28
Sat Flow, veh/h	3456	2623	865	1781	4174	917	3456	2966	574	1781	3554	1580
Grp Volume(v), veh/h	318	328	318	34	1020	506	128	126	129	306	506	420
Grp Sat Flow(s),veh/h/ln	1728	1777	1711	1781	1702	1687	1728	1777	1763	1781	1777	1580
Q Serve(g_s), s	8.7	12.1	12.3	1.8	26.5	26.5	3.5	6.4	6.6	16.3	11.6	21.3
Cycle Q Clear(g_c), s	8.7	12.1	12.3	1.8	26.5	26.5	3.5	6.4	6.6	16.3	11.6	21.3
Prop In Lane	1.00		0.51	1.00		0.54	1.00		0.33	1.00		1.00
Lane Grp Cap(c), veh/h	398	796	767	55	1239	614	194	253	251	345	995	625
V/C Ratio(X)	0.80	0.41	0.42	0.62	0.82	0.82	0.66	0.50	0.51	0.89	0.51	0.67
Avail Cap(c_a), veh/h	550	887	854	121	1389	688	312	371	368	485	1387	799
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.0	18.2	18.2	46.6	28.1	28.1	45.0	38.5	38.6	38.2	29.4	24.3
Incr Delay (d2), s/veh	5.7	0.3	0.4	10.8	3.8	7.3	3.8	1.5	1.6	13.7	0.4	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.9	4.6	4.5	0.9	10.6	11.1	1.6	2.8	2.8	8.0	4.7	7.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	47.7	18.5	18.6	57.4	31.9	35.5	48.9	40.0	40.2	51.9	29.8	25.7
LnGrp LOS	D	B	B	E	C	D	D	D	D	D	C	C
Approach Vol, veh/h		964			1560			383			1232	
Approach Delay, s/veh		28.2			33.6			43.0			33.9	
Approach LOS		C			C			D			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	23.3	18.4	7.5	48.1	10.0	31.8	15.7	39.9
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	26.5	20.3	6.6	48.6	8.8	38.0	15.5	39.7
Max Q Clear Time (g_c+I1), s	18.3	8.6	3.8	14.3	5.5	23.3	10.7	28.5
Green Ext Time (p_c), s	0.6	0.9	0.0	3.9	0.1	3.9	0.5	6.9

Intersection Summary	
HCM 6th Ctrl Delay	33.3
HCM 6th LOS	C

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	1	738	838	8	11	12
Future Vol, veh/h	1	738	838	8	11	12
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	115	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	83	83	83	83	83	83
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	889	1010	10	13	14

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	1020	0	-	0	1462	510
Stage 1	-	-	-	-	1015	-
Stage 2	-	-	-	-	447	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	676	-	-	-	120	509
Stage 1	-	-	-	-	311	-
Stage 2	-	-	-	-	611	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	676	-	-	-	120	509
Mov Cap-2 Maneuver	-	-	-	-	235	-
Stage 1	-	-	-	-	311	-
Stage 2	-	-	-	-	611	-

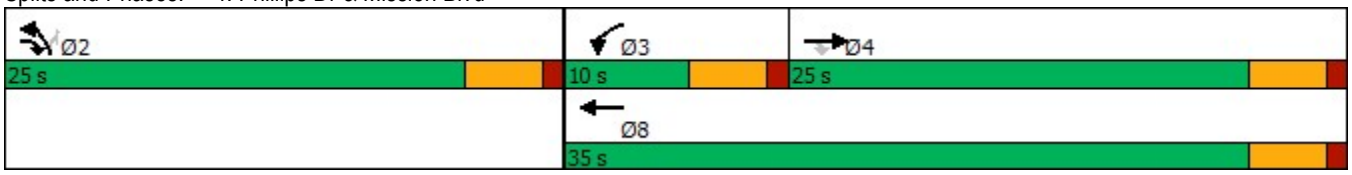
Approach	EB	WB	SB
HCM Control Delay, s	0	0	17
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	676	-	-	-	327
HCM Lane V/C Ratio	0.002	-	-	-	0.085
HCM Control Delay (s)	10.3	-	-	-	17
HCM Lane LOS	B	-	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	0.3

Phase Number	2	3	4	8
Movement	NBL	WBL	EBT	WBT
Lead/Lag		Lead	Lag	
Lead-Lag Optimize		Yes	Yes	
Recall Mode	Max	None	None	None
Maximum Split (s)	25	10	25	35
Maximum Split (%)	41.7%	16.7%	41.7%	58.3%
Minimum Split (s)	22.5	9.5	22.5	22.5
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	1	1	1	1
Minimum Initial (s)	5	5	5	5
Vehicle Extension (s)	3	3	3	3
Minimum Gap (s)	3	3	3	3
Time Before Reduce (s)	0	0	0	0
Time To Reduce (s)	0	0	0	0
Walk Time (s)	7		7	7
Flash Dont Walk (s)	11		11	11
Dual Entry	Yes	No	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes
Start Time (s)	0	25	35	25
End Time (s)	25	35	0	0
Yield/Force Off (s)	20.5	30.5	55.5	55.5
Yield/Force Off 170(s)	9.5	30.5	44.5	44.5
Local Start Time (s)	0	25	35	25
Local Yield (s)	20.5	30.5	55.5	55.5
Local Yield 170(s)	9.5	30.5	44.5	44.5

Intersection Summary	
Cycle Length	60
Control Type	Actuated-Uncoordinated
Natural Cycle	55

Splits and Phases: 4: Phillips Dr & Mission Blvd





Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	616	132	20	669	179	38
Future Volume (veh/h)	616	132	20	669	179	38
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	742	159	24	806	216	46
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1045	1114	50	1464	728	648
Arrive On Green	0.29	0.29	0.03	0.41	0.41	0.41
Sat Flow, veh/h	3647	1585	1781	3647	1781	1585
Grp Volume(v), veh/h	742	159	24	806	216	46
Grp Sat Flow(s),veh/h/ln	1777	1585	1781	1777	1781	1585
Q Serve(g_s), s	9.3	1.7	0.7	8.7	4.1	0.9
Cycle Q Clear(g_c), s	9.3	1.7	0.7	8.7	4.1	0.9
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1045	1114	50	1464	728	648
V/C Ratio(X)	0.71	0.14	0.48	0.55	0.30	0.07
Avail Cap(c_a), veh/h	1452	1295	195	2161	728	648
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	15.8	2.5	24.0	11.2	10.0	9.0
Incr Delay (d2), s/veh	1.0	0.1	6.8	0.3	1.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	1.1	0.3	2.5	1.6	0.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	16.8	2.5	30.8	11.5	11.0	9.2
LnGrp LOS	B	A	C	B	B	A
Approach Vol, veh/h	901			830	262	
Approach Delay, s/veh	14.3			12.1	10.7	
Approach LOS	B			B	B	

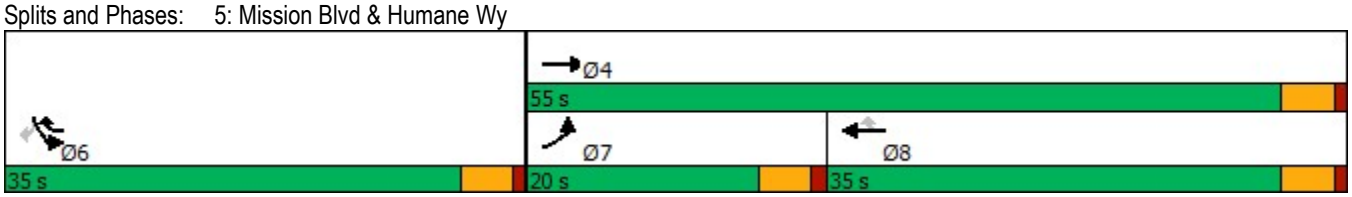
Timer - Assigned Phs		2	3	4		8
Phs Duration (G+Y+Rc), s		25.0	5.9	19.2		25.2
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s		20.5	5.5	20.5		30.5
Max Q Clear Time (g_c+I1), s		6.1	2.7	11.3		10.7
Green Ext Time (p_c), s		0.7	0.0	3.4		5.0

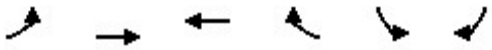
Intersection Summary	
HCM 6th Ctrl Delay	12.9
HCM 6th LOS	B

Phase Number	4	6	7	8
Movement	EBT	SBL	EBL	WBT
Lead/Lag			Lead	Lag
Lead-Lag Optimize			Yes	Yes
Recall Mode	None	Max	None	None
Maximum Split (s)	55	35	20	35
Maximum Split (%)	61.1%	38.9%	22.2%	38.9%
Minimum Split (s)	22.5	22.5	9.5	22.5
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	1	1	1	1
Minimum Initial (s)	5	5	5	5
Vehicle Extension (s)	3	3	3	3
Minimum Gap (s)	3	3	3	3
Time Before Reduce (s)	0	0	0	0
Time To Reduce (s)	0	0	0	0
Walk Time (s)		7		7
Flash Dont Walk (s)		11		11
Dual Entry	Yes	Yes	No	Yes
Inhibit Max	Yes	Yes	Yes	Yes
Start Time (s)	35	0	35	55
End Time (s)	0	35	55	0
Yield/Force Off (s)	85.5	30.5	50.5	85.5
Yield/Force Off 170(s)	85.5	19.5	50.5	74.5
Local Start Time (s)	35	0	35	55
Local Yield (s)	85.5	30.5	50.5	85.5
Local Yield 170(s)	85.5	19.5	50.5	74.5

Intersection Summary	
Cycle Length	90
Control Type	Actuated-Uncoordinated
Natural Cycle	60

Splits and Phases: 5: Mission Blvd & Humane Wy





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	148	506	543	358	182	143
Future Volume (veh/h)	148	506	543	358	182	143
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.98	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	176	602	646	426	217	170
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	220	1599	938	1082	1468	673
Arrive On Green	0.12	0.45	0.26	0.26	0.42	0.42
Sat Flow, veh/h	1781	3647	3647	1548	3456	1585
Grp Volume(v), veh/h	176	602	646	426	217	170
Grp Sat Flow(s),veh/h/ln	1781	1777	1777	1548	1728	1585
Q Serve(g_s), s	6.9	8.1	11.7	8.5	2.8	5.0
Cycle Q Clear(g_c), s	6.9	8.1	11.7	8.5	2.8	5.0
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	220	1599	938	1082	1468	673
V/C Ratio(X)	0.80	0.38	0.69	0.39	0.15	0.25
Avail Cap(c_a), veh/h	384	2499	1509	1331	1468	673
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.6	13.1	23.8	4.8	12.7	13.3
Incr Delay (d2), s/veh	6.6	0.1	0.9	0.2	0.2	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	2.7	4.5	6.6	1.0	0.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	37.3	13.2	24.7	5.0	12.9	14.2
LnGrp LOS	D	B	C	A	B	B
Approach Vol, veh/h		778	1072		387	
Approach Delay, s/veh		18.7	16.9		13.5	
Approach LOS		B	B		B	

Timer - Assigned Phs			4		6	7	8
Phs Duration (G+Y+Rc), s			36.8		35.0	13.4	23.5
Change Period (Y+Rc), s			4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s			50.5		30.5	15.5	30.5
Max Q Clear Time (g_c+I1), s			10.1		7.0	8.9	13.7
Green Ext Time (p_c), s			4.1		1.3	0.2	5.2

Intersection Summary	
HCM 6th Ctrl Delay	16.9
HCM 6th LOS	B

Phase Number	2	3	4	6	7	8
Movement	NBTL	WBL	EBT	SBTL	EBL	WBT
Lead/Lag		Lead	Lag		Lead	Lag
Lead-Lag Optimize		Yes	Yes		Yes	Yes
Recall Mode	Max	None	None	Max	None	None
Maximum Split (s)	30	20	40	30	20	40
Maximum Split (%)	33.3%	22.2%	44.4%	33.3%	22.2%	44.4%
Minimum Split (s)	22.5	9.5	22.5	22.5	9.5	22.5
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1	1	1	1	1	1
Minimum Initial (s)	5	5	5	5	5	5
Vehicle Extension (s)	3	3	3	3	3	3
Minimum Gap (s)	3	3	3	3	3	3
Time Before Reduce (s)	0	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0	0
Walk Time (s)			7	7		7
Flash Dont Walk (s)			11	11		11
Dual Entry	Yes	No	Yes	Yes	No	Yes
Inhibit Max	Yes	Yes	Yes	Yes	Yes	Yes
Start Time (s)	0	30	50	0	30	50
End Time (s)	30	50	0	30	50	0
Yield/Force Off (s)	25.5	45.5	85.5	25.5	45.5	85.5
Yield/Force Off 170(s)	25.5	45.5	74.5	14.5	45.5	74.5
Local Start Time (s)	0	30	50	0	30	50
Local Yield (s)	25.5	45.5	85.5	25.5	45.5	85.5
Local Yield 170(s)	25.5	45.5	74.5	14.5	45.5	74.5

Intersection Summary	
Cycle Length	90
Control Type	Actuated-Uncoordinated
Natural Cycle	60

Splits and Phases: 6: Westmont Ave & Mission Blvd



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	22	601	44	226	845	32	50	0	343	7	0	5
Future Volume (veh/h)	22	601	44	226	845	32	50	0	343	7	0	5
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.97	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	26	707	52	266	994	38	59	0	404	8	0	6
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	51	1131	83	316	1924	73	113	26	530	277	22	160
Arrive On Green	0.03	0.23	0.23	0.18	0.38	0.38	0.39	0.00	0.39	0.39	0.00	0.39
Sat Flow, veh/h	1781	4855	355	1781	5041	192	134	67	1375	496	58	416
Grp Volume(v), veh/h	26	495	264	266	671	361	463	0	0	14	0	0
Grp Sat Flow(s),veh/h/ln	1781	1702	1806	1781	1702	1830	1576	0	0	970	0	0
Q Serve(g_s), s	1.0	8.6	8.7	9.6	10.0	10.1	8.4	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	1.0	8.6	8.7	9.6	10.0	10.1	16.8	0.0	0.0	0.3	0.0	0.0
Prop In Lane	1.00		0.20	1.00		0.11	0.13		0.87	0.57		0.43
Lane Grp Cap(c), veh/h	51	793	420	316	1299	698	669	0	0	460	0	0
V/C Ratio(X)	0.51	0.62	0.63	0.84	0.52	0.52	0.69	0.00	0.00	0.03	0.00	0.00
Avail Cap(c_a), veh/h	417	1827	969	417	1827	982	669	0	0	460	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	31.7	22.8	22.8	26.3	15.7	15.8	17.6	0.0	0.0	12.6	0.0	0.0
Incr Delay (d2), s/veh	7.6	0.8	1.6	11.2	0.3	0.6	5.8	0.0	0.0	0.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	3.1	3.4	4.6	3.3	3.6	6.7	0.0	0.0	0.1	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.3	23.6	24.4	37.5	16.1	16.3	23.4	0.0	0.0	12.7	0.0	0.0
LnGrp LOS	D	C	C	D	B	B	C	A	A	B	A	A
Approach Vol, veh/h		785			1298			463			14	
Approach Delay, s/veh		24.4			20.5			23.4			12.7	
Approach LOS		C			C			C			B	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		30.0	16.2	19.9		30.0	6.4	29.7				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		25.5	15.5	35.5		25.5	15.5	35.5				
Max Q Clear Time (g_c+I1), s		18.8	11.6	10.7		2.3	3.0	12.1				
Green Ext Time (p_c), s		1.8	0.3	4.6		0.0	0.0	6.6				

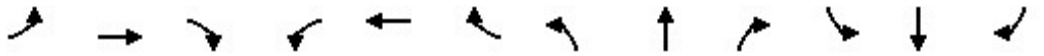
Intersection Summary												
HCM 6th Ctrl Delay			22.2									
HCM 6th LOS			C									

Phase Number	1	2	4	6
Movement	WBL	EBT	SBTL	WBT
Lead/Lag	Lead	Lag		
Lead-Lag Optimize	Yes	Yes		
Recall Mode	None	Min	None	Min
Maximum Split (s)	18	35	22	53
Maximum Split (%)	24.0%	46.7%	29.3%	70.7%
Minimum Split (s)	16	30	15	48
Yellow Time (s)	3.7	4.8	4.4	4.8
All-Red Time (s)	1	1	1	1
Minimum Initial (s)	11.3	12	9.6	12
Vehicle Extension (s)	3	3	3	3
Minimum Gap (s)	3	2.5	3	2.5
Time Before Reduce (s)	0	0	0	0
Time To Reduce (s)	0	0	0	0
Walk Time (s)		7		7
Flash Dont Walk (s)		16		21
Dual Entry	No	Yes	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes
Start Time (s)	0	18	53	0
End Time (s)	18	53	0	53
Yield/Force Off (s)	13.3	47.2	69.6	47.2
Yield/Force Off 170(s)	13.3	47.2	69.6	47.2
Local Start Time (s)	57	0	35	57
Local Yield (s)	70.3	29.2	51.6	29.2
Local Yield 170(s)	70.3	29.2	51.6	29.2

Intersection Summary	
Cycle Length	75
Control Type	Actuated-Uncoordinated
Natural Cycle	65

Splits and Phases: 7: SR-71 SB Ramps & Mission Blvd





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	723	224	131	1057	0	0	0	0	316	1	48
Future Volume (veh/h)	0	723	224	131	1057	0	0	0	0	316	1	48
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	0				1870	1870	1870
Adj Flow Rate, veh/h	0	841	260	152	1229	0				368	0	56
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86				0.86	0.86	0.86
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	1331	409	333	3154	0				628	0	279
Arrive On Green	0.00	0.34	0.34	0.19	0.62	0.00				0.18	0.00	0.18
Sat Flow, veh/h	0	4033	1187	1781	5274	0				3563	0	1585
Grp Volume(v), veh/h	0	740	361	152	1229	0				368	0	56
Grp Sat Flow(s),veh/h/ln	0	1702	1648	1781	1702	0				1781	0	1585
Q Serve(g_s), s	0.0	9.9	10.0	4.1	6.6	0.0				5.2	0.0	1.6
Cycle Q Clear(g_c), s	0.0	9.9	10.0	4.1	6.6	0.0				5.2	0.0	1.6
Prop In Lane	0.00		0.72	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1172	568	333	3154	0				628	0	279
V/C Ratio(X)	0.00	0.63	0.64	0.46	0.39	0.00				0.59	0.00	0.20
Avail Cap(c_a), veh/h	0	1828	885	436	4432	0				1088	0	484
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	14.9	15.0	19.7	5.2	0.0				20.6	0.0	19.1
Incr Delay (d2), s/veh	0.0	0.6	1.2	1.0	0.1	0.0				0.9	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	3.1	3.1	1.5	1.2	0.0				1.9	0.0	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	15.5	16.1	20.6	5.3	0.0				21.4	0.0	19.5
LnGrp LOS	A	B	B	C	A	A				C	A	B
Approach Vol, veh/h		1101			1381						424	
Approach Delay, s/veh		15.7			7.0						21.2	
Approach LOS		B			A						C	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	14.9	24.5		15.0		39.4
Change Period (Y+Rc), s	* 4.7	5.8		5.4		5.8
Max Green Setting (Gmax), s	* 13	29.2		16.6		47.2
Max Q Clear Time (g_c+I1), s	6.1	12.0		7.2		8.6
Green Ext Time (p_c), s	0.2	6.5		1.0		10.2

Intersection Summary		
HCM 6th Ctrl Delay		12.4
HCM 6th LOS		B

Notes

User approved volume balancing among the lanes for turning movement.

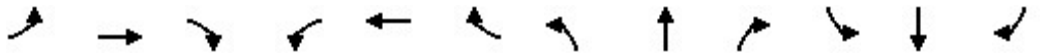
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Phase Number	2	5	6	8
Movement	EBT	EBL	WBT	NBTL
Lead/Lag		Lead	Lag	
Lead-Lag Optimize		Yes	Yes	
Recall Mode	Min	None	Min	None
Maximum Split (s)	52.5	16.7	35.8	22.5
Maximum Split (%)	70.0%	22.3%	47.7%	30.0%
Minimum Split (s)	47	16	28.8	16
Yellow Time (s)	4.8	3.7	4.8	4.4
All-Red Time (s)	1	1	1	1
Minimum Initial (s)	12	11.3	12	10.6
Vehicle Extension (s)	3	3	3	3
Minimum Gap (s)	2.5	3	2.5	3
Time Before Reduce (s)	0	0	0	0
Time To Reduce (s)	0	0	0	0
Walk Time (s)	7		7	
Flash Dont Walk (s)	21		16	
Dual Entry	Yes	No	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes
Start Time (s)	0	0	16.7	52.5
End Time (s)	52.5	16.7	52.5	0
Yield/Force Off (s)	46.7	12	46.7	69.6
Yield/Force Off 170(s)	46.7	12	46.7	69.6
Local Start Time (s)	58.3	58.3	0	35.8
Local Yield (s)	30	70.3	30	52.9
Local Yield 170(s)	30	70.3	30	52.9

Intersection Summary	
Cycle Length	75
Control Type	Actuated-Uncoordinated
Natural Cycle	65

Splits and Phases: 8: SR-71 NB Ramps & Mission Blvd





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	99	939	0	0	1012	723	178	5	50	0	0	0
Future Volume (veh/h)	99	939	0	0	1012	723	178	5	50	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1870	1870	0	0	1870	1870	1870	1870	1870			
Adj Flow Rate, veh/h	114	1079	0	0	1163	831	209	0	57			
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	266	3434	0	0	2309	707	565	0	251			
Arrive On Green	0.15	0.67	0.00	0.00	0.45	0.45	0.16	0.00	0.16			
Sat Flow, veh/h	1781	5274	0	0	5274	1564	3563	0	1585			
Grp Volume(v), veh/h	114	1079	0	0	1163	831	209	0	57			
Grp Sat Flow(s),veh/h/ln	1781	1702	0	0	1702	1564	1781	0	1585			
Q Serve(g_s), s	3.9	5.8	0.0	0.0	10.7	30.0	3.5	0.0	2.1			
Cycle Q Clear(g_c), s	3.9	5.8	0.0	0.0	10.7	30.0	3.5	0.0	2.1			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	266	3434	0	0	2309	707	565	0	251			
V/C Ratio(X)	0.43	0.31	0.00	0.00	0.50	1.18	0.37	0.00	0.23			
Avail Cap(c_a), veh/h	322	3595	0	0	2309	707	918	0	409			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	25.6	4.5	0.0	0.0	12.9	18.2	24.9	0.0	24.4			
Incr Delay (d2), s/veh	1.1	0.1	0.0	0.0	0.2	93.3	0.4	0.0	0.5			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	1.6	1.1	0.0	0.0	3.3	26.7	1.4	0.0	0.7			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.7	4.6	0.0	0.0	13.1	111.4	25.3	0.0	24.8			
LnGrp LOS	C	A	A	A	B	F	C	A	C			
Approach Vol, veh/h		1193			1994			266				
Approach Delay, s/veh		6.7			54.1			25.2				
Approach LOS		A			D			C				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		50.4			14.6	35.8		15.9				
Change Period (Y+Rc), s		5.8			* 4.7	5.8		5.4				
Max Green Setting (Gmax), s		46.7			* 12	30.0		17.1				
Max Q Clear Time (g_c+I1), s		7.8			5.9	32.0		5.5				
Green Ext Time (p_c), s		8.5			0.1	0.0		0.6				

Intersection Summary	
HCM 6th Ctrl Delay	35.5
HCM 6th LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Phase Number	2	4	5	6	8
Movement	WBT	SBTL	WBL	EBT	NBTL
Lead/Lag			Lead	Lag	
Lead-Lag Optimize			Yes	Yes	
Recall Mode	Min	None	None	Min	Max
Maximum Split (s)	60	40	15	45	40
Maximum Split (%)	60.0%	40.0%	15.0%	45.0%	40.0%
Minimum Split (s)	26.3	32.4	13.7	29.3	22.5
Yellow Time (s)	4.8	4.4	3.7	4.8	4.4
All-Red Time (s)	1	1	1	1	1
Minimum Initial (s)	10	9	9	10	9
Vehicle Extension (s)	3	3	3	3	3
Minimum Gap (s)	2.5	3	2.5	2.5	3
Time Before Reduce (s)	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0
Walk Time (s)	7	4		7	
Flash Dont Walk (s)	13	23		16	
Dual Entry	No	Yes	No	No	Yes
Inhibit Max	Yes	Yes	Yes	Yes	Yes
Start Time (s)	0	60	0	15	60
End Time (s)	60	0	15	60	0
Yield/Force Off (s)	54.2	94.6	10.3	54.2	94.6
Yield/Force Off 170(s)	54.2	71.6	10.3	54.2	94.6
Local Start Time (s)	0	60	0	15	60
Local Yield (s)	54.2	94.6	10.3	54.2	94.6
Local Yield 170(s)	54.2	71.6	10.3	54.2	94.6

Intersection Summary	
Cycle Length	100
Control Type	Actuated-Uncoordinated
Natural Cycle	90

Splits and Phases: 9: Shell Dwy/SR-57 SB Off-Ramp & Temple Avenue



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	560	10	59	1179	63	0	0	6	557	9	964
Future Volume (veh/h)	0	560	10	59	1179	63	0	0	6	557	9	964
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	602	11	63	1268	0	0	0	6	403	0	1254
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	0	1156	21	158	1923		0	0	746	759	0	1493
Arrive On Green	0.00	0.22	0.22	0.09	0.38	0.00	0.00	0.00	0.47	0.47	0.00	0.47
Sat Flow, veh/h	0	5330	94	1781	5106	2790	0	0	1585	1410	0	3170
Grp Volume(v), veh/h	0	397	216	63	1268	0	0	0	6	403	0	1254
Grp Sat Flow(s),veh/h/ln	0	1702	1852	1781	1702	1395	0	0	1585	1410	0	1585
Q Serve(g_s), s	0.0	7.5	7.5	2.5	15.1	0.0	0.0	0.0	0.1	15.6	0.0	25.4
Cycle Q Clear(g_c), s	0.0	7.5	7.5	2.5	15.1	0.0	0.0	0.0	0.1	15.8	0.0	25.4
Prop In Lane	0.00		0.05	1.00		1.00	0.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	0	763	415	158	1923		0	0	746	759	0	1493
V/C Ratio(X)	0.00	0.52	0.52	0.40	0.66		0.00	0.00	0.01	0.53	0.00	0.84
Avail Cap(c_a), veh/h	0	1816	988	250	3767		0	0	746	759	0	1493
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	25.0	25.0	31.6	19.0	0.0	0.0	0.0	10.3	14.5	0.0	17.0
Incr Delay (d2), s/veh	0.0	0.6	1.0	1.6	0.4	0.0	0.0	0.0	0.0	0.7	0.0	4.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	2.8	3.1	1.1	5.2	0.0	0.0	0.0	0.1	4.3	0.0	9.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	25.6	26.1	33.3	19.4	0.0	0.0	0.0	10.3	15.2	0.0	21.5
LnGrp LOS	A	C	C	C	B		A	A	B	B	A	C
Approach Vol, veh/h		613			1331			6			1657	
Approach Delay, s/veh		25.8			20.0			10.3			20.0	
Approach LOS		C			C			B			B	

Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		33.5		40.0	11.2	22.3		40.0				
Change Period (Y+Rc), s		5.8		5.4	* 4.7	5.8		5.4				
Max Green Setting (Gmax), s		54.2		34.6	* 10	39.2		34.6				
Max Q Clear Time (g_c+I1), s		17.1		27.4	4.5	9.5		2.1				
Green Ext Time (p_c), s		10.5		4.1	0.0	3.7		0.0				

Intersection Summary		
HCM 6th Ctrl Delay		21.0
HCM 6th LOS		C

Notes

User approved volume balancing among the lanes for turning movement.

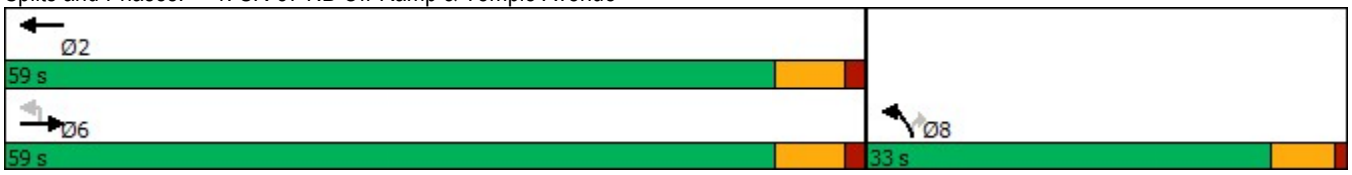
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

Phase Number	2	6	8
Movement	WBT	EBTU	NBL
Lead/Lag			
Lead-Lag Optimize			
Recall Mode	Min	Min	None
Maximum Split (s)	59	59	33
Maximum Split (%)	64.1%	64.1%	35.9%
Minimum Split (s)	40	40	30
Yellow Time (s)	4.8	4.8	4.4
All-Red Time (s)	1.5	1.5	1
Minimum Initial (s)	10	10	9
Vehicle Extension (s)	3	3	3
Minimum Gap (s)	3	3	3
Time Before Reduce (s)	0	0	0
Time To Reduce (s)	0	0	0
Walk Time (s)		7	
Flash Dont Walk (s)		15	
Dual Entry	Yes	Yes	Yes
Inhibit Max	Yes	Yes	Yes
Start Time (s)	0	0	59
End Time (s)	59	59	0
Yield/Force Off (s)	52.7	52.7	86.6
Yield/Force Off 170(s)	52.7	52.7	86.6
Local Start Time (s)	0	0	59
Local Yield (s)	52.7	52.7	86.6
Local Yield 170(s)	52.7	52.7	86.6

Intersection Summary	
Cycle Length	92
Control Type	Actuated-Uncoordinated
Natural Cycle	70

Splits and Phases: 1: SR-57 NB Off-Ramp & Temple Avenue





Movement	EBU	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations							
Traffic Volume (veh/h)	18	1625	679	0	916	67	252
Future Volume (veh/h)	18	1625	679	0	916	67	252
Initial Q (Qb), veh		0	0	0	0	0	0
Ped-Bike Adj(A_pbT)			1.00	1.00		1.00	1.00
Parking Bus, Adj		1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No	No	
Adj Sat Flow, veh/h/ln		1870	1870	0	1870	1870	1870
Adj Flow Rate, veh/h		1711	0	0	964	71	265
Peak Hour Factor		0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %		2	2	0	2	2	2
Cap, veh/h		2996		0	2996	318	567
Arrive On Green		0.59	0.00	0.00	0.59	0.18	0.18
Sat Flow, veh/h		5274	2790	0	5443	1781	3170
Grp Volume(v), veh/h		1711	0	0	964	71	265
Grp Sat Flow(s),veh/h/ln		1702	1395	0	1702	1781	1585
Q Serve(g_s), s		10.4	0.0	0.0	4.8	1.7	3.7
Cycle Q Clear(g_c), s		10.4	0.0	0.0	4.8	1.7	3.7
Prop In Lane			1.00	0.00		1.00	1.00
Lane Grp Cap(c), veh/h		2996		0	2996	318	567
V/C Ratio(X)		0.57		0.00	0.32	0.22	0.47
Avail Cap(c_a), veh/h		5395		0	5395	986	1754
HCM Platoon Ratio		1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)		1.00	0.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh		6.4	0.0	0.0	5.3	17.5	18.4
Incr Delay (d2), s/veh		0.2	0.0	0.0	0.1	0.4	0.6
Initial Q Delay(d3),s/veh		0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln		1.9	0.0	0.0	0.9	0.6	1.2
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh		6.6	0.0	0.0	5.3	17.9	19.0
LnGrp LOS		A		A	A	B	B
Approach Vol, veh/h		1711			964	336	
Approach Delay, s/veh		6.6			5.3	18.7	
Approach LOS		A			A	B	

Timer - Assigned Phs	2					6		8
Phs Duration (G+Y+Rc), s	35.6					35.6		14.3
Change Period (Y+Rc), s	6.3					6.3		5.4
Max Green Setting (Gmax), s	52.7					52.7		27.6
Max Q Clear Time (g_c+I1), s	6.8					12.4		5.7
Green Ext Time (p_c), s	7.5					16.9		1.1

Intersection Summary	
HCM 6th Ctrl Delay	7.5
HCM 6th LOS	A

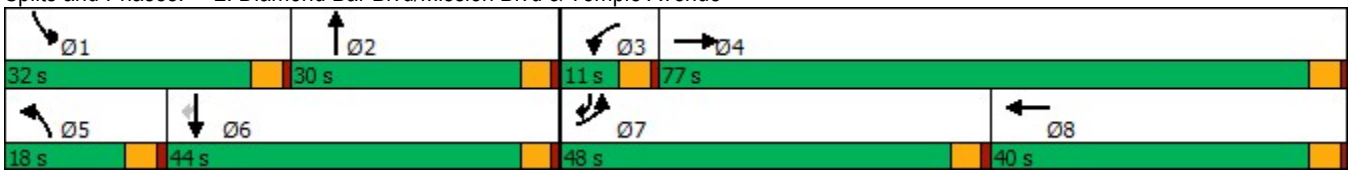
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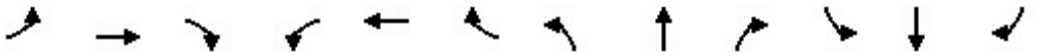
User approved volume balancing among the lanes for turning movement.
User approved ignoring U-Turning movement.
Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Phase Number	1	2	3	4	5	6	7	8
Movement	SBL	NBT	WBL	EBT	NBL	SBT	EBL	WBT
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Min	None	None	None	Min	None	None
Maximum Split (s)	32	30	11	77	18	44	48	40
Maximum Split (%)	21.3%	20.0%	7.3%	51.3%	12.0%	29.3%	32.0%	26.7%
Minimum Split (s)	9.5	22.5	9.5	22.5	9.5	22.5	9.5	22.5
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1	1	1	1	1	1	1	1
Minimum Initial (s)	5	5	5	5	5	5	5	5
Vehicle Extension (s)	3	3	3	3	3	3	3	3
Minimum Gap (s)	3	3	3	3	3	3	3	3
Time Before Reduce (s)	0	0	0	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0	0	0	0
Walk Time (s)		7				7		7
Flash Dont Walk (s)		11				11		11
Dual Entry	No	Yes	No	Yes	No	Yes	No	Yes
Inhibit Max	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Start Time (s)	0	32	62	73	0	18	62	110
End Time (s)	32	62	73	0	18	62	110	0
Yield/Force Off (s)	27.5	57.5	68.5	145.5	13.5	57.5	105.5	145.5
Yield/Force Off 170(s)	27.5	57.5	68.5	145.5	13.5	57.5	105.5	134.5
Local Start Time (s)	118	0	30	41	118	136	30	78
Local Yield (s)	145.5	25.5	36.5	113.5	131.5	25.5	73.5	113.5
Local Yield 170(s)	145.5	25.5	36.5	113.5	131.5	25.5	73.5	102.5

Intersection Summary	
Cycle Length	150
Control Type	Actuated-Uncoordinated
Natural Cycle	80

Splits and Phases: 2: Diamond Bar Blvd/Mission Blvd & Temple Avenue





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	632	1006	155	18	480	282	141	266	28	162	202	307
Future Volume (veh/h)	632	1006	155	18	480	282	141	266	28	162	202	307
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.99	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	645	1027	158	18	490	288	144	271	29	165	206	313
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	808	1452	223	37	879	402	231	488	52	210	716	683
Arrive On Green	0.23	0.47	0.47	0.02	0.26	0.26	0.07	0.15	0.15	0.12	0.20	0.20
Sat Flow, veh/h	3456	3080	473	1781	3404	1557	3456	3239	344	1781	3554	1552
Grp Volume(v), veh/h	645	592	593	18	490	288	144	148	152	165	206	313
Grp Sat Flow(s),veh/h/ln	1728	1777	1776	1781	1702	1557	1728	1777	1806	1781	1777	1552
Q Serve(g_s), s	13.2	19.8	19.9	0.8	9.4	12.6	3.0	5.8	5.9	6.8	3.7	10.7
Cycle Q Clear(g_c), s	13.2	19.8	19.9	0.8	9.4	12.6	3.0	5.8	5.9	6.8	3.7	10.7
Prop In Lane	1.00		0.27	1.00		1.00	1.00		0.19	1.00		1.00
Lane Grp Cap(c), veh/h	808	837	837	37	879	402	231	268	272	210	716	683
V/C Ratio(X)	0.80	0.71	0.71	0.48	0.56	0.72	0.62	0.55	0.56	0.79	0.29	0.46
Avail Cap(c_a), veh/h	2000	1714	1713	154	1608	736	621	603	613	652	1868	1186
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.1	15.8	15.8	36.4	24.1	25.4	34.1	29.6	29.6	32.2	25.4	15.0
Incr Delay (d2), s/veh	1.9	1.1	1.1	9.5	0.6	2.4	2.7	1.8	1.8	6.4	0.2	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.1	6.9	6.9	0.4	3.5	4.5	1.3	2.4	2.5	3.0	1.4	3.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.0	16.9	16.9	45.9	24.7	27.8	36.9	31.3	31.4	38.6	25.7	15.5
LnGrp LOS	C	B	B	D	C	C	D	C	C	D	C	B
Approach Vol, veh/h		1830			796			444			684	
Approach Delay, s/veh		21.1			26.3			33.2			24.1	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.3	15.8	6.1	39.9	9.5	19.6	22.1	23.9
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	27.5	25.5	6.5	72.5	13.5	39.5	43.5	35.5
Max Q Clear Time (g_c+I1), s	8.8	7.9	2.8	21.9	5.0	12.7	15.2	14.6
Green Ext Time (p_c), s	0.4	1.4	0.0	9.3	0.2	2.2	2.4	4.8

Intersection Summary	
HCM 6th Ctrl Delay	24.2
HCM 6th LOS	C

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	12	1108	517	9	11	3
Future Vol, veh/h	12	1108	517	9	11	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	115	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	13	1179	550	10	12	3

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	560	0	-	0	1171	280
Stage 1	-	-	-	-	555	-
Stage 2	-	-	-	-	616	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	1007	-	-	-	186	717
Stage 1	-	-	-	-	539	-
Stage 2	-	-	-	-	501	-
Platoon blocked, %			-	-	-	
Mov Cap-1 Maneuver	1007	-	-	-	184	717
Mov Cap-2 Maneuver	-	-	-	-	319	-
Stage 1	-	-	-	-	532	-
Stage 2	-	-	-	-	501	-

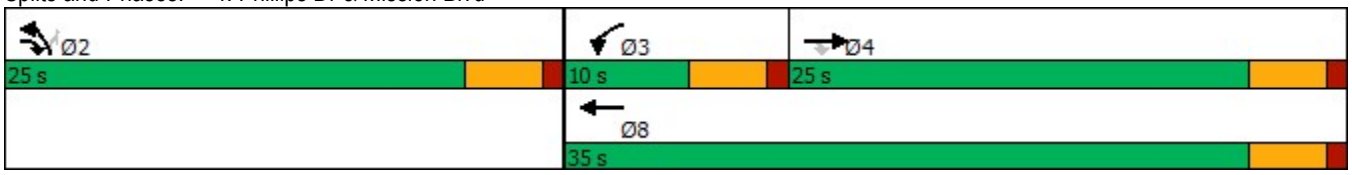
Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	15.4
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1007	-	-	-	362
HCM Lane V/C Ratio	0.013	-	-	-	0.041
HCM Control Delay (s)	8.6	-	-	-	15.4
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Phase Number	2	3	4	8
Movement	NBL	WBL	EBT	WBT
Lead/Lag		Lead	Lag	
Lead-Lag Optimize		Yes	Yes	
Recall Mode	Max	None	None	None
Maximum Split (s)	25	10	25	35
Maximum Split (%)	41.7%	16.7%	41.7%	58.3%
Minimum Split (s)	22.5	9.5	22.5	22.5
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	1	1	1	1
Minimum Initial (s)	5	5	5	5
Vehicle Extension (s)	3	3	3	3
Minimum Gap (s)	3	3	3	3
Time Before Reduce (s)	0	0	0	0
Time To Reduce (s)	0	0	0	0
Walk Time (s)	7		7	7
Flash Dont Walk (s)	11		11	11
Dual Entry	Yes	No	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes
Start Time (s)	0	25	35	25
End Time (s)	25	35	0	0
Yield/Force Off (s)	20.5	30.5	55.5	55.5
Yield/Force Off 170(s)	9.5	30.5	44.5	44.5
Local Start Time (s)	0	25	35	25
Local Yield (s)	20.5	30.5	55.5	55.5
Local Yield 170(s)	9.5	30.5	44.5	44.5

Intersection Summary	
Cycle Length	60
Control Type	Actuated-Uncoordinated
Natural Cycle	60

Splits and Phases: 4: Phillips Dr & Mission Blvd





Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	899	165	67	489	79	22
Future Volume (veh/h)	899	165	67	489	79	22
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		0.98	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	967	177	72	526	85	24
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1179	1094	107	1679	653	581
Arrive On Green	0.33	0.33	0.06	0.47	0.37	0.37
Sat Flow, veh/h	3647	1546	1781	3647	1781	1585
Grp Volume(v), veh/h	967	177	72	526	85	24
Grp Sat Flow(s),veh/h/ln	1777	1546	1781	1777	1781	1585
Q Serve(g_s), s	14.0	2.2	2.2	5.1	1.8	0.5
Cycle Q Clear(g_c), s	14.0	2.2	2.2	5.1	1.8	0.5
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1179	1094	107	1679	653	581
V/C Ratio(X)	0.82	0.16	0.67	0.31	0.13	0.04
Avail Cap(c_a), veh/h	1303	1148	175	1939	653	581
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	17.2	2.9	25.7	9.1	11.8	11.4
Incr Delay (d2), s/veh	4.0	0.1	7.1	0.1	0.4	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.0	1.3	1.0	1.4	0.7	0.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	21.1	2.9	32.8	9.2	12.2	11.5
LnGrp LOS	C	A	C	A	B	B
Approach Vol, veh/h	1144			598	109	
Approach Delay, s/veh	18.3			12.1	12.0	
Approach LOS	B			B	B	

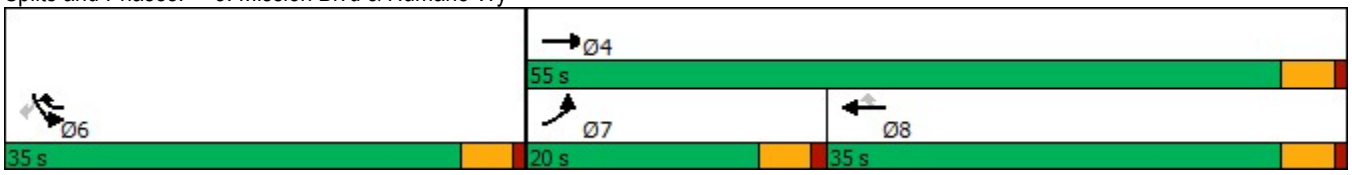
Timer - Assigned Phs		2	3	4		8
Phs Duration (G+Y+Rc), s		25.0	7.9	23.0		30.9
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s		20.5	5.5	20.5		30.5
Max Q Clear Time (g_c+I1), s		3.8	4.2	16.0		7.1
Green Ext Time (p_c), s		0.2	0.0	2.6		3.2

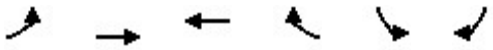
Intersection Summary	
HCM 6th Ctrl Delay	15.9
HCM 6th LOS	B

Phase Number	4	6	7	8
Movement	EBT	SBL	EBL	WBT
Lead/Lag			Lead	Lag
Lead-Lag Optimize			Yes	Yes
Recall Mode	None	Max	None	None
Maximum Split (s)	55	35	20	35
Maximum Split (%)	61.1%	38.9%	22.2%	38.9%
Minimum Split (s)	22.5	22.5	9.5	22.5
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	1	1	1	1
Minimum Initial (s)	5	5	5	5
Vehicle Extension (s)	3	3	3	3
Minimum Gap (s)	3	3	3	3
Time Before Reduce (s)	0	0	0	0
Time To Reduce (s)	0	0	0	0
Walk Time (s)		7		7
Flash Dont Walk (s)		11		11
Dual Entry	Yes	Yes	No	Yes
Inhibit Max	Yes	Yes	Yes	Yes
Start Time (s)	35	0	35	55
End Time (s)	0	35	55	0
Yield/Force Off (s)	85.5	30.5	50.5	85.5
Yield/Force Off 170(s)	85.5	19.5	50.5	74.5
Local Start Time (s)	35	0	35	55
Local Yield (s)	85.5	30.5	50.5	85.5
Local Yield 170(s)	85.5	19.5	50.5	74.5

Intersection Summary	
Cycle Length	90
Control Type	Actuated-Uncoordinated
Natural Cycle	55

Splits and Phases: 5: Mission Blvd & Humane Wy





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	107	884	342	117	666	169
Future Volume (veh/h)	107	884	342	117	666	169
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	110	911	353	121	687	174
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	144	1286	740	1110	1703	781
Arrive On Green	0.08	0.36	0.21	0.21	0.49	0.49
Sat Flow, veh/h	1781	3647	3647	1581	3456	1585
Grp Volume(v), veh/h	110	911	353	121	687	174
Grp Sat Flow(s),veh/h/ln	1781	1777	1777	1581	1728	1585
Q Serve(g_s), s	3.7	13.6	5.4	1.5	7.8	3.9
Cycle Q Clear(g_c), s	3.7	13.6	5.4	1.5	7.8	3.9
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	144	1286	740	1110	1703	781
V/C Ratio(X)	0.76	0.71	0.48	0.11	0.40	0.22
Avail Cap(c_a), veh/h	446	2899	1751	1560	1703	781
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.9	16.9	21.5	3.0	9.9	8.9
Incr Delay (d2), s/veh	8.1	0.7	0.5	0.0	0.7	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	4.7	2.0	1.3	2.5	4.6
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	35.9	17.7	22.0	3.0	10.7	9.6
LnGrp LOS	D	B	C	A	B	A
Approach Vol, veh/h		1021	474		861	
Approach Delay, s/veh		19.6	17.2		10.4	
Approach LOS		B	B		B	

Timer - Assigned Phs			4		6	7	8
Phs Duration (G+Y+Rc), s			26.9		35.0	9.5	17.4
Change Period (Y+Rc), s			4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s			50.5		30.5	15.5	30.5
Max Q Clear Time (g_c+I1), s			15.6		9.8	5.7	7.4
Green Ext Time (p_c), s			6.8		3.1	0.2	2.4

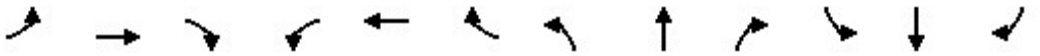
Intersection Summary	
HCM 6th Ctrl Delay	15.8
HCM 6th LOS	B

Phase Number	2	3	4	6	7	8
Movement	NBTL	WBL	EBT	SBTL	EBL	WBT
Lead/Lag		Lead	Lag		Lead	Lag
Lead-Lag Optimize		Yes	Yes		Yes	Yes
Recall Mode	Max	None	None	Max	None	None
Maximum Split (s)	30	20	40	30	20	40
Maximum Split (%)	33.3%	22.2%	44.4%	33.3%	22.2%	44.4%
Minimum Split (s)	22.5	9.5	22.5	22.5	9.5	22.5
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1	1	1	1	1	1
Minimum Initial (s)	5	5	5	5	5	5
Vehicle Extension (s)	3	3	3	3	3	3
Minimum Gap (s)	3	3	3	3	3	3
Time Before Reduce (s)	0	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0	0
Walk Time (s)			7	7		7
Flash Dont Walk (s)			11	11		11
Dual Entry	Yes	No	Yes	Yes	No	Yes
Inhibit Max	Yes	Yes	Yes	Yes	Yes	Yes
Start Time (s)	0	30	50	0	30	50
End Time (s)	30	50	0	30	50	0
Yield/Force Off (s)	25.5	45.5	85.5	25.5	45.5	85.5
Yield/Force Off 170(s)	25.5	45.5	74.5	14.5	45.5	74.5
Local Start Time (s)	0	30	50	0	30	50
Local Yield (s)	25.5	45.5	85.5	25.5	45.5	85.5
Local Yield 170(s)	25.5	45.5	74.5	14.5	45.5	74.5

Intersection Summary	
Cycle Length	90
Control Type	Actuated-Uncoordinated
Natural Cycle	65

Splits and Phases: 6: Westmont Ave & Mission Blvd





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	1449	66	207	413	6	18	0	160	44	1	13
Future Volume (veh/h)	5	1449	66	207	413	6	18	0	160	44	1	13
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	5	1494	68	213	426	6	19	0	165	45	1	13
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	12	1895	86	254	2669	37	73	27	445	372	17	88
Arrive On Green	0.01	0.38	0.38	0.14	0.51	0.51	0.31	0.00	0.31	0.31	0.31	0.31
Sat Flow, veh/h	1781	5005	228	1781	5186	73	79	85	1421	939	55	281
Grp Volume(v), veh/h	5	1016	546	213	279	153	184	0	0	59	0	0
Grp Sat Flow(s),veh/h/ln	1781	1702	1829	1781	1702	1855	1585	0	0	1274	0	0
Q Serve(g_s), s	0.2	21.5	21.5	9.5	3.5	3.5	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.2	21.5	21.5	9.5	3.5	3.5	7.2	0.0	0.0	2.6	0.0	0.0
Prop In Lane	1.00		0.12	1.00		0.04	0.10		0.90	0.76		0.22
Lane Grp Cap(c), veh/h	12	1289	693	254	1752	955	545	0	0	477	0	0
V/C Ratio(X)	0.43	0.79	0.79	0.84	0.16	0.16	0.34	0.00	0.00	0.12	0.00	0.00
Avail Cap(c_a), veh/h	339	1484	797	339	1752	955	545	0	0	477	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	40.3	22.4	22.4	34.0	10.5	10.5	21.7	0.0	0.0	20.0	0.0	0.0
Incr Delay (d2), s/veh	22.8	2.6	4.7	13.1	0.0	0.1	1.7	0.0	0.0	0.5	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	8.0	9.0	4.8	1.1	1.3	2.9	0.0	0.0	0.9	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	63.1	25.0	27.1	47.1	10.5	10.5	23.4	0.0	0.0	20.6	0.0	0.0
LnGrp LOS	E	C	C	D	B	B	C	A	A	C	A	A
Approach Vol, veh/h		1567			645			184			59	
Approach Delay, s/veh		25.8			22.6			23.4			20.6	
Approach LOS		C			C			C			C	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		30.0	16.1	35.3		30.0	5.0	46.4				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		25.5	15.5	35.5		25.5	15.5	35.5				
Max Q Clear Time (g_c+I1), s		9.2	11.5	23.5		4.6	2.2	5.5				
Green Ext Time (p_c), s		1.0	0.2	7.3		0.3	0.0	2.5				

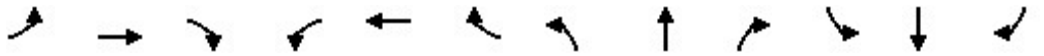
Intersection Summary												
HCM 6th Ctrl Delay			24.7									
HCM 6th LOS			C									

Phase Number	1	2	4	6
Movement	WBL	EBT	SBTL	WBT
Lead/Lag	Lead	Lag		
Lead-Lag Optimize	Yes	Yes		
Recall Mode	None	Min	None	Min
Maximum Split (s)	18	35	22	53
Maximum Split (%)	24.0%	46.7%	29.3%	70.7%
Minimum Split (s)	16	30	15	48
Yellow Time (s)	3.7	4.8	4.4	4.8
All-Red Time (s)	1	1	1	1
Minimum Initial (s)	11.3	12	9.6	12
Vehicle Extension (s)	3	3	3	3
Minimum Gap (s)	3	2.5	3	2.5
Time Before Reduce (s)	0	0	0	0
Time To Reduce (s)	0	0	0	0
Walk Time (s)		7		7
Flash Dont Walk (s)		16		21
Dual Entry	No	Yes	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes
Start Time (s)	0	18	53	0
End Time (s)	18	53	0	53
Yield/Force Off (s)	13.3	47.2	69.6	47.2
Yield/Force Off 170(s)	13.3	47.2	69.6	47.2
Local Start Time (s)	0	18	53	0
Local Yield (s)	13.3	47.2	69.6	47.2
Local Yield 170(s)	13.3	47.2	69.6	47.2

Intersection Summary	
Cycle Length	75
Control Type	Actuated-Uncoordinated
Natural Cycle	65

Splits and Phases: 7: SR-71 SB Ramps & Mission Blvd





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	1116	538	101	609	0	0	0	0	242	15	18
Future Volume (veh/h)	0	1116	538	101	609	0	0	0	0	242	15	18
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	0				1870	1870	1870
Adj Flow Rate, veh/h	0	1187	572	107	648	0				268	0	19
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94				0.94	0.94	0.94
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	1495	696	272	3408	0				545	0	242
Arrive On Green	0.00	0.44	0.44	0.15	0.67	0.00				0.15	0.00	0.15
Sat Flow, veh/h	0	3572	1583	1781	5274	0				3563	0	1585
Grp Volume(v), veh/h	0	1187	572	107	648	0				268	0	19
Grp Sat Flow(s),veh/h/ln	0	1702	1583	1781	1702	0				1781	0	1585
Q Serve(g_s), s	0.0	18.7	19.8	3.4	3.0	0.0				4.3	0.0	0.6
Cycle Q Clear(g_c), s	0.0	18.7	19.8	3.4	3.0	0.0				4.3	0.0	0.6
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1495	696	272	3408	0				545	0	242
V/C Ratio(X)	0.00	0.79	0.82	0.39	0.19	0.00				0.49	0.00	0.08
Avail Cap(c_a), veh/h	0	1594	741	380	3865	0				948	0	422
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	15.0	15.3	23.8	3.9	0.0				24.2	0.0	22.6
Incr Delay (d2), s/veh	0.0	2.7	7.1	0.9	0.0	0.0				0.7	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	6.1	6.9	1.3	0.5	0.0				1.7	0.0	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	17.7	22.4	24.7	4.0	0.0				24.9	0.0	22.8
LnGrp LOS	A	B	C	C	A	A				C	A	C
Approach Vol, veh/h		1759			755						287	
Approach Delay, s/veh		19.3			6.9						24.7	
Approach LOS		B			A						C	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	14.2	33.2		14.9		47.4
Change Period (Y+Rc), s	* 4.7	5.8		5.4		5.8
Max Green Setting (Gmax), s	* 13	29.2		16.6		47.2
Max Q Clear Time (g_c+I1), s	5.4	21.8		6.3		5.0
Green Ext Time (p_c), s	0.1	5.6		0.7		4.5

Intersection Summary		
HCM 6th Ctrl Delay		16.5
HCM 6th LOS		B

Notes

User approved volume balancing among the lanes for turning movement.

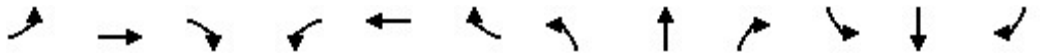
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Phase Number	2	5	6	8
Movement	EBT	EBL	WBT	NBTL
Lead/Lag		Lead	Lag	
Lead-Lag Optimize		Yes	Yes	
Recall Mode	Min	None	Min	None
Maximum Split (s)	52.5	16.7	35.8	22.5
Maximum Split (%)	70.0%	22.3%	47.7%	30.0%
Minimum Split (s)	43	15	28.8	20
Yellow Time (s)	4.8	3.7	4.8	4.4
All-Red Time (s)	1	1	1	1
Minimum Initial (s)	12	10.3	12	10.6
Vehicle Extension (s)	3	3	3	3
Minimum Gap (s)	2.5	3	2.5	3
Time Before Reduce (s)	0	0	0	0
Time To Reduce (s)	0	0	0	0
Walk Time (s)	7		7	
Flash Dont Walk (s)	21		16	
Dual Entry	Yes	No	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes
Start Time (s)	0	0	16.7	52.5
End Time (s)	52.5	16.7	52.5	0
Yield/Force Off (s)	46.7	12	46.7	69.6
Yield/Force Off 170(s)	46.7	12	46.7	69.6
Local Start Time (s)	0	0	16.7	52.5
Local Yield (s)	46.7	12	46.7	69.6
Local Yield 170(s)	46.7	12	46.7	69.6

Intersection Summary	
Cycle Length	75
Control Type	Actuated-Uncoordinated
Natural Cycle	65

Splits and Phases: 8: SR-71 NB Ramps & Mission Blvd





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	82	1274	0	0	551	467	160	1	75	0	0	0
Future Volume (veh/h)	82	1274	0	0	551	467	160	1	75	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1870	1870	0	0	1870	1870	1870	1870	1870			
Adj Flow Rate, veh/h	85	1327	0	0	574	486	168	0	78			
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	241	3123	0	0	1998	612	665	0	296			
Arrive On Green	0.14	0.61	0.00	0.00	0.39	0.39	0.19	0.00	0.19			
Sat Flow, veh/h	1781	5274	0	0	5274	1563	3563	0	1585			
Grp Volume(v), veh/h	85	1327	0	0	574	486	168	0	78			
Grp Sat Flow(s),veh/h/ln	1781	1702	0	0	1702	1563	1781	0	1585			
Q Serve(g_s), s	2.4	7.6	0.0	0.0	4.3	15.2	2.2	0.0	2.3			
Cycle Q Clear(g_c), s	2.4	7.6	0.0	0.0	4.3	15.2	2.2	0.0	2.3			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	241	3123	0	0	1998	612	665	0	296			
V/C Ratio(X)	0.35	0.42	0.00	0.00	0.29	0.79	0.25	0.00	0.26			
Avail Cap(c_a), veh/h	385	4296	0	0	2760	845	1098	0	488			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	21.8	5.7	0.0	0.0	11.6	14.9	19.3	0.0	19.3			
Incr Delay (d2), s/veh	0.9	0.1	0.0	0.0	0.1	3.7	0.2	0.0	0.5			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.9	1.5	0.0	0.0	1.3	4.7	0.8	0.0	0.8			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.7	5.8	0.0	0.0	11.7	18.6	19.5	0.0	19.8			
LnGrp LOS	C	A	A	A	B	B	B	A	B			
Approach Vol, veh/h		1412			1060			246				
Approach Delay, s/veh		6.8			14.8			19.6				
Approach LOS		A			B			B				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		39.7			12.2	27.5		15.8				
Change Period (Y+Rc), s		5.8			* 4.7	5.8		5.4				
Max Green Setting (Gmax), s		46.7			* 12	30.0		17.1				
Max Q Clear Time (g_c+I1), s		9.6			4.4	17.2		4.3				
Green Ext Time (p_c), s		11.2			0.1	4.5		0.6				

Intersection Summary	
HCM 6th Ctrl Delay	11.1
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

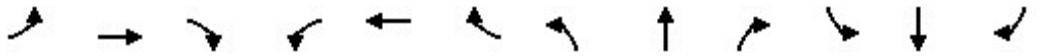
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Phase Number	2	4	5	6	8
Movement	WBT	SBTL	WBL	EBT	NBTL
Lead/Lag			Lead	Lag	
Lead-Lag Optimize			Yes	Yes	
Recall Mode	Min	None	None	Min	Max
Maximum Split (s)	52	40	14	38	40
Maximum Split (%)	56.5%	43.5%	15.2%	41.3%	43.5%
Minimum Split (s)	26.3	32.4	13.7	29.3	22.5
Yellow Time (s)	4.8	4.4	3.7	4.8	4.4
All-Red Time (s)	1	1	1	1	1
Minimum Initial (s)	10	9	9	10	9
Vehicle Extension (s)	3	3	3	3	3
Minimum Gap (s)	2.5	3	2.5	2.5	3
Time Before Reduce (s)	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0
Walk Time (s)	7	4		7	
Flash Dont Walk (s)	13	23		16	
Dual Entry	No	Yes	No	No	Yes
Inhibit Max	Yes	Yes	Yes	Yes	Yes
Start Time (s)	0	52	0	14	52
End Time (s)	52	0	14	52	0
Yield/Force Off (s)	46.2	86.6	9.3	46.2	86.6
Yield/Force Off 170(s)	46.2	63.6	9.3	46.2	86.6
Local Start Time (s)	78	38	78	0	38
Local Yield (s)	32.2	72.6	87.3	32.2	72.6
Local Yield 170(s)	32.2	49.6	87.3	32.2	72.6

Intersection Summary	
Cycle Length	92
Control Type	Actuated-Uncoordinated
Natural Cycle	100

Splits and Phases: 9: Shell Dwy/SR-57 SB Off-Ramp & Temple Avenue





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	1574	19	47	556	127	0	0	5	967	11	472
Future Volume (veh/h)	0	1574	19	47	556	127	0	0	5	967	11	472
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.99	0.99		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	1640	20	49	579	0	0	0	5	1165	0	332
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	0	1852	23	127	2455		0	0	617	1257	0	617
Arrive On Green	0.00	0.36	0.36	0.07	0.48	0.00	0.00	0.00	0.39	0.39	0.00	0.39
Sat Flow, veh/h	0	5367	63	1781	5106	2790	0	0	1574	2803	0	1574
Grp Volume(v), veh/h	0	1074	586	49	579	0	0	0	5	1165	0	332
Grp Sat Flow(s),veh/h/ln	0	1702	1858	1781	1702	1395	0	0	1574	1402	0	1574
Q Serve(g_s), s	0.0	26.2	26.2	2.3	5.9	0.0	0.0	0.0	0.2	34.4	0.0	14.3
Cycle Q Clear(g_c), s	0.0	26.2	26.2	2.3	5.9	0.0	0.0	0.0	0.2	34.6	0.0	14.3
Prop In Lane	0.00		0.03	1.00		1.00	0.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	0	1212	662	127	2455		0	0	617	1257	0	617
V/C Ratio(X)	0.00	0.89	0.89	0.39	0.24		0.00	0.00	0.01	0.93	0.00	0.54
Avail Cap(c_a), veh/h	0	1243	678	188	2674		0	0	617	1257	0	617
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	26.7	26.7	39.1	13.4	0.0	0.0	0.0	16.3	27.9	0.0	20.6
Incr Delay (d2), s/veh	0.0	7.8	13.2	1.9	0.0	0.0	0.0	0.0	0.0	11.8	0.0	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	11.4	13.5	1.1	2.2	0.0	0.0	0.0	0.1	14.1	0.0	5.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	34.6	39.9	41.0	13.5	0.0	0.0	0.0	16.4	39.7	0.0	21.6
LnGrp LOS	A	C	D	D	B		A	A	B	D	A	C
Approach Vol, veh/h		1660			628			5			1497	
Approach Delay, s/veh		36.4			15.6			16.4			35.7	
Approach LOS		D			B			B			D	

Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		48.2		40.0	11.0	37.2		40.0				
Change Period (Y+Rc), s		5.8		5.4	* 4.7	5.8		5.4				
Max Green Setting (Gmax), s		46.2		34.6	* 9.3	32.2		34.6				
Max Q Clear Time (g_c+I1), s		7.9		36.6	4.3	28.2		2.2				
Green Ext Time (p_c), s		4.5		0.0	0.0	3.2		0.0				

Intersection Summary		
HCM 6th Ctrl Delay	32.7	
HCM 6th LOS	C	

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

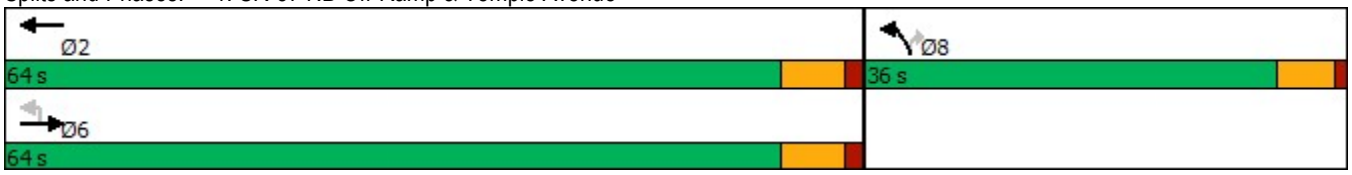
Appendix D

Synchro Worksheets – Existing plus Project Conditions

Phase Number	2	6	8
Movement	WBT	EBTU	NBL
Lead/Lag			
Lead-Lag Optimize			
Recall Mode	Min	Min	None
Maximum Split (s)	64	64	36
Maximum Split (%)	64.0%	64.0%	36.0%
Minimum Split (s)	40	40	30
Yellow Time (s)	4.8	4.8	4.4
All-Red Time (s)	1.5	1.5	1
Minimum Initial (s)	10	10	9
Vehicle Extension (s)	3	3	3
Minimum Gap (s)	2.5	2.5	3
Time Before Reduce (s)	0	0	0
Time To Reduce (s)	0	0	0
Walk Time (s)		7	
Flash Dont Walk (s)		15	
Dual Entry	Yes	Yes	Yes
Inhibit Max	Yes	Yes	Yes
Start Time (s)	0	0	64
End Time (s)	64	64	0
Yield/Force Off (s)	57.7	57.7	94.6
Yield/Force Off 170(s)	57.7	57.7	94.6
Local Start Time (s)	0	0	64
Local Yield (s)	57.7	57.7	94.6
Local Yield 170(s)	57.7	57.7	94.6

Intersection Summary	
Cycle Length	100
Control Type	Actuated-Uncoordinated
Natural Cycle	70

Splits and Phases: 1: SR-57 NB Off-Ramp & Temple Avenue





Movement	EBU	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations							
Traffic Volume (veh/h)	14	745	307	0	1600	338	232
Future Volume (veh/h)	14	745	307	0	1600	338	232
Initial Q (Qb), veh		0	0	0	0	0	0
Ped-Bike Adj(A_pbT)			1.00	1.00		1.00	1.00
Parking Bus, Adj		1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No	No	
Adj Sat Flow, veh/h/ln		1870	1870	0	1870	1870	1870
Adj Flow Rate, veh/h		768	0	0	1649	388	196
Peak Hour Factor		0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %		2	2	0	2	2	2
Cap, veh/h		2930		0	2930	687	306
Arrive On Green		0.57	0.00	0.00	0.57	0.19	0.19
Sat Flow, veh/h		5274	2790	0	5443	3563	1585
Grp Volume(v), veh/h		768	0	0	1649	388	196
Grp Sat Flow(s),veh/h/ln		1702	1395	0	1702	1781	1585
Q Serve(g_s), s		3.8	0.0	0.0	10.2	4.9	5.7
Cycle Q Clear(g_c), s		3.8	0.0	0.0	10.2	4.9	5.7
Prop In Lane			1.00	0.00		1.00	1.00
Lane Grp Cap(c), veh/h		2930		0	2930	687	306
V/C Ratio(X)		0.26		0.00	0.56	0.56	0.64
Avail Cap(c_a), veh/h		5877		0	5877	2175	967
HCM Platoon Ratio		1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)		1.00	0.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh		5.4	0.0	0.0	6.7	18.3	18.6
Incr Delay (d2), s/veh		0.0	0.0	0.0	0.2	0.7	2.2
Initial Q Delay(d3),s/veh		0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln		0.7	0.0	0.0	2.0	1.7	1.9
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh		5.4	0.0	0.0	6.9	19.1	20.9
LnGrp LOS		A		A	A	B	C
Approach Vol, veh/h		768			1649	584	
Approach Delay, s/veh		5.4			6.9	19.7	
Approach LOS		A			A	B	

Timer - Assigned Phs	2					6		8
Phs Duration (G+Y+Rc), s	35.1					35.1		15.1
Change Period (Y+Rc), s	6.3					6.3		5.4
Max Green Setting (Gmax), s	57.7					57.7		30.6
Max Q Clear Time (g_c+I1), s	12.2					5.8		7.7
Green Ext Time (p_c), s	16.6					5.6		2.0

Intersection Summary	
HCM 6th Ctrl Delay	9.0
HCM 6th LOS	A

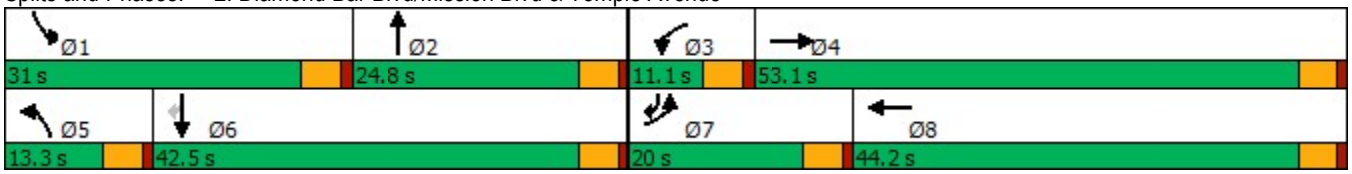
Notes

User approved volume balancing among the lanes for turning movement.
User approved ignoring U-Turning movement.
Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Phase Number	1	2	3	4	5	6	7	8
Movement	SBL	NBT	WBL	EBT	NBL	SBT	EBL	WBT
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Min	None	None	None	Min	None	None
Maximum Split (s)	31	24.8	11.1	53.1	13.3	42.5	20	44.2
Maximum Split (%)	25.8%	20.7%	9.3%	44.3%	11.1%	35.4%	16.7%	36.8%
Minimum Split (s)	9.5	22.5	9.5	22.5	9.5	22.5	9.5	22.5
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1	1	1	1	1	1	1	1
Minimum Initial (s)	5	5	5	5	5	5	5	5
Vehicle Extension (s)	3	3	3	3	3	3	3	3
Minimum Gap (s)	3	3	3	3	3	3	3	3
Time Before Reduce (s)	0	0	0	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0	0	0	0
Walk Time (s)		7				7		7
Flash Dont Walk (s)		11				11		11
Dual Entry	No	Yes	No	Yes	No	Yes	No	Yes
Inhibit Max	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Start Time (s)	0	31	55.8	66.9	0	13.3	55.8	75.8
End Time (s)	31	55.8	66.9	0	13.3	55.8	75.8	0
Yield/Force Off (s)	26.5	51.3	62.4	115.5	8.8	51.3	71.3	115.5
Yield/Force Off 170(s)	26.5	51.3	62.4	115.5	8.8	51.3	71.3	104.5
Local Start Time (s)	89	0	24.8	35.9	89	102.3	24.8	44.8
Local Yield (s)	115.5	20.3	31.4	84.5	97.8	20.3	40.3	84.5
Local Yield 170(s)	115.5	20.3	31.4	84.5	97.8	20.3	40.3	73.5

Intersection Summary	
Cycle Length	120
Control Type	Actuated-Uncoordinated
Natural Cycle	90

Splits and Phases: 2: Diamond Bar Blvd/Mission Blvd & Temple Avenue



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	295	432	143	30	1113	249	114	194	37	281	459	402
Future Volume (veh/h)	295	432	143	30	1113	249	114	194	37	281	459	402
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	331	485	161	34	1251	280	128	218	42	316	516	452
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	406	1165	384	54	1485	332	191	448	85	352	1041	649
Arrive On Green	0.12	0.44	0.44	0.03	0.36	0.36	0.06	0.15	0.15	0.20	0.29	0.29
Sat Flow, veh/h	3456	2623	865	1781	4158	930	3456	2978	563	1781	3554	1580
Grp Volume(v), veh/h	331	328	318	34	1024	507	128	128	132	316	516	452
Grp Sat Flow(s),veh/h/ln	1728	1777	1711	1781	1702	1684	1728	1777	1765	1781	1777	1580
Q Serve(g_s), s	9.5	12.8	12.9	1.9	28.1	28.1	3.7	6.7	7.0	17.6	12.2	24.0
Cycle Q Clear(g_c), s	9.5	12.8	12.9	1.9	28.1	28.1	3.7	6.7	7.0	17.6	12.2	24.0
Prop In Lane	1.00		0.51	1.00		0.55	1.00		0.32	1.00		1.00
Lane Grp Cap(c), veh/h	406	789	760	54	1216	602	191	267	266	352	1041	649
V/C Ratio(X)	0.82	0.41	0.42	0.63	0.84	0.84	0.67	0.48	0.50	0.90	0.50	0.70
Avail Cap(c_a), veh/h	527	850	818	116	1330	658	299	355	353	464	1329	777
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.8	19.2	19.3	48.7	30.0	30.0	47.1	39.5	39.6	39.8	29.7	24.7
Incr Delay (d2), s/veh	7.5	0.3	0.4	11.4	4.7	9.1	4.0	1.3	1.4	16.4	0.4	2.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.3	4.9	4.8	1.0	11.5	12.1	1.6	2.9	3.0	8.8	4.9	8.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	51.3	19.6	19.7	60.1	34.8	39.1	51.1	40.9	41.1	56.1	30.1	26.9
LnGrp LOS	D	B	B	E	C	D	D	D	D	E	C	C
Approach Vol, veh/h		977			1565			388			1284	
Approach Delay, s/veh		30.3			36.7			44.3			35.4	
Approach LOS		C			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	24.6	19.8	7.6	49.6	10.1	34.3	16.4	40.8
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	26.5	20.3	6.6	48.6	8.8	38.0	15.5	39.7
Max Q Clear Time (g_c+I1), s	19.6	9.0	3.9	14.9	5.7	26.0	11.5	30.1
Green Ext Time (p_c), s	0.5	0.9	0.0	3.9	0.1	3.8	0.4	6.2

Intersection Summary	
HCM 6th Ctrl Delay	35.5
HCM 6th LOS	D

Intersection	
Int Delay, s/veh	1.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	17	741	845	23	47	51
Future Vol, veh/h	17	741	845	23	47	51
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	115	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	83	83	83	83	83	83
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	20	893	1018	28	57	61

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	1046	0	-	0	1519	523
Stage 1	-	-	-	-	1032	-
Stage 2	-	-	-	-	487	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	661	-	-	-	110	499
Stage 1	-	-	-	-	304	-
Stage 2	-	-	-	-	583	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	661	-	-	-	107	499
Mov Cap-2 Maneuver	-	-	-	-	221	-
Stage 1	-	-	-	-	295	-
Stage 2	-	-	-	-	583	-

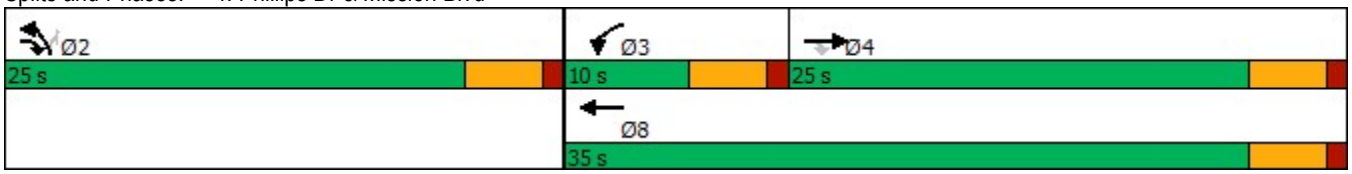
Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	23.5
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	661	-	-	-	311
HCM Lane V/C Ratio	0.031	-	-	-	0.38
HCM Control Delay (s)	10.6	-	-	-	23.5
HCM Lane LOS	B	-	-	-	C
HCM 95th %tile Q(veh)	0.1	-	-	-	1.7

Phase Number	2	3	4	8
Movement	NBL	WBL	EBT	WBT
Lead/Lag		Lead	Lag	
Lead-Lag Optimize		Yes	Yes	
Recall Mode	Max	None	None	None
Maximum Split (s)	25	10	25	35
Maximum Split (%)	41.7%	16.7%	41.7%	58.3%
Minimum Split (s)	22.5	9.5	22.5	22.5
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	1	1	1	1
Minimum Initial (s)	5	5	5	5
Vehicle Extension (s)	3	3	3	3
Minimum Gap (s)	3	3	3	3
Time Before Reduce (s)	0	0	0	0
Time To Reduce (s)	0	0	0	0
Walk Time (s)	7		7	7
Flash Dont Walk (s)	11		11	11
Dual Entry	Yes	No	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes
Start Time (s)	0	25	35	25
End Time (s)	25	35	0	0
Yield/Force Off (s)	20.5	30.5	55.5	55.5
Yield/Force Off 170(s)	9.5	30.5	44.5	44.5
Local Start Time (s)	0	25	35	25
Local Yield (s)	20.5	30.5	55.5	55.5
Local Yield 170(s)	9.5	30.5	44.5	44.5

Intersection Summary	
Cycle Length	60
Control Type	Actuated-Uncoordinated
Natural Cycle	55

Splits and Phases: 4: Phillips Dr & Mission Blvd





Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	659	132	20	686	179	38
Future Volume (veh/h)	659	132	20	686	179	38
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	794	159	24	827	216	46
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1086	1121	50	1500	716	637
Arrive On Green	0.31	0.31	0.03	0.42	0.40	0.40
Sat Flow, veh/h	3647	1585	1781	3647	1781	1585
Grp Volume(v), veh/h	794	159	24	827	216	46
Grp Sat Flow(s),veh/h/ln	1777	1585	1781	1777	1781	1585
Q Serve(g_s), s	10.2	1.7	0.7	8.9	4.2	0.9
Cycle Q Clear(g_c), s	10.2	1.7	0.7	8.9	4.2	0.9
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1086	1121	50	1500	716	637
V/C Ratio(X)	0.73	0.14	0.48	0.55	0.30	0.07
Avail Cap(c_a), veh/h	1427	1273	192	2124	716	637
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	15.8	2.4	24.4	11.1	10.4	9.4
Incr Delay (d2), s/veh	1.4	0.1	6.8	0.3	1.1	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.3	1.1	0.3	2.5	1.6	0.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	17.2	2.5	31.3	11.4	11.5	9.6
LnGrp LOS	B	A	C	B	B	A
Approach Vol, veh/h	953			851	262	
Approach Delay, s/veh	14.7			12.0	11.2	
Approach LOS	B			B	B	

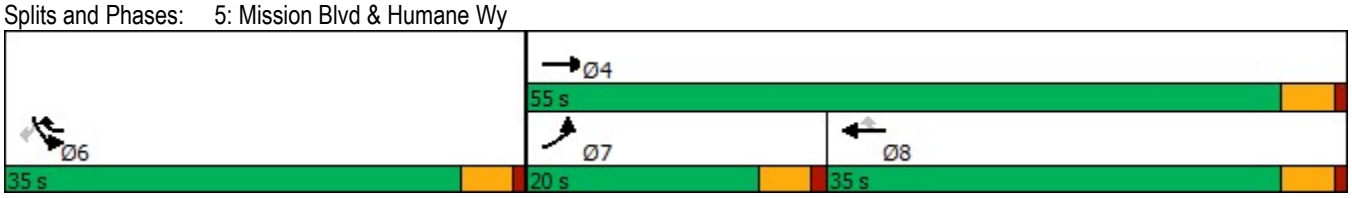
Timer - Assigned Phs		2	3	4		8
Phs Duration (G+Y+Rc), s		25.0	5.9	20.1		26.0
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s		20.5	5.5	20.5		30.5
Max Q Clear Time (g_c+I1), s		6.2	2.7	12.2		10.9
Green Ext Time (p_c), s		0.7	0.0	3.4		5.2

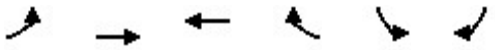
Intersection Summary	
HCM 6th Ctrl Delay	13.2
HCM 6th LOS	B

Phase Number	4	6	7	8
Movement	EBT	SBL	EBL	WBT
Lead/Lag			Lead	Lag
Lead-Lag Optimize			Yes	Yes
Recall Mode	None	Max	None	None
Maximum Split (s)	55	35	20	35
Maximum Split (%)	61.1%	38.9%	22.2%	38.9%
Minimum Split (s)	22.5	22.5	9.5	22.5
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	1	1	1	1
Minimum Initial (s)	5	5	5	5
Vehicle Extension (s)	3	3	3	3
Minimum Gap (s)	3	3	3	3
Time Before Reduce (s)	0	0	0	0
Time To Reduce (s)	0	0	0	0
Walk Time (s)		7		7
Flash Dont Walk (s)		11		11
Dual Entry	Yes	Yes	No	Yes
Inhibit Max	Yes	Yes	Yes	Yes
Start Time (s)	35	0	35	55
End Time (s)	0	35	55	0
Yield/Force Off (s)	85.5	30.5	50.5	85.5
Yield/Force Off 170(s)	85.5	19.5	50.5	74.5
Local Start Time (s)	35	0	35	55
Local Yield (s)	85.5	30.5	50.5	85.5
Local Yield 170(s)	85.5	19.5	50.5	74.5

Intersection Summary	
Cycle Length	90
Control Type	Actuated-Uncoordinated
Natural Cycle	60

Splits and Phases: 5: Mission Blvd & Humane Wy





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	151	546	559	358	182	144
Future Volume (veh/h)	151	546	559	358	182	144
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.98	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	180	650	665	426	217	171
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	224	1621	954	1081	1451	666
Arrive On Green	0.13	0.46	0.27	0.27	0.42	0.42
Sat Flow, veh/h	1781	3647	3647	1548	3456	1585
Grp Volume(v), veh/h	180	650	665	426	217	171
Grp Sat Flow(s),veh/h/ln	1781	1777	1777	1548	1728	1585
Q Serve(g_s), s	7.1	8.8	12.2	8.6	2.8	5.1
Cycle Q Clear(g_c), s	7.1	8.8	12.2	8.6	2.8	5.1
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	224	1621	954	1081	1451	666
V/C Ratio(X)	0.80	0.40	0.70	0.39	0.15	0.26
Avail Cap(c_a), veh/h	380	2471	1492	1316	1451	666
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.9	13.1	23.9	4.9	13.0	13.7
Incr Delay (d2), s/veh	6.7	0.2	0.9	0.2	0.2	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.2	3.0	4.7	6.6	1.0	0.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	37.5	13.3	24.8	5.1	13.3	14.6
LnGrp LOS	D	B	C	A	B	B
Approach Vol, veh/h		830	1091		388	
Approach Delay, s/veh		18.6	17.1		13.9	
Approach LOS		B	B		B	

Timer - Assigned Phs			4		6	7	8
Phs Duration (G+Y+Rc), s			37.6		35.0	13.6	24.0
Change Period (Y+Rc), s			4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s			50.5		30.5	15.5	30.5
Max Q Clear Time (g_c+I1), s			10.8		7.1	9.1	14.2
Green Ext Time (p_c), s			4.5		1.3	0.2	5.3

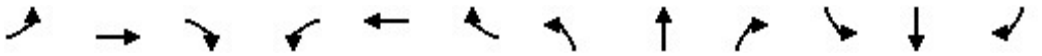
Intersection Summary	
HCM 6th Ctrl Delay	17.1
HCM 6th LOS	B

Phase Number	2	3	4	6	7	8
Movement	NBTL	WBL	EBT	SBTL	EBL	WBT
Lead/Lag		Lead	Lag		Lead	Lag
Lead-Lag Optimize		Yes	Yes		Yes	Yes
Recall Mode	Max	None	None	Max	None	None
Maximum Split (s)	30	20	40	30	20	40
Maximum Split (%)	33.3%	22.2%	44.4%	33.3%	22.2%	44.4%
Minimum Split (s)	22.5	9.5	22.5	22.5	9.5	22.5
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1	1	1	1	1	1
Minimum Initial (s)	5	5	5	5	5	5
Vehicle Extension (s)	3	3	3	3	3	3
Minimum Gap (s)	3	3	3	3	3	3
Time Before Reduce (s)	0	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0	0
Walk Time (s)			7	7		7
Flash Dont Walk (s)			11	11		11
Dual Entry	Yes	No	Yes	Yes	No	Yes
Inhibit Max	Yes	Yes	Yes	Yes	Yes	Yes
Start Time (s)	0	30	50	0	30	50
End Time (s)	30	50	0	30	50	0
Yield/Force Off (s)	25.5	45.5	85.5	25.5	45.5	85.5
Yield/Force Off 170(s)	25.5	45.5	74.5	14.5	45.5	74.5
Local Start Time (s)	0	30	50	0	30	50
Local Yield (s)	25.5	45.5	85.5	25.5	45.5	85.5
Local Yield 170(s)	25.5	45.5	74.5	14.5	45.5	74.5

Intersection Summary	
Cycle Length	90
Control Type	Actuated-Uncoordinated
Natural Cycle	60

Splits and Phases: 6: Westmont Ave & Mission Blvd





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	22	641	44	226	861	32	50	0	343	7	0	5
Future Volume (veh/h)	22	641	44	226	861	32	50	0	343	7	0	5
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.97	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	26	754	52	266	1013	38	59	0	404	8	0	6
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	51	1186	81	315	1975	74	111	25	521	269	22	155
Arrive On Green	0.03	0.24	0.24	0.18	0.39	0.39	0.38	0.00	0.38	0.38	0.00	0.38
Sat Flow, veh/h	1781	4878	335	1781	5046	189	135	66	1375	487	58	409
Grp Volume(v), veh/h	26	525	281	266	683	368	463	0	0	14	0	0
Grp Sat Flow(s),veh/h/ln	1781	1702	1809	1781	1702	1831	1576	0	0	954	0	0
Q Serve(g_s), s	1.0	9.3	9.4	9.7	10.3	10.3	9.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	1.0	9.3	9.4	9.7	10.3	10.3	17.2	0.0	0.0	0.3	0.0	0.0
Prop In Lane	1.00		0.19	1.00		0.10	0.13		0.87	0.57		0.43
Lane Grp Cap(c), veh/h	51	827	440	315	1332	717	658	0	0	446	0	0
V/C Ratio(X)	0.51	0.63	0.64	0.84	0.51	0.51	0.70	0.00	0.00	0.03	0.00	0.00
Avail Cap(c_a), veh/h	411	1797	955	411	1797	966	658	0	0	446	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	32.2	22.8	22.8	26.8	15.6	15.6	18.2	0.0	0.0	13.1	0.0	0.0
Incr Delay (d2), s/veh	7.7	0.8	1.5	11.8	0.3	0.6	6.2	0.0	0.0	0.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	3.4	3.7	4.7	3.4	3.7	7.0	0.0	0.0	0.1	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.9	23.6	24.4	38.6	15.9	16.2	24.4	0.0	0.0	13.2	0.0	0.0
LnGrp LOS	D	C	C	D	B	B	C	A	A	B	A	A
Approach Vol, veh/h		832			1317			463			14	
Approach Delay, s/veh		24.4			20.5			24.4			13.2	
Approach LOS		C			C			C			B	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		30.0	16.4	20.8		30.0	6.4	30.8				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		25.5	15.5	35.5		25.5	15.5	35.5				
Max Q Clear Time (g_c+I1), s		19.2	11.7	11.4		2.3	3.0	12.3				
Green Ext Time (p_c), s		1.7	0.3	5.0		0.0	0.0	6.7				

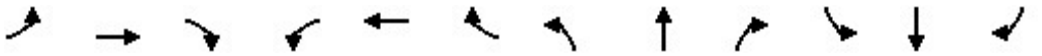
Intersection Summary												
HCM 6th Ctrl Delay			22.4									
HCM 6th LOS			C									

Phase Number	1	2	4	6
Movement	WBL	EBT	SBTL	WBT
Lead/Lag	Lead	Lag		
Lead-Lag Optimize	Yes	Yes		
Recall Mode	None	Min	None	Min
Maximum Split (s)	18	35	22	53
Maximum Split (%)	24.0%	46.7%	29.3%	70.7%
Minimum Split (s)	16	30	15	48
Yellow Time (s)	3.7	4.8	4.4	4.8
All-Red Time (s)	1	1	1	1
Minimum Initial (s)	11.3	12	9.6	12
Vehicle Extension (s)	3	3	3	3
Minimum Gap (s)	3	2.5	3	2.5
Time Before Reduce (s)	0	0	0	0
Time To Reduce (s)	0	0	0	0
Walk Time (s)		7		7
Flash Dont Walk (s)		16		21
Dual Entry	No	Yes	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes
Start Time (s)	0	18	53	0
End Time (s)	18	53	0	53
Yield/Force Off (s)	13.3	47.2	69.6	47.2
Yield/Force Off 170(s)	13.3	47.2	69.6	47.2
Local Start Time (s)	57	0	35	57
Local Yield (s)	70.3	29.2	51.6	29.2
Local Yield 170(s)	70.3	29.2	51.6	29.2

Intersection Summary	
Cycle Length	75
Control Type	Actuated-Uncoordinated
Natural Cycle	65

Splits and Phases: 7: SR-71 SB Ramps & Mission Blvd





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	750	237	131	1068	0	0	0	0	316	1	53
Future Volume (veh/h)	0	750	237	131	1068	0	0	0	0	316	1	53
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	0				1870	1870	1870
Adj Flow Rate, veh/h	0	872	276	152	1242	0				368	0	62
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86				0.86	0.86	0.86
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	1354	427	329	3181	0				619	0	276
Arrive On Green	0.00	0.35	0.35	0.18	0.62	0.00				0.17	0.00	0.17
Sat Flow, veh/h	0	4008	1209	1781	5274	0				3563	0	1585
Grp Volume(v), veh/h	0	773	375	152	1242	0				368	0	62
Grp Sat Flow(s),veh/h/ln	0	1702	1645	1781	1702	0				1781	0	1585
Q Serve(g_s), s	0.0	10.5	10.6	4.2	6.7	0.0				5.2	0.0	1.9
Cycle Q Clear(g_c), s	0.0	10.5	10.6	4.2	6.7	0.0				5.2	0.0	1.9
Prop In Lane	0.00		0.74	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1201	580	329	3181	0				619	0	276
V/C Ratio(X)	0.00	0.64	0.65	0.46	0.39	0.00				0.59	0.00	0.22
Avail Cap(c_a), veh/h	0	1803	871	430	4371	0				1073	0	477
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	14.9	15.0	20.0	5.2	0.0				21.0	0.0	19.6
Incr Delay (d2), s/veh	0.0	0.6	1.2	1.0	0.1	0.0				0.9	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	3.3	3.3	1.6	1.2	0.0				1.9	0.0	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	15.5	16.2	21.0	5.3	0.0				21.9	0.0	20.0
LnGrp LOS	A	B	B	C	A	A				C	A	B
Approach Vol, veh/h		1148			1394						430	
Approach Delay, s/veh		15.7			7.0						21.6	
Approach LOS		B			A						C	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	14.9	25.2		15.0		40.1
Change Period (Y+Rc), s	* 4.7	5.8		5.4		5.8
Max Green Setting (Gmax), s	* 13	29.2		16.6		47.2
Max Q Clear Time (g_c+I1), s	6.2	12.6		7.2		8.7
Green Ext Time (p_c), s	0.2	6.7		1.0		10.3

Intersection Summary		
HCM 6th Ctrl Delay		12.5
HCM 6th LOS		B

Notes

User approved volume balancing among the lanes for turning movement.

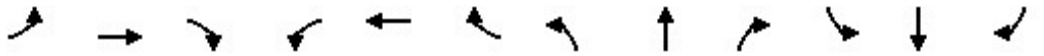
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Phase Number	2	5	6	8
Movement	EBT	EBL	WBT	NBTL
Lead/Lag		Lead	Lag	
Lead-Lag Optimize		Yes	Yes	
Recall Mode	Min	None	Min	None
Maximum Split (s)	52.5	16.7	35.8	22.5
Maximum Split (%)	70.0%	22.3%	47.7%	30.0%
Minimum Split (s)	47	16	28.8	16
Yellow Time (s)	4.8	3.7	4.8	4.4
All-Red Time (s)	1	1	1	1
Minimum Initial (s)	12	11.3	12	10.6
Vehicle Extension (s)	3	3	3	3
Minimum Gap (s)	2.5	3	2.5	3
Time Before Reduce (s)	0	0	0	0
Time To Reduce (s)	0	0	0	0
Walk Time (s)	7		7	
Flash Dont Walk (s)	21		16	
Dual Entry	Yes	No	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes
Start Time (s)	0	0	16.7	52.5
End Time (s)	52.5	16.7	52.5	0
Yield/Force Off (s)	46.7	12	46.7	69.6
Yield/Force Off 170(s)	46.7	12	46.7	69.6
Local Start Time (s)	58.3	58.3	0	35.8
Local Yield (s)	30	70.3	30	52.9
Local Yield 170(s)	30	70.3	30	52.9

Intersection Summary	
Cycle Length	75
Control Type	Actuated-Uncoordinated
Natural Cycle	65

Splits and Phases: 8: SR-71 NB Ramps & Mission Blvd





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	112	952	0	0	1017	723	183	5	50	0	0	0
Future Volume (veh/h)	112	952	0	0	1017	723	183	5	50	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1870	1870	0	0	1870	1870	1870	1870	1870			
Adj Flow Rate, veh/h	129	1094	0	0	1169	831	214	0	57			
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	274	3442	0	0	2297	703	562	0	250			
Arrive On Green	0.15	0.67	0.00	0.00	0.45	0.45	0.16	0.00	0.16			
Sat Flow, veh/h	1781	5274	0	0	5274	1564	3563	0	1585			
Grp Volume(v), veh/h	129	1094	0	0	1169	831	214	0	57			
Grp Sat Flow(s),veh/h/ln	1781	1702	0	0	1702	1564	1781	0	1585			
Q Serve(g_s), s	4.4	5.9	0.0	0.0	10.9	30.0	3.6	0.0	2.1			
Cycle Q Clear(g_c), s	4.4	5.9	0.0	0.0	10.9	30.0	3.6	0.0	2.1			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	274	3442	0	0	2297	703	562	0	250			
V/C Ratio(X)	0.47	0.32	0.00	0.00	0.51	1.18	0.38	0.00	0.23			
Avail Cap(c_a), veh/h	320	3575	0	0	2297	703	913	0	406			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	25.7	4.5	0.0	0.0	13.1	18.3	25.2	0.0	24.5			
Incr Delay (d2), s/veh	1.3	0.1	0.0	0.0	0.2	95.9	0.4	0.0	0.5			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	1.8	1.2	0.0	0.0	3.4	27.2	1.4	0.0	0.7			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	27.0	4.6	0.0	0.0	13.3	114.2	25.6	0.0	25.0			
LnGrp LOS	C	A	A	A	B	F	C	A	C			
Approach Vol, veh/h		1223			2000			271				
Approach Delay, s/veh		6.9			55.2			25.5				
Approach LOS		A			E			C				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		50.8			15.0	35.8		15.9				
Change Period (Y+Rc), s		5.8			* 4.7	5.8		5.4				
Max Green Setting (Gmax), s		46.7			* 12	30.0		17.1				
Max Q Clear Time (g_c+I1), s		7.9			6.4	32.0		5.6				
Green Ext Time (p_c), s		8.7			0.1	0.0		0.7				

Intersection Summary	
HCM 6th Ctrl Delay	36.0
HCM 6th LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

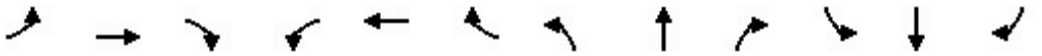
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Phase Number	2	4	5	6	8
Movement	WBT	SBTL	WBL	EBT	NBTL
Lead/Lag			Lead	Lag	
Lead-Lag Optimize			Yes	Yes	
Recall Mode	Min	None	None	Min	Max
Maximum Split (s)	60	40	15	45	40
Maximum Split (%)	60.0%	40.0%	15.0%	45.0%	40.0%
Minimum Split (s)	26.3	32.4	13.7	29.3	22.5
Yellow Time (s)	4.8	4.4	3.7	4.8	4.4
All-Red Time (s)	1	1	1	1	1
Minimum Initial (s)	10	9	9	10	9
Vehicle Extension (s)	3	3	3	3	3
Minimum Gap (s)	2.5	3	2.5	2.5	3
Time Before Reduce (s)	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0
Walk Time (s)	7	4		7	
Flash Dont Walk (s)	13	23		16	
Dual Entry	No	Yes	No	No	Yes
Inhibit Max	Yes	Yes	Yes	Yes	Yes
Start Time (s)	0	60	0	15	60
End Time (s)	60	0	15	60	0
Yield/Force Off (s)	54.2	94.6	10.3	54.2	94.6
Yield/Force Off 170(s)	54.2	71.6	10.3	54.2	94.6
Local Start Time (s)	0	60	0	15	60
Local Yield (s)	54.2	94.6	10.3	54.2	94.6
Local Yield 170(s)	54.2	71.6	10.3	54.2	94.6

Intersection Summary	
Cycle Length	100
Control Type	Actuated-Uncoordinated
Natural Cycle	90

Splits and Phases: 9: Shell Dwy/SR-57 SB Off-Ramp & Temple Avenue





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	561	10	59	1181	76	0	0	6	562	9	964
Future Volume (veh/h)	0	561	10	59	1181	76	0	0	6	562	9	964
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	603	11	63	1270	0	0	0	6	406	0	1256
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	0	1159	21	158	1925		0	0	746	759	0	1492
Arrive On Green	0.00	0.22	0.22	0.09	0.38	0.00	0.00	0.00	0.47	0.47	0.00	0.47
Sat Flow, veh/h	0	5330	94	1781	5106	2790	0	0	1585	1410	0	3170
Grp Volume(v), veh/h	0	397	217	63	1270	0	0	0	6	406	0	1256
Grp Sat Flow(s),veh/h/ln	0	1702	1852	1781	1702	1395	0	0	1585	1410	0	1585
Q Serve(g_s), s	0.0	7.5	7.6	2.5	15.2	0.0	0.0	0.0	0.1	15.8	0.0	25.5
Cycle Q Clear(g_c), s	0.0	7.5	7.6	2.5	15.2	0.0	0.0	0.0	0.1	15.9	0.0	25.5
Prop In Lane	0.00		0.05	1.00		1.00	0.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	0	764	416	158	1925		0	0	746	759	0	1492
V/C Ratio(X)	0.00	0.52	0.52	0.40	0.66		0.00	0.00	0.01	0.54	0.00	0.84
Avail Cap(c_a), veh/h	0	1815	987	250	3764		0	0	746	759	0	1492
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	25.0	25.0	31.7	19.0	0.0	0.0	0.0	10.3	14.6	0.0	17.1
Incr Delay (d2), s/veh	0.0	0.5	1.0	1.6	0.4	0.0	0.0	0.0	0.0	0.7	0.0	4.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	2.8	3.1	1.1	5.2	0.0	0.0	0.0	0.1	4.3	0.0	9.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	25.6	26.1	33.3	19.4	0.0	0.0	0.0	10.4	15.3	0.0	21.6
LnGrp LOS	A	C	C	C	B		A	A	B	B	A	C
Approach Vol, veh/h		614			1333			6			1662	
Approach Delay, s/veh		25.7			20.0			10.4			20.1	
Approach LOS		C			C			B			C	

Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		33.5		40.0	11.2	22.3		40.0				
Change Period (Y+Rc), s		5.8		5.4	* 4.7	5.8		5.4				
Max Green Setting (Gmax), s		54.2		34.6	* 10	39.2		34.6				
Max Q Clear Time (g_c+I1), s		17.2		27.5	4.5	9.6		2.1				
Green Ext Time (p_c), s		10.6		4.0	0.0	3.7		0.0				

Intersection Summary		
HCM 6th Ctrl Delay		21.0
HCM 6th LOS		C

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

Intersection	
Int Delay, s/veh	1.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	13	8	31	76	0
Future Vol, veh/h	0	13	8	31	76	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	79	79	79	79	79	79
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	16	10	39	96	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	155	96	96	0	-	0
Stage 1	96	-	-	-	-	-
Stage 2	59	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	836	960	1498	-	-	-
Stage 1	928	-	-	-	-	-
Stage 2	964	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	830	960	1498	-	-	-
Mov Cap-2 Maneuver	830	-	-	-	-	-
Stage 1	922	-	-	-	-	-
Stage 2	964	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.8	1.5	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1498	-	960	-	-
HCM Lane V/C Ratio	0.007	-	0.017	-	-
HCM Control Delay (s)	7.4	0	8.8	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	3	784	863	3	6	7
Future Vol, veh/h	3	784	863	3	6	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	1	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	3	852	938	3	7	8

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	941	0	-	0	1372	471
Stage 1	-	-	-	-	940	-
Stage 2	-	-	-	-	432	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	724	-	-	-	137	539
Stage 1	-	-	-	-	340	-
Stage 2	-	-	-	-	622	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	724	-	-	-	136	539
Mov Cap-2 Maneuver	-	-	-	-	255	-
Stage 1	-	-	-	-	339	-
Stage 2	-	-	-	-	622	-

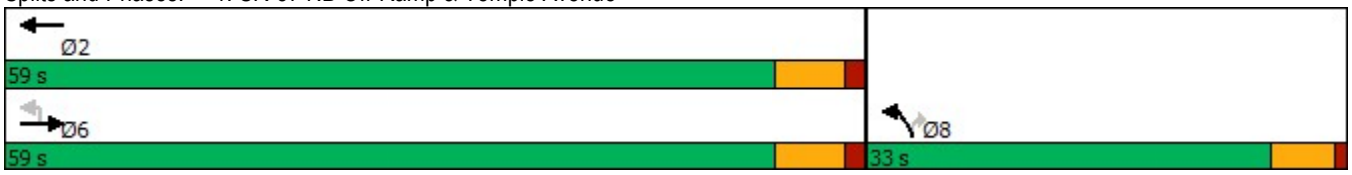
Approach	EB	WB	SB
HCM Control Delay, s	0	0	15.5
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	724	-	-	-	356
HCM Lane V/C Ratio	0.005	-	-	-	0.04
HCM Control Delay (s)	10	-	-	-	15.5
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Phase Number	2	6	8
Movement	WBT	EBTU	NBL
Lead/Lag			
Lead-Lag Optimize			
Recall Mode	Min	Min	None
Maximum Split (s)	59	59	33
Maximum Split (%)	64.1%	64.1%	35.9%
Minimum Split (s)	40	40	30
Yellow Time (s)	4.8	4.8	4.4
All-Red Time (s)	1.5	1.5	1
Minimum Initial (s)	10	10	9
Vehicle Extension (s)	3	3	3
Minimum Gap (s)	3	3	3
Time Before Reduce (s)	0	0	0
Time To Reduce (s)	0	0	0
Walk Time (s)		7	
Flash Dont Walk (s)		15	
Dual Entry	Yes	Yes	Yes
Inhibit Max	Yes	Yes	Yes
Start Time (s)	0	0	59
End Time (s)	59	59	0
Yield/Force Off (s)	52.7	52.7	86.6
Yield/Force Off 170(s)	52.7	52.7	86.6
Local Start Time (s)	0	0	59
Local Yield (s)	52.7	52.7	86.6
Local Yield 170(s)	52.7	52.7	86.6

Intersection Summary	
Cycle Length	92
Control Type	Actuated-Uncoordinated
Natural Cycle	70

Splits and Phases: 1: SR-57 NB Off-Ramp & Temple Avenue





Movement	EBU	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations							
Traffic Volume (veh/h)	18	1641	679	0	936	67	266
Future Volume (veh/h)	18	1641	679	0	936	67	266
Initial Q (Qb), veh		0	0	0	0	0	0
Ped-Bike Adj(A_pbT)			1.00	1.00		1.00	1.00
Parking Bus, Adj		1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No	No	
Adj Sat Flow, veh/h/ln		1870	1870	0	1870	1870	1870
Adj Flow Rate, veh/h		1727	0	0	985	71	280
Peak Hour Factor		0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %		2	2	0	2	2	2
Cap, veh/h		3010		0	3010	317	563
Arrive On Green		0.59	0.00	0.00	0.59	0.18	0.18
Sat Flow, veh/h		5274	2790	0	5443	1781	3170
Grp Volume(v), veh/h		1727	0	0	985	71	280
Grp Sat Flow(s),veh/h/ln		1702	1395	0	1702	1781	1585
Q Serve(g_s), s		10.5	0.0	0.0	4.9	1.7	4.0
Cycle Q Clear(g_c), s		10.5	0.0	0.0	4.9	1.7	4.0
Prop In Lane			1.00	0.00		1.00	1.00
Lane Grp Cap(c), veh/h		3010		0	3010	317	563
V/C Ratio(X)		0.57		0.00	0.33	0.22	0.50
Avail Cap(c_a), veh/h		5353		0	5353	978	1741
HCM Platoon Ratio		1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)		1.00	0.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh		6.4	0.0	0.0	5.2	17.7	18.6
Incr Delay (d2), s/veh		0.2	0.0	0.0	0.1	0.4	0.7
Initial Q Delay(d3),s/veh		0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln		1.9	0.0	0.0	0.9	0.6	1.3
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh		6.6	0.0	0.0	5.3	18.1	19.3
LnGrp LOS		A		A	A	B	B
Approach Vol, veh/h		1727			985	351	
Approach Delay, s/veh		6.6			5.3	19.1	
Approach LOS		A			A	B	

Timer - Assigned Phs	2				6		8
Phs Duration (G+Y+Rc), s	35.9				35.9		14.3
Change Period (Y+Rc), s	6.3				6.3		5.4
Max Green Setting (Gmax), s	52.7				52.7		27.6
Max Q Clear Time (g_c+I1), s	6.9				12.5		6.0
Green Ext Time (p_c), s	7.7				17.1		1.2

Intersection Summary	
HCM 6th Ctrl Delay	7.6
HCM 6th LOS	A

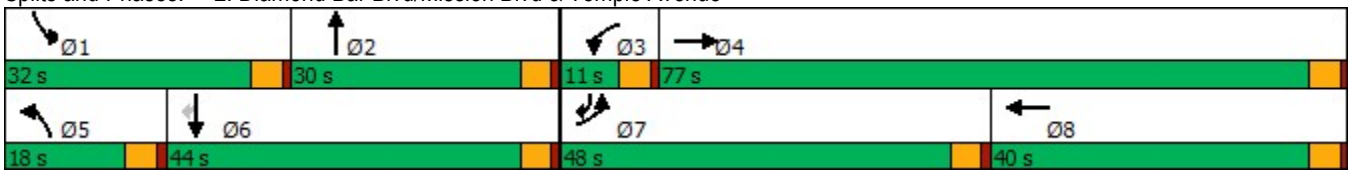
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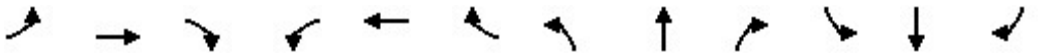
User approved volume balancing among the lanes for turning movement.
User approved ignoring U-Turning movement.
Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Phase Number	1	2	3	4	5	6	7	8
Movement	SBL	NBT	WBL	EBT	NBL	SBT	EBL	WBT
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Min	None	None	None	Min	None	None
Maximum Split (s)	32	30	11	77	18	44	48	40
Maximum Split (%)	21.3%	20.0%	7.3%	51.3%	12.0%	29.3%	32.0%	26.7%
Minimum Split (s)	9.5	22.5	9.5	22.5	9.5	22.5	9.5	22.5
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1	1	1	1	1	1	1	1
Minimum Initial (s)	5	5	5	5	5	5	5	5
Vehicle Extension (s)	3	3	3	3	3	3	3	3
Minimum Gap (s)	3	3	3	3	3	3	3	3
Time Before Reduce (s)	0	0	0	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0	0	0	0
Walk Time (s)		7				7		7
Flash Dont Walk (s)		11				11		11
Dual Entry	No	Yes	No	Yes	No	Yes	No	Yes
Inhibit Max	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Start Time (s)	0	32	62	73	0	18	62	110
End Time (s)	32	62	73	0	18	62	110	0
Yield/Force Off (s)	27.5	57.5	68.5	145.5	13.5	57.5	105.5	145.5
Yield/Force Off 170(s)	27.5	57.5	68.5	145.5	13.5	57.5	105.5	134.5
Local Start Time (s)	118	0	30	41	118	136	30	78
Local Yield (s)	145.5	25.5	36.5	113.5	131.5	25.5	73.5	113.5
Local Yield 170(s)	145.5	25.5	36.5	113.5	131.5	25.5	73.5	102.5

Intersection Summary	
Cycle Length	150
Control Type	Actuated-Uncoordinated
Natural Cycle	80

Splits and Phases: 2: Diamond Bar Blvd/Mission Blvd & Temple Avenue





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	662	1006	155	18	480	291	141	275	28	168	208	327
Future Volume (veh/h)	662	1006	155	18	480	291	141	275	28	168	208	327
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.99	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	676	1027	158	18	490	297	144	281	29	171	212	334
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	833	1477	227	37	883	404	228	496	51	215	736	704
Arrive On Green	0.24	0.48	0.48	0.02	0.26	0.26	0.07	0.15	0.15	0.12	0.21	0.21
Sat Flow, veh/h	3456	3080	473	1781	3404	1557	3456	3252	333	1781	3554	1553
Grp Volume(v), veh/h	676	592	593	18	490	297	144	152	158	171	212	334
Grp Sat Flow(s),veh/h/ln	1728	1777	1776	1781	1702	1557	1728	1777	1808	1781	1777	1553
Q Serve(g_s), s	14.7	20.6	20.7	0.8	9.9	13.9	3.2	6.3	6.4	7.4	4.0	12.0
Cycle Q Clear(g_c), s	14.7	20.6	20.7	0.8	9.9	13.9	3.2	6.3	6.4	7.4	4.0	12.0
Prop In Lane	1.00		0.27	1.00		1.00	1.00		0.18	1.00		1.00
Lane Grp Cap(c), veh/h	833	852	852	37	883	404	228	271	276	215	736	704
V/C Ratio(X)	0.81	0.69	0.70	0.49	0.56	0.74	0.63	0.56	0.57	0.80	0.29	0.47
Avail Cap(c_a), veh/h	1892	1621	1621	146	1521	696	587	570	580	617	1767	1154
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.4	16.1	16.1	38.5	25.5	26.9	36.2	31.2	31.3	34.0	26.6	15.4
Incr Delay (d2), s/veh	2.0	1.0	1.0	9.7	0.5	2.6	2.9	1.8	1.9	6.6	0.2	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.8	7.3	7.3	0.4	3.7	5.0	1.4	2.7	2.8	3.3	1.6	3.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.4	17.2	17.2	48.2	26.0	29.5	39.0	33.0	33.1	40.6	26.8	15.9
LnGrp LOS	C	B	B	D	C	C	D	C	C	D	C	B
Approach Vol, veh/h		1861			805			454			717	
Approach Delay, s/veh		22.0			27.8			35.0			25.0	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.1	16.6	6.1	42.6	9.7	21.0	23.6	25.1
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	27.5	25.5	6.5	72.5	13.5	39.5	43.5	35.5
Max Q Clear Time (g_c+I1), s	9.4	8.4	2.8	22.7	5.2	14.0	16.7	15.9
Green Ext Time (p_c), s	0.4	1.4	0.0	9.3	0.2	2.3	2.5	4.7

Intersection Summary	
HCM 6th Ctrl Delay	25.3
HCM 6th LOS	C

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	53	1115	522	47	37	31
Future Vol, veh/h	53	1115	522	47	37	31
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	115	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	56	1186	555	50	39	33

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	605	0	-	0	1285	303
Stage 1	-	-	-	-	580	-
Stage 2	-	-	-	-	705	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	969	-	-	-	156	693
Stage 1	-	-	-	-	523	-
Stage 2	-	-	-	-	451	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	969	-	-	-	147	693
Mov Cap-2 Maneuver	-	-	-	-	282	-
Stage 1	-	-	-	-	493	-
Stage 2	-	-	-	-	451	-

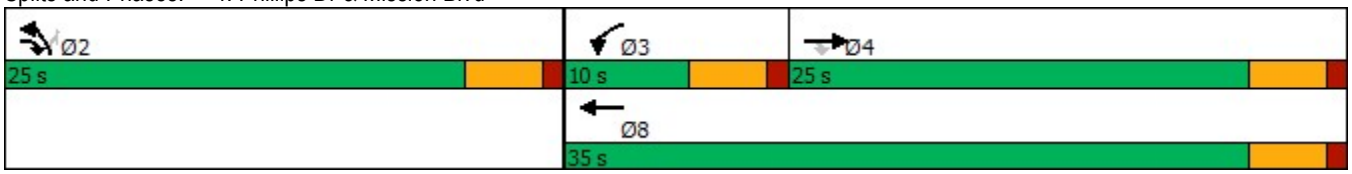
Approach	EB	WB	SB
HCM Control Delay, s	0.4	0	16.5
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	969	-	-	-	386
HCM Lane V/C Ratio	0.058	-	-	-	0.187
HCM Control Delay (s)	8.9	-	-	-	16.5
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0.2	-	-	-	0.7

Phase Number	2	3	4	8
Movement	NBL	WBL	EBT	WBT
Lead/Lag		Lead	Lag	
Lead-Lag Optimize		Yes	Yes	
Recall Mode	Max	None	None	None
Maximum Split (s)	25	10	25	35
Maximum Split (%)	41.7%	16.7%	41.7%	58.3%
Minimum Split (s)	22.5	9.5	22.5	22.5
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	1	1	1	1
Minimum Initial (s)	5	5	5	5
Vehicle Extension (s)	3	3	3	3
Minimum Gap (s)	3	3	3	3
Time Before Reduce (s)	0	0	0	0
Time To Reduce (s)	0	0	0	0
Walk Time (s)	7		7	7
Flash Dont Walk (s)	11		11	11
Dual Entry	Yes	No	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes
Start Time (s)	0	25	35	25
End Time (s)	25	35	0	0
Yield/Force Off (s)	20.5	30.5	55.5	55.5
Yield/Force Off 170(s)	9.5	30.5	44.5	44.5
Local Start Time (s)	0	25	35	25
Local Yield (s)	20.5	30.5	55.5	55.5
Local Yield 170(s)	9.5	30.5	44.5	44.5

Intersection Summary	
Cycle Length	60
Control Type	Actuated-Uncoordinated
Natural Cycle	60

Splits and Phases: 4: Phillips Dr & Mission Blvd





Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	929	165	67	534	79	22
Future Volume (veh/h)	929	165	67	534	79	22
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		0.98	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	999	177	72	574	85	24
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1195	1097	107	1692	648	577
Arrive On Green	0.34	0.34	0.06	0.48	0.36	0.36
Sat Flow, veh/h	3647	1546	1781	3647	1781	1585
Grp Volume(v), veh/h	999	177	72	574	85	24
Grp Sat Flow(s),veh/h/ln	1777	1546	1781	1777	1781	1585
Q Serve(g_s), s	14.6	2.2	2.2	5.7	1.8	0.6
Cycle Q Clear(g_c), s	14.6	2.2	2.2	5.7	1.8	0.6
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1195	1097	107	1692	648	577
V/C Ratio(X)	0.84	0.16	0.67	0.34	0.13	0.04
Avail Cap(c_a), veh/h	1294	1140	174	1925	648	577
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	17.3	2.9	25.9	9.2	12.0	11.6
Incr Delay (d2), s/veh	4.6	0.1	7.2	0.1	0.4	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.3	1.3	1.0	1.6	0.7	0.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	21.9	2.9	33.1	9.3	12.4	11.7
LnGrp LOS	C	A	C	A	B	B
Approach Vol, veh/h	1176			646	109	
Approach Delay, s/veh	19.0			12.0	12.2	
Approach LOS	B			B	B	

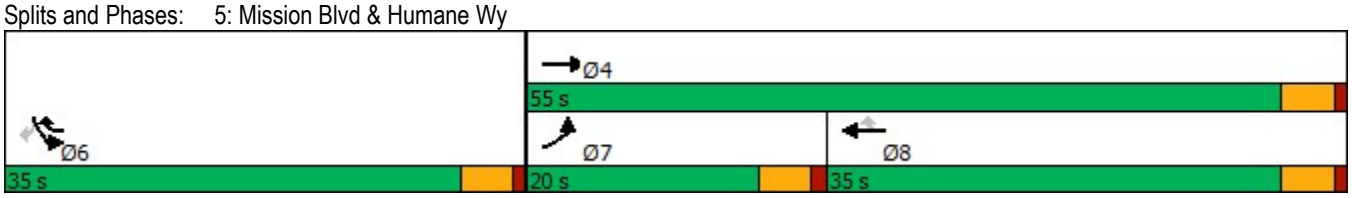
Timer - Assigned Phs		2	3	4		8
Phs Duration (G+Y+Rc), s		25.0	7.9	23.4		31.3
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s		20.5	5.5	20.5		30.5
Max Q Clear Time (g_c+I1), s		3.8	4.2	16.6		7.7
Green Ext Time (p_c), s		0.2	0.0	2.3		3.5

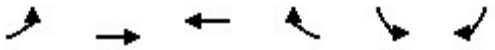
Intersection Summary	
HCM 6th Ctrl Delay	16.3
HCM 6th LOS	B

Phase Number	4	6	7	8
Movement	EBT	SBL	EBL	WBT
Lead/Lag			Lead	Lag
Lead-Lag Optimize			Yes	Yes
Recall Mode	None	Max	None	None
Maximum Split (s)	55	35	20	35
Maximum Split (%)	61.1%	38.9%	22.2%	38.9%
Minimum Split (s)	22.5	22.5	9.5	22.5
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	1	1	1	1
Minimum Initial (s)	5	5	5	5
Vehicle Extension (s)	3	3	3	3
Minimum Gap (s)	3	3	3	3
Time Before Reduce (s)	0	0	0	0
Time To Reduce (s)	0	0	0	0
Walk Time (s)		7		7
Flash Dont Walk (s)		11		11
Dual Entry	Yes	Yes	No	Yes
Inhibit Max	Yes	Yes	Yes	Yes
Start Time (s)	35	0	35	55
End Time (s)	0	35	55	0
Yield/Force Off (s)	85.5	30.5	50.5	85.5
Yield/Force Off 170(s)	85.5	19.5	50.5	74.5
Local Start Time (s)	35	0	35	55
Local Yield (s)	85.5	30.5	50.5	85.5
Local Yield 170(s)	85.5	19.5	50.5	74.5

Intersection Summary	
Cycle Length	90
Control Type	Actuated-Uncoordinated
Natural Cycle	55

Splits and Phases: 5: Mission Blvd & Humane Wy





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	109	912	384	117	666	172
Future Volume (veh/h)	109	912	384	117	666	172
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	112	940	396	121	687	177
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	147	1317	769	1113	1680	770
Arrive On Green	0.08	0.37	0.22	0.22	0.49	0.49
Sat Flow, veh/h	1781	3647	3647	1581	3456	1585
Grp Volume(v), veh/h	112	940	396	121	687	177
Grp Sat Flow(s),veh/h/ln	1781	1777	1777	1581	1728	1585
Q Serve(g_s), s	3.9	14.2	6.2	1.5	8.0	4.1
Cycle Q Clear(g_c), s	3.9	14.2	6.2	1.5	8.0	4.1
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	147	1317	769	1113	1680	770
V/C Ratio(X)	0.76	0.71	0.51	0.11	0.41	0.23
Avail Cap(c_a), veh/h	440	2860	1727	1539	1680	770
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.2	16.9	21.7	3.0	10.3	9.3
Incr Delay (d2), s/veh	8.0	0.7	0.5	0.0	0.7	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	4.9	2.3	1.3	2.6	4.8
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	36.2	17.6	22.2	3.0	11.1	10.0
LnGrp LOS	D	B	C	A	B	B
Approach Vol, veh/h		1052	517		864	
Approach Delay, s/veh		19.6	17.7		10.9	
Approach LOS		B	B		B	

Timer - Assigned Phs			4		6	7	8
Phs Duration (G+Y+Rc), s			27.8		35.0	9.7	18.1
Change Period (Y+Rc), s			4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s			50.5		30.5	15.5	30.5
Max Q Clear Time (g_c+I1), s			16.2		10.0	5.9	8.2
Green Ext Time (p_c), s			7.0		3.1	0.2	2.7

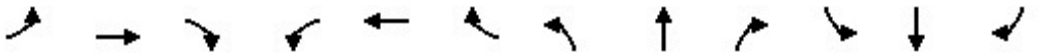
Intersection Summary	
HCM 6th Ctrl Delay	16.1
HCM 6th LOS	B

Phase Number	2	3	4	6	7	8
Movement	NBTL	WBL	EBT	SBTL	EBL	WBT
Lead/Lag		Lead	Lag		Lead	Lag
Lead-Lag Optimize		Yes	Yes		Yes	Yes
Recall Mode	Max	None	None	Max	None	None
Maximum Split (s)	30	20	40	30	20	40
Maximum Split (%)	33.3%	22.2%	44.4%	33.3%	22.2%	44.4%
Minimum Split (s)	22.5	9.5	22.5	22.5	9.5	22.5
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1	1	1	1	1	1
Minimum Initial (s)	5	5	5	5	5	5
Vehicle Extension (s)	3	3	3	3	3	3
Minimum Gap (s)	3	3	3	3	3	3
Time Before Reduce (s)	0	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0	0
Walk Time (s)			7	7		7
Flash Dont Walk (s)			11	11		11
Dual Entry	Yes	No	Yes	Yes	No	Yes
Inhibit Max	Yes	Yes	Yes	Yes	Yes	Yes
Start Time (s)	0	30	50	0	30	50
End Time (s)	30	50	0	30	50	0
Yield/Force Off (s)	25.5	45.5	85.5	25.5	45.5	85.5
Yield/Force Off 170(s)	25.5	45.5	74.5	14.5	45.5	74.5
Local Start Time (s)	0	30	50	0	30	50
Local Yield (s)	25.5	45.5	85.5	25.5	45.5	85.5
Local Yield 170(s)	25.5	45.5	74.5	14.5	45.5	74.5

Intersection Summary	
Cycle Length	90
Control Type	Actuated-Uncoordinated
Natural Cycle	65

Splits and Phases: 6: Westmont Ave & Mission Blvd





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	1477	66	207	455	6	18	0	160	44	1	13
Future Volume (veh/h)	5	1477	66	207	455	6	18	0	160	44	1	13
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	5	1523	68	213	469	6	19	0	165	45	1	13
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	12	1913	85	253	2688	34	73	26	442	369	17	87
Arrive On Green	0.01	0.38	0.38	0.14	0.52	0.52	0.31	0.00	0.31	0.31	0.31	0.31
Sat Flow, veh/h	1781	5010	224	1781	5194	66	79	85	1421	937	55	280
Grp Volume(v), veh/h	5	1035	556	213	307	168	184	0	0	59	0	0
Grp Sat Flow(s),veh/h/ln	1781	1702	1830	1781	1702	1857	1585	0	0	1272	0	0
Q Serve(g_s), s	0.2	22.1	22.1	9.5	3.9	3.9	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.2	22.1	22.1	9.5	3.9	3.9	7.3	0.0	0.0	2.6	0.0	0.0
Prop In Lane	1.00		0.12	1.00		0.04	0.10		0.90	0.76		0.22
Lane Grp Cap(c), veh/h	12	1300	699	253	1762	961	542	0	0	473	0	0
V/C Ratio(X)	0.43	0.80	0.80	0.84	0.17	0.17	0.34	0.00	0.00	0.12	0.00	0.00
Avail Cap(c_a), veh/h	337	1475	793	337	1762	961	542	0	0	473	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	40.6	22.5	22.5	34.2	10.5	10.5	22.0	0.0	0.0	20.3	0.0	0.0
Incr Delay (d2), s/veh	22.8	2.8	5.1	13.4	0.0	0.1	1.7	0.0	0.0	0.5	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	8.3	9.4	4.8	1.3	1.4	3.0	0.0	0.0	0.9	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	63.4	25.3	27.6	47.6	10.5	10.6	23.7	0.0	0.0	20.8	0.0	0.0
LnGrp LOS	E	C	C	D	B	B	C	A	A	C	A	A
Approach Vol, veh/h		1596			688			184			59	
Approach Delay, s/veh		26.2			22.0			23.7			20.8	
Approach LOS		C			C			C			C	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		30.0	16.2	35.8		30.0	5.0	46.9				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		25.5	15.5	35.5		25.5	15.5	35.5				
Max Q Clear Time (g_c+I1), s		9.3	11.5	24.1		4.6	2.2	5.9				
Green Ext Time (p_c), s		1.0	0.2	7.2		0.3	0.0	2.8				

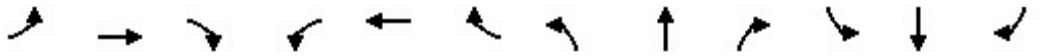
Intersection Summary	
HCM 6th Ctrl Delay	24.8
HCM 6th LOS	C

Phase Number	1	2	4	6
Movement	WBL	EBT	SBTL	WBT
Lead/Lag	Lead	Lag		
Lead-Lag Optimize	Yes	Yes		
Recall Mode	None	Min	None	Min
Maximum Split (s)	18	35	22	53
Maximum Split (%)	24.0%	46.7%	29.3%	70.7%
Minimum Split (s)	16	30	15	48
Yellow Time (s)	3.7	4.8	4.4	4.8
All-Red Time (s)	1	1	1	1
Minimum Initial (s)	11.3	12	9.6	12
Vehicle Extension (s)	3	3	3	3
Minimum Gap (s)	3	2.5	3	2.5
Time Before Reduce (s)	0	0	0	0
Time To Reduce (s)	0	0	0	0
Walk Time (s)		7		7
Flash Dont Walk (s)		16		21
Dual Entry	No	Yes	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes
Start Time (s)	0	18	53	0
End Time (s)	18	53	0	53
Yield/Force Off (s)	13.3	47.2	69.6	47.2
Yield/Force Off 170(s)	13.3	47.2	69.6	47.2
Local Start Time (s)	0	18	53	0
Local Yield (s)	13.3	47.2	69.6	47.2
Local Yield 170(s)	13.3	47.2	69.6	47.2

Intersection Summary	
Cycle Length	75
Control Type	Actuated-Uncoordinated
Natural Cycle	65

Splits and Phases: 7: SR-71 SB Ramps & Mission Blvd





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	1135	547	101	637	0	0	0	0	242	15	32
Future Volume (veh/h)	0	1135	547	101	637	0	0	0	0	242	15	32
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	0				1870	1870	1870
Adj Flow Rate, veh/h	0	1207	582	107	678	0				268	0	34
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94				0.94	0.94	0.94
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	1502	699	271	3415	0				543	0	242
Arrive On Green	0.00	0.44	0.44	0.15	0.67	0.00				0.15	0.00	0.15
Sat Flow, veh/h	0	3572	1583	1781	5274	0				3563	0	1585
Grp Volume(v), veh/h	0	1207	582	107	678	0				268	0	34
Grp Sat Flow(s),veh/h/ln	0	1702	1583	1781	1702	0				1781	0	1585
Q Serve(g_s), s	0.0	19.2	20.3	3.4	3.2	0.0				4.3	0.0	1.2
Cycle Q Clear(g_c), s	0.0	19.2	20.3	3.4	3.2	0.0				4.3	0.0	1.2
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1502	699	271	3415	0				543	0	242
V/C Ratio(X)	0.00	0.80	0.83	0.39	0.20	0.00				0.49	0.00	0.14
Avail Cap(c_a), veh/h	0	1587	738	378	3848	0				944	0	420
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	15.1	15.5	23.9	4.0	0.0				24.3	0.0	23.0
Incr Delay (d2), s/veh	0.0	3.0	7.8	0.9	0.0	0.0				0.7	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	6.4	7.2	1.3	0.6	0.0				1.7	0.0	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	18.1	23.2	24.9	4.0	0.0				25.0	0.0	23.3
LnGrp LOS	A	B	C	C	A	A				C	A	C
Approach Vol, veh/h		1789			785						302	
Approach Delay, s/veh		19.8			6.8						24.8	
Approach LOS		B			A						C	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	14.2	33.4		14.9		47.7
Change Period (Y+Rc), s	* 4.7	5.8		5.4		5.8
Max Green Setting (Gmax), s	* 13	29.2		16.6		47.2
Max Q Clear Time (g_c+I1), s	5.4	22.3		6.3		5.2
Green Ext Time (p_c), s	0.1	5.3		0.7		4.8

Intersection Summary		
HCM 6th Ctrl Delay		16.8
HCM 6th LOS		B

Notes

User approved volume balancing among the lanes for turning movement.

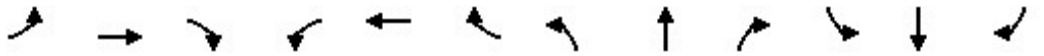
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Phase Number	2	5	6	8
Movement	EBT	EBL	WBT	NBTL
Lead/Lag		Lead	Lag	
Lead-Lag Optimize		Yes	Yes	
Recall Mode	Min	None	Min	None
Maximum Split (s)	52.5	16.7	35.8	22.5
Maximum Split (%)	70.0%	22.3%	47.7%	30.0%
Minimum Split (s)	43	15	28.8	20
Yellow Time (s)	4.8	3.7	4.8	4.4
All-Red Time (s)	1	1	1	1
Minimum Initial (s)	12	10.3	12	10.6
Vehicle Extension (s)	3	3	3	3
Minimum Gap (s)	2.5	3	2.5	3
Time Before Reduce (s)	0	0	0	0
Time To Reduce (s)	0	0	0	0
Walk Time (s)	7		7	
Flash Dont Walk (s)	21		16	
Dual Entry	Yes	No	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes
Start Time (s)	0	0	16.7	52.5
End Time (s)	52.5	16.7	52.5	0
Yield/Force Off (s)	46.7	12	46.7	69.6
Yield/Force Off 170(s)	46.7	12	46.7	69.6
Local Start Time (s)	0	0	16.7	52.5
Local Yield (s)	46.7	12	46.7	69.6
Local Yield 170(s)	46.7	12	46.7	69.6

Intersection Summary	
Cycle Length	75
Control Type	Actuated-Uncoordinated
Natural Cycle	65

Splits and Phases: 8: SR-71 NB Ramps & Mission Blvd





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	91	1283	0	0	565	467	174	1	75	0	0	0
Future Volume (veh/h)	91	1283	0	0	565	467	174	1	75	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1870	1870	0	0	1870	1870	1870	1870	1870			
Adj Flow Rate, veh/h	95	1336	0	0	589	486	182	0	78			
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	252	3144	0	0	1995	611	660	0	293			
Arrive On Green	0.14	0.62	0.00	0.00	0.39	0.39	0.19	0.00	0.19			
Sat Flow, veh/h	1781	5274	0	0	5274	1563	3563	0	1585			
Grp Volume(v), veh/h	95	1336	0	0	589	486	182	0	78			
Grp Sat Flow(s),veh/h/ln	1781	1702	0	0	1702	1563	1781	0	1585			
Q Serve(g_s), s	2.7	7.7	0.0	0.0	4.5	15.5	2.5	0.0	2.4			
Cycle Q Clear(g_c), s	2.7	7.7	0.0	0.0	4.5	15.5	2.5	0.0	2.4			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	252	3144	0	0	1995	611	660	0	293			
V/C Ratio(X)	0.38	0.42	0.00	0.00	0.30	0.80	0.28	0.00	0.27			
Avail Cap(c_a), veh/h	380	4238	0	0	2723	833	1083	0	482			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	21.9	5.6	0.0	0.0	11.8	15.2	19.7	0.0	19.6			
Incr Delay (d2), s/veh	0.9	0.1	0.0	0.0	0.1	3.8	0.2	0.0	0.5			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	1.1	1.5	0.0	0.0	1.3	4.8	0.9	0.0	0.8			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.8	5.7	0.0	0.0	11.9	19.0	19.9	0.0	20.1			
LnGrp LOS	C	A	A	A	B	B	B	A	C			
Approach Vol, veh/h		1431			1075			260				
Approach Delay, s/veh		6.9			15.1			20.0				
Approach LOS		A			B			B				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		40.4			12.7	27.8		15.8				
Change Period (Y+Rc), s		5.8			* 4.7	5.8		5.4				
Max Green Setting (Gmax), s		46.7			* 12	30.0		17.1				
Max Q Clear Time (g_c+I1), s		9.7			4.7	17.5		4.5				
Green Ext Time (p_c), s		11.4			0.1	4.5		0.6				

Intersection Summary	
HCM 6th Ctrl Delay	11.3
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

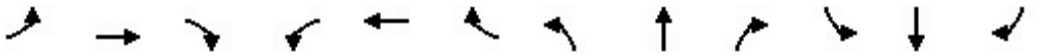
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Phase Number	2	4	5	6	8
Movement	WBT	SBTL	WBL	EBT	NBTL
Lead/Lag			Lead	Lag	
Lead-Lag Optimize			Yes	Yes	
Recall Mode	Min	None	None	Min	Max
Maximum Split (s)	52	40	14	38	40
Maximum Split (%)	56.5%	43.5%	15.2%	41.3%	43.5%
Minimum Split (s)	26.3	32.4	13.7	29.3	22.5
Yellow Time (s)	4.8	4.4	3.7	4.8	4.4
All-Red Time (s)	1	1	1	1	1
Minimum Initial (s)	10	9	9	10	9
Vehicle Extension (s)	3	3	3	3	3
Minimum Gap (s)	2.5	3	2.5	2.5	3
Time Before Reduce (s)	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0
Walk Time (s)	7	4		7	
Flash Dont Walk (s)	13	23		16	
Dual Entry	No	Yes	No	No	Yes
Inhibit Max	Yes	Yes	Yes	Yes	Yes
Start Time (s)	0	52	0	14	52
End Time (s)	52	0	14	52	0
Yield/Force Off (s)	46.2	86.6	9.3	46.2	86.6
Yield/Force Off 170(s)	46.2	63.6	9.3	46.2	86.6
Local Start Time (s)	78	38	78	0	38
Local Yield (s)	32.2	72.6	87.3	32.2	72.6
Local Yield 170(s)	32.2	49.6	87.3	32.2	72.6

Intersection Summary	
Cycle Length	92
Control Type	Actuated-Uncoordinated
Natural Cycle	110

Splits and Phases: 9: Shell Dwy/SR-57 SB Off-Ramp & Temple Avenue





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	1576	19	47	557	136	0	0	5	981	11	472
Future Volume (veh/h)	0	1576	19	47	557	136	0	0	5	981	11	472
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.99	0.99		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	1642	20	49	580	0	0	0	5	1180	0	332
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	0	1852	23	127	2455		0	0	617	1257	0	617
Arrive On Green	0.00	0.36	0.36	0.07	0.48	0.00	0.00	0.00	0.39	0.39	0.00	0.39
Sat Flow, veh/h	0	5367	63	1781	5106	2790	0	0	1574	2803	0	1574
Grp Volume(v), veh/h	0	1075	587	49	580	0	0	0	5	1180	0	332
Grp Sat Flow(s),veh/h/ln	0	1702	1858	1781	1702	1395	0	0	1574	1402	0	1574
Q Serve(g_s), s	0.0	26.2	26.2	2.3	5.9	0.0	0.0	0.0	0.2	34.4	0.0	14.3
Cycle Q Clear(g_c), s	0.0	26.2	26.2	2.3	5.9	0.0	0.0	0.0	0.2	34.6	0.0	14.3
Prop In Lane	0.00		0.03	1.00		1.00	0.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	0	1213	662	127	2455		0	0	617	1257	0	617
V/C Ratio(X)	0.00	0.89	0.89	0.39	0.24		0.00	0.00	0.01	0.94	0.00	0.54
Avail Cap(c_a), veh/h	0	1242	678	188	2674		0	0	617	1257	0	617
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	26.7	26.7	39.1	13.4	0.0	0.0	0.0	16.4	28.2	0.0	20.7
Incr Delay (d2), s/veh	0.0	7.9	13.3	1.9	0.0	0.0	0.0	0.0	0.0	13.4	0.0	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	11.5	13.5	1.1	2.2	0.0	0.0	0.0	0.1	14.6	0.0	5.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	34.6	40.0	41.0	13.5	0.0	0.0	0.0	16.4	41.5	0.0	21.6
LnGrp LOS	A	C	D	D	B		A	A	B	D	A	C
Approach Vol, veh/h		1662			629			5			1512	
Approach Delay, s/veh		36.5			15.6			16.4			37.1	
Approach LOS		D			B			B			D	

Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		48.2		40.0	11.0	37.2		40.0				
Change Period (Y+Rc), s		5.8		5.4	* 4.7	5.8		5.4				
Max Green Setting (Gmax), s		46.2		34.6	* 9.3	32.2		34.6				
Max Q Clear Time (g_c+I1), s		7.9		36.6	4.3	28.2		2.2				
Green Ext Time (p_c), s		4.5		0.0	0.0	3.2		0.0				

Intersection Summary		
HCM 6th Ctrl Delay	33.3	
HCM 6th LOS	C	

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	13	10	79	54	0
Future Vol, veh/h	0	13	10	79	54	0
Conflicting Peds, #/hr	0	1	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	68	68	68	68	68	68
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	19	15	116	79	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	225	80	79	0	-	0
Stage 1	79	-	-	-	-	-
Stage 2	146	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	763	980	1519	-	-	-
Stage 1	944	-	-	-	-	-
Stage 2	881	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	755	979	1519	-	-	-
Mov Cap-2 Maneuver	755	-	-	-	-	-
Stage 1	934	-	-	-	-	-
Stage 2	881	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.8	0.8	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1519	-	979	-	-
HCM Lane V/C Ratio	0.01	-	0.02	-	-
HCM Control Delay (s)	7.4	0	8.8	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	7	1090	606	7	5	5
Future Vol, veh/h	7	1090	606	7	5	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	1	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	8	1185	659	8	5	5

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	667	0	-	0	1272	334
Stage 1	-	-	-	-	663	-
Stage 2	-	-	-	-	609	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	919	-	-	-	159	662
Stage 1	-	-	-	-	474	-
Stage 2	-	-	-	-	505	-
Platoon blocked, %			-	-	-	
Mov Cap-1 Maneuver	919	-	-	-	158	662
Mov Cap-2 Maneuver	-	-	-	-	294	-
Stage 1	-	-	-	-	470	-
Stage 2	-	-	-	-	505	-

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	14.1
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	919	-	-	-	407
HCM Lane V/C Ratio	0.008	-	-	-	0.027
HCM Control Delay (s)	8.9	-	-	-	14.1
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.1

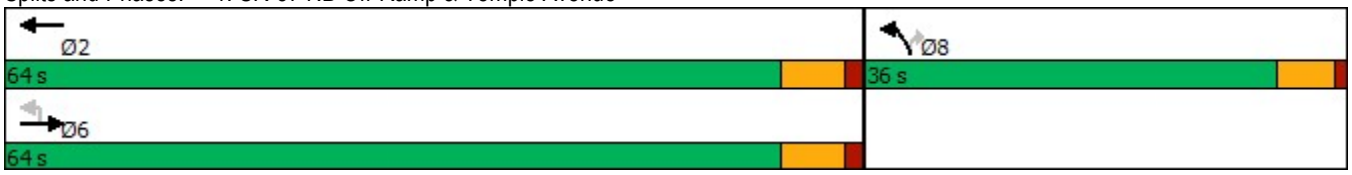
Appendix E

Synchro Worksheets – Opening Year Conditions

Phase Number	2	6	8
Movement	WBT	EBTU	NBL
Lead/Lag			
Lead-Lag Optimize			
Recall Mode	Min	Min	None
Maximum Split (s)	64	64	36
Maximum Split (%)	64.0%	64.0%	36.0%
Minimum Split (s)	40	40	30
Yellow Time (s)	4.8	4.8	4.4
All-Red Time (s)	1.5	1.5	1
Minimum Initial (s)	10	10	9
Vehicle Extension (s)	3	3	3
Minimum Gap (s)	2.5	2.5	3
Time Before Reduce (s)	0	0	0
Time To Reduce (s)	0	0	0
Walk Time (s)		7	
Flash Dont Walk (s)		15	
Dual Entry	Yes	Yes	Yes
Inhibit Max	Yes	Yes	Yes
Start Time (s)	0	0	64
End Time (s)	64	64	0
Yield/Force Off (s)	57.7	57.7	94.6
Yield/Force Off 170(s)	57.7	57.7	94.6
Local Start Time (s)	0	0	64
Local Yield (s)	57.7	57.7	94.6
Local Yield 170(s)	57.7	57.7	94.6

Intersection Summary	
Cycle Length	100
Control Type	Actuated-Uncoordinated
Natural Cycle	70

Splits and Phases: 1: SR-57 NB Off-Ramp & Temple Avenue





Movement	EBU	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations							
Traffic Volume (veh/h)	15	813	338	0	1729	372	250
Future Volume (veh/h)	15	813	338	0	1729	372	250
Initial Q (Qb), veh		0	0	0	0	0	0
Ped-Bike Adj(A_pbT)			1.00	1.00		1.00	1.00
Parking Bus, Adj		1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No	No	
Adj Sat Flow, veh/h/ln		1870	1870	0	1870	1870	1870
Adj Flow Rate, veh/h		838	0	0	1782	425	214
Peak Hour Factor		0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %		2	2	0	2	2	2
Cap, veh/h		3010		0	3010	711	316
Arrive On Green		0.59	0.00	0.00	0.59	0.20	0.20
Sat Flow, veh/h		5274	2790	0	5443	3563	1585
Grp Volume(v), veh/h		838	0	0	1782	425	214
Grp Sat Flow(s),veh/h/ln		1702	1395	0	1702	1781	1585
Q Serve(g_s), s		4.5	0.0	0.0	12.2	6.0	6.9
Cycle Q Clear(g_c), s		4.5	0.0	0.0	12.2	6.0	6.9
Prop In Lane			1.00	0.00		1.00	1.00
Lane Grp Cap(c), veh/h		3010		0	3010	711	316
V/C Ratio(X)		0.28		0.00	0.59	0.60	0.68
Avail Cap(c_a), veh/h		5308		0	5308	1964	874
HCM Platoon Ratio		1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)		1.00	0.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh		5.6	0.0	0.0	7.2	20.2	20.6
Incr Delay (d2), s/veh		0.0	0.0	0.0	0.2	0.8	2.5
Initial Q Delay(d3),s/veh		0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln		0.9	0.0	0.0	2.6	2.2	2.4
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh		5.6	0.0	0.0	7.4	21.0	23.1
LnGrp LOS		A		A	A	C	C
Approach Vol, veh/h		838			1782	639	
Approach Delay, s/veh		5.6			7.4	21.7	
Approach LOS		A			A	C	

Timer - Assigned Phs	2				6		8
Phs Duration (G+Y+Rc), s	39.0				39.0		16.5
Change Period (Y+Rc), s	6.3				6.3		5.4
Max Green Setting (Gmax), s	57.7				57.7		30.6
Max Q Clear Time (g_c+I1), s	14.2				6.5		8.9
Green Ext Time (p_c), s	18.5				6.3		2.1

Intersection Summary	
HCM 6th Ctrl Delay	9.7
HCM 6th LOS	A

Notes

User approved volume balancing among the lanes for turning movement.

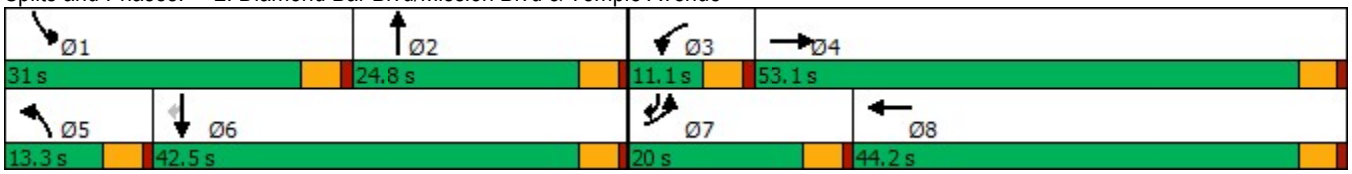
User approved ignoring U-Turning movement.

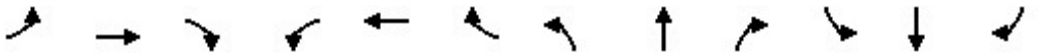
Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Phase Number	1	2	3	4	5	6	7	8
Movement	SBL	NBT	WBL	EBT	NBL	SBT	EBL	WBT
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Min	None	None	None	Min	None	None
Maximum Split (s)	31	24.8	11.1	53.1	13.3	42.5	20	44.2
Maximum Split (%)	25.8%	20.7%	9.3%	44.3%	11.1%	35.4%	16.7%	36.8%
Minimum Split (s)	9.5	22.5	9.5	22.5	9.5	22.5	9.5	22.5
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1	1	1	1	1	1	1	1
Minimum Initial (s)	5	5	5	5	5	5	5	5
Vehicle Extension (s)	3	3	3	3	3	3	3	3
Minimum Gap (s)	3	3	3	3	3	3	3	3
Time Before Reduce (s)	0	0	0	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0	0	0	0
Walk Time (s)		7				7		7
Flash Dont Walk (s)		11				11		11
Dual Entry	No	Yes	No	Yes	No	Yes	No	Yes
Inhibit Max	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Start Time (s)	0	31	55.8	66.9	0	13.3	55.8	75.8
End Time (s)	31	55.8	66.9	0	13.3	55.8	75.8	0
Yield/Force Off (s)	26.5	51.3	62.4	115.5	8.8	51.3	71.3	115.5
Yield/Force Off 170(s)	26.5	51.3	62.4	115.5	8.8	51.3	71.3	104.5
Local Start Time (s)	89	0	24.8	35.9	89	102.3	24.8	44.8
Local Yield (s)	115.5	20.3	31.4	84.5	97.8	20.3	40.3	84.5
Local Yield 170(s)	115.5	20.3	31.4	84.5	97.8	20.3	40.3	73.5

Intersection Summary	
Cycle Length	120
Control Type	Actuated-Uncoordinated
Natural Cycle	100

Splits and Phases: 2: Diamond Bar Blvd/Mission Blvd & Temple Avenue





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	311	475	157	33	1224	270	125	209	41	299	495	411
Future Volume (veh/h)	311	475	157	33	1224	270	125	209	41	299	495	411
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	349	534	176	37	1375	303	140	235	46	336	556	462
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	417	1182	388	55	1505	331	201	431	83	369	1044	655
Arrive On Green	0.12	0.45	0.45	0.03	0.36	0.36	0.06	0.15	0.15	0.21	0.29	0.29
Sat Flow, veh/h	3456	2627	862	1781	4173	918	3456	2969	571	1781	3554	1580
Grp Volume(v), veh/h	349	361	349	37	1121	557	140	139	142	336	556	462
Grp Sat Flow(s),veh/h/ln	1728	1777	1712	1781	1702	1687	1728	1777	1763	1781	1777	1580
Q Serve(g_s), s	10.7	15.1	15.2	2.2	33.9	34.0	4.3	7.8	8.1	19.9	14.1	26.1
Cycle Q Clear(g_c), s	10.7	15.1	15.2	2.2	33.9	34.0	4.3	7.8	8.1	19.9	14.1	26.1
Prop In Lane	1.00		0.50	1.00		0.54	1.00		0.32	1.00		1.00
Lane Grp Cap(c), veh/h	417	800	771	55	1228	608	201	258	256	369	1044	655
V/C Ratio(X)	0.84	0.45	0.45	0.67	0.91	0.92	0.70	0.54	0.56	0.91	0.53	0.70
Avail Cap(c_a), veh/h	496	800	771	109	1252	620	282	334	332	437	1251	747
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	46.4	20.5	20.5	51.7	32.9	32.9	49.9	42.8	42.9	41.8	31.9	26.2
Incr Delay (d2), s/veh	10.4	0.4	0.4	13.1	10.2	18.2	4.3	1.7	1.9	21.0	0.4	2.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.0	5.9	5.8	1.2	14.8	16.0	1.9	3.4	3.5	10.4	5.8	9.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	56.8	20.9	20.9	64.8	43.1	51.1	54.2	44.5	44.8	62.9	32.3	28.7
LnGrp LOS	E	C	C	E	D	D	D	D	D	E	C	C
Approach Vol, veh/h		1059			1715			421			1354	
Approach Delay, s/veh		32.7			46.2			47.8			38.7	
Approach LOS		C			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	26.8	20.2	7.9	53.1	10.8	36.2	17.5	43.4
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	26.5	20.3	6.6	48.6	8.8	38.0	15.5	39.7
Max Q Clear Time (g_c+I1), s	21.9	10.1	4.2	17.2	6.3	28.1	12.7	36.0
Green Ext Time (p_c), s	0.4	1.0	0.0	4.4	0.1	3.6	0.4	2.9

Intersection Summary	
HCM 6th Ctrl Delay	41.0
HCM 6th LOS	D

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	1	812	922	9	12	13
Future Vol, veh/h	1	812	922	9	12	13
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	115	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	83	83	83	83	83	83
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	978	1111	11	14	16

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	1122	0	-	0	1608	561
Stage 1	-	-	-	-	1117	-
Stage 2	-	-	-	-	491	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	618	-	-	-	96	471
Stage 1	-	-	-	-	275	-
Stage 2	-	-	-	-	581	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	618	-	-	-	96	471
Mov Cap-2 Maneuver	-	-	-	-	206	-
Stage 1	-	-	-	-	274	-
Stage 2	-	-	-	-	581	-

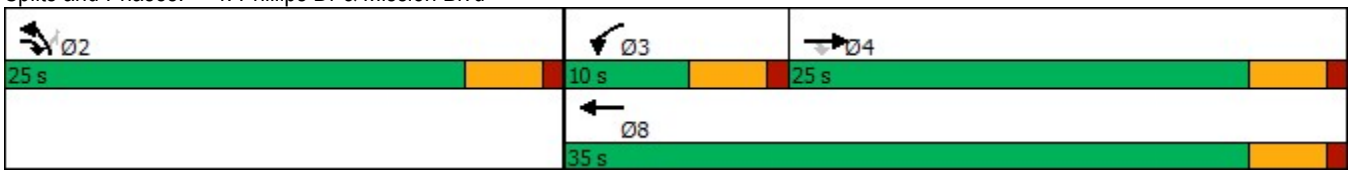
Approach	EB	WB	SB
HCM Control Delay, s	0	0	18.8
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	618	-	-	-	291
HCM Lane V/C Ratio	0.002	-	-	-	0.104
HCM Control Delay (s)	10.8	-	-	-	18.8
HCM Lane LOS	B	-	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	0.3

Phase Number	2	3	4	8
Movement	NBL	WBL	EBT	WBT
Lead/Lag		Lead	Lag	
Lead-Lag Optimize		Yes	Yes	
Recall Mode	Max	None	None	None
Maximum Split (s)	25	10	25	35
Maximum Split (%)	41.7%	16.7%	41.7%	58.3%
Minimum Split (s)	22.5	9.5	22.5	22.5
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	1	1	1	1
Minimum Initial (s)	5	5	5	5
Vehicle Extension (s)	3	3	3	3
Minimum Gap (s)	3	3	3	3
Time Before Reduce (s)	0	0	0	0
Time To Reduce (s)	0	0	0	0
Walk Time (s)	7		7	7
Flash Dont Walk (s)	11		11	11
Dual Entry	Yes	No	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes
Start Time (s)	0	25	35	25
End Time (s)	25	35	0	0
Yield/Force Off (s)	20.5	30.5	55.5	55.5
Yield/Force Off 170(s)	9.5	30.5	44.5	44.5
Local Start Time (s)	0	25	35	25
Local Yield (s)	20.5	30.5	55.5	55.5
Local Yield 170(s)	9.5	30.5	44.5	44.5

Intersection Summary	
Cycle Length	60
Control Type	Actuated-Uncoordinated
Natural Cycle	55

Splits and Phases: 4: Phillips Dr & Mission Blvd





Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	678	145	22	736	197	42
Future Volume (veh/h)	678	145	22	736	197	42
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	817	175	27	887	237	51
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1103	1121	55	1523	707	629
Arrive On Green	0.31	0.31	0.03	0.43	0.40	0.40
Sat Flow, veh/h	3647	1585	1781	3647	1781	1585
Grp Volume(v), veh/h	817	175	27	887	237	51
Grp Sat Flow(s),veh/h/ln	1777	1585	1781	1777	1781	1585
Q Serve(g_s), s	10.6	1.9	0.8	9.8	4.8	1.0
Cycle Q Clear(g_c), s	10.6	1.9	0.8	9.8	4.8	1.0
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1103	1121	55	1523	707	629
V/C Ratio(X)	0.74	0.16	0.49	0.58	0.34	0.08
Avail Cap(c_a), veh/h	1411	1259	190	2099	707	629
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	15.9	2.5	24.6	11.2	10.8	9.7
Incr Delay (d2), s/veh	1.6	0.1	6.5	0.4	1.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.5	1.2	0.4	2.8	1.9	0.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	17.5	2.5	31.1	11.6	12.1	9.9
LnGrp LOS	B	A	C	B	B	A
Approach Vol, veh/h	992			914	288	
Approach Delay, s/veh	14.9			12.2	11.7	
Approach LOS	B			B	B	

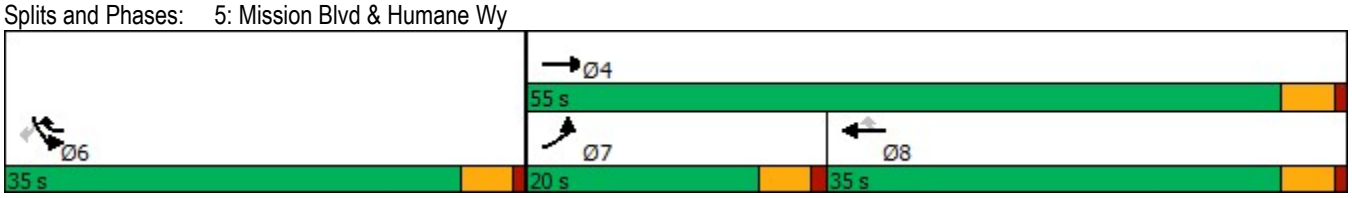
Timer - Assigned Phs		2	3	4		8
Phs Duration (G+Y+Rc), s		25.0	6.1	20.5		26.6
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s		20.5	5.5	20.5		30.5
Max Q Clear Time (g_c+I1), s		6.8	2.8	12.6		11.8
Green Ext Time (p_c), s		0.7	0.0	3.4		5.5

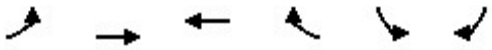
Intersection Summary	
HCM 6th Ctrl Delay	13.3
HCM 6th LOS	B

Phase Number	4	6	7	8
Movement	EBT	SBL	EBL	WBT
Lead/Lag			Lead	Lag
Lead-Lag Optimize			Yes	Yes
Recall Mode	None	Max	None	None
Maximum Split (s)	55	35	20	35
Maximum Split (%)	61.1%	38.9%	22.2%	38.9%
Minimum Split (s)	22.5	22.5	9.5	22.5
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	1	1	1	1
Minimum Initial (s)	5	5	5	5
Vehicle Extension (s)	3	3	3	3
Minimum Gap (s)	3	3	3	3
Time Before Reduce (s)	0	0	0	0
Time To Reduce (s)	0	0	0	0
Walk Time (s)		7		7
Flash Dont Walk (s)		11		11
Dual Entry	Yes	Yes	No	Yes
Inhibit Max	Yes	Yes	Yes	Yes
Start Time (s)	35	0	35	55
End Time (s)	0	35	55	0
Yield/Force Off (s)	85.5	30.5	50.5	85.5
Yield/Force Off 170(s)	85.5	19.5	50.5	74.5
Local Start Time (s)	35	0	35	55
Local Yield (s)	85.5	30.5	50.5	85.5
Local Yield 170(s)	85.5	19.5	50.5	74.5

Intersection Summary	
Cycle Length	90
Control Type	Actuated-Uncoordinated
Natural Cycle	60

Splits and Phases: 5: Mission Blvd & Humane Wy





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	163	557	597	394	200	157
Future Volume (veh/h)	163	557	597	394	200	157
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.98	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	194	663	711	469	238	187
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	237	1683	997	1078	1404	644
Arrive On Green	0.13	0.47	0.28	0.28	0.41	0.41
Sat Flow, veh/h	1781	3647	3647	1548	3456	1585
Grp Volume(v), veh/h	194	663	711	469	238	187
Grp Sat Flow(s),veh/h/ln	1781	1777	1777	1548	1728	1585
Q Serve(g_s), s	8.0	9.1	13.5	10.2	3.3	6.0
Cycle Q Clear(g_c), s	8.0	9.1	13.5	10.2	3.3	6.0
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	237	1683	997	1078	1404	644
V/C Ratio(X)	0.82	0.39	0.71	0.43	0.17	0.29
Avail Cap(c_a), veh/h	368	2391	1444	1273	1404	644
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.6	12.8	24.3	5.3	14.2	15.0
Incr Delay (d2), s/veh	8.0	0.2	1.0	0.3	0.3	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.7	3.0	5.2	7.8	1.2	6.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	39.6	12.9	25.3	5.6	14.5	16.1
LnGrp LOS	D	B	C	A	B	B
Approach Vol, veh/h		857	1180		425	
Approach Delay, s/veh		19.0	17.4		15.2	
Approach LOS		B	B		B	

Timer - Assigned Phs			4		6	7	8
Phs Duration (G+Y+Rc), s			40.1		35.0	14.5	25.5
Change Period (Y+Rc), s			4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s			50.5		30.5	15.5	30.5
Max Q Clear Time (g_c+I1), s			11.1		8.0	10.0	15.5
Green Ext Time (p_c), s			4.6		1.4	0.2	5.5

Intersection Summary	
HCM 6th Ctrl Delay	17.6
HCM 6th LOS	B

Phase Number	2	3	4	6	7	8
Movement	NBTL	WBL	EBT	SBTL	EBL	WBT
Lead/Lag		Lead	Lag		Lead	Lag
Lead-Lag Optimize		Yes	Yes		Yes	Yes
Recall Mode	Max	None	None	Max	None	None
Maximum Split (s)	30	20	40	30	20	40
Maximum Split (%)	33.3%	22.2%	44.4%	33.3%	22.2%	44.4%
Minimum Split (s)	22.5	9.5	22.5	22.5	9.5	22.5
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1	1	1	1	1	1
Minimum Initial (s)	5	5	5	5	5	5
Vehicle Extension (s)	3	3	3	3	3	3
Minimum Gap (s)	3	3	3	3	3	3
Time Before Reduce (s)	0	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0	0
Walk Time (s)			7	7		7
Flash Dont Walk (s)			11	11		11
Dual Entry	Yes	No	Yes	Yes	No	Yes
Inhibit Max	Yes	Yes	Yes	Yes	Yes	Yes
Start Time (s)	0	30	50	0	30	50
End Time (s)	30	50	0	30	50	0
Yield/Force Off (s)	25.5	45.5	85.5	25.5	45.5	85.5
Yield/Force Off 170(s)	25.5	45.5	74.5	14.5	45.5	74.5
Local Start Time (s)	0	30	50	0	30	50
Local Yield (s)	25.5	45.5	85.5	25.5	45.5	85.5
Local Yield 170(s)	25.5	45.5	74.5	14.5	45.5	74.5

Intersection Summary	
Cycle Length	90
Control Type	Actuated-Uncoordinated
Natural Cycle	60

Splits and Phases: 6: Westmont Ave & Mission Blvd



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	24	661	48	249	930	35	55	0	377	8	0	6
Future Volume (veh/h)	24	661	48	249	930	35	55	0	377	8	0	6
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	28	778	56	293	1094	41	65	0	444	9	0	7
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	54	1202	86	340	2057	77	110	22	505	231	22	134
Arrive On Green	0.03	0.25	0.25	0.19	0.41	0.41	0.37	0.00	0.37	0.37	0.00	0.37
Sat Flow, veh/h	1781	4862	348	1781	5046	189	141	60	1373	409	59	364
Grp Volume(v), veh/h	28	544	290	293	738	397	509	0	0	16	0	0
Grp Sat Flow(s),veh/h/ln	1781	1702	1807	1781	1702	1831	1574	0	0	833	0	0
Q Serve(g_s), s	1.1	9.9	10.0	11.1	11.4	11.4	13.4	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	1.1	9.9	10.0	11.1	11.4	11.4	20.9	0.0	0.0	0.4	0.0	0.0
Prop In Lane	1.00		0.19	1.00		0.10	0.13		0.87	0.56		0.44
Lane Grp Cap(c), veh/h	54	841	446	340	1388	746	637	0	0	387	0	0
V/C Ratio(X)	0.52	0.65	0.65	0.86	0.53	0.53	0.80	0.00	0.00	0.04	0.00	0.00
Avail Cap(c_a), veh/h	398	1742	925	398	1742	937	637	0	0	387	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	33.1	23.4	23.4	27.2	15.5	15.5	20.4	0.0	0.0	14.0	0.0	0.0
Incr Delay (d2), s/veh	7.7	0.8	1.6	15.6	0.3	0.6	10.1	0.0	0.0	0.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	3.6	4.0	5.7	3.8	4.1	8.9	0.0	0.0	0.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.8	24.2	25.0	42.8	15.9	16.1	30.5	0.0	0.0	14.2	0.0	0.0
LnGrp LOS	D	C	C	D	B	B	C	A	A	B	A	A
Approach Vol, veh/h		862			1428			509			16	
Approach Delay, s/veh		25.0			21.5			30.5			14.2	
Approach LOS		C			C			C			B	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		30.0	17.7	21.6		30.0	6.6	32.8				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		25.5	15.5	35.5		25.5	15.5	35.5				
Max Q Clear Time (g_c+I1), s		22.9	13.1	12.0		2.4	3.1	13.4				
Green Ext Time (p_c), s		0.9	0.2	5.1		0.0	0.0	7.3				

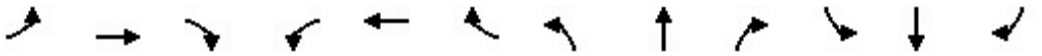
Intersection Summary	
HCM 6th Ctrl Delay	24.1
HCM 6th LOS	C

Phase Number	1	2	4	6
Movement	WBL	EBT	SBTL	WBT
Lead/Lag	Lead	Lag		
Lead-Lag Optimize	Yes	Yes		
Recall Mode	None	Min	None	Min
Maximum Split (s)	18	35	22	53
Maximum Split (%)	24.0%	46.7%	29.3%	70.7%
Minimum Split (s)	16	30	15	48
Yellow Time (s)	3.7	4.8	4.4	4.8
All-Red Time (s)	1	1	1	1
Minimum Initial (s)	11.3	12	9.6	12
Vehicle Extension (s)	3	3	3	3
Minimum Gap (s)	3	2.5	3	2.5
Time Before Reduce (s)	0	0	0	0
Time To Reduce (s)	0	0	0	0
Walk Time (s)		7		7
Flash Dont Walk (s)		16		21
Dual Entry	No	Yes	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes
Start Time (s)	0	18	53	0
End Time (s)	18	53	0	53
Yield/Force Off (s)	13.3	47.2	69.6	47.2
Yield/Force Off 170(s)	13.3	47.2	69.6	47.2
Local Start Time (s)	57	0	35	57
Local Yield (s)	70.3	29.2	51.6	29.2
Local Yield 170(s)	70.3	29.2	51.6	29.2

Intersection Summary	
Cycle Length	75
Control Type	Actuated-Uncoordinated
Natural Cycle	65

Splits and Phases: 7: SR-71 SB Ramps & Mission Blvd





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	795	246	144	1163	0	0	0	0	348	1	53
Future Volume (veh/h)	0	795	246	144	1163	0	0	0	0	348	1	53
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	0				1870	1870	1870
Adj Flow Rate, veh/h	0	924	286	167	1352	0				406	0	62
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86				0.86	0.86	0.86
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	1398	431	331	3223	0				606	0	270
Arrive On Green	0.00	0.36	0.36	0.19	0.63	0.00				0.17	0.00	0.17
Sat Flow, veh/h	0	4029	1191	1781	5274	0				3563	0	1585
Grp Volume(v), veh/h	0	814	396	167	1352	0				406	0	62
Grp Sat Flow(s),veh/h/ln	0	1702	1648	1781	1702	0				1781	0	1585
Q Serve(g_s), s	0.0	11.3	11.4	4.7	7.5	0.0				6.0	0.0	1.9
Cycle Q Clear(g_c), s	0.0	11.3	11.4	4.7	7.5	0.0				6.0	0.0	1.9
Prop In Lane	0.00		0.72	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1232	597	331	3223	0				606	0	270
V/C Ratio(X)	0.00	0.66	0.66	0.50	0.42	0.00				0.67	0.00	0.23
Avail Cap(c_a), veh/h	0	1763	854	420	4275	0				1049	0	467
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	15.1	15.1	20.6	5.2	0.0				21.9	0.0	20.2
Incr Delay (d2), s/veh	0.0	0.6	1.3	1.2	0.1	0.0				1.3	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	3.5	3.6	1.8	1.4	0.0				2.3	0.0	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	15.7	16.4	21.8	5.3	0.0				23.2	0.0	20.6
LnGrp LOS	A	B	B	C	A	A				C	A	C
Approach Vol, veh/h		1210			1519						468	
Approach Delay, s/veh		15.9			7.1						22.9	
Approach LOS		B			A						C	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	15.2	26.2		15.0		41.4
Change Period (Y+Rc), s	* 4.7	5.8		5.4		5.8
Max Green Setting (Gmax), s	* 13	29.2		16.6		47.2
Max Q Clear Time (g_c+I1), s	6.7	13.4		8.0		9.5
Green Ext Time (p_c), s	0.2	6.9		1.1		11.6

Intersection Summary		
HCM 6th Ctrl Delay		12.8
HCM 6th LOS		B

Notes

User approved volume balancing among the lanes for turning movement.

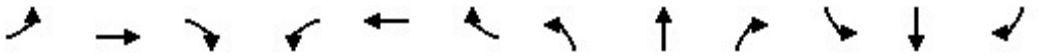
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Phase Number	2	5	6	8
Movement	EBT	EBL	WBT	NBTL
Lead/Lag		Lead	Lag	
Lead-Lag Optimize		Yes	Yes	
Recall Mode	Min	None	Min	None
Maximum Split (s)	52.5	16.7	35.8	22.5
Maximum Split (%)	70.0%	22.3%	47.7%	30.0%
Minimum Split (s)	47	16	28.8	16
Yellow Time (s)	4.8	3.7	4.8	4.4
All-Red Time (s)	1	1	1	1
Minimum Initial (s)	12	11.3	12	10.6
Vehicle Extension (s)	3	3	3	3
Minimum Gap (s)	2.5	3	2.5	3
Time Before Reduce (s)	0	0	0	0
Time To Reduce (s)	0	0	0	0
Walk Time (s)	7		7	
Flash Dont Walk (s)	21		16	
Dual Entry	Yes	No	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes
Start Time (s)	0	0	16.7	52.5
End Time (s)	52.5	16.7	52.5	0
Yield/Force Off (s)	46.7	12	46.7	69.6
Yield/Force Off 170(s)	46.7	12	46.7	69.6
Local Start Time (s)	58.3	58.3	0	35.8
Local Yield (s)	30	70.3	30	52.9
Local Yield 170(s)	30	70.3	30	52.9

Intersection Summary	
Cycle Length	75
Control Type	Actuated-Uncoordinated
Natural Cycle	70

Splits and Phases: 8: SR-71 NB Ramps & Mission Blvd





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	109	1033	0	0	1113	795	196	6	55	0	0	0
Future Volume (veh/h)	109	1033	0	0	1113	795	196	6	55	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1870	1870	0	0	1870	1870	1870	1870	1870			
Adj Flow Rate, veh/h	125	1187	0	0	1279	914	230	0	63			
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	272	3439	0	0	2299	704	564	0	251			
Arrive On Green	0.15	0.67	0.00	0.00	0.45	0.45	0.16	0.00	0.16			
Sat Flow, veh/h	1781	5274	0	0	5274	1564	3563	0	1585			
Grp Volume(v), veh/h	125	1187	0	0	1279	914	230	0	63			
Grp Sat Flow(s),veh/h/ln	1781	1702	0	0	1702	1564	1781	0	1585			
Q Serve(g_s), s	4.3	6.6	0.0	0.0	12.2	30.0	3.9	0.0	2.3			
Cycle Q Clear(g_c), s	4.3	6.6	0.0	0.0	12.2	30.0	3.9	0.0	2.3			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	272	3439	0	0	2299	704	564	0	251			
V/C Ratio(X)	0.46	0.35	0.00	0.00	0.56	1.30	0.41	0.00	0.25			
Avail Cap(c_a), veh/h	321	3578	0	0	2299	704	914	0	407			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	25.7	4.6	0.0	0.0	13.4	18.3	25.2	0.0	24.6			
Incr Delay (d2), s/veh	1.2	0.1	0.0	0.0	0.3	144.6	0.5	0.0	0.5			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	1.7	1.3	0.0	0.0	3.8	36.7	1.5	0.0	0.8			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.9	4.7	0.0	0.0	13.7	162.9	25.7	0.0	25.1			
LnGrp LOS	C	A	A	A	B	F	C	A	C			
Approach Vol, veh/h		1312			2193			293				
Approach Delay, s/veh		6.8			75.9			25.6				
Approach LOS		A			E			C				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		50.7			14.9	35.8		16.0				
Change Period (Y+Rc), s		5.8			* 4.7	5.8		5.4				
Max Green Setting (Gmax), s		46.7			* 12	30.0		17.1				
Max Q Clear Time (g_c+I1), s		8.6			6.3	32.0		5.9				
Green Ext Time (p_c), s		9.7			0.1	0.0		0.7				

Intersection Summary	
HCM 6th Ctrl Delay	48.2
HCM 6th LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

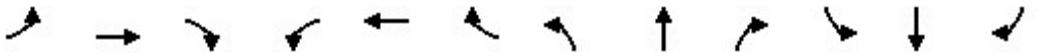
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Phase Number	2	4	5	6	8
Movement	WBT	SBTL	WBL	EBT	NBTL
Lead/Lag			Lead	Lag	
Lead-Lag Optimize			Yes	Yes	
Recall Mode	Min	None	None	Min	Max
Maximum Split (s)	60	40	15	45	40
Maximum Split (%)	60.0%	40.0%	15.0%	45.0%	40.0%
Minimum Split (s)	26.3	32.4	13.7	29.3	22.5
Yellow Time (s)	4.8	4.4	3.7	4.8	4.4
All-Red Time (s)	1	1	1	1	1
Minimum Initial (s)	10	9	9	10	9
Vehicle Extension (s)	3	3	3	3	3
Minimum Gap (s)	2.5	3	2.5	2.5	3
Time Before Reduce (s)	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0
Walk Time (s)	7	4		7	
Flash Dont Walk (s)	13	23		16	
Dual Entry	No	Yes	No	No	Yes
Inhibit Max	Yes	Yes	Yes	Yes	Yes
Start Time (s)	0	60	0	15	60
End Time (s)	60	0	15	60	0
Yield/Force Off (s)	54.2	94.6	10.3	54.2	94.6
Yield/Force Off 170(s)	54.2	71.6	10.3	54.2	94.6
Local Start Time (s)	0	60	0	15	60
Local Yield (s)	54.2	94.6	10.3	54.2	94.6
Local Yield 170(s)	54.2	71.6	10.3	54.2	94.6

Intersection Summary	
Cycle Length	100
Control Type	Actuated-Uncoordinated
Natural Cycle	90

Splits and Phases: 9: Shell Dwy/SR-57 SB Off-Ramp & Temple Avenue





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	627	11	66	1320	71	0	0	7	624	10	1080
Future Volume (veh/h)	0	627	11	66	1320	71	0	0	7	624	10	1080
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	674	12	71	1419	0	0	0	8	451	0	1404
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	0	1332	24	162	2091		0	0	707	717	0	1414
Arrive On Green	0.00	0.26	0.26	0.09	0.41	0.00	0.00	0.00	0.45	0.45	0.00	0.45
Sat Flow, veh/h	0	5333	92	1781	5106	2790	0	0	1585	1407	0	3170
Grp Volume(v), veh/h	0	444	242	71	1419	0	0	0	8	451	0	1404
Grp Sat Flow(s),veh/h/ln	0	1702	1852	1781	1702	1395	0	0	1585	1407	0	1585
Q Serve(g_s), s	0.0	8.6	8.7	2.9	17.6	0.0	0.0	0.0	0.2	20.4	0.0	34.1
Cycle Q Clear(g_c), s	0.0	8.6	8.7	2.9	17.6	0.0	0.0	0.0	0.2	20.6	0.0	34.1
Prop In Lane	0.00		0.05	1.00		1.00	0.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	0	878	478	162	2091		0	0	707	717	0	1414
V/C Ratio(X)	0.00	0.51	0.51	0.44	0.68		0.00	0.00	0.01	0.63	0.00	0.99
Avail Cap(c_a), veh/h	0	1721	936	237	3569		0	0	707	717	0	1414
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	24.6	24.6	33.4	18.7	0.0	0.0	0.0	12.0	17.7	0.0	21.4
Incr Delay (d2), s/veh	0.0	0.5	0.8	1.9	0.4	0.0	0.0	0.0	0.0	1.8	0.0	22.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	3.2	3.6	1.3	6.1	0.0	0.0	0.0	0.1	5.9	0.0	16.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	25.0	25.4	35.2	19.1	0.0	0.0	0.0	12.0	19.4	0.0	43.5
LnGrp LOS	A	C	C	D	B		A	A	B	B	A	D
Approach Vol, veh/h		686			1490			8			1855	
Approach Delay, s/veh		25.1			19.9			12.0			37.6	
Approach LOS		C			B			B			D	

Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		37.6		40.0	11.8	25.8		40.0				
Change Period (Y+Rc), s		5.8		5.4	* 4.7	5.8		5.4				
Max Green Setting (Gmax), s		54.2		34.6	* 10	39.2		34.6				
Max Q Clear Time (g_c+I1), s		19.6		36.1	4.9	10.7		2.2				
Green Ext Time (p_c), s		12.1		0.0	0.0	4.2		0.0				

Intersection Summary		
HCM 6th Ctrl Delay		28.9
HCM 6th LOS		C

Notes

User approved volume balancing among the lanes for turning movement.

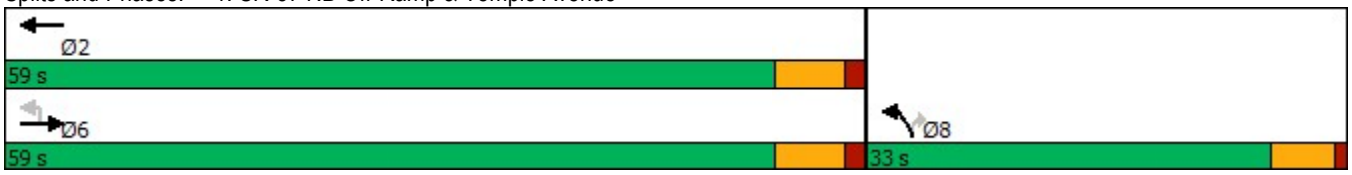
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

Phase Number	2	6	8
Movement	WBT	EBTU	NBL
Lead/Lag			
Lead-Lag Optimize			
Recall Mode	Min	Min	None
Maximum Split (s)	59	59	33
Maximum Split (%)	64.1%	64.1%	35.9%
Minimum Split (s)	40	40	30
Yellow Time (s)	4.8	4.8	4.4
All-Red Time (s)	1.5	1.5	1
Minimum Initial (s)	10	10	9
Vehicle Extension (s)	3	3	3
Minimum Gap (s)	3	3	3
Time Before Reduce (s)	0	0	0
Time To Reduce (s)	0	0	0
Walk Time (s)		7	
Flash Dont Walk (s)		15	
Dual Entry	Yes	Yes	Yes
Inhibit Max	Yes	Yes	Yes
Start Time (s)	0	0	59
End Time (s)	59	59	0
Yield/Force Off (s)	52.7	52.7	86.6
Yield/Force Off 170(s)	52.7	52.7	86.6
Local Start Time (s)	0	0	59
Local Yield (s)	52.7	52.7	86.6
Local Yield 170(s)	52.7	52.7	86.6

Intersection Summary	
Cycle Length	92
Control Type	Actuated-Uncoordinated
Natural Cycle	70

Splits and Phases: 1: SR-57 NB Off-Ramp & Temple Avenue





Movement	EBU	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations							
Traffic Volume (veh/h)	20	1788	747	0	1008	74	277
Future Volume (veh/h)	20	1788	747	0	1008	74	277
Initial Q (Qb), veh		0	0	0	0	0	0
Ped-Bike Adj(A_pbT)			1.00	1.00		1.00	1.00
Parking Bus, Adj		1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No	No	
Adj Sat Flow, veh/h/ln		1870	1870	0	1870	1870	1870
Adj Flow Rate, veh/h		1882	0	0	1061	78	292
Peak Hour Factor		0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %		2	2	0	2	2	2
Cap, veh/h		3148		0	3148	296	527
Arrive On Green		0.62	0.00	0.00	0.62	0.17	0.17
Sat Flow, veh/h		5274	2790	0	5443	1781	3170
Grp Volume(v), veh/h		1882	0	0	1061	78	292
Grp Sat Flow(s),veh/h/ln		1702	1395	0	1702	1781	1585
Q Serve(g_s), s		12.1	0.0	0.0	5.4	2.1	4.6
Cycle Q Clear(g_c), s		12.1	0.0	0.0	5.4	2.1	4.6
Prop In Lane			1.00	0.00		1.00	1.00
Lane Grp Cap(c), veh/h		3148		0	3148	296	527
V/C Ratio(X)		0.60		0.00	0.34	0.26	0.55
Avail Cap(c_a), veh/h		4994		0	4994	912	1624
HCM Platoon Ratio		1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)		1.00	0.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh		6.3	0.0	0.0	5.0	19.6	20.6
Incr Delay (d2), s/veh		0.2	0.0	0.0	0.1	0.5	0.9
Initial Q Delay(d3),s/veh		0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln		2.2	0.0	0.0	1.0	0.8	1.5
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh		6.5	0.0	0.0	5.1	20.0	21.5
LnGrp LOS		A		A	A	C	C
Approach Vol, veh/h		1882			1061	370	
Approach Delay, s/veh		6.5			5.1	21.2	
Approach LOS		A			A	C	

Timer - Assigned Phs	2					6		8
Phs Duration (G+Y+Rc), s	39.5					39.5		14.4
Change Period (Y+Rc), s	6.3					6.3		5.4
Max Green Setting (Gmax), s	52.7					52.7		27.6
Max Q Clear Time (g_c+I1), s	7.4					14.1		6.6
Green Ext Time (p_c), s	8.5					19.2		1.3

Intersection Summary	
HCM 6th Ctrl Delay	7.7
HCM 6th LOS	A

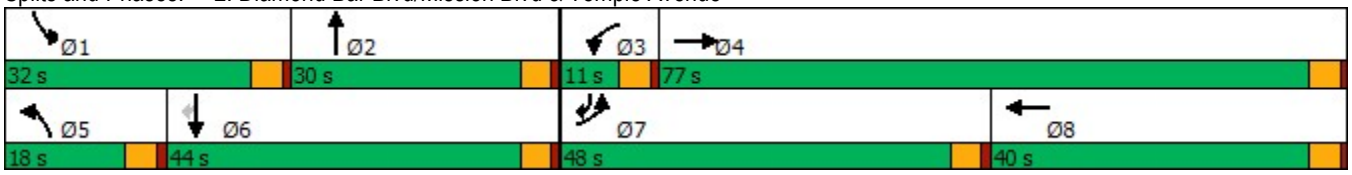
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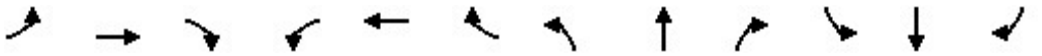
User approved volume balancing among the lanes for turning movement.
User approved ignoring U-Turning movement.
Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Phase Number	1	2	3	4	5	6	7	8
Movement	SBL	NBT	WBL	EBT	NBL	SBT	EBL	WBT
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Min	None	None	None	Min	None	None
Maximum Split (s)	32	30	11	77	18	44	48	40
Maximum Split (%)	21.3%	20.0%	7.3%	51.3%	12.0%	29.3%	32.0%	26.7%
Minimum Split (s)	9.5	22.5	9.5	22.5	9.5	22.5	9.5	22.5
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1	1	1	1	1	1	1	1
Minimum Initial (s)	5	5	5	5	5	5	5	5
Vehicle Extension (s)	3	3	3	3	3	3	3	3
Minimum Gap (s)	3	3	3	3	3	3	3	3
Time Before Reduce (s)	0	0	0	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0	0	0	0
Walk Time (s)		7				7		7
Flash Dont Walk (s)		11				11		11
Dual Entry	No	Yes	No	Yes	No	Yes	No	Yes
Inhibit Max	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Start Time (s)	0	32	62	73	0	18	62	110
End Time (s)	32	62	73	0	18	62	110	0
Yield/Force Off (s)	27.5	57.5	68.5	145.5	13.5	57.5	105.5	145.5
Yield/Force Off 170(s)	27.5	57.5	68.5	145.5	13.5	57.5	105.5	134.5
Local Start Time (s)	118	0	30	41	118	136	30	78
Local Yield (s)	145.5	25.5	36.5	113.5	131.5	25.5	73.5	113.5
Local Yield 170(s)	145.5	25.5	36.5	113.5	131.5	25.5	73.5	102.5

Intersection Summary	
Cycle Length	150
Control Type	Actuated-Uncoordinated
Natural Cycle	90

Splits and Phases: 2: Diamond Bar Blvd/Mission Blvd & Temple Avenue





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	695	1107	171	20	528	310	155	293	31	178	222	338
Future Volume (veh/h)	695	1107	171	20	528	310	155	293	31	178	222	338
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.99	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	709	1130	174	20	539	316	158	299	32	182	227	345
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	856	1518	233	39	910	416	239	489	52	224	737	714
Arrive On Green	0.25	0.49	0.49	0.02	0.27	0.27	0.07	0.15	0.15	0.13	0.21	0.21
Sat Flow, veh/h	3456	3080	473	1781	3404	1558	3456	3239	344	1781	3554	1553
Grp Volume(v), veh/h	709	650	654	20	539	316	158	163	168	182	227	345
Grp Sat Flow(s),veh/h/ln	1728	1777	1776	1781	1702	1558	1728	1777	1806	1781	1777	1553
Q Serve(g_s), s	16.8	25.3	25.5	1.0	11.9	16.1	3.8	7.4	7.5	8.6	4.7	13.4
Cycle Q Clear(g_c), s	16.8	25.3	25.5	1.0	11.9	16.1	3.8	7.4	7.5	8.6	4.7	13.4
Prop In Lane	1.00		0.27	1.00		1.00	1.00		0.19	1.00		1.00
Lane Grp Cap(c), veh/h	856	876	875	39	910	416	239	268	272	224	737	714
V/C Ratio(X)	0.83	0.74	0.75	0.51	0.59	0.76	0.66	0.61	0.62	0.81	0.31	0.48
Avail Cap(c_a), veh/h	1742	1493	1493	134	1401	641	541	525	534	568	1627	1103
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.7	17.5	17.6	41.7	27.5	29.1	39.2	34.2	34.3	36.7	28.9	16.5
Incr Delay (d2), s/veh	2.1	1.3	1.3	9.8	0.6	2.9	3.1	2.2	2.3	7.0	0.2	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.7	9.1	9.2	0.5	4.6	5.9	1.7	3.2	3.3	3.9	1.9	4.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.9	18.8	18.9	51.5	28.1	31.9	42.3	36.5	36.6	43.7	29.2	17.0
LnGrp LOS	C	B	B	D	C	C	D	D	D	D	C	B
Approach Vol, veh/h		2013			875			489			754	
Approach Delay, s/veh		23.8			30.0			38.4			27.1	
Approach LOS		C			C			D			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.3	17.5	6.4	47.0	10.5	22.4	25.9	27.6
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	27.5	25.5	6.5	72.5	13.5	39.5	43.5	35.5
Max Q Clear Time (g_c+I1), s	10.6	9.5	3.0	27.5	5.8	15.4	18.8	18.1
Green Ext Time (p_c), s	0.4	1.5	0.0	10.8	0.3	2.5	2.6	5.0

Intersection Summary	
HCM 6th Ctrl Delay	27.4
HCM 6th LOS	C

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	13	1219	569	10	12	3
Future Vol, veh/h	13	1219	569	10	12	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	115	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	14	1297	605	11	13	3

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	616	0	-	0	1288	308
Stage 1	-	-	-	-	611	-
Stage 2	-	-	-	-	677	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	960	-	-	-	156	688
Stage 1	-	-	-	-	504	-
Stage 2	-	-	-	-	466	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	960	-	-	-	154	688
Mov Cap-2 Maneuver	-	-	-	-	289	-
Stage 1	-	-	-	-	496	-
Stage 2	-	-	-	-	466	-

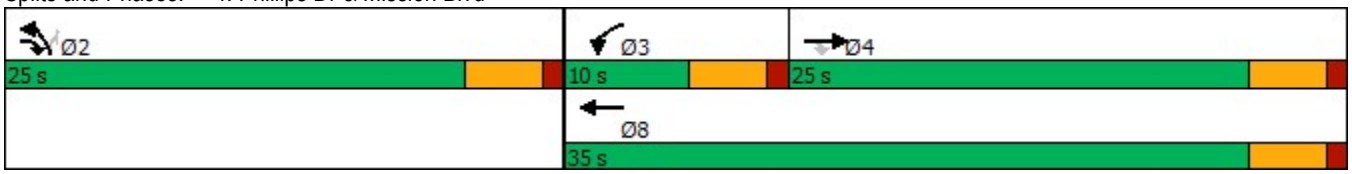
Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	16.6
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	960	-	-	-	327
HCM Lane V/C Ratio	0.014	-	-	-	0.049
HCM Control Delay (s)	8.8	-	-	-	16.6
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	0.2

Phase Number	2	3	4	8
Movement	NBL	WBL	EBT	WBT
Lead/Lag		Lead	Lag	
Lead-Lag Optimize		Yes	Yes	
Recall Mode	Max	None	None	None
Maximum Split (s)	25	10	25	35
Maximum Split (%)	41.7%	16.7%	41.7%	58.3%
Minimum Split (s)	22.5	9.5	22.5	22.5
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	1	1	1	1
Minimum Initial (s)	5	5	5	5
Vehicle Extension (s)	3	3	3	3
Minimum Gap (s)	3	3	3	3
Time Before Reduce (s)	0	0	0	0
Time To Reduce (s)	0	0	0	0
Walk Time (s)	7		7	7
Flash Dont Walk (s)	11		11	11
Dual Entry	Yes	No	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes
Start Time (s)	0	25	35	25
End Time (s)	25	35	0	0
Yield/Force Off (s)	20.5	30.5	55.5	55.5
Yield/Force Off 170(s)	9.5	30.5	44.5	44.5
Local Start Time (s)	0	25	35	25
Local Yield (s)	20.5	30.5	55.5	55.5
Local Yield 170(s)	9.5	30.5	44.5	44.5

Intersection Summary	
Cycle Length	60
Control Type	Actuated-Uncoordinated
Natural Cycle	60

Splits and Phases: 4: Phillips Dr & Mission Blvd





Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	989	182	74	538	87	24
Future Volume (veh/h)	989	182	74	538	87	24
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		0.98	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	1063	196	80	578	94	26
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1221	1099	112	1723	638	567
Arrive On Green	0.34	0.34	0.06	0.48	0.36	0.36
Sat Flow, veh/h	3647	1547	1781	3647	1781	1585
Grp Volume(v), veh/h	1063	196	80	578	94	26
Grp Sat Flow(s),veh/h/ln	1777	1547	1781	1777	1781	1585
Q Serve(g_s), s	16.0	2.5	2.5	5.7	2.0	0.6
Cycle Q Clear(g_c), s	16.0	2.5	2.5	5.7	2.0	0.6
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1221	1099	112	1723	638	567
V/C Ratio(X)	0.87	0.18	0.71	0.34	0.15	0.05
Avail Cap(c_a), veh/h	1272	1121	171	1893	638	567
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	17.6	2.9	26.3	9.1	12.5	12.0
Incr Delay (d2), s/veh	6.6	0.1	8.2	0.1	0.5	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.2	1.5	1.2	1.6	0.8	0.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	24.2	3.0	34.5	9.2	12.9	12.2
LnGrp LOS	C	A	C	A	B	B
Approach Vol, veh/h	1259			658	120	
Approach Delay, s/veh	20.9			12.3	12.8	
Approach LOS	C			B	B	

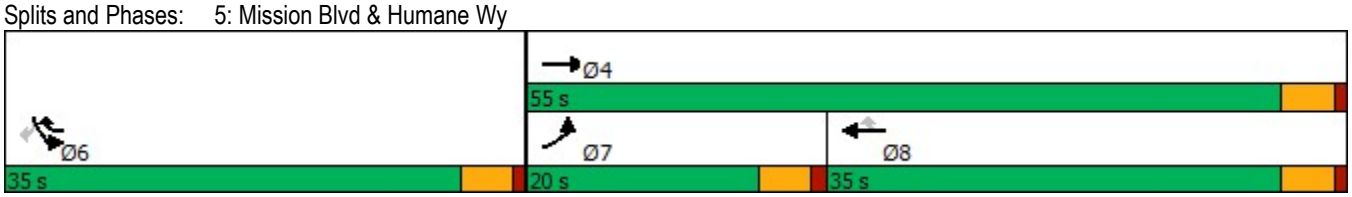
Timer - Assigned Phs		2	3	4		8
Phs Duration (G+Y+Rc), s		25.0	8.1	24.2		32.3
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s		20.5	5.5	20.5		30.5
Max Q Clear Time (g_c+I1), s		4.0	4.5	18.0		7.7
Green Ext Time (p_c), s		0.3	0.0	1.6		3.5

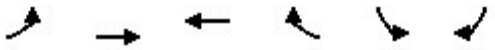
Intersection Summary	
HCM 6th Ctrl Delay	17.7
HCM 6th LOS	B

Phase Number	4	6	7	8
Movement	EBT	SBL	EBL	WBT
Lead/Lag			Lead	Lag
Lead-Lag Optimize			Yes	Yes
Recall Mode	None	Max	None	None
Maximum Split (s)	55	35	20	35
Maximum Split (%)	61.1%	38.9%	22.2%	38.9%
Minimum Split (s)	22.5	22.5	9.5	22.5
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	1	1	1	1
Minimum Initial (s)	5	5	5	5
Vehicle Extension (s)	3	3	3	3
Minimum Gap (s)	3	3	3	3
Time Before Reduce (s)	0	0	0	0
Time To Reduce (s)	0	0	0	0
Walk Time (s)		7		7
Flash Dont Walk (s)		11		11
Dual Entry	Yes	Yes	No	Yes
Inhibit Max	Yes	Yes	Yes	Yes
Start Time (s)	35	0	35	55
End Time (s)	0	35	55	0
Yield/Force Off (s)	85.5	30.5	50.5	85.5
Yield/Force Off 170(s)	85.5	19.5	50.5	74.5
Local Start Time (s)	35	0	35	55
Local Yield (s)	85.5	30.5	50.5	85.5
Local Yield 170(s)	85.5	19.5	50.5	74.5

Intersection Summary	
Cycle Length	90
Control Type	Actuated-Uncoordinated
Natural Cycle	55

Splits and Phases: 5: Mission Blvd & Humane Wy





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	118	972	376	129	733	186
Future Volume (veh/h)	118	972	376	129	733	186
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	122	1002	388	133	756	192
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	159	1382	817	1112	1631	748
Arrive On Green	0.09	0.39	0.23	0.23	0.47	0.47
Sat Flow, veh/h	1781	3647	3647	1582	3456	1585
Grp Volume(v), veh/h	122	1002	388	133	756	192
Grp Sat Flow(s),veh/h/ln	1781	1777	1777	1582	1728	1585
Q Serve(g_s), s	4.3	15.5	6.1	1.8	9.6	4.7
Cycle Q Clear(g_c), s	4.3	15.5	6.1	1.8	9.6	4.7
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	159	1382	817	1112	1631	748
V/C Ratio(X)	0.77	0.73	0.47	0.12	0.46	0.26
Avail Cap(c_a), veh/h	427	2776	1677	1494	1631	748
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.8	16.8	21.5	3.1	11.5	10.3
Incr Delay (d2), s/veh	7.5	0.7	0.4	0.0	1.0	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	5.3	2.3	1.5	3.2	0.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	36.3	17.5	21.9	3.2	12.5	11.1
LnGrp LOS	D	B	C	A	B	B
Approach Vol, veh/h		1124	521		948	
Approach Delay, s/veh		19.6	17.2		12.2	
Approach LOS		B	B		B	

Timer - Assigned Phs			4		6	7	8
Phs Duration (G+Y+Rc), s			29.6		35.0	10.3	19.4
Change Period (Y+Rc), s			4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s			50.5		30.5	15.5	30.5
Max Q Clear Time (g_c+I1), s			17.5		11.6	6.3	8.1
Green Ext Time (p_c), s			7.6		3.4	0.2	2.7

Intersection Summary	
HCM 6th Ctrl Delay	16.4
HCM 6th LOS	B

Phase Number	2	3	4	6	7	8
Movement	NBTL	WBL	EBT	SBTL	EBL	WBT
Lead/Lag		Lead	Lag		Lead	Lag
Lead-Lag Optimize		Yes	Yes		Yes	Yes
Recall Mode	Max	None	None	Max	None	None
Maximum Split (s)	30	20	40	30	20	40
Maximum Split (%)	33.3%	22.2%	44.4%	33.3%	22.2%	44.4%
Minimum Split (s)	22.5	9.5	22.5	22.5	9.5	22.5
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1	1	1	1	1	1
Minimum Initial (s)	5	5	5	5	5	5
Vehicle Extension (s)	3	3	3	3	3	3
Minimum Gap (s)	3	3	3	3	3	3
Time Before Reduce (s)	0	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0	0
Walk Time (s)			7	7		7
Flash Dont Walk (s)			11	11		11
Dual Entry	Yes	No	Yes	Yes	No	Yes
Inhibit Max	Yes	Yes	Yes	Yes	Yes	Yes
Start Time (s)	0	30	50	0	30	50
End Time (s)	30	50	0	30	50	0
Yield/Force Off (s)	25.5	45.5	85.5	25.5	45.5	85.5
Yield/Force Off 170(s)	25.5	45.5	74.5	14.5	45.5	74.5
Local Start Time (s)	0	30	50	0	30	50
Local Yield (s)	25.5	45.5	85.5	25.5	45.5	85.5
Local Yield 170(s)	25.5	45.5	74.5	14.5	45.5	74.5

Intersection Summary	
Cycle Length	90
Control Type	Actuated-Uncoordinated
Natural Cycle	70

Splits and Phases: 6: Westmont Ave & Mission Blvd



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	6	1594	73	228	454	7	20	0	176	48	1	14
Future Volume (veh/h)	6	1594	73	228	454	7	20	0	176	48	1	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	6	1643	75	235	468	7	21	0	181	49	1	14
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	14	1951	89	273	2774	41	71	25	424	341	15	79
Arrive On Green	0.01	0.39	0.39	0.15	0.54	0.54	0.30	0.00	0.30	0.30	0.30	0.30
Sat Flow, veh/h	1781	5005	228	1781	5181	77	82	83	1419	891	52	264
Grp Volume(v), veh/h	6	1117	601	235	307	168	202	0	0	64	0	0
Grp Sat Flow(s),veh/h/ln	1781	1702	1829	1781	1702	1854	1584	0	0	1207	0	0
Q Serve(g_s), s	0.3	25.5	25.5	11.0	3.9	3.9	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.3	25.5	25.5	11.0	3.9	3.9	8.6	0.0	0.0	3.5	0.0	0.0
Prop In Lane	1.00		0.12	1.00		0.04	0.10		0.90	0.77		0.22
Lane Grp Cap(c), veh/h	14	1327	713	273	1823	993	520	0	0	435	0	0
V/C Ratio(X)	0.43	0.84	0.84	0.86	0.17	0.17	0.39	0.00	0.00	0.15	0.00	0.00
Avail Cap(c_a), veh/h	323	1416	761	323	1823	993	520	0	0	435	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	42.2	23.7	23.7	35.2	10.1	10.1	24.0	0.0	0.0	22.1	0.0	0.0
Incr Delay (d2), s/veh	20.0	4.6	8.1	18.0	0.0	0.1	2.2	0.0	0.0	0.7	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	9.9	11.4	5.8	1.3	1.4	3.5	0.0	0.0	1.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	62.1	28.2	31.8	53.2	10.2	10.2	26.2	0.0	0.0	22.8	0.0	0.0
LnGrp LOS	E	C	C	D	B	B	C	A	A	C	A	A
Approach Vol, veh/h		1724			710			202			64	
Approach Delay, s/veh		29.6			24.4			26.2			22.8	
Approach LOS		C			C			C			C	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		30.0	17.6	37.8		30.0	5.2	50.2				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		25.5	15.5	35.5		25.5	15.5	35.5				
Max Q Clear Time (g_c+I1), s		10.6	13.0	27.5		5.5	2.3	5.9				
Green Ext Time (p_c), s		1.1	0.2	5.8		0.3	0.0	2.8				

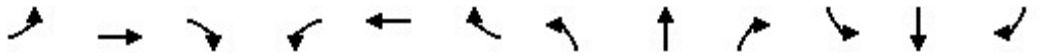
Intersection Summary	
HCM 6th Ctrl Delay	27.8
HCM 6th LOS	C

Phase Number	1	2	4	6
Movement	WBL	EBT	SBTL	WBT
Lead/Lag	Lead	Lag		
Lead-Lag Optimize	Yes	Yes		
Recall Mode	None	Min	None	Min
Maximum Split (s)	18	35	22	53
Maximum Split (%)	24.0%	46.7%	29.3%	70.7%
Minimum Split (s)	16	30	15	48
Yellow Time (s)	3.7	4.8	4.4	4.8
All-Red Time (s)	1	1	1	1
Minimum Initial (s)	11.3	12	9.6	12
Vehicle Extension (s)	3	3	3	3
Minimum Gap (s)	3	2.5	3	2.5
Time Before Reduce (s)	0	0	0	0
Time To Reduce (s)	0	0	0	0
Walk Time (s)		7		7
Flash Dont Walk (s)		16		21
Dual Entry	No	Yes	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes
Start Time (s)	0	18	53	0
End Time (s)	18	53	0	53
Yield/Force Off (s)	13.3	47.2	69.6	47.2
Yield/Force Off 170(s)	13.3	47.2	69.6	47.2
Local Start Time (s)	0	18	53	0
Local Yield (s)	13.3	47.2	69.6	47.2
Local Yield 170(s)	13.3	47.2	69.6	47.2

Intersection Summary	
Cycle Length	75
Control Type	Actuated-Uncoordinated
Natural Cycle	65

Splits and Phases: 7: SR-71 SB Ramps & Mission Blvd





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	1228	592	111	670	0	0	0	0	266	17	20
Future Volume (veh/h)	0	1228	592	111	670	0	0	0	0	266	17	20
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	0				1870	1870	1870
Adj Flow Rate, veh/h	0	1306	630	118	713	0				296	0	21
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94				0.94	0.94	0.94
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	1523	708	276	3450	0				532	0	237
Arrive On Green	0.00	0.45	0.45	0.15	0.68	0.00				0.15	0.00	0.15
Sat Flow, veh/h	0	3572	1583	1781	5274	0				3563	0	1585
Grp Volume(v), veh/h	0	1306	630	118	713	0				296	0	21
Grp Sat Flow(s),veh/h/ln	0	1702	1583	1781	1702	0				1781	0	1585
Q Serve(g_s), s	0.0	22.0	23.4	3.8	3.4	0.0				4.9	0.0	0.7
Cycle Q Clear(g_c), s	0.0	22.0	23.4	3.8	3.4	0.0				4.9	0.0	0.7
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1523	708	276	3450	0				532	0	237
V/C Ratio(X)	0.00	0.86	0.89	0.43	0.21	0.00				0.56	0.00	0.09
Avail Cap(c_a), veh/h	0	1553	722	370	3765	0				924	0	411
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	15.9	16.2	24.5	3.9	0.0				25.3	0.0	23.5
Incr Delay (d2), s/veh	0.0	5.0	13.0	1.0	0.0	0.0				0.9	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	7.7	9.1	1.5	0.6	0.0				1.9	0.0	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	20.8	29.2	25.5	3.9	0.0				26.2	0.0	23.6
LnGrp LOS	A	C	C	C	A	A				C	A	C
Approach Vol, veh/h		1936			831						317	
Approach Delay, s/veh		23.6			7.0						26.0	
Approach LOS		C			A						C	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	14.6	34.4		15.0		49.1
Change Period (Y+Rc), s	* 4.7	5.8		5.4		5.8
Max Green Setting (Gmax), s	* 13	29.2		16.6		47.2
Max Q Clear Time (g_c+I1), s	5.8	25.4		6.9		5.4
Green Ext Time (p_c), s	0.1	3.3		0.7		5.1

Intersection Summary		
HCM 6th Ctrl Delay		19.3
HCM 6th LOS		B

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Phase Number	2	5	6	8
Movement	EBT	EBL	WBT	NBTL
Lead/Lag		Lead	Lag	
Lead-Lag Optimize		Yes	Yes	
Recall Mode	Min	None	Min	None
Maximum Split (s)	52.5	16.7	35.8	22.5
Maximum Split (%)	70.0%	22.3%	47.7%	30.0%
Minimum Split (s)	43	15	28.8	20
Yellow Time (s)	4.8	3.7	4.8	4.4
All-Red Time (s)	1	1	1	1
Minimum Initial (s)	12	10.3	12	10.6
Vehicle Extension (s)	3	3	3	3
Minimum Gap (s)	2.5	3	2.5	3
Time Before Reduce (s)	0	0	0	0
Time To Reduce (s)	0	0	0	0
Walk Time (s)	7		7	
Flash Dont Walk (s)	21		16	
Dual Entry	Yes	No	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes
Start Time (s)	0	0	16.7	52.5
End Time (s)	52.5	16.7	52.5	0
Yield/Force Off (s)	46.7	12	46.7	69.6
Yield/Force Off 170(s)	46.7	12	46.7	69.6
Local Start Time (s)	0	0	16.7	52.5
Local Yield (s)	46.7	12	46.7	69.6
Local Yield 170(s)	46.7	12	46.7	69.6

Intersection Summary	
Cycle Length	75
Control Type	Actuated-Uncoordinated
Natural Cycle	65

Splits and Phases: 8: SR-71 NB Ramps & Mission Blvd



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	90	1401	0	0	606	514	176	1	83	0	0	0
Future Volume (veh/h)	90	1401	0	0	606	514	176	1	83	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1870	1870	0	0	1870	1870	1870	1870	1870			
Adj Flow Rate, veh/h	94	1459	0	0	631	535	184	0	86			
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	245	3221	0	0	2109	646	636	0	283			
Arrive On Green	0.14	0.63	0.00	0.00	0.41	0.41	0.18	0.00	0.18			
Sat Flow, veh/h	1781	5274	0	0	5274	1563	3563	0	1585			
Grp Volume(v), veh/h	94	1459	0	0	631	535	184	0	86			
Grp Sat Flow(s),veh/h/ln	1781	1702	0	0	1702	1563	1781	0	1585			
Q Serve(g_s), s	2.8	8.7	0.0	0.0	4.9	17.9	2.6	0.0	2.8			
Cycle Q Clear(g_c), s	2.8	8.7	0.0	0.0	4.9	17.9	2.6	0.0	2.8			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	245	3221	0	0	2109	646	636	0	283			
V/C Ratio(X)	0.38	0.45	0.00	0.00	0.30	0.83	0.29	0.00	0.30			
Avail Cap(c_a), veh/h	364	4063	0	0	2610	799	1038	0	462			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	23.0	5.6	0.0	0.0	11.5	15.4	20.9	0.0	20.9			
Incr Delay (d2), s/veh	1.0	0.1	0.0	0.0	0.1	6.0	0.2	0.0	0.6			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	1.1	1.7	0.0	0.0	1.5	6.0	1.0	0.0	0.9			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	24.0	5.7	0.0	0.0	11.6	21.4	21.1	0.0	21.5			
LnGrp LOS	C	A	A	A	B	C	C	A	C			
Approach Vol, veh/h		1553			1166			270				
Approach Delay, s/veh		6.8			16.1			21.3				
Approach LOS		A			B			C				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		42.8			12.8	30.0		15.9				
Change Period (Y+Rc), s		5.8			* 4.7	5.8		5.4				
Max Green Setting (Gmax), s		46.7			* 12	30.0		17.1				
Max Q Clear Time (g_c+I1), s		10.7			4.8	19.9		4.8				
Green Ext Time (p_c), s		12.8			0.1	4.3		0.7				

Intersection Summary	
HCM 6th Ctrl Delay	11.7
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Phase Number	2	4	5	6	8
Movement	WBT	SBTL	WBL	EBT	NBTL
Lead/Lag			Lead	Lag	
Lead-Lag Optimize			Yes	Yes	
Recall Mode	Min	None	None	Min	Max
Maximum Split (s)	52	40	14	38	40
Maximum Split (%)	56.5%	43.5%	15.2%	41.3%	43.5%
Minimum Split (s)	26.3	32.4	13.7	29.3	22.5
Yellow Time (s)	4.8	4.4	3.7	4.8	4.4
All-Red Time (s)	1	1	1	1	1
Minimum Initial (s)	10	9	9	10	9
Vehicle Extension (s)	3	3	3	3	3
Minimum Gap (s)	2.5	3	2.5	2.5	3
Time Before Reduce (s)	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0
Walk Time (s)	7	4		7	
Flash Dont Walk (s)	13	23		16	
Dual Entry	No	Yes	No	No	Yes
Inhibit Max	Yes	Yes	Yes	Yes	Yes
Start Time (s)	0	52	0	14	52
End Time (s)	52	0	14	52	0
Yield/Force Off (s)	46.2	86.6	9.3	46.2	86.6
Yield/Force Off 170(s)	46.2	63.6	9.3	46.2	86.6
Local Start Time (s)	78	38	78	0	38
Local Yield (s)	32.2	72.6	87.3	32.2	72.6
Local Yield 170(s)	32.2	49.6	87.3	32.2	72.6

Intersection Summary	
Cycle Length	92
Control Type	Actuated-Uncoordinated
Natural Cycle	150

Splits and Phases: 9: Shell Dwy/SR-57 SB Off-Ramp & Temple Avenue



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	1763	21	53	623	142	0	0	6	1083	12	529
Future Volume (veh/h)	0	1763	21	53	623	142	0	0	6	1083	12	529
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.99	0.99		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	1836	22	55	649	0	0	0	6	1304	0	371
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	0	1873	22	134	2490		0	0	609	1238	0	609
Arrive On Green	0.00	0.36	0.36	0.07	0.49	0.00	0.00	0.00	0.39	0.39	0.00	0.39
Sat Flow, veh/h	0	5369	62	1781	5106	2790	0	0	1574	2800	0	1574
Grp Volume(v), veh/h	0	1202	656	55	649	0	0	0	6	1304	0	371
Grp Sat Flow(s),veh/h/ln	0	1702	1858	1781	1702	1395	0	0	1574	1400	0	1574
Q Serve(g_s), s	0.0	31.2	31.2	2.6	6.7	0.0	0.0	0.0	0.2	34.4	0.0	16.9
Cycle Q Clear(g_c), s	0.0	31.2	31.2	2.6	6.7	0.0	0.0	0.0	0.2	34.6	0.0	16.9
Prop In Lane	0.00		0.03	1.00		1.00	0.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	0	1226	669	134	2490		0	0	609	1238	0	609
V/C Ratio(X)	0.00	0.98	0.98	0.41	0.26		0.00	0.00	0.01	1.05	0.00	0.61
Avail Cap(c_a), veh/h	0	1226	669	185	2639		0	0	609	1238	0	609
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	28.3	28.3	39.5	13.4	0.0	0.0	0.0	16.9	29.7	0.0	22.0
Incr Delay (d2), s/veh	0.0	21.0	29.8	2.0	0.1	0.0	0.0	0.0	0.0	40.8	0.0	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	15.7	18.8	1.2	2.4	0.0	0.0	0.0	0.1	20.6	0.0	6.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	49.3	58.1	41.5	13.5	0.0	0.0	0.0	16.9	70.5	0.0	23.7
LnGrp LOS	A	D	E	D	B		A	A	B	F	A	C
Approach Vol, veh/h		1858			704			6			1675	
Approach Delay, s/veh		52.4			15.7			16.9			60.2	
Approach LOS		D			B			B			E	

Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		49.4		40.0	11.4	38.0		40.0				
Change Period (Y+Rc), s		5.8		5.4	* 4.7	5.8		5.4				
Max Green Setting (Gmax), s		46.2		34.6	* 9.3	32.2		34.6				
Max Q Clear Time (g_c+I1), s		8.7		36.6	4.6	33.2		2.2				
Green Ext Time (p_c), s		5.2		0.0	0.0	0.0		0.0				

Intersection Summary		
HCM 6th Ctrl Delay	49.3	
HCM 6th LOS	D	

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

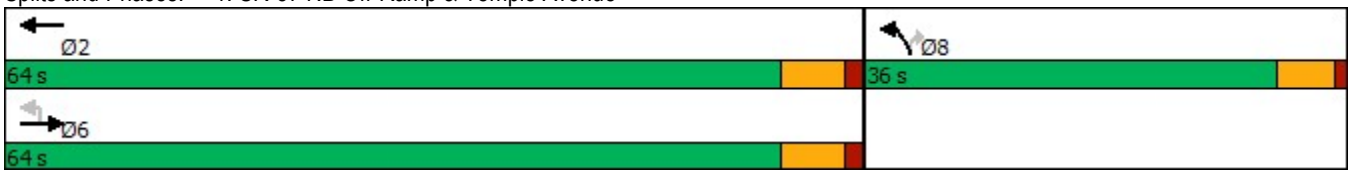
Appendix F

Synchro Worksheets –
Opening Year plus Project Conditions

Phase Number	2	6	8
Movement	WBT	EBTU	NBL
Lead/Lag			
Lead-Lag Optimize			
Recall Mode	Min	Min	None
Maximum Split (s)	64	64	36
Maximum Split (%)	64.0%	64.0%	36.0%
Minimum Split (s)	40	40	30
Yellow Time (s)	4.8	4.8	4.4
All-Red Time (s)	1.5	1.5	1
Minimum Initial (s)	10	10	9
Vehicle Extension (s)	3	3	3
Minimum Gap (s)	2.5	2.5	3
Time Before Reduce (s)	0	0	0
Time To Reduce (s)	0	0	0
Walk Time (s)		7	
Flash Dont Walk (s)		15	
Dual Entry	Yes	Yes	Yes
Inhibit Max	Yes	Yes	Yes
Start Time (s)	0	0	64
End Time (s)	64	64	0
Yield/Force Off (s)	57.7	57.7	94.6
Yield/Force Off 170(s)	57.7	57.7	94.6
Local Start Time (s)	0	0	64
Local Yield (s)	57.7	57.7	94.6
Local Yield 170(s)	57.7	57.7	94.6

Intersection Summary	
Cycle Length	100
Control Type	Actuated-Uncoordinated
Natural Cycle	70

Splits and Phases: 1: SR-57 NB Off-Ramp & Temple Avenue





Movement	EBU	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations							
Traffic Volume (veh/h)	15	819	338	0	1757	372	255
Future Volume (veh/h)	15	819	338	0	1757	372	255
Initial Q (Qb), veh		0	0	0	0	0	0
Ped-Bike Adj(A_pbT)			1.00	1.00		1.00	1.00
Parking Bus, Adj		1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No	No	
Adj Sat Flow, veh/h/ln		1870	1870	0	1870	1870	1870
Adj Flow Rate, veh/h		844	0	0	1811	428	216
Peak Hour Factor		0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %		2	2	0	2	2	2
Cap, veh/h		3030		0	3030	712	317
Arrive On Green		0.59	0.00	0.00	0.59	0.20	0.20
Sat Flow, veh/h		5274	2790	0	5443	3563	1585
Grp Volume(v), veh/h		844	0	0	1811	428	216
Grp Sat Flow(s),veh/h/ln		1702	1395	0	1702	1781	1585
Q Serve(g_s), s		4.6	0.0	0.0	12.6	6.2	7.1
Cycle Q Clear(g_c), s		4.6	0.0	0.0	12.6	6.2	7.1
Prop In Lane			1.00	0.00		1.00	1.00
Lane Grp Cap(c), veh/h		3030		0	3030	712	317
V/C Ratio(X)		0.28		0.00	0.60	0.60	0.68
Avail Cap(c_a), veh/h		5208		0	5208	1927	857
HCM Platoon Ratio		1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)		1.00	0.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh		5.6	0.0	0.0	7.2	20.6	21.0
Incr Delay (d2), s/veh		0.0	0.0	0.0	0.2	0.8	2.6
Initial Q Delay(d3),s/veh		0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln		1.0	0.0	0.0	2.7	2.3	2.5
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh		5.7	0.0	0.0	7.4	21.4	23.6
LnGrp LOS		A		A	A	C	C
Approach Vol, veh/h		844			1811	644	
Approach Delay, s/veh		5.7			7.4	22.1	
Approach LOS		A			A	C	

Timer - Assigned Phs	2					6		8
Phs Duration (G+Y+Rc), s	39.9					39.9		16.7
Change Period (Y+Rc), s	6.3					6.3		5.4
Max Green Setting (Gmax), s	57.7					57.7		30.6
Max Q Clear Time (g_c+I1), s	14.6					6.6		9.1
Green Ext Time (p_c), s	18.9					6.3		2.2

Intersection Summary	
HCM 6th Ctrl Delay	9.8
HCM 6th LOS	A

Notes

User approved volume balancing among the lanes for turning movement.

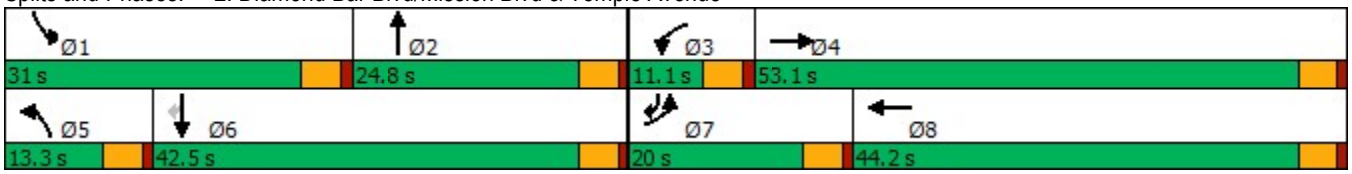
User approved ignoring U-Turning movement.

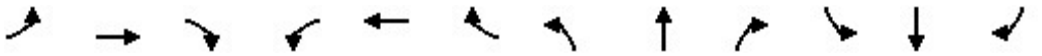
Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Phase Number	1	2	3	4	5	6	7	8
Movement	SBL	NBT	WBL	EBT	NBL	SBT	EBL	WBT
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Min	None	None	None	Min	None	None
Maximum Split (s)	31	24.8	11.1	53.1	13.3	42.5	20	44.2
Maximum Split (%)	25.8%	20.7%	9.3%	44.3%	11.1%	35.4%	16.7%	36.8%
Minimum Split (s)	9.5	22.5	9.5	22.5	9.5	22.5	9.5	22.5
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1	1	1	1	1	1	1	1
Minimum Initial (s)	5	5	5	5	5	5	5	5
Vehicle Extension (s)	3	3	3	3	3	3	3	3
Minimum Gap (s)	3	3	3	3	3	3	3	3
Time Before Reduce (s)	0	0	0	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0	0	0	0
Walk Time (s)		7				7		7
Flash Dont Walk (s)		11				11		11
Dual Entry	No	Yes	No	Yes	No	Yes	No	Yes
Inhibit Max	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Start Time (s)	0	31	55.8	66.9	0	13.3	55.8	75.8
End Time (s)	31	55.8	66.9	0	13.3	55.8	75.8	0
Yield/Force Off (s)	26.5	51.3	62.4	115.5	8.8	51.3	71.3	115.5
Yield/Force Off 170(s)	26.5	51.3	62.4	115.5	8.8	51.3	71.3	104.5
Local Start Time (s)	89	0	24.8	35.9	89	102.3	24.8	44.8
Local Yield (s)	115.5	20.3	31.4	84.5	97.8	20.3	40.3	84.5
Local Yield 170(s)	115.5	20.3	31.4	84.5	97.8	20.3	40.3	73.5

Intersection Summary	
Cycle Length	120
Control Type	Actuated-Uncoordinated
Natural Cycle	100

Splits and Phases: 2: Diamond Bar Blvd/Mission Blvd & Temple Avenue





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	323	475	157	33	1224	274	125	213	41	308	504	439
Future Volume (veh/h)	323	475	157	33	1224	274	125	213	41	308	504	439
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	363	534	176	37	1375	308	140	239	46	346	566	493
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	426	1171	384	54	1468	328	199	450	85	376	1082	677
Arrive On Green	0.12	0.45	0.45	0.03	0.35	0.35	0.06	0.15	0.15	0.21	0.30	0.30
Sat Flow, veh/h	3456	2627	862	1781	4159	930	3456	2978	564	1781	3554	1580
Grp Volume(v), veh/h	363	361	349	37	1125	558	140	141	144	346	566	493
Grp Sat Flow(s),veh/h/ln	1728	1777	1712	1781	1702	1684	1728	1777	1765	1781	1777	1580
Q Serve(g_s), s	11.5	15.7	15.8	2.3	35.6	35.7	4.4	8.2	8.4	21.2	14.7	28.9
Cycle Q Clear(g_c), s	11.5	15.7	15.8	2.3	35.6	35.7	4.4	8.2	8.4	21.2	14.7	28.9
Prop In Lane	1.00		0.50	1.00		0.55	1.00		0.32	1.00		1.00
Lane Grp Cap(c), veh/h	426	792	763	54	1202	595	199	268	266	376	1082	677
V/C Ratio(X)	0.85	0.46	0.46	0.68	0.94	0.94	0.70	0.53	0.54	0.92	0.52	0.73
Avail Cap(c_a), veh/h	481	792	763	105	1212	600	273	324	321	423	1211	734
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.9	21.5	21.5	53.5	34.8	34.9	51.6	43.6	43.7	43.0	32.1	26.5
Incr Delay (d2), s/veh	12.6	0.4	0.4	13.8	13.3	22.6	4.9	1.6	1.7	23.6	0.4	3.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.5	6.2	6.1	1.2	16.1	17.5	2.0	3.6	3.7	11.3	6.0	10.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	60.4	21.9	21.9	67.3	48.2	57.5	56.4	45.2	45.5	66.7	32.5	29.9
LnGrp LOS	E	C	C	E	D	E	E	D	D	E	C	C
Approach Vol, veh/h		1073			1720			425			1405	
Approach Delay, s/veh		34.9			51.6			49.0			40.0	
Approach LOS		C			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	28.0	21.3	7.9	54.2	10.9	38.4	18.2	43.9
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	26.5	20.3	6.6	48.6	8.8	38.0	15.5	39.7
Max Q Clear Time (g_c+I1), s	23.2	10.4	4.3	17.8	6.4	30.9	13.5	37.7
Green Ext Time (p_c), s	0.3	1.0	0.0	4.4	0.1	3.0	0.3	1.6

Intersection Summary	
HCM 6th Ctrl Delay	44.0
HCM 6th LOS	D

Intersection	
Int Delay, s/veh	1.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	17	815	929	24	48	52
Future Vol, veh/h	17	815	929	24	48	52
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	115	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	83	83	83	83	83	83
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	20	982	1119	29	58	63

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	1148	0	-	0	1665	574
Stage 1	-	-	-	-	1134	-
Stage 2	-	-	-	-	531	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	604	-	-	-	88	462
Stage 1	-	-	-	-	269	-
Stage 2	-	-	-	-	554	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	604	-	-	-	85	462
Mov Cap-2 Maneuver	-	-	-	-	194	-
Stage 1	-	-	-	-	260	-
Stage 2	-	-	-	-	554	-

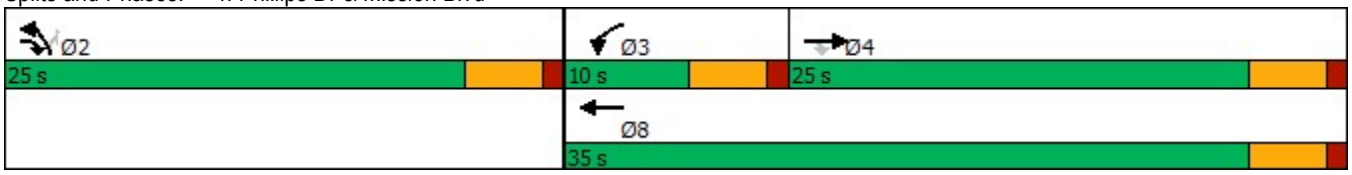
Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	27.5
HCM LOS			D

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	604	-	-	-	278
HCM Lane V/C Ratio	0.034	-	-	-	0.433
HCM Control Delay (s)	11.2	-	-	-	27.5
HCM Lane LOS	B	-	-	-	D
HCM 95th %tile Q(veh)	0.1	-	-	-	2.1

Phase Number	2	3	4	8
Movement	NBL	WBL	EBT	WBT
Lead/Lag		Lead	Lag	
Lead-Lag Optimize		Yes	Yes	
Recall Mode	Max	None	None	None
Maximum Split (s)	25	10	25	35
Maximum Split (%)	41.7%	16.7%	41.7%	58.3%
Minimum Split (s)	22.5	9.5	22.5	22.5
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	1	1	1	1
Minimum Initial (s)	5	5	5	5
Vehicle Extension (s)	3	3	3	3
Minimum Gap (s)	3	3	3	3
Time Before Reduce (s)	0	0	0	0
Time To Reduce (s)	0	0	0	0
Walk Time (s)	7		7	7
Flash Dont Walk (s)	11		11	11
Dual Entry	Yes	No	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes
Start Time (s)	0	25	35	25
End Time (s)	25	35	0	0
Yield/Force Off (s)	20.5	30.5	55.5	55.5
Yield/Force Off 170(s)	9.5	30.5	44.5	44.5
Local Start Time (s)	0	25	35	25
Local Yield (s)	20.5	30.5	55.5	55.5
Local Yield 170(s)	9.5	30.5	44.5	44.5

Intersection Summary	
Cycle Length	60
Control Type	Actuated-Uncoordinated
Natural Cycle	55

Splits and Phases: 4: Phillips Dr & Mission Blvd





Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	721	145	22	753	197	42
Future Volume (veh/h)	721	145	22	753	197	42
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	869	175	27	907	237	51
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1140	1128	55	1555	696	620
Arrive On Green	0.32	0.32	0.03	0.44	0.39	0.39
Sat Flow, veh/h	3647	1585	1781	3647	1781	1585
Grp Volume(v), veh/h	869	175	27	907	237	51
Grp Sat Flow(s),veh/h/ln	1777	1585	1781	1777	1781	1585
Q Serve(g_s), s	11.5	1.9	0.8	10.1	4.9	1.1
Cycle Q Clear(g_c), s	11.5	1.9	0.8	10.1	4.9	1.1
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1140	1128	55	1555	696	620
V/C Ratio(X)	0.76	0.16	0.49	0.58	0.34	0.08
Avail Cap(c_a), veh/h	1389	1239	187	2067	696	620
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	16.0	2.5	25.0	11.1	11.2	10.1
Incr Delay (d2), s/veh	2.1	0.1	6.5	0.3	1.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.8	1.2	0.4	2.9	2.0	0.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	18.1	2.5	31.6	11.5	12.6	10.3
LnGrp LOS	B	A	C	B	B	B
Approach Vol, veh/h	1044			934	288	
Approach Delay, s/veh	15.5			12.1	12.2	
Approach LOS	B			B	B	

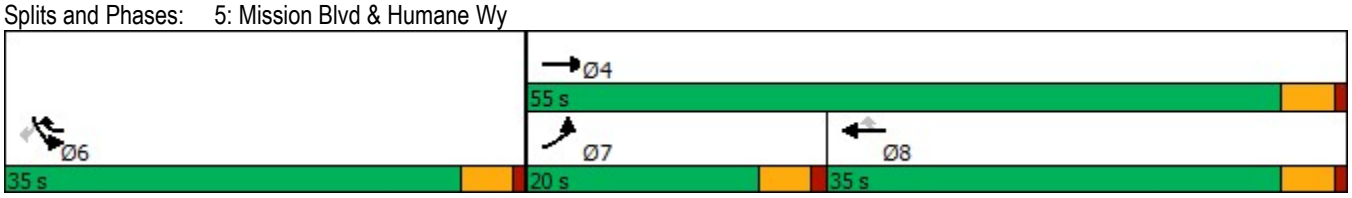
Timer - Assigned Phs		2	3	4		8
Phs Duration (G+Y+Rc), s		25.0	6.1	21.3		27.4
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s		20.5	5.5	20.5		30.5
Max Q Clear Time (g_c+I1), s		6.9	2.8	13.5		12.1
Green Ext Time (p_c), s		0.7	0.0	3.3		5.6

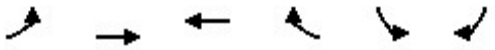
Intersection Summary	
HCM 6th Ctrl Delay	13.6
HCM 6th LOS	B

Phase Number	4	6	7	8
Movement	EBT	SBL	EBL	WBT
Lead/Lag			Lead	Lag
Lead-Lag Optimize			Yes	Yes
Recall Mode	None	Max	None	None
Maximum Split (s)	55	35	20	35
Maximum Split (%)	61.1%	38.9%	22.2%	38.9%
Minimum Split (s)	22.5	22.5	9.5	22.5
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	1	1	1	1
Minimum Initial (s)	5	5	5	5
Vehicle Extension (s)	3	3	3	3
Minimum Gap (s)	3	3	3	3
Time Before Reduce (s)	0	0	0	0
Time To Reduce (s)	0	0	0	0
Walk Time (s)		7		7
Flash Dont Walk (s)		11		11
Dual Entry	Yes	Yes	No	Yes
Inhibit Max	Yes	Yes	Yes	Yes
Start Time (s)	35	0	35	55
End Time (s)	0	35	55	0
Yield/Force Off (s)	85.5	30.5	50.5	85.5
Yield/Force Off 170(s)	85.5	19.5	50.5	74.5
Local Start Time (s)	35	0	35	55
Local Yield (s)	85.5	30.5	50.5	85.5
Local Yield 170(s)	85.5	19.5	50.5	74.5

Intersection Summary	
Cycle Length	90
Control Type	Actuated-Uncoordinated
Natural Cycle	60

Splits and Phases: 5: Mission Blvd & Humane Wy





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	166	597	613	394	200	158
Future Volume (veh/h)	166	597	613	394	200	158
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.98	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	198	711	730	469	238	188
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	241	1703	1011	1078	1389	637
Arrive On Green	0.14	0.48	0.28	0.28	0.40	0.40
Sat Flow, veh/h	1781	3647	3647	1549	3456	1585
Grp Volume(v), veh/h	198	711	730	469	238	188
Grp Sat Flow(s),veh/h/ln	1781	1777	1777	1549	1728	1585
Q Serve(g_s), s	8.2	9.9	14.0	10.3	3.4	6.1
Cycle Q Clear(g_c), s	8.2	9.9	14.0	10.3	3.4	6.1
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	241	1703	1011	1078	1389	637
V/C Ratio(X)	0.82	0.42	0.72	0.44	0.17	0.30
Avail Cap(c_a), veh/h	364	2366	1429	1260	1389	637
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.9	12.9	24.4	5.3	14.6	15.4
Incr Delay (d2), s/veh	8.8	0.2	1.1	0.3	0.3	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.9	3.3	5.4	7.8	1.2	6.5
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	40.7	13.0	25.5	5.6	14.8	16.6
LnGrp LOS	D	B	C	A	B	B
Approach Vol, veh/h		909	1199		426	
Approach Delay, s/veh		19.0	17.7		15.6	
Approach LOS		B	B		B	

Timer - Assigned Phs	4	6	7	8
Phs Duration (G+Y+Rc), s	40.9	35.0	14.8	26.1
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	50.5	30.5	15.5	30.5
Max Q Clear Time (g_c+I1), s	11.9	8.1	10.2	16.0
Green Ext Time (p_c), s	5.0	1.4	0.2	5.6

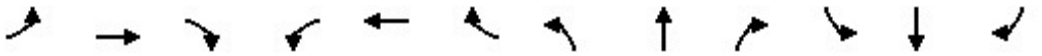
Intersection Summary	
HCM 6th Ctrl Delay	17.8
HCM 6th LOS	B

Phase Number	2	3	4	6	7	8
Movement	NBTL	WBL	EBT	SBTL	EBL	WBT
Lead/Lag		Lead	Lag		Lead	Lag
Lead-Lag Optimize		Yes	Yes		Yes	Yes
Recall Mode	Max	None	None	Max	None	None
Maximum Split (s)	30	20	40	30	20	40
Maximum Split (%)	33.3%	22.2%	44.4%	33.3%	22.2%	44.4%
Minimum Split (s)	22.5	9.5	22.5	22.5	9.5	22.5
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1	1	1	1	1	1
Minimum Initial (s)	5	5	5	5	5	5
Vehicle Extension (s)	3	3	3	3	3	3
Minimum Gap (s)	3	3	3	3	3	3
Time Before Reduce (s)	0	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0	0
Walk Time (s)			7	7		7
Flash Dont Walk (s)			11	11		11
Dual Entry	Yes	No	Yes	Yes	No	Yes
Inhibit Max	Yes	Yes	Yes	Yes	Yes	Yes
Start Time (s)	0	30	50	0	30	50
End Time (s)	30	50	0	30	50	0
Yield/Force Off (s)	25.5	45.5	85.5	25.5	45.5	85.5
Yield/Force Off 170(s)	25.5	45.5	74.5	14.5	45.5	74.5
Local Start Time (s)	0	30	50	0	30	50
Local Yield (s)	25.5	45.5	85.5	25.5	45.5	85.5
Local Yield 170(s)	25.5	45.5	74.5	14.5	45.5	74.5

Intersection Summary	
Cycle Length	90
Control Type	Actuated-Uncoordinated
Natural Cycle	60

Splits and Phases: 6: Westmont Ave & Mission Blvd





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	24	701	48	249	946	35	55	0	377	8	0	6
Future Volume (veh/h)	24	701	48	249	946	35	55	0	377	8	0	6
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	28	825	56	293	1113	41	65	0	444	9	0	7
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	53	1255	85	339	2106	78	109	22	496	224	21	129
Arrive On Green	0.03	0.26	0.26	0.19	0.42	0.42	0.36	0.00	0.36	0.36	0.00	0.36
Sat Flow, veh/h	1781	4884	330	1781	5049	186	141	60	1373	398	59	356
Grp Volume(v), veh/h	28	574	307	293	750	404	509	0	0	16	0	0
Grp Sat Flow(s),veh/h/ln	1781	1702	1810	1781	1702	1831	1574	0	0	814	0	0
Q Serve(g_s), s	1.1	10.6	10.7	11.2	11.6	11.6	14.1	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	1.1	10.6	10.7	11.2	11.6	11.6	21.5	0.0	0.0	0.4	0.0	0.0
Prop In Lane	1.00		0.18	1.00		0.10	0.13		0.87	0.56		0.44
Lane Grp Cap(c), veh/h	53	874	465	339	1420	764	627	0	0	374	0	0
V/C Ratio(X)	0.53	0.66	0.66	0.87	0.53	0.53	0.81	0.00	0.00	0.04	0.00	0.00
Avail Cap(c_a), veh/h	392	1714	911	392	1714	922	627	0	0	374	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	33.7	23.4	23.4	27.7	15.4	15.4	21.1	0.0	0.0	14.5	0.0	0.0
Incr Delay (d2), s/veh	7.8	0.8	1.6	16.3	0.3	0.6	11.0	0.0	0.0	0.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	3.9	4.3	5.8	3.8	4.2	9.3	0.0	0.0	0.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	41.5	24.3	25.1	44.0	15.7	15.9	32.1	0.0	0.0	14.7	0.0	0.0
LnGrp LOS	D	C	C	D	B	B	C	A	A	B	A	A
Approach Vol, veh/h		909			1447			509			16	
Approach Delay, s/veh		25.1			21.5			32.1			14.7	
Approach LOS		C			C			C			B	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		30.0	17.9	22.6		30.0	6.6	33.9				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		25.5	15.5	35.5		25.5	15.5	35.5				
Max Q Clear Time (g_c+I1), s		23.5	13.2	12.7		2.4	3.1	13.6				
Green Ext Time (p_c), s		0.7	0.2	5.4		0.0	0.0	7.4				

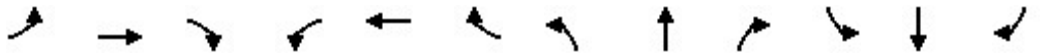
Intersection Summary	
HCM 6th Ctrl Delay	24.5
HCM 6th LOS	C

Phase Number	1	2	4	6
Movement	WBL	EBT	SBTL	WBT
Lead/Lag	Lead	Lag		
Lead-Lag Optimize	Yes	Yes		
Recall Mode	None	Min	None	Min
Maximum Split (s)	18	35	22	53
Maximum Split (%)	24.0%	46.7%	29.3%	70.7%
Minimum Split (s)	16	30	15	48
Yellow Time (s)	3.7	4.8	4.4	4.8
All-Red Time (s)	1	1	1	1
Minimum Initial (s)	11.3	12	9.6	12
Vehicle Extension (s)	3	3	3	3
Minimum Gap (s)	3	2.5	3	2.5
Time Before Reduce (s)	0	0	0	0
Time To Reduce (s)	0	0	0	0
Walk Time (s)		7		7
Flash Dont Walk (s)		16		21
Dual Entry	No	Yes	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes
Start Time (s)	0	18	53	0
End Time (s)	18	53	0	53
Yield/Force Off (s)	13.3	47.2	69.6	47.2
Yield/Force Off 170(s)	13.3	47.2	69.6	47.2
Local Start Time (s)	57	0	35	57
Local Yield (s)	70.3	29.2	51.6	29.2
Local Yield 170(s)	70.3	29.2	51.6	29.2

Intersection Summary	
Cycle Length	75
Control Type	Actuated-Uncoordinated
Natural Cycle	65

Splits and Phases: 7: SR-71 SB Ramps & Mission Blvd





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	822	259	144	1174	0	0	0	0	348	1	58
Future Volume (veh/h)	0	822	259	144	1174	0	0	0	0	348	1	58
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	0				1870	1870	1870
Adj Flow Rate, veh/h	0	956	301	167	1365	0				406	0	67
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86				0.86	0.86	0.86
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	1420	446	328	3246	0				599	0	266
Arrive On Green	0.00	0.37	0.37	0.18	0.64	0.00				0.17	0.00	0.17
Sat Flow, veh/h	0	4010	1207	1781	5274	0				3563	0	1585
Grp Volume(v), veh/h	0	847	410	167	1365	0				406	0	67
Grp Sat Flow(s),veh/h/ln	0	1702	1645	1781	1702	0				1781	0	1585
Q Serve(g_s), s	0.0	11.9	12.0	4.8	7.6	0.0				6.1	0.0	2.1
Cycle Q Clear(g_c), s	0.0	11.9	12.0	4.8	7.6	0.0				6.1	0.0	2.1
Prop In Lane	0.00		0.73	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1258	608	328	3246	0				599	0	266
V/C Ratio(X)	0.00	0.67	0.67	0.51	0.42	0.00				0.68	0.00	0.25
Avail Cap(c_a), veh/h	0	1741	841	415	4221	0				1036	0	461
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	15.1	15.1	21.0	5.2	0.0				22.3	0.0	20.6
Incr Delay (d2), s/veh	0.0	0.6	1.3	1.2	0.1	0.0				1.4	0.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	3.7	3.7	1.8	1.4	0.0				2.3	0.0	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	15.7	16.4	22.2	5.3	0.0				23.7	0.0	21.1
LnGrp LOS	A	B	B	C	A	A				C	A	C
Approach Vol, veh/h		1257			1532						473	
Approach Delay, s/veh		16.0			7.1						23.3	
Approach LOS		B			A						C	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	15.2	26.9		15.0		42.1
Change Period (Y+Rc), s	* 4.7	5.8		5.4		5.8
Max Green Setting (Gmax), s	* 13	29.2		16.6		47.2
Max Q Clear Time (g_c+I1), s	6.8	14.0		8.1		9.6
Green Ext Time (p_c), s	0.2	7.0		1.1		11.8

Intersection Summary	
HCM 6th Ctrl Delay	12.9
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

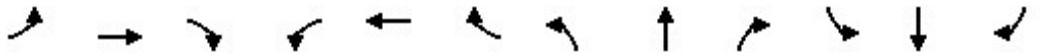
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Phase Number	2	5	6	8
Movement	EBT	EBL	WBT	NBTL
Lead/Lag		Lead	Lag	
Lead-Lag Optimize		Yes	Yes	
Recall Mode	Min	None	Min	None
Maximum Split (s)	52.5	16.7	35.8	22.5
Maximum Split (%)	70.0%	22.3%	47.7%	30.0%
Minimum Split (s)	47	16	28.8	16
Yellow Time (s)	4.8	3.7	4.8	4.4
All-Red Time (s)	1	1	1	1
Minimum Initial (s)	12	11.3	12	10.6
Vehicle Extension (s)	3	3	3	3
Minimum Gap (s)	2.5	3	2.5	3
Time Before Reduce (s)	0	0	0	0
Time To Reduce (s)	0	0	0	0
Walk Time (s)	7		7	
Flash Dont Walk (s)	21		16	
Dual Entry	Yes	No	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes
Start Time (s)	0	0	16.7	52.5
End Time (s)	52.5	16.7	52.5	0
Yield/Force Off (s)	46.7	12	46.7	69.6
Yield/Force Off 170(s)	46.7	12	46.7	69.6
Local Start Time (s)	58.3	58.3	0	35.8
Local Yield (s)	30	70.3	30	52.9
Local Yield 170(s)	30	70.3	30	52.9

Intersection Summary	
Cycle Length	75
Control Type	Actuated-Uncoordinated
Natural Cycle	70

Splits and Phases: 8: SR-71 NB Ramps & Mission Blvd





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	122	1046	0	0	1118	795	201	6	55	0	0	0
Future Volume (veh/h)	122	1046	0	0	1118	795	201	6	55	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1870	1870	0	0	1870	1870	1870	1870	1870			
Adj Flow Rate, veh/h	140	1202	0	0	1285	914	236	0	63			
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	278	3446	0	0	2289	701	562	0	250			
Arrive On Green	0.16	0.67	0.00	0.00	0.45	0.45	0.16	0.00	0.16			
Sat Flow, veh/h	1781	5274	0	0	5274	1564	3563	0	1585			
Grp Volume(v), veh/h	140	1202	0	0	1285	914	236	0	63			
Grp Sat Flow(s),veh/h/ln	1781	1702	0	0	1702	1564	1781	0	1585			
Q Serve(g_s), s	4.8	6.7	0.0	0.0	12.4	30.0	4.0	0.0	2.3			
Cycle Q Clear(g_c), s	4.8	6.7	0.0	0.0	12.4	30.0	4.0	0.0	2.3			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	278	3446	0	0	2289	701	562	0	250			
V/C Ratio(X)	0.50	0.35	0.00	0.00	0.56	1.30	0.42	0.00	0.25			
Avail Cap(c_a), veh/h	319	3563	0	0	2289	701	910	0	405			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	25.8	4.6	0.0	0.0	13.6	18.5	25.4	0.0	24.7			
Incr Delay (d2), s/veh	1.4	0.1	0.0	0.0	0.3	147.0	0.5	0.0	0.5			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	1.9	1.3	0.0	0.0	3.9	37.1	1.6	0.0	0.8			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	27.3	4.7	0.0	0.0	13.9	165.5	25.9	0.0	25.2			
LnGrp LOS	C	A	A	A	B	F	C	A	C			
Approach Vol, veh/h		1342			2199			299				
Approach Delay, s/veh		7.0			76.9			25.8				
Approach LOS		A			E			C				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		51.0			15.2	35.8		16.0				
Change Period (Y+Rc), s		5.8			* 4.7	5.8		5.4				
Max Green Setting (Gmax), s		46.7			* 12	30.0		17.1				
Max Q Clear Time (g_c+I1), s		8.7			6.8	32.0		6.0				
Green Ext Time (p_c), s		9.8			0.1	0.0		0.7				

Intersection Summary	
HCM 6th Ctrl Delay	48.5
HCM 6th LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

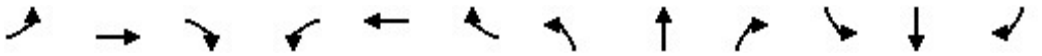
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Phase Number	2	4	5	6	8
Movement	WBT	SBTL	WBL	EBT	NBTL
Lead/Lag			Lead	Lag	
Lead-Lag Optimize			Yes	Yes	
Recall Mode	Min	None	None	Min	Max
Maximum Split (s)	60	40	15	45	40
Maximum Split (%)	60.0%	40.0%	15.0%	45.0%	40.0%
Minimum Split (s)	26.3	32.4	13.7	29.3	22.5
Yellow Time (s)	4.8	4.4	3.7	4.8	4.4
All-Red Time (s)	1	1	1	1	1
Minimum Initial (s)	10	9	9	10	9
Vehicle Extension (s)	3	3	3	3	3
Minimum Gap (s)	2.5	3	2.5	2.5	3
Time Before Reduce (s)	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0
Walk Time (s)	7	4		7	
Flash Dont Walk (s)	13	23		16	
Dual Entry	No	Yes	No	No	Yes
Inhibit Max	Yes	Yes	Yes	Yes	Yes
Start Time (s)	0	60	0	15	60
End Time (s)	60	0	15	60	0
Yield/Force Off (s)	54.2	94.6	10.3	54.2	94.6
Yield/Force Off 170(s)	54.2	71.6	10.3	54.2	94.6
Local Start Time (s)	0	60	0	15	60
Local Yield (s)	54.2	94.6	10.3	54.2	94.6
Local Yield 170(s)	54.2	71.6	10.3	54.2	94.6

Intersection Summary	
Cycle Length	100
Control Type	Actuated-Uncoordinated
Natural Cycle	90

Splits and Phases: 9: Shell Dwy/SR-57 SB Off-Ramp & Temple Avenue





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	628	11	66	1322	84	0	0	7	629	10	1080
Future Volume (veh/h)	0	628	11	66	1322	84	0	0	7	629	10	1080
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	675	12	71	1422	0	0	0	8	454	0	1406
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	0	1336	24	162	2094		0	0	706	716	0	1413
Arrive On Green	0.00	0.26	0.26	0.09	0.41	0.00	0.00	0.00	0.45	0.45	0.00	0.45
Sat Flow, veh/h	0	5333	92	1781	5106	2790	0	0	1585	1407	0	3170
Grp Volume(v), veh/h	0	444	243	71	1422	0	0	0	8	454	0	1406
Grp Sat Flow(s),veh/h/ln	0	1702	1852	1781	1702	1395	0	0	1585	1407	0	1585
Q Serve(g_s), s	0.0	8.6	8.7	2.9	17.7	0.0	0.0	0.0	0.2	20.6	0.0	34.3
Cycle Q Clear(g_c), s	0.0	8.6	8.7	2.9	17.7	0.0	0.0	0.0	0.2	20.8	0.0	34.3
Prop In Lane	0.00		0.05	1.00		1.00	0.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	0	881	479	162	2094		0	0	706	716	0	1413
V/C Ratio(X)	0.00	0.50	0.51	0.44	0.68		0.00	0.00	0.01	0.63	0.00	1.00
Avail Cap(c_a), veh/h	0	1719	935	236	3565		0	0	706	716	0	1413
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	24.5	24.5	33.4	18.7	0.0	0.0	0.0	12.0	17.8	0.0	21.4
Incr Delay (d2), s/veh	0.0	0.4	0.8	1.9	0.4	0.0	0.0	0.0	0.0	1.8	0.0	22.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	3.2	3.6	1.3	6.1	0.0	0.0	0.0	0.1	6.0	0.0	16.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	25.0	25.4	35.3	19.1	0.0	0.0	0.0	12.0	19.6	0.0	44.2
LnGrp LOS	A	C	C	D	B		A	A	B	B	A	D
Approach Vol, veh/h		687			1493			8			1860	
Approach Delay, s/veh		25.1			19.9			12.0			38.2	
Approach LOS		C			B			B			D	

Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		37.6		40.0	11.8	25.9		40.0				
Change Period (Y+Rc), s		5.8		5.4	* 4.7	5.8		5.4				
Max Green Setting (Gmax), s		54.2		34.6	* 10	39.2		34.6				
Max Q Clear Time (g_c+I1), s		19.7		36.3	4.9	10.7		2.2				
Green Ext Time (p_c), s		12.2		0.0	0.0	4.2		0.0				

Intersection Summary		
HCM 6th Ctrl Delay		29.2
HCM 6th LOS		C

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

Intersection	
Int Delay, s/veh	1.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	14	9	31	76	0
Future Vol, veh/h	0	14	9	31	76	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	79	79	79	79	79	79
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	18	11	39	96	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	157	96	96	0	-	0
Stage 1	96	-	-	-	-	-
Stage 2	61	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	834	960	1498	-	-	-
Stage 1	928	-	-	-	-	-
Stage 2	962	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	827	960	1498	-	-	-
Mov Cap-2 Maneuver	827	-	-	-	-	-
Stage 1	921	-	-	-	-	-
Stage 2	962	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.8	1.7	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1498	-	960	-	-
HCM Lane V/C Ratio	0.008	-	0.018	-	-
HCM Control Delay (s)	7.4	0	8.8	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	3	859	948	3	6	7
Future Vol, veh/h	3	859	948	3	6	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	1	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	3	934	1030	3	7	8

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	1033	0	-	0	1505	517
Stage 1	-	-	-	-	1032	-
Stage 2	-	-	-	-	473	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	668	-	-	-	112	503
Stage 1	-	-	-	-	304	-
Stage 2	-	-	-	-	593	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	668	-	-	-	112	503
Mov Cap-2 Maneuver	-	-	-	-	227	-
Stage 1	-	-	-	-	303	-
Stage 2	-	-	-	-	593	-

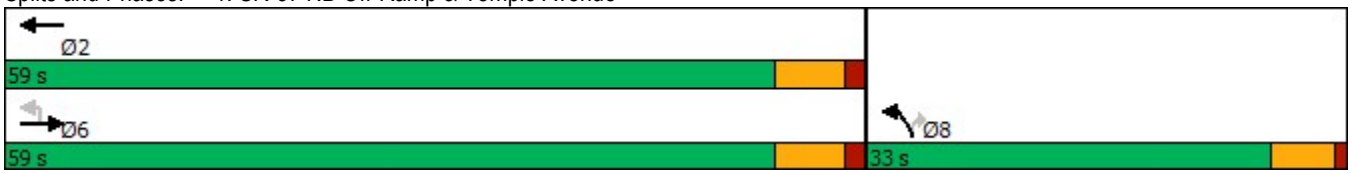
Approach	EB	WB	SB
HCM Control Delay, s	0	0	16.7
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	668	-	-	-	322
HCM Lane V/C Ratio	0.005	-	-	-	0.044
HCM Control Delay (s)	10.4	-	-	-	16.7
HCM Lane LOS	B	-	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Phase Number	2	6	8
Movement	WBT	EBTU	NBL
Lead/Lag			
Lead-Lag Optimize			
Recall Mode	Min	Min	None
Maximum Split (s)	59	59	33
Maximum Split (%)	64.1%	64.1%	35.9%
Minimum Split (s)	40	40	30
Yellow Time (s)	4.8	4.8	4.4
All-Red Time (s)	1.5	1.5	1
Minimum Initial (s)	10	10	9
Vehicle Extension (s)	3	3	3
Minimum Gap (s)	3	3	3
Time Before Reduce (s)	0	0	0
Time To Reduce (s)	0	0	0
Walk Time (s)		7	
Flash Dont Walk (s)		15	
Dual Entry	Yes	Yes	Yes
Inhibit Max	Yes	Yes	Yes
Start Time (s)	0	0	59
End Time (s)	59	59	0
Yield/Force Off (s)	52.7	52.7	86.6
Yield/Force Off 170(s)	52.7	52.7	86.6
Local Start Time (s)	0	0	59
Local Yield (s)	52.7	52.7	86.6
Local Yield 170(s)	52.7	52.7	86.6

Intersection Summary	
Cycle Length	92
Control Type	Actuated-Uncoordinated
Natural Cycle	70

Splits and Phases: 1: SR-57 NB Off-Ramp & Temple Avenue





Movement	EBU	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations							
Traffic Volume (veh/h)	20	1804	747	0	1028	74	291
Future Volume (veh/h)	20	1804	747	0	1028	74	291
Initial Q (Qb), veh		0	0	0	0	0	0
Ped-Bike Adj(A_pbT)			1.00	1.00		1.00	1.00
Parking Bus, Adj		1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No	No	
Adj Sat Flow, veh/h/ln		1870	1870	0	1870	1870	1870
Adj Flow Rate, veh/h		1899	0	0	1082	78	306
Peak Hour Factor		0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %		2	2	0	2	2	2
Cap, veh/h		3162		0	3162	294	524
Arrive On Green		0.62	0.00	0.00	0.62	0.17	0.17
Sat Flow, veh/h		5274	2790	0	5443	1781	3170
Grp Volume(v), veh/h		1899	0	0	1082	78	306
Grp Sat Flow(s),veh/h/ln		1702	1395	0	1702	1781	1585
Q Serve(g_s), s		12.2	0.0	0.0	5.6	2.1	4.8
Cycle Q Clear(g_c), s		12.2	0.0	0.0	5.6	2.1	4.8
Prop In Lane			1.00	0.00		1.00	1.00
Lane Grp Cap(c), veh/h		3162		0	3162	294	524
V/C Ratio(X)		0.60		0.00	0.34	0.26	0.58
Avail Cap(c_a), veh/h		4957		0	4957	906	1612
HCM Platoon Ratio		1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)		1.00	0.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh		6.3	0.0	0.0	5.0	19.8	20.9
Incr Delay (d2), s/veh		0.2	0.0	0.0	0.1	0.5	1.0
Initial Q Delay(d3),s/veh		0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln		2.2	0.0	0.0	1.0	0.8	1.6
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh		6.5	0.0	0.0	5.1	20.3	22.0
LnGrp LOS		A		A	A	C	C
Approach Vol, veh/h		1899			1082	384	
Approach Delay, s/veh		6.5			5.1	21.6	
Approach LOS		A			A	C	

Timer - Assigned Phs	2					6		8
Phs Duration (G+Y+Rc), s	39.9					39.9		14.4
Change Period (Y+Rc), s	6.3					6.3		5.4
Max Green Setting (Gmax), s	52.7					52.7		27.6
Max Q Clear Time (g_c+I1), s	7.6					14.2		6.8
Green Ext Time (p_c), s	8.7					19.4		1.3

Intersection Summary	
HCM 6th Ctrl Delay	7.7
HCM 6th LOS	A

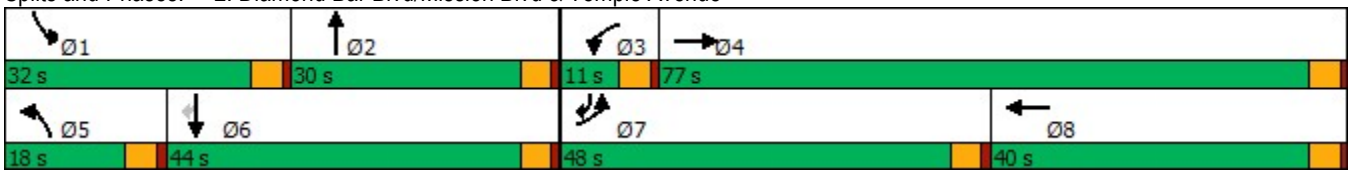
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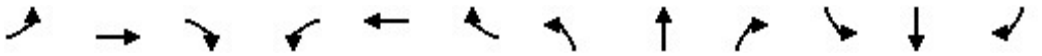
User approved volume balancing among the lanes for turning movement.
User approved ignoring U-Turning movement.
Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Phase Number	1	2	3	4	5	6	7	8
Movement	SBL	NBT	WBL	EBT	NBL	SBT	EBL	WBT
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Min	None	None	None	Min	None	None
Maximum Split (s)	32	30	11	77	18	44	48	40
Maximum Split (%)	21.3%	20.0%	7.3%	51.3%	12.0%	29.3%	32.0%	26.7%
Minimum Split (s)	9.5	22.5	9.5	22.5	9.5	22.5	9.5	22.5
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1	1	1	1	1	1	1	1
Minimum Initial (s)	5	5	5	5	5	5	5	5
Vehicle Extension (s)	3	3	3	3	3	3	3	3
Minimum Gap (s)	3	3	3	3	3	3	3	3
Time Before Reduce (s)	0	0	0	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0	0	0	0
Walk Time (s)		7				7		7
Flash Dont Walk (s)		11				11		11
Dual Entry	No	Yes	No	Yes	No	Yes	No	Yes
Inhibit Max	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Start Time (s)	0	32	62	73	0	18	62	110
End Time (s)	32	62	73	0	18	62	110	0
Yield/Force Off (s)	27.5	57.5	68.5	145.5	13.5	57.5	105.5	145.5
Yield/Force Off 170(s)	27.5	57.5	68.5	145.5	13.5	57.5	105.5	134.5
Local Start Time (s)	118	0	30	41	118	136	30	78
Local Yield (s)	145.5	25.5	36.5	113.5	131.5	25.5	73.5	113.5
Local Yield 170(s)	145.5	25.5	36.5	113.5	131.5	25.5	73.5	102.5

Intersection Summary	
Cycle Length	150
Control Type	Actuated-Uncoordinated
Natural Cycle	90

Splits and Phases: 2: Diamond Bar Blvd/Mission Blvd & Temple Avenue





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	725	1107	171	20	528	319	155	302	31	184	228	358
Future Volume (veh/h)	725	1107	171	20	528	319	155	302	31	184	228	358
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.99	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	740	1130	174	20	539	326	158	308	32	188	233	365
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	880	1543	237	39	913	418	235	497	51	228	757	734
Arrive On Green	0.25	0.50	0.50	0.02	0.27	0.27	0.07	0.15	0.15	0.13	0.21	0.21
Sat Flow, veh/h	3456	3080	473	1781	3404	1558	3456	3250	335	1781	3554	1553
Grp Volume(v), veh/h	740	650	654	20	539	326	158	167	173	188	233	365
Grp Sat Flow(s),veh/h/ln	1728	1777	1776	1781	1702	1558	1728	1777	1808	1781	1777	1553
Q Serve(g_s), s	18.6	26.4	26.7	1.0	12.6	17.8	4.1	8.1	8.2	9.4	5.1	15.0
Cycle Q Clear(g_c), s	18.6	26.4	26.7	1.0	12.6	17.8	4.1	8.1	8.2	9.4	5.1	15.0
Prop In Lane	1.00		0.27	1.00		1.00	1.00		0.19	1.00		1.00
Lane Grp Cap(c), veh/h	880	890	890	39	913	418	235	272	277	228	757	734
V/C Ratio(X)	0.84	0.73	0.73	0.52	0.59	0.78	0.67	0.62	0.62	0.82	0.31	0.50
Avail Cap(c_a), veh/h	1640	1405	1405	126	1318	603	509	494	503	534	1531	1072
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.4	18.0	18.1	44.4	29.2	31.1	41.7	36.3	36.4	39.0	30.4	17.0
Incr Delay (d2), s/veh	2.3	1.2	1.2	10.2	0.6	4.1	3.3	2.3	2.3	7.3	0.2	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.5	9.7	9.8	0.5	4.9	6.7	1.8	3.5	3.6	4.3	2.1	4.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.7	19.2	19.3	54.6	29.8	35.2	45.1	38.6	38.7	46.3	30.6	17.5
LnGrp LOS	C	B	B	D	C	D	D	D	D	D	C	B
Approach Vol, veh/h		2044			885			498			786	
Approach Delay, s/veh		24.8			32.3			40.7			28.3	
Approach LOS		C			C			D			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.2	18.5	6.5	50.4	10.7	24.0	27.8	29.1
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	27.5	25.5	6.5	72.5	13.5	39.5	43.5	35.5
Max Q Clear Time (g_c+I1), s	11.4	10.2	3.0	28.7	6.1	17.0	20.6	19.8
Green Ext Time (p_c), s	0.4	1.5	0.0	10.8	0.3	2.5	2.7	4.8

Intersection Summary	
HCM 6th Ctrl Delay	28.9
HCM 6th LOS	C

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	54	1226	574	48	38	31
Future Vol, veh/h	54	1226	574	48	38	31
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	115	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	57	1304	611	51	40	33

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	662	0	-	0	1403	331
Stage 1	-	-	-	-	637	-
Stage 2	-	-	-	-	766	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	922	-	-	-	131	665
Stage 1	-	-	-	-	489	-
Stage 2	-	-	-	-	419	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	922	-	-	-	123	665
Mov Cap-2 Maneuver	-	-	-	-	256	-
Stage 1	-	-	-	-	459	-
Stage 2	-	-	-	-	419	-

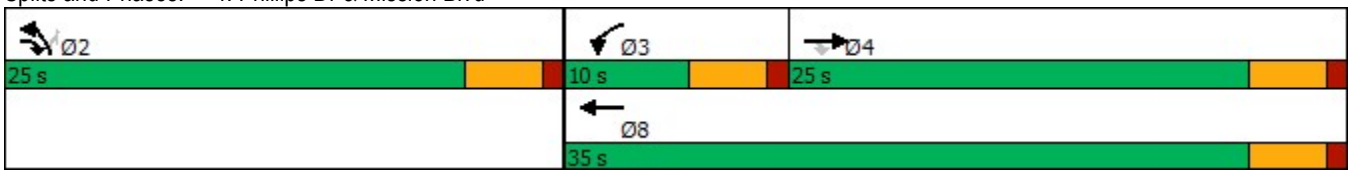
Approach	EB	WB	SB
HCM Control Delay, s	0.4	0	17.8
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	922	-	-	-	354
HCM Lane V/C Ratio	0.062	-	-	-	0.207
HCM Control Delay (s)	9.2	-	-	-	17.8
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0.2	-	-	-	0.8

Phase Number	2	3	4	8
Movement	NBL	WBL	EBT	WBT
Lead/Lag		Lead	Lag	
Lead-Lag Optimize		Yes	Yes	
Recall Mode	Max	None	None	None
Maximum Split (s)	25	10	25	35
Maximum Split (%)	41.7%	16.7%	41.7%	58.3%
Minimum Split (s)	22.5	9.5	22.5	22.5
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	1	1	1	1
Minimum Initial (s)	5	5	5	5
Vehicle Extension (s)	3	3	3	3
Minimum Gap (s)	3	3	3	3
Time Before Reduce (s)	0	0	0	0
Time To Reduce (s)	0	0	0	0
Walk Time (s)	7		7	7
Flash Dont Walk (s)	11		11	11
Dual Entry	Yes	No	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes
Start Time (s)	0	25	35	25
End Time (s)	25	35	0	0
Yield/Force Off (s)	20.5	30.5	55.5	55.5
Yield/Force Off 170(s)	9.5	30.5	44.5	44.5
Local Start Time (s)	0	25	35	25
Local Yield (s)	20.5	30.5	55.5	55.5
Local Yield 170(s)	9.5	30.5	44.5	44.5

Intersection Summary	
Cycle Length	60
Control Type	Actuated-Uncoordinated
Natural Cycle	60

Splits and Phases: 4: Phillips Dr & Mission Blvd





Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1019	182	74	583	87	24
Future Volume (veh/h)	1019	182	74	583	87	24
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		0.98	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	1096	196	80	627	94	26
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1233	1101	112	1733	634	564
Arrive On Green	0.35	0.35	0.06	0.49	0.36	0.36
Sat Flow, veh/h	3647	1547	1781	3647	1781	1585
Grp Volume(v), veh/h	1096	196	80	627	94	26
Grp Sat Flow(s),veh/h/ln	1777	1547	1781	1777	1781	1585
Q Serve(g_s), s	16.8	2.5	2.5	6.3	2.1	0.6
Cycle Q Clear(g_c), s	16.8	2.5	2.5	6.3	2.1	0.6
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1233	1101	112	1733	634	564
V/C Ratio(X)	0.89	0.18	0.72	0.36	0.15	0.05
Avail Cap(c_a), veh/h	1265	1115	170	1882	634	564
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	17.8	2.9	26.5	9.2	12.6	12.1
Incr Delay (d2), s/veh	8.0	0.1	8.3	0.1	0.5	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.7	1.5	1.2	1.8	0.8	0.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	25.7	3.0	34.7	9.3	13.1	12.3
LnGrp LOS	C	A	C	A	B	B
Approach Vol, veh/h	1292			707	120	
Approach Delay, s/veh	22.3			12.2	12.9	
Approach LOS	C			B	B	

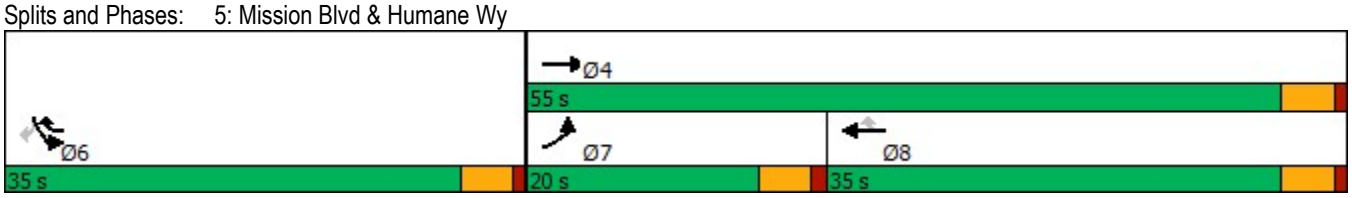
Timer - Assigned Phs		2	3	4		8
Phs Duration (G+Y+Rc), s		25.0	8.1	24.5		32.6
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s		20.5	5.5	20.5		30.5
Max Q Clear Time (g_c+I1), s		4.1	4.5	18.8		8.3
Green Ext Time (p_c), s		0.3	0.0	1.2		3.9

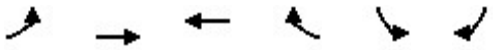
Intersection Summary	
HCM 6th Ctrl Delay	18.4
HCM 6th LOS	B

Phase Number	4	6	7	8
Movement	EBT	SBL	EBL	WBT
Lead/Lag			Lead	Lag
Lead-Lag Optimize			Yes	Yes
Recall Mode	None	Max	None	None
Maximum Split (s)	55	35	20	35
Maximum Split (%)	61.1%	38.9%	22.2%	38.9%
Minimum Split (s)	22.5	22.5	9.5	22.5
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	1	1	1	1
Minimum Initial (s)	5	5	5	5
Vehicle Extension (s)	3	3	3	3
Minimum Gap (s)	3	3	3	3
Time Before Reduce (s)	0	0	0	0
Time To Reduce (s)	0	0	0	0
Walk Time (s)		7		7
Flash Dont Walk (s)		11		11
Dual Entry	Yes	Yes	No	Yes
Inhibit Max	Yes	Yes	Yes	Yes
Start Time (s)	35	0	35	55
End Time (s)	0	35	55	0
Yield/Force Off (s)	85.5	30.5	50.5	85.5
Yield/Force Off 170(s)	85.5	19.5	50.5	74.5
Local Start Time (s)	35	0	35	55
Local Yield (s)	85.5	30.5	50.5	85.5
Local Yield 170(s)	85.5	19.5	50.5	74.5

Intersection Summary	
Cycle Length	90
Control Type	Actuated-Uncoordinated
Natural Cycle	55

Splits and Phases: 5: Mission Blvd & Humane Wy





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	120	1000	418	129	733	189
Future Volume (veh/h)	120	1000	418	129	733	189
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	124	1031	431	133	756	195
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	161	1412	846	1114	1608	738
Arrive On Green	0.09	0.40	0.24	0.24	0.47	0.47
Sat Flow, veh/h	1781	3647	3647	1582	3456	1585
Grp Volume(v), veh/h	124	1031	431	133	756	195
Grp Sat Flow(s),veh/h/ln	1781	1777	1777	1582	1728	1585
Q Serve(g_s), s	4.5	16.1	6.9	1.8	9.8	4.9
Cycle Q Clear(g_c), s	4.5	16.1	6.9	1.8	9.8	4.9
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	161	1412	846	1114	1608	738
V/C Ratio(X)	0.77	0.73	0.51	0.12	0.47	0.26
Avail Cap(c_a), veh/h	421	2738	1654	1474	1608	738
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.1	16.8	21.7	3.1	12.0	10.7
Incr Delay (d2), s/veh	7.5	0.7	0.5	0.0	1.0	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	5.5	2.6	1.5	3.3	0.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	36.6	17.5	22.1	3.2	13.0	11.6
LnGrp LOS	D	B	C	A	B	B
Approach Vol, veh/h		1155	564		951	
Approach Delay, s/veh		19.6	17.7		12.7	
Approach LOS		B	B		B	

Timer - Assigned Phs			4		6	7	8
Phs Duration (G+Y+Rc), s			30.5		35.0	10.4	20.1
Change Period (Y+Rc), s			4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s			50.5		30.5	15.5	30.5
Max Q Clear Time (g_c+I1), s			18.1		11.8	6.5	8.9
Green Ext Time (p_c), s			7.9		3.4	0.2	2.9

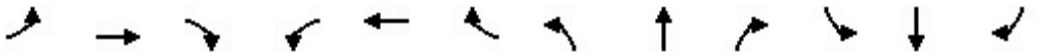
Intersection Summary	
HCM 6th Ctrl Delay	16.7
HCM 6th LOS	B

Phase Number	2	3	4	6	7	8
Movement	NBTL	WBL	EBT	SBTL	EBL	WBT
Lead/Lag		Lead	Lag		Lead	Lag
Lead-Lag Optimize		Yes	Yes		Yes	Yes
Recall Mode	Max	None	None	Max	None	None
Maximum Split (s)	30	20	40	30	20	40
Maximum Split (%)	33.3%	22.2%	44.4%	33.3%	22.2%	44.4%
Minimum Split (s)	22.5	9.5	22.5	22.5	9.5	22.5
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1	1	1	1	1	1
Minimum Initial (s)	5	5	5	5	5	5
Vehicle Extension (s)	3	3	3	3	3	3
Minimum Gap (s)	3	3	3	3	3	3
Time Before Reduce (s)	0	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0	0
Walk Time (s)			7	7		7
Flash Dont Walk (s)			11	11		11
Dual Entry	Yes	No	Yes	Yes	No	Yes
Inhibit Max	Yes	Yes	Yes	Yes	Yes	Yes
Start Time (s)	0	30	50	0	30	50
End Time (s)	30	50	0	30	50	0
Yield/Force Off (s)	25.5	45.5	85.5	25.5	45.5	85.5
Yield/Force Off 170(s)	25.5	45.5	74.5	14.5	45.5	74.5
Local Start Time (s)	0	30	50	0	30	50
Local Yield (s)	25.5	45.5	85.5	25.5	45.5	85.5
Local Yield 170(s)	25.5	45.5	74.5	14.5	45.5	74.5

Intersection Summary	
Cycle Length	90
Control Type	Actuated-Uncoordinated
Natural Cycle	70

Splits and Phases: 6: Westmont Ave & Mission Blvd





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	6	1622	73	228	496	7	20	0	176	48	1	14
Future Volume (veh/h)	6	1622	73	228	496	7	20	0	176	48	1	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	6	1672	75	235	511	7	21	0	181	49	1	14
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	14	1963	88	273	2788	38	71	25	422	339	15	78
Arrive On Green	0.01	0.39	0.39	0.15	0.54	0.54	0.30	0.00	0.30	0.30	0.30	0.30
Sat Flow, veh/h	1781	5009	225	1781	5189	71	82	83	1419	889	52	264
Grp Volume(v), veh/h	6	1136	611	235	335	183	202	0	0	64	0	0
Grp Sat Flow(s),veh/h/ln	1781	1702	1830	1781	1702	1856	1584	0	0	1205	0	0
Q Serve(g_s), s	0.3	26.1	26.1	11.0	4.3	4.3	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.3	26.1	26.1	11.0	4.3	4.3	8.7	0.0	0.0	3.5	0.0	0.0
Prop In Lane	1.00		0.12	1.00		0.04	0.10		0.90	0.77		0.22
Lane Grp Cap(c), veh/h	14	1334	717	273	1829	997	517	0	0	432	0	0
V/C Ratio(X)	0.43	0.85	0.85	0.86	0.18	0.18	0.39	0.00	0.00	0.15	0.00	0.00
Avail Cap(c_a), veh/h	322	1409	757	322	1829	997	517	0	0	432	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	42.4	23.8	23.8	35.4	10.2	10.2	24.2	0.0	0.0	22.3	0.0	0.0
Incr Delay (d2), s/veh	20.0	5.0	8.9	18.2	0.0	0.1	2.2	0.0	0.0	0.7	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	10.2	11.8	5.9	1.4	1.5	3.6	0.0	0.0	1.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	62.3	28.8	32.7	53.6	10.2	10.3	26.4	0.0	0.0	23.0	0.0	0.0
LnGrp LOS	E	C	C	D	B	B	C	A	A	C	A	A
Approach Vol, veh/h		1753			753			202			64	
Approach Delay, s/veh		30.3			23.8			26.4			23.0	
Approach LOS		C			C			C			C	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		30.0	17.6	38.1		30.0	5.2	50.6				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		25.5	15.5	35.5		25.5	15.5	35.5				
Max Q Clear Time (g_c+I1), s		10.7	13.0	28.1		5.5	2.3	6.3				
Green Ext Time (p_c), s		1.1	0.2	5.5		0.3	0.0	3.1				

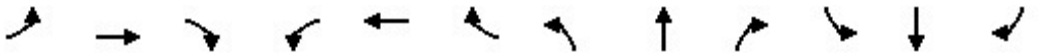
Intersection Summary												
HCM 6th Ctrl Delay			28.1									
HCM 6th LOS			C									

Phase Number	1	2	4	6
Movement	WBL	EBT	SBTL	WBT
Lead/Lag	Lead	Lag		
Lead-Lag Optimize	Yes	Yes		
Recall Mode	None	Min	None	Min
Maximum Split (s)	18	35	22	53
Maximum Split (%)	24.0%	46.7%	29.3%	70.7%
Minimum Split (s)	16	30	15	48
Yellow Time (s)	3.7	4.8	4.4	4.8
All-Red Time (s)	1	1	1	1
Minimum Initial (s)	11.3	12	9.6	12
Vehicle Extension (s)	3	3	3	3
Minimum Gap (s)	3	2.5	3	2.5
Time Before Reduce (s)	0	0	0	0
Time To Reduce (s)	0	0	0	0
Walk Time (s)		7		7
Flash Dont Walk (s)		16		21
Dual Entry	No	Yes	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes
Start Time (s)	0	18	53	0
End Time (s)	18	53	0	53
Yield/Force Off (s)	13.3	47.2	69.6	47.2
Yield/Force Off 170(s)	13.3	47.2	69.6	47.2
Local Start Time (s)	0	18	53	0
Local Yield (s)	13.3	47.2	69.6	47.2
Local Yield 170(s)	13.3	47.2	69.6	47.2

Intersection Summary	
Cycle Length	75
Control Type	Actuated-Uncoordinated
Natural Cycle	65

Splits and Phases: 7: SR-71 SB Ramps & Mission Blvd





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	1247	601	111	698	0	0	0	0	266	17	34
Future Volume (veh/h)	0	1247	601	111	698	0	0	0	0	266	17	34
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	0				1870	1870	1870
Adj Flow Rate, veh/h	0	1327	639	118	743	0				296	0	36
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94				0.94	0.94	0.94
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	1526	710	275	3453	0				532	0	237
Arrive On Green	0.00	0.45	0.45	0.15	0.68	0.00				0.15	0.00	0.15
Sat Flow, veh/h	0	3572	1583	1781	5274	0				3563	0	1585
Grp Volume(v), veh/h	0	1327	639	118	743	0				296	0	36
Grp Sat Flow(s),veh/h/ln	0	1702	1583	1781	1702	0				1781	0	1585
Q Serve(g_s), s	0.0	22.6	24.0	3.8	3.5	0.0				4.9	0.0	1.3
Cycle Q Clear(g_c), s	0.0	22.6	24.0	3.8	3.5	0.0				4.9	0.0	1.3
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1526	710	275	3453	0				532	0	237
V/C Ratio(X)	0.00	0.87	0.90	0.43	0.22	0.00				0.56	0.00	0.15
Avail Cap(c_a), veh/h	0	1549	721	369	3756	0				922	0	410
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	16.0	16.4	24.6	3.9	0.0				25.3	0.0	23.8
Incr Delay (d2), s/veh	0.0	5.6	14.3	1.1	0.0	0.0				0.9	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	8.0	9.5	1.5	0.6	0.0				1.9	0.0	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	21.6	30.6	25.6	4.0	0.0				26.2	0.0	24.1
LnGrp LOS	A	C	C	C	A	A				C	A	C
Approach Vol, veh/h		1966			861						332	
Approach Delay, s/veh		24.5			6.9						26.0	
Approach LOS		C			A						C	

Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	14.6	34.6		15.0		49.2						
Change Period (Y+Rc), s	* 4.7	5.8		5.4		5.8						
Max Green Setting (Gmax), s	* 13	29.2		16.6		47.2						
Max Q Clear Time (g_c+I1), s	5.8	26.0		6.9		5.5						
Green Ext Time (p_c), s	0.1	2.8		0.8		5.3						

Intersection Summary	
HCM 6th Ctrl Delay	19.9
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

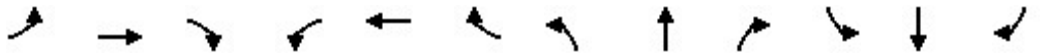
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Phase Number	2	5	6	8
Movement	EBT	EBL	WBT	NBTL
Lead/Lag		Lead	Lag	
Lead-Lag Optimize		Yes	Yes	
Recall Mode	Min	None	Min	None
Maximum Split (s)	52.5	16.7	35.8	22.5
Maximum Split (%)	70.0%	22.3%	47.7%	30.0%
Minimum Split (s)	43	15	28.8	20
Yellow Time (s)	4.8	3.7	4.8	4.4
All-Red Time (s)	1	1	1	1
Minimum Initial (s)	12	10.3	12	10.6
Vehicle Extension (s)	3	3	3	3
Minimum Gap (s)	2.5	3	2.5	3
Time Before Reduce (s)	0	0	0	0
Time To Reduce (s)	0	0	0	0
Walk Time (s)	7		7	
Flash Dont Walk (s)	21		16	
Dual Entry	Yes	No	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes
Start Time (s)	0	0	16.7	52.5
End Time (s)	52.5	16.7	52.5	0
Yield/Force Off (s)	46.7	12	46.7	69.6
Yield/Force Off 170(s)	46.7	12	46.7	69.6
Local Start Time (s)	0	0	16.7	52.5
Local Yield (s)	46.7	12	46.7	69.6
Local Yield 170(s)	46.7	12	46.7	69.6

Intersection Summary	
Cycle Length	75
Control Type	Actuated-Uncoordinated
Natural Cycle	65

Splits and Phases: 8: SR-71 NB Ramps & Mission Blvd





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	99	1410	0	0	620	514	190	1	83	0	0	0
Future Volume (veh/h)	99	1410	0	0	620	514	190	1	83	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1870	1870	0	0	1870	1870	1870	1870	1870			
Adj Flow Rate, veh/h	103	1469	0	0	646	535	199	0	86			
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	253	3236	0	0	2106	645	631	0	281			
Arrive On Green	0.14	0.63	0.00	0.00	0.41	0.41	0.18	0.00	0.18			
Sat Flow, veh/h	1781	5274	0	0	5274	1563	3563	0	1585			
Grp Volume(v), veh/h	103	1469	0	0	646	535	199	0	86			
Grp Sat Flow(s),veh/h/ln	1781	1702	0	0	1702	1563	1781	0	1585			
Q Serve(g_s), s	3.1	8.8	0.0	0.0	5.0	18.1	2.9	0.0	2.8			
Cycle Q Clear(g_c), s	3.1	8.8	0.0	0.0	5.0	18.1	2.9	0.0	2.8			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	253	3236	0	0	2106	645	631	0	281			
V/C Ratio(X)	0.41	0.45	0.00	0.00	0.31	0.83	0.32	0.00	0.31			
Avail Cap(c_a), veh/h	361	4024	0	0	2585	791	1028	0	457			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	23.2	5.6	0.0	0.0	11.7	15.5	21.2	0.0	21.2			
Incr Delay (d2), s/veh	1.1	0.1	0.0	0.0	0.1	6.2	0.3	0.0	0.6			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	1.2	1.7	0.0	0.0	1.5	6.1	1.1	0.0	1.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	24.2	5.7	0.0	0.0	11.8	21.7	21.5	0.0	21.8			
LnGrp LOS	C	A	A	A	B	C	C	A	C			
Approach Vol, veh/h		1572			1181			285				
Approach Delay, s/veh		6.9			16.3			21.6				
Approach LOS		A			B			C				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		43.4			13.1	30.2		15.9				
Change Period (Y+Rc), s		5.8			* 4.7	5.8		5.4				
Max Green Setting (Gmax), s		46.7			* 12	30.0		17.1				
Max Q Clear Time (g_c+I1), s		10.8			5.1	20.1		4.9				
Green Ext Time (p_c), s		12.9			0.1	4.3		0.7				

Intersection Summary	
HCM 6th Ctrl Delay	11.9
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Phase Number	2	4	5	6	8
Movement	WBT	SBTL	WBL	EBT	NBTL
Lead/Lag			Lead	Lag	
Lead-Lag Optimize			Yes	Yes	
Recall Mode	Min	None	None	Min	Max
Maximum Split (s)	52	40	14	38	40
Maximum Split (%)	56.5%	43.5%	15.2%	41.3%	43.5%
Minimum Split (s)	26.3	32.4	13.7	29.3	22.5
Yellow Time (s)	4.8	4.4	3.7	4.8	4.4
All-Red Time (s)	1	1	1	1	1
Minimum Initial (s)	10	9	9	10	9
Vehicle Extension (s)	3	3	3	3	3
Minimum Gap (s)	2.5	3	2.5	2.5	3
Time Before Reduce (s)	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0
Walk Time (s)	7	4		7	
Flash Dont Walk (s)	13	23		16	
Dual Entry	No	Yes	No	No	Yes
Inhibit Max	Yes	Yes	Yes	Yes	Yes
Start Time (s)	0	52	0	14	52
End Time (s)	52	0	14	52	0
Yield/Force Off (s)	46.2	86.6	9.3	46.2	86.6
Yield/Force Off 170(s)	46.2	63.6	9.3	46.2	86.6
Local Start Time (s)	78	38	78	0	38
Local Yield (s)	32.2	72.6	87.3	32.2	72.6
Local Yield 170(s)	32.2	49.6	87.3	32.2	72.6

Intersection Summary	
Cycle Length	92
Control Type	Actuated-Uncoordinated
Natural Cycle	150

Splits and Phases: 9: Shell Dwy/SR-57 SB Off-Ramp & Temple Avenue



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	1765	21	53	624	151	0	0	6	1097	12	529
Future Volume (veh/h)	0	1765	21	53	624	151	0	0	6	1097	12	529
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.99	0.99		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	1839	22	55	650	0	0	0	6	1319	0	371
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	0	1873	22	134	2490		0	0	609	1238	0	609
Arrive On Green	0.00	0.36	0.36	0.07	0.49	0.00	0.00	0.00	0.39	0.39	0.00	0.39
Sat Flow, veh/h	0	5369	62	1781	5106	2790	0	0	1574	2800	0	1574
Grp Volume(v), veh/h	0	1204	657	55	650	0	0	0	6	1319	0	371
Grp Sat Flow(s),veh/h/ln	0	1702	1858	1781	1702	1395	0	0	1574	1400	0	1574
Q Serve(g_s), s	0.0	31.3	31.3	2.6	6.7	0.0	0.0	0.0	0.2	34.4	0.0	16.9
Cycle Q Clear(g_c), s	0.0	31.3	31.3	2.6	6.7	0.0	0.0	0.0	0.2	34.6	0.0	16.9
Prop In Lane	0.00		0.03	1.00		1.00	0.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	0	1226	669	134	2490		0	0	609	1238	0	609
V/C Ratio(X)	0.00	0.98	0.98	0.41	0.26		0.00	0.00	0.01	1.07	0.00	0.61
Avail Cap(c_a), veh/h	0	1226	669	185	2639		0	0	609	1238	0	609
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	28.3	28.3	39.5	13.4	0.0	0.0	0.0	16.9	29.7	0.0	22.0
Incr Delay (d2), s/veh	0.0	21.3	30.2	2.0	0.1	0.0	0.0	0.0	0.0	44.9	0.0	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	15.7	18.9	1.2	2.5	0.0	0.0	0.0	0.1	21.3	0.0	6.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	49.6	58.5	41.5	13.5	0.0	0.0	0.0	16.9	74.6	0.0	23.7
LnGrp LOS	A	D	E	D	B		A	A	B	F	A	C
Approach Vol, veh/h		1861			705			6			1690	
Approach Delay, s/veh		52.8			15.7			16.9			63.5	
Approach LOS		D			B			B			E	

Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		49.4		40.0	11.4	38.0		40.0				
Change Period (Y+Rc), s		5.8		5.4	* 4.7	5.8		5.4				
Max Green Setting (Gmax), s		46.2		34.6	* 9.3	32.2		34.6				
Max Q Clear Time (g_c+I1), s		8.7		36.6	4.6	33.3		2.2				
Green Ext Time (p_c), s		5.2		0.0	0.0	0.0		0.0				

Intersection Summary		
HCM 6th Ctrl Delay	50.8	
HCM 6th LOS	D	

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

Intersection	
Int Delay, s/veh	1.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	14	11	79	54	0
Future Vol, veh/h	0	14	11	79	54	0
Conflicting Peds, #/hr	0	1	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	68	68	68	68	68	68
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	21	16	116	79	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	227	80	79	0	-	0
Stage 1	79	-	-	-	-	-
Stage 2	148	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	761	980	1519	-	-	-
Stage 1	944	-	-	-	-	-
Stage 2	880	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	753	979	1519	-	-	-
Mov Cap-2 Maneuver	753	-	-	-	-	-
Stage 1	934	-	-	-	-	-
Stage 2	880	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.8	0.9	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1519	-	979	-	-
HCM Lane V/C Ratio	0.011	-	0.021	-	-
HCM Control Delay (s)	7.4	0	8.8	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	7	1196	663	7	5	5
Future Vol, veh/h	7	1196	663	7	5	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	1	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	8	1300	721	8	5	5

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	729	0	-	0	1391	365
Stage 1	-	-	-	-	725	-
Stage 2	-	-	-	-	666	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	871	-	-	-	133	632
Stage 1	-	-	-	-	440	-
Stage 2	-	-	-	-	472	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	871	-	-	-	132	632
Mov Cap-2 Maneuver	-	-	-	-	267	-
Stage 1	-	-	-	-	436	-
Stage 2	-	-	-	-	472	-

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	14.9
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	871	-	-	-	375
HCM Lane V/C Ratio	0.009	-	-	-	0.029
HCM Control Delay (s)	9.2	-	-	-	14.9
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Appendix G

Signal Warrant Analysis Worksheets

Traffic Signal Warrant Analysis –Sorrento Drive/ Mission Boulevard Intersection

The CA MUTCD contains minimum guidelines regarding traffic volumes, collisions, speeds, and other criteria in order to satisfy the requirements for the recommendation of a traffic signal, all-way-stop or other traffic control device. In order to justify and recommend the installation of traffic control signals, there are ten (10) CA MUTCD traffic signal warrants that should be analyzed. Per CA MUTCD, if any one, or a combination, of these warrants is met then a traffic signal should be considered; however, satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal. The analysis of all applicable traffic signal warrants is provided below under Existing and Existing plus Project conditions, wherever possible for each warrant.

Warrant 1: Eight-Hour Vehicular Volume: Condition A or B - Satisfied under Existing plus Project Conditions

The need for a traffic control signal shall be considered if an engineering study finds that one of the following conditions (Condition A or Condition B) exist for each of any 8 hours of an average day. As shown in Table 1, the eight-hour vehicular warrant is not met for Existing conditions, however, Condition B (80%/56%) is met for Existing plus Project conditions. Additionally, although a trial of other alternatives (such as a roundabout) that could cause less delay and inconvenience to traffic has not been conducted in detail, there are limited options available for this location. Therefore, a traffic signal was evaluated as the most appropriate alternative.

Table 1. Eight-Hour Vehicular Volume (Condition A and B)

Warrant 1 - Eight Hour Vehicular Volume	Condition A - Minimum Vehicular Volume (80%/56% shown in brackets)					
	Existing			Existing Plus Project		
	VPH on Major Street Approach[1] (Mission Blvd)	VPH on Higher-Volumes Minor Street Approach[2] (Sorrento Dr)	Signal Warrant Met?	VPH on Major Street Approach[1] (Mission Blvd)	VPH on Higher-Volumes Minor Street Approach[2] (Sorrento Dr)	Signal Warrant Met?
Threshold	600 (480/336)	150 (120/84)		600 (480/336)	150 (120/84)	
6:15 AM-7:15 AM	1,013	4	No	1,054	79	No
7:15 AM-8:15 AM	1,595	11		1,636	86	
1:00 PM-2:00 PM	1,106	10		1,197	64	
2:00 PM-3:00 PM	1,276	6		1,367	60	
3:00 PM-4:00 PM	1,377	3		1,468	57	
4:00 PM-5:00 PM	1,765	11		1,856	65	
5:00 PM-6:00 PM	1,600	13		1,691	67	
6:00 PM-7:00 PM	1,149	14		1,240	68	
	Condition B - Interruption of Continuous Traffic (80% /56% shown in brackets)					
	Existing			Existing Plus Project		

Warrant 1 - Eight Hour Vehicular Volume	VPH on Major Street Approach[1] (Mission Blvd)	VPH on Higher-Volumes Minor Street Approach[2] (Sorrento Dr)	Signal Warrant Met?	VPH on Major Street Approach[1] (Mission Blvd	VPH on Higher-Volumes Minor Street Approach[2] (Sorrento Dr)	Signal Warrant Met?
Threshold	900 (720/504)	75 (60/42)		900 (720/504)	75 (60/42)	
6:15 AM-7:15 AM	1,013	4	No	1,054	79	**Yes**
7:15 AM-8:15 AM	1,595	11		1,636	86	
1:00 PM-2:00 PM	1,106	10		1,197	64	
2:00 PM-3:00 PM	1,276	6		1,367	60	
3:00 PM-4:00 PM	1,377	3		1,468	57	
4:00 PM-5:00 PM	1,765	11		1,856	65	
5:00 PM-6:00 PM	1,600	13		1,691	67	
6:00 PM-7:00 PM	1,149	14		1,240	68	

Notes: Existing volumes are based on ADT collected for Mission Boulevard and Sorrento Drive. Existing plus Project volumes were estimated assuming project peak hour trips would occur for all eight hours.

1 VPH on the major street (Total of both approaches)
2 VPH on the minor street (One direction only for Higher volume approach)

Warrant 2: Four-Hour Vehicular Volume – Satisfied under Existing plus Project Conditions

The Four-Hour Vehicular Volume signal warrant conditions are intended to be applied where the volume of intersecting traffic is the principal reason to consider installing a traffic control signal. As shown in Table 2 and Figure 4C-2, under Existing Conditions, the warrant is not met. However, under Existing plus Project Conditions, the warrant is met for all four hours.

Table 2. Four-Hour Vehicular Volume (70% Factor)

Warrant 2 -Four Hour Vehicular Volume	Existing		Signal Warrant Met?	Existing Plus Project		Signal Warrant Met?
	VPH on Major Street Approach[1] (Mission Blvd)	VPH on Higher-Volumes Minor Street Approach[2] (Sorrento Dr)		VPH on Major Street Approach[1] (Mission Blvd	VPH on Higher-Volumes Minor Street Approach[2] (Sorrento Dr)	
7:00-8:00 AM	1,445	22	No	1,486	97	**Yes**
8:00-9:00 AM	1,240	19	No	1,281	94	**Yes**
4:00-5:00 PM	1,555	9	No	1,646	63	**Yes**
5:00-6:00 PM	1,635	20	No	1,726	74	**Yes**

Notes: Existing volumes are based on AM and PM turn movement counts collected for Mission Boulevard/Sorrento Drive intersection. Existing plus Project volumes were estimated assuming project peak hour trips would occur for all four hours.

1 VPH on the major street (Total of both approaches)
2 VPH on the minor street (One direction only for Higher volume approach)

Warrant 3: Peak Hour Vehicular Volume: Condition A and B – Partially Satisfied under Existing plus Project Conditions

The Peak Hour signal warrant is intended for use at a location where traffic conditions are such that for a minimum of 1 hour of an average day, the minor-street traffic suffers undue delay when entering or crossing the major street. The need for a traffic control signal shall be considered if an engineering study finds that the criteria in either of the following conditions are met:

Condition A: If all three of the following conditions exist for the same 1 hour (any four consecutive 15-minute periods) of an average day:

- The total stopped time delay experienced by the traffic on one minor-street approach (one direction only) controlled by a STOP sign equals or exceeds: 4 vehicle-hours for a one-lane approach or 5 vehicle-hours for a two-lane approach; and
    - Delay on southbound lane at the Sorrento Drive/ Mission Boulevard intersection = 23 vehicles*17.0 sec or 0.005 hour = 0.109 vehicle-hours under Existing Conditions during the AM peak hour.
    - Under Existing plus Project Conditions during the AM peak hour, delay on southbound lane at the Sorrento Drive/ Mission Boulevard intersection = 98 vehicles*23.5 sec or 0.639 hour = 0.64 vehicle-hours.

  Therefore, the stopped time delay does not exceed 4 vehicle-hours for a one-lane approach.
- The volume on the same minor-street approach (one direction only) equals or exceeds 100 vehicles per hour (VPH) for one moving lane of traffic or 150 VPH for two moving lanes; and
    - As shown in Table 3, minor-street approach along Sorrento Drive carries 23 VPH under Existing Conditions and 98 VPH under Existing plus Project conditions, and therefore, does not exceed 100 vehicles per hour.
- The total entering volume serviced during the hour equals or exceeds 650 vehicles per hour for intersections with three approaches or 800 vehicles per hour for intersections with four or more approaches.
    - As shown on Figure 8 and 9 of the Transportation Study, total entering volumes exceeds 650 VPH for the Sorrento Drive/ Mission Boulevard intersection during both peak hours under both Existing and Existing plus Project Conditions.

Condition B: The plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding VPH on the higher-volume minor-street approach (one direction only) for 1 hour (any four consecutive 15-minute periods) of an average day falls above the applicable curve in Figure 4C-4 for the existing combination of approach lanes.

- As shown in Table 3 and Figure 4C-4, this condition is met under Existing plus Project conditions during the AM peak hour.

Table 3 Peak-Hour Vehicular Volume (Condition B)

Warrant 3 -Peak Hour Vehicular Volume (70% Factor)	Existing		Signal Warrant Met?	Existing Plus Project		Signal Warrant Met?
	VPH on Major Street Approach[1] (Mission Blvd)	VPH on Higher-Volumes Minor Street Approach[2] (Sorrento Dr)		VPH on Major Street Approach[1] (Mission Blvd)	VPH on Higher-Volumes Minor Street Approach[2] (Sorrento Dr)	
7:30 AM-8:30 AM	1,585	23	No	1,626	98	**Yes**

Notes: Existing volumes are based on AM and PM turn movement counts collected for Mission Boulevard/Sorrento Drive intersection. Existing plus Project volumes were estimated using project peak hour trips.

1 VPH on the major street (Total of both approaches)
2 VPH on the minor street (One direction only for Higher volume approach)

Warrant 4: Pedestrian Volume – Not Satisfied

The Pedestrian Volume signal warrant is intended for application where the traffic volume on a major street is so heavy that pedestrians experience excessive delay in crossing the major street. Since pedestrians do not cross the major street (i.e., Mission Boulevard), the warrant conditions as mentioned in MUTCD 2014 would not be applicable. Additionally, the pedestrians crossing the intersection along Sorrento Drive (as noted in the intersection count collected in 2022) were 3 in the AM peak hour and 2 in the PM peak hour, which is significantly below 75 pedestrians per hour requirement per minimum volume for the pedestrian volume warrant.

Warrant 5: School Crossing – Not Applicable

The School Crossing signal warrant is intended for application where the fact that schoolchildren cross the major street is the principal reason to consider installing a traffic control signal. The intersection is not in the vicinity of a school and does not have a school crossing. Since pedestrians do not cross the major street (i.e., Mission Boulevard), the warrant conditions as mentioned in MUTCD 2014 would not be applicable.

Warrant 6: Coordinated Signal System – Not Applicable

Progressive movement in a coordinated signal system sometimes necessitates installing traffic control signals at intersections where they would not otherwise be needed in order to maintain proper platooning of vehicles. The closest traffic signal at Philips Drive/Mission Boulevard is located approximately 1,500 feet east of the Sorrento Drive/ Mission Boulevard intersection. Both intersections operate at acceptable LOS conditions, therefore this warrant condition as mentioned in MUTCD 2014 has not been evaluated.

Warrant 7: Crash Experience – Partially Satisfied under Existing and Existing plus Project Conditions

The Crash Experience signal warrant conditions are intended for application where the severity and frequency of crashes are the principal reasons to consider installing a traffic control signal. Further, the intersection partially meets the 8-hour vehicular, roadway network or Pedestrian Volume Warrant which are required as part of Crash Experience warrant. Although this warrant is not met, the City has indicated that

vehicles traveling east and west along Mission Boulevard pass through this intersection at unsafe speeds (as noted in the reason for crashes above).

Under this warrant the need for a traffic control signal shall be considered if an engineering study finds that all of the following criteria are met:

- Adequate trial of alternatives with satisfactory observance and enforcement has failed to reduce the crash frequency; and
    - The City has indicated that vehicles traveling east and west along Mission Boulevard pass through this intersection at unsafe speeds. Therefore, as a safety measure, the project would be responsible for installing speed radar signs along Mission Boulevard, near its intersection with Sorrento Drive, in both directions. However, the effect of this alternative is not available at this time.
- Five or more reported crashes of types susceptible to correction by a traffic control signal, have occurred within a 12-month period, each crash involving personal injury or property damage apparently exceeding the applicable requirements for a reportable crash; and
    - A review of collision data from the Transportation Injury Mapping System was conducted for Mission Boulevard near its intersection with Sorrento Drive, Phillips Drive and Appian Way for the period between 2019 and 2021. The reason for most crashes reported at these locations was improper turning or signal violation. Since the number of crashes reported is five in the year 2021 as required per warrant, the intersection can be considered to have a high rate of crashes.
- For each of any 8 hours of an average day, the vph given in both of the 80 percent columns of Condition A in Table 4C-1, or the vph in both of the 80 percent columns of Condition B in Table 4C-1 exists on the major-street and the higher-volume minor-street approach, respectively, to the intersection, or the volume of pedestrian traffic is not less than 80 percent of the requirements specified in the Pedestrian Volume warrant. These major-street and minor-street volumes shall be for the same 8 hours. On the minor street, the higher volume shall not be required to be on the same approach during each of the 8 hours.
    - The intersection partially meets the 8-hour vehicular, roadway network, however it would not meet the Pedestrian Volume Warrant.
- Option: 03 If the posted or statutory speed limit or the 85th-percentile speed on the major street exceeds 40 mph, or if the intersection lies within the built-up area of an isolated community having a population of less than 10,000, the traffic volumes in the 56 percent columns in Table 4C-1 Warrant 1 Eight-hour Vehicular Volumes (as shown in Table 1) may be used in place of the 80 percent columns.
    - Because the posted speed limit along Mission Boulevard exceeds 40 mph, using the 56 percent column in Table 1 instead of 80 percent, the traffic volume criteria under Existing plus Project conditions would be met for both major and minor approaches.

Warrant 8: Roadway Network – Not Satisfied

Installing a traffic control signal at some intersections might be justified to encourage concentration and organization of traffic flow on a roadway network. There are few conditions per MUTCD that need to be met for the common intersection where two or more major routes meet. Although the intersection meets partial

requirements of this warrant (i.e., Warrant 2 and Warrant 3), the average daily traffic estimate as shown below in Table 4 are not met.

Table 4. Warrant 8 Roadway Network

Average Traffic Estimate Form Figure 4C-103 (CA)	Condition A - Minimum Vehicular Volume (80% shown in brackets)					
	Existing			Existing Plus Project		
	VPH on Major Street Approach[1] (Mission Boulevard)	VPH on Higher-Volumes Minor Street Approach[2] (Sorrento Drive)	Signal Warrant Met?	VPH on Major Street Approach[1] (Mission Boulevard)	VPH on Higher-Volumes Minor Street Approach[2] (Sorrento Drive)	Signal Warrant Met?
Threshold	9,600 (7,680)	2,400 (1,920)		9,600 (7,680)	2,400 (1,920)	
Average Daily Traffic Volume	18,108	217	No	18,980	979	No
Average Traffic Estimate Form Figure 4C-103 (CA)	Condition B - Interruption of Continuous Traffic (80% shown in brackets)					
	Existing			Existing Plus Project		
	VPH on Major Street Approach[1] (Mission Boulevard)	VPH on Higher-Volumes Minor Street Approach[2] (Sorrento Drive)	Signal Warrant Met?	VPH on Major Street Approach[1] (Mission Boulevard)	VPH on Higher-Volumes Minor Street Approach[2] (Sorrento Drive)	Signal Warrant Met?
Threshold	14,400 (11,520)	1,200 (960)		14,400 (11,520)	1,200 (960)	
Average Daily Traffic Volume	18,108	217	No	18,980	979	No

Notes: Based on ADT collected for Mission Boulevard and Sorrento Drive.

1 VPH on the major street (Total of both approaches)

2 VPH on the minor street (One direction only for Higher volume approach)

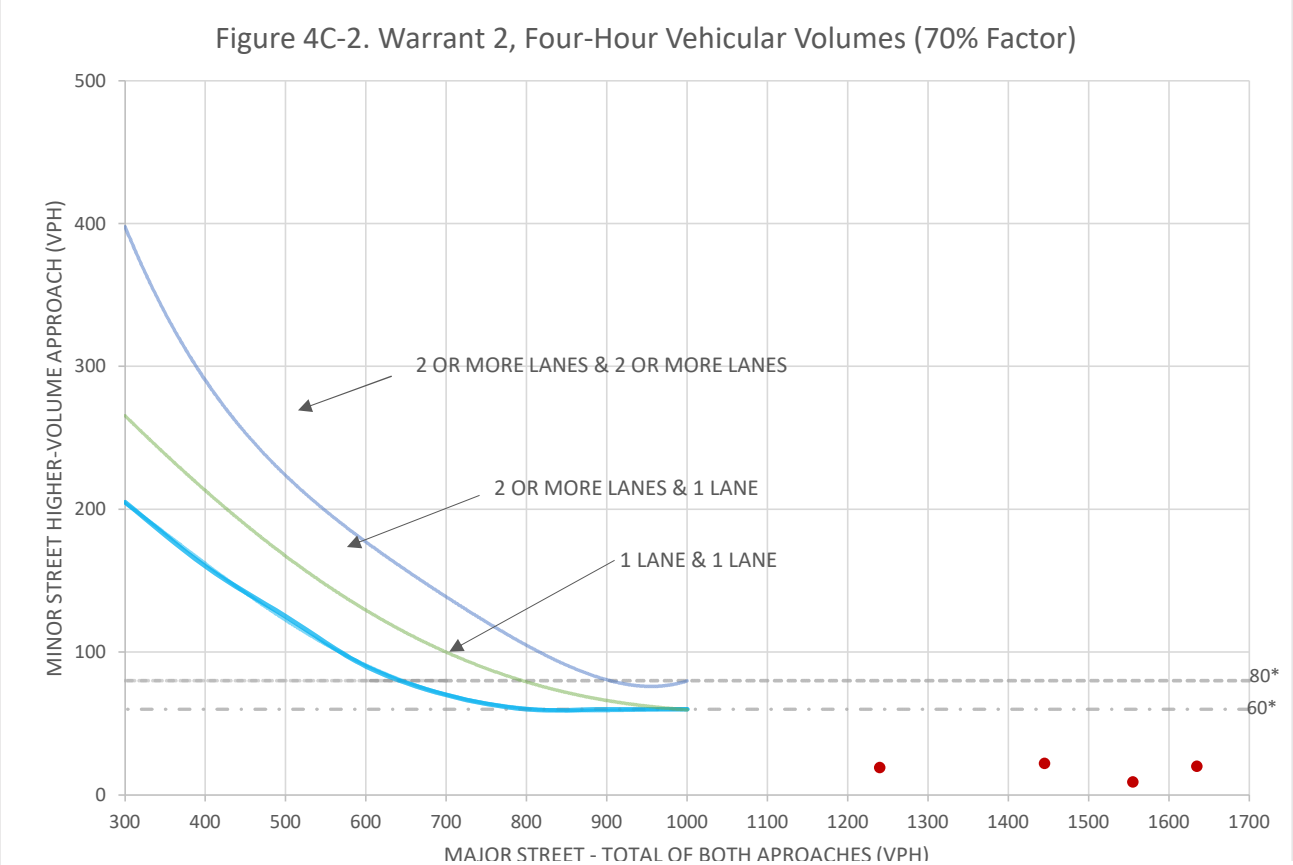
Warrant 9: Intersection near a Grade Crossing – Not Applicable

The Intersection near a Grade Crossing signal warrant is intended for use at a location where none of the conditions described in the other eight traffic signal warrants are met, but the proximity to the intersection of a grade crossing on an intersection approach controlled by a STOP or YIELD sign is the principal reason to consider installing a traffic control signal. This warrant does not apply to the Sorrento Drive/ Mission Boulevard intersection.

Warrant 10 (CA): Criteria for School Crossings Traffic Signals – Not Applicable

The Criteria for School Crossings Traffic Signals warrant is intended for use at a location where school pedestrians are present. This warrant does not apply to the Sorrento Drive/ Mission Boulevard intersection.

				N-S	E-W
Project	Elephant Hill	**Intersection #**	3		
Scenario	Existing	**Major Street**	Mission Boulevard	☐	☑
Peak Hour	AM and PM	**Minor Street**	Sorrento Drive	☑	☐



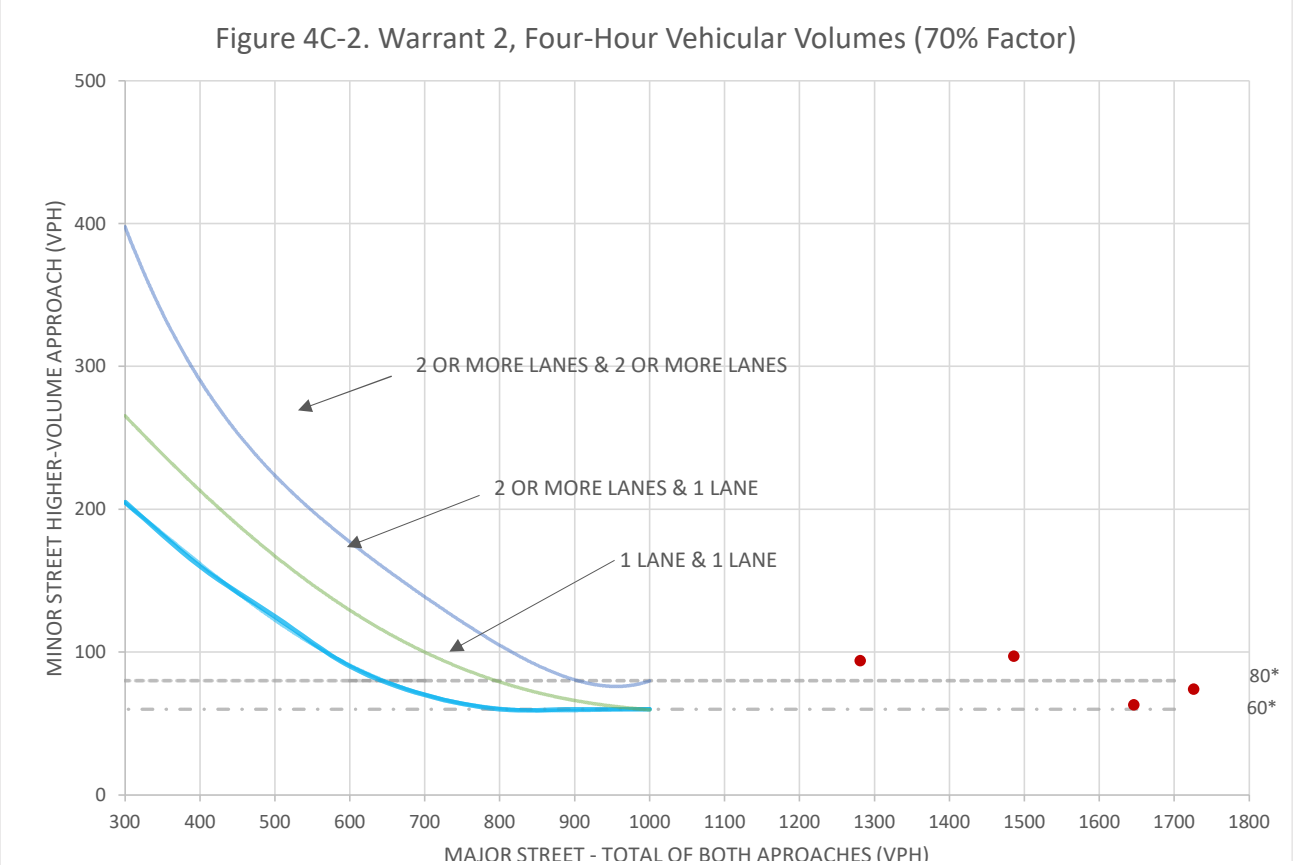
Source: California Manual on Uniform Traffic Control Devices, Caltrans, 2014.

*Note: 80 vph applies as the lower threshold volumes for a minor-street approach with two or more lanes and 60 vph applies as the lower threshold volumes for a minor-street approach with one lane.

		Major Street	Minor Street	Warrant Met?
		Mission Boulevard	Sorrento Drive	
Time-Period	**Number of Approach Lanes**	2	1	
7:00-8:00	**Traffic Volume 1 (VPH)***	1,445	22	No
8:00-9:00	**Traffic Volume 5 (VPH)***	1,240	19	No
4:00-5:00	**Traffic Volume 6 (VPH)***	1,555	9	No
5:00-6:00	**Traffic Volume 10 (VPH)***	1,635	20	No

*Note:
Traffic volume for the Major Street approach is the total volume of both approaches.
Traffic volume for the Minor Street is the highest volume approach.

				N-S	E-W
Project	Elephant Hill	**Intersection #**	3		
Scenario	Existing plus Project	**Major Street**	Mission Boulevard	☐	☑
Peak Hour	AM and PM	**Minor Street**	Sorrento Drive	☑	☐



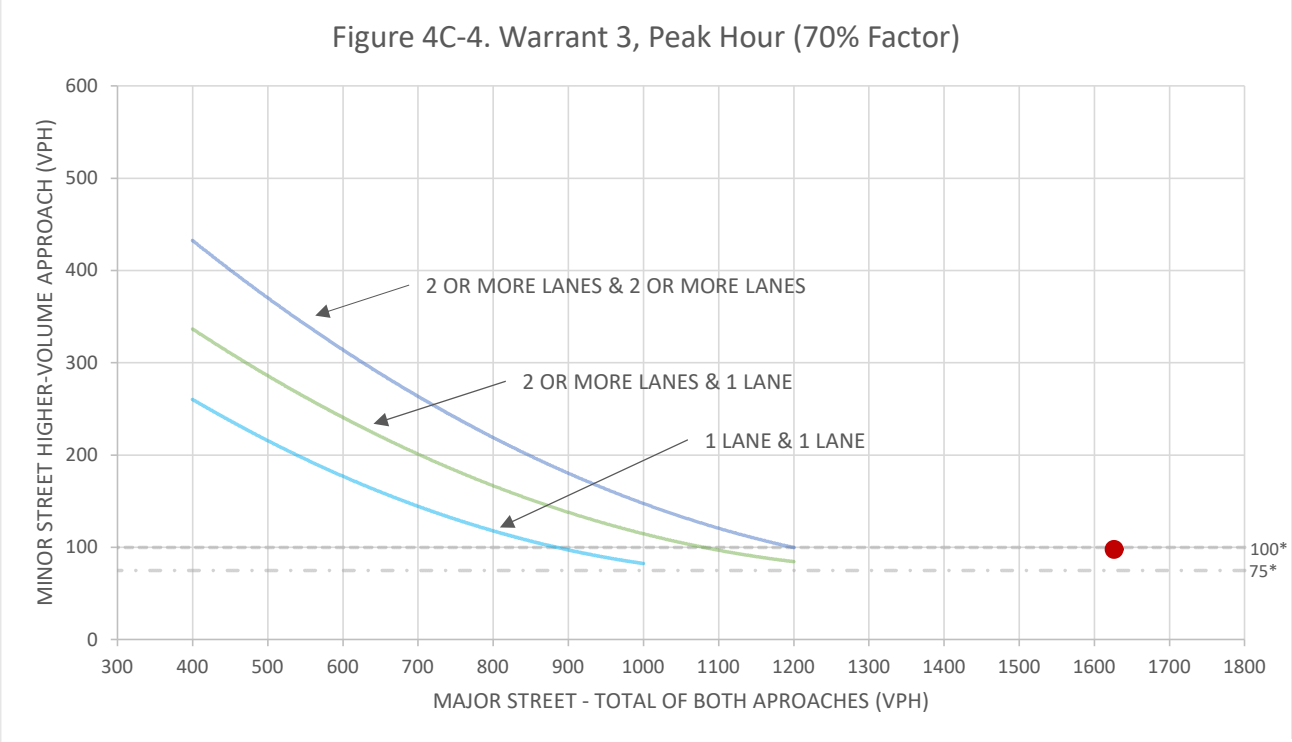
Source: California Manual on Uniform Traffic Control Devices, Caltrans, 2014.

*Note: 80 vph applies as the lower threshold volumes for a minor-street approach with two or more lanes and 60 vph applies as the lower threshold volumes for a minor-street approach with one lane.

		Major Street	Minor Street	Warrant Met?
		Mission Boulevard	Sorrento Drive	
Time-Period	**Number of Approach Lanes**	2	1	
7:00-8:00	**Traffic Volume 1 (VPH)***	1,486	97	Yes
8:00-9:00	**Traffic Volume 5 (VPH)***	1,281	94	Yes
4:00-5:00	**Traffic Volume 6 (VPH)***	1,646	63	Yes
5:00-6:00	**Traffic Volume 10 (VPH)***	1,726	74	Yes

*Note:
Traffic volume for the Major Street approach is the total volume of both approaches.
Traffic volume for the Minor Street is the highest volume approach.

				N-S	E-W
Project	Elephant Hill	**Intersection #**	3		
Scenario	Existing plus Project	**Major Street**	Mission Boulevard	☐	☑
Peak Hour	AM	**Minor Street**	Sorrento Drive	☑	☐



Source: California Manual on Uniform Traffic Control Devices, Caltrans, 2014.

*Note: 100 vph applies as the lower threshold volumes for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volumes for a minor-street approach with one lane.

	Major Street	**Minor Street**	**Warrant Met?**
	Mission Boulevard	Sorrento Drive	
Number of Approach Lanes	2	1	**Yes**
Traffic Volume (VPH)*	1,626	98	

*Note:
Traffic volume for the Major Street approach is the total volume of both approaches.
Traffic volume for the Minor Street is the highest volume approach.

Appendix H
Crash and Collision Summary

BerkeleySafeTREC

Crash Details for: Case ID 8821086

Crash Information

County	Los Angeles
City	Pomona
Date & Time (M/D/Y)	03/03/2019 05:00
Location (Intersection)	Mission Bl & Temple Av
Dist. & Dir. from Intersection	120.00 ft East
State Highway	No
Geocoded Location	34.0407944, -117.797821

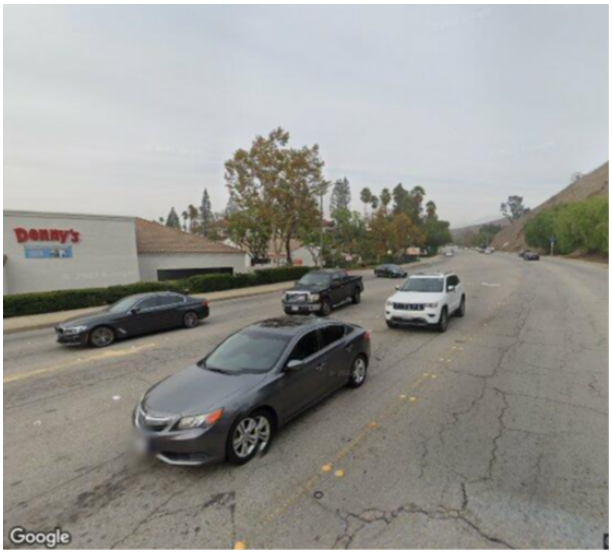
Type of Crash	C - Rear End
Motor Vehicle Involved With	C - Other Motor Vehicle
Crash Severity	3 - Injury (Other Visible)
PCF Violation Category	01 - Driving or Bicycling Under the Influence of Alcohol or Drug
Weather	A - Clear
Alcohol Involved	Yes

Pedestrian Accident	No	**Bicycle Accident**	No
Motorcycle Accident	Yes	**Truck Accident**	No

Map View



Street View



Parties: 2

Party Number	Party Type	Statewide Vehicle Type	At Fault	Party Direction	Movement Preceding Collision
1	1 - Driver (including Hit and Run)	C - Motorcycle/Scooter	Yes	East	B - Proceeding Straight
2	1 - Driver (including Hit and Run)	A - Passenger Car/Station Wagon	No	East	B - Proceeding Straight

Victims: 1

Party Number	Victim Role	Victim Gender	Victim Age	Victim Degree of Injury
1	1 - Driver	M - Male	56	6 - Suspected Minor Injury

BerkeleySafeTREC

Crash Details for: Case ID 8982837

Crash Information

County	Los Angeles
City	Pomona
Date & Time (M/D/Y)	11/10/2019 19:58
Location (Intersection)	Mission Bl & Phillips Dr
Dist. & Dir. from Intersection	563.00 ft West
State Highway	No
Geocoded Location	34.0500908, -117.79422

Type of Crash	E - Hit Object
Motor Vehicle Involved With	I - Fixed Object
Crash Severity	3 - Injury (Other Visible)
PCF Violation Category	08 - Improper Turning
Weather	A - Clear
Alcohol Involved	No

Pedestrian Accident	No	**Bicycle Accident**	No
Motorcycle Accident	No	**Truck Accident**	No

Map View



Street View



Parties: 1

Party Number	Party Type	Statewide Vehicle Type	At Fault	Party Direction	Movement Preceding Collision
1	1 - Driver (including Hit and Run)	A - Passenger Car/Station Wagon	Yes	East	C - Ran Off Road

Victims: 1

Party Number	Victim Role	Victim Gender	Victim Age	Victim Degree of Injury
1	1 - Driver	M - Male	26	6 - Suspected Minor Injury

BerkeleySafeTREC

Crash Details for: Case ID 9173862

Crash Information

County	Los Angeles
City	Pomona
Date & Time (M/D/Y)	09/27/2020 16:34
Location (Intersection)	Mission Bl & Appian Wy
Dist. & Dir. from Intersection	At Intersection
State Highway	No
Geocoded Location	34.0457611, -117.7959366

Type of Crash	D - Broadside
Motor Vehicle Involved With	C - Other Motor Vehicle
Crash Severity	4 - Injury (Complaint of Pain)
PCF Violation Category	09 - Automobile Right of Way
Weather	A - Clear
Alcohol Involved	No

Pedestrian Accident	No	**Bicycle Accident**	No
Motorcycle Accident	No	**Truck Accident**	No

Map View



Street View



Parties: 2

Party Number	Party Type	Statewide Vehicle Type	At Fault	Party Direction	Movement Preceding Collision
1	1 - Driver (including Hit and Run)	A - Passenger Car/Station Wagon	Yes	East	E - Making Left Turn
2	1 - Driver (including Hit and Run)	A - Passenger Car/Station Wagon	No	West	B - Proceeding Straight

Victims: 1

Party Number	Victim Role	Victim Gender	Victim Age	Victim Degree of Injury
2	1 - Driver	M - Male	56	7 - Possible Injury

BerkeleySafeTREC

Crash Details for: Case ID 9270724

Crash Information

County	Los Angeles
City	Pomona
Date & Time (M/D/Y)	04/29/2021 08:26
Location (Intersection)	Mission Bl & Phillips Dr
Dist. & Dir. from Intersection	15.00 ft West
State Highway	No
Geocoded Location	34.0508766, -117.7926788

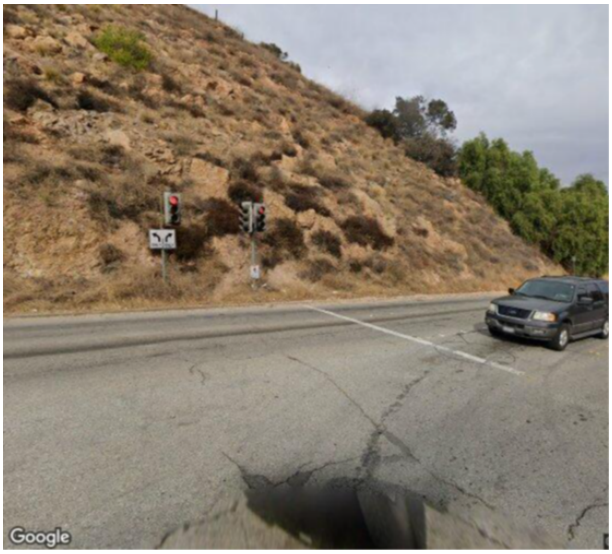
Type of Crash	D - Broadside
Motor Vehicle Involved With	C - Other Motor Vehicle
Crash Severity	4 - Injury (Complaint of Pain)
PCF Violation Category	12 - Traffic Signals and Signs
Weather	A - Clear
Alcohol Involved	No

Pedestrian Accident	No	**Bicycle Accident**	No
Motorcycle Accident	No	**Truck Accident**	No

Map View



Street View



Parties: 2

Party Number	Party Type	Statewide Vehicle Type	At Fault	Party Direction	Movement Preceding Collision
1	1 - Driver (including Hit and Run)	A - Passenger Car/Station Wagon	Yes	East	B - Proceeding Straight
2	1 - Driver (including Hit and Run)	A - Passenger Car/Station Wagon	No	West	E - Making Left Turn

Victims: 2

Party Number	Victim Role	Victim Gender	Victim Age	Victim Degree of Injury
1	1 - Driver	F - Female	32	7 - Possible Injury
2	1 - Driver	F - Female	19	7 - Possible Injury

BerkeleySafeTREC

Crash Details for: Case ID 9272660

Crash Information

County	Los Angeles
City	Pomona
Date & Time (M/D/Y)	05/18/2021 03:42
Location (Intersection)	Mission Bl & Sorrento Dr
Dist. & Dir. from Intersection	50.00 ft East
State Highway	No
Geocoded Location	34.0478859, -117.7959595

Type of Crash	E - Hit Object
Motor Vehicle Involved With	J - Other Object
Crash Severity	4 - Injury (Complaint of Pain)
PCF Violation Category	08 - Improper Turning
Weather	B - Cloudy
Alcohol Involved	No

Pedestrian Accident	No	**Bicycle Accident**	No
Motorcycle Accident	No	**Truck Accident**	No

Map View



Street View



Parties: 1

Party Number	Party Type	Statewide Vehicle Type	At Fault	Party Direction	Movement Preceding Collision
1	1 - Driver (including Hit and Run)	A - Passenger Car/Station Wagon	Yes	East	E - Making Left Turn

Victims: 1

Party Number	Victim Role	Victim Gender	Victim Age	Victim Degree of Injury
1	1 - Driver	M - Male	52	7 - Possible Injury

BerkeleySafeTREC

Crash Details for: Case ID 9316668

Crash Information

County	Los Angeles
City	Pomona
Date & Time (M/D/Y)	07/31/2021 15:48
Location (Intersection)	Mission Bl & Rancho Laguna Dr
Dist. & Dir. from Intersection	23.00 ft West
State Highway	No
Geocoded Location	34.0430412, -117.7967911

Type of Crash	E - Hit Object
Motor Vehicle Involved With	I - Fixed Object
Crash Severity	3 - Injury (Other Visible)
PCF Violation Category	08 - Improper Turning
Weather	A - Clear
Alcohol Involved	No

Pedestrian Accident	No	**Bicycle Accident**	No
Motorcycle Accident	No	**Truck Accident**	No

Map View



Street View



Parties: 1

Party Number	Party Type	Statewide Vehicle Type	At Fault	Party Direction	Movement Preceding Collision
1	1 - Driver (including Hit and Run)	A - Passenger Car/Station Wagon	Yes	West	B - Proceeding Straight

Victims: 1

Party Number	Victim Role	Victim Gender	Victim Age	Victim Degree of Injury
1	1 - Driver	M - Male	21	6 - Suspected Minor Injury

BerkeleySafeTREC

Crash Details for: Case ID 9320100

Crash Information

County	Los Angeles
City	Pomona
Date & Time (M/D/Y)	12/15/2020 18:44
Location (Intersection)	Mission Bl & Sorrento Dr
Dist. & Dir. from Intersection	749.00 ft East
State Highway	No
Geocoded Location	34.0495796, -117.7949677

Type of Crash	E - Hit Object
Motor Vehicle Involved With	I - Fixed Object
Crash Severity	1 - Fatal
PCF Violation Category	00 - Unknown
Weather	B - Cloudy
Alcohol Involved	No

Pedestrian Accident	No	**Bicycle Accident**	No
Motorcycle Accident	Yes	**Truck Accident**	No

Map View



Street View



Parties: 1

Party Number	Party Type	Statewide Vehicle Type	At Fault	Party Direction	Movement Preceding Collision
1	1 - Driver (including Hit and Run)	C - Motorcycle/Scooter	No	West	J - Changing Lanes

Victims: 1

Party Number	Victim Role	Victim Gender	Victim Age	Victim Degree of Injury
1	1 - Driver	M - Male	27	1 - Killed

BerkeleySafeTREC

Crash Details for: Case ID 9389316

Crash Information

County	Los Angeles
City	Pomona
Date & Time (M/D/Y)	12/12/2021 17:01
Location (Intersection)	Mission Bl & Phillips Dr
Dist. & Dir. from Intersection	At Intersection
State Highway	No
Geocoded Location	34.0508995, -117.7926407

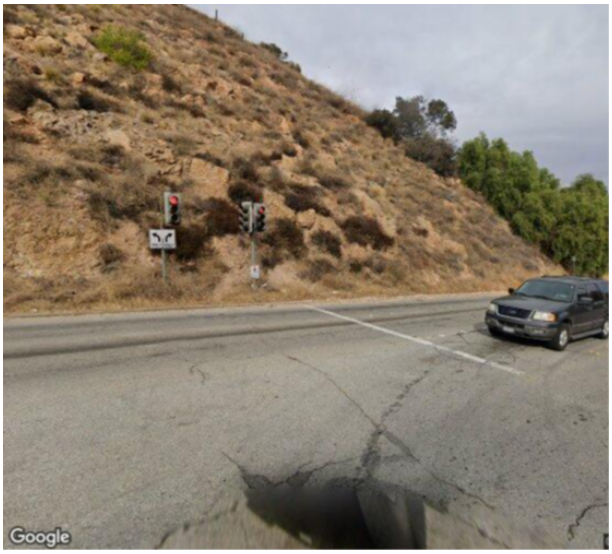
Type of Crash	A - Head-On
Motor Vehicle Involved With	C - Other Motor Vehicle
Crash Severity	4 - Injury (Complaint of Pain)
PCF Violation Category	12 - Traffic Signals and Signs
Weather	A - Clear
Alcohol Involved	No

Pedestrian Accident	No	**Bicycle Accident**	No
Motorcycle Accident	No	**Truck Accident**	No

Map View



Street View



Parties: 2

Party Number	Party Type	Statewide Vehicle Type	At Fault	Party Direction	Movement Preceding Collision
1	1 - Driver (including Hit and Run)	A - Passenger Car/Station Wagon	Yes	North	E - Making Left Turn
2	1 - Driver (including Hit and Run)	A - Passenger Car/Station Wagon	No	East	B - Proceeding Straight

Victims: 1

Party Number	Victim Role	Victim Gender	Victim Age	Victim Degree of Injury
2	1 - Driver	F - Female	27	7 - Possible Injury

Appendix I
SGVCOG VMT Tool Summary

SGVCOG VMT Evaluation Tool Report

Project Details

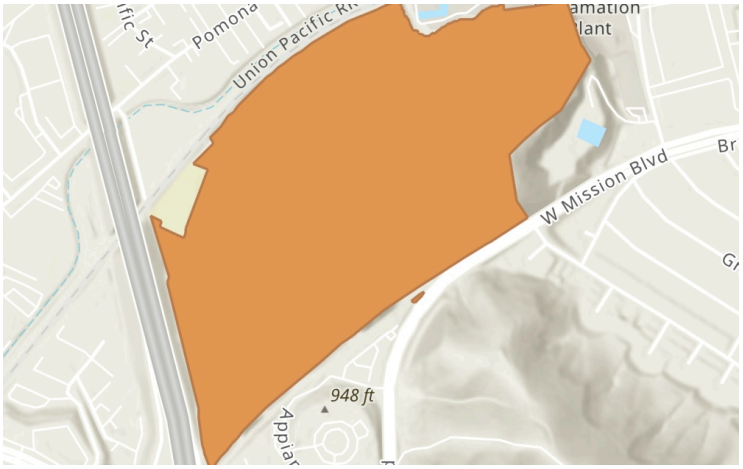
Timestamp of Analysis	July 15, 2025, 01:20:39 PM
Project Name	Elephant Hill Residential
Project Description	228 residential units

Project Location Map

jurisdiction:

Pomona

APN	TAZ
8707020008	22418200
8707020001	22418200
8707021058	22418200



Analysis Details

Data Version	SCAG Regional Travel Demand Model 2024
Analysis Methodology	TAZ
Target Baseline Year	2025

Project Land Use

Residential:

Single Family DU:	68
Multifamily DU:	160
Total DUs:	228

Non-Residential:

Office KSF:	0
Industrial KSF:	0
Local Serving Retail KSF:	0

Residential Affordability (percent of all units):

Low Income:	0 %

Parking:

Motor Vehicle Parking:	876
Bicycle Parking:	0

Proximity Transit Screening

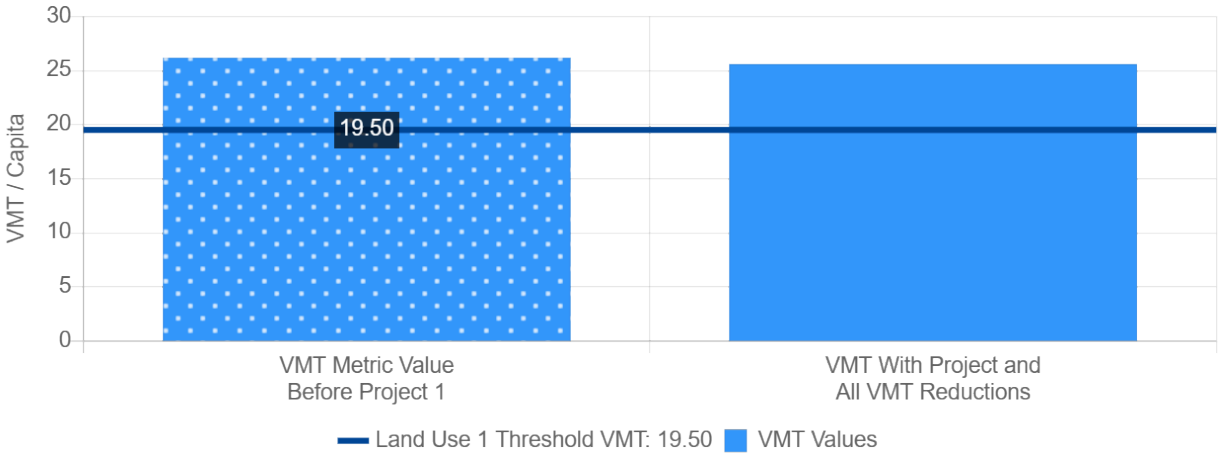
Inside a transit priority area?	Yes

SGVCOG VMT Evaluation Tool Report

Residential Vehicle Miles Traveled (VMT) Screening Results

Land Use Type	Residential
VMT Metric	Home-Based VMT per Capita
VMT Baseline Description	Southeast
VMT Baseline Value	22.94
VMT Threshold Description / Threshold Value	-15% / 19.50

Summary	Project Without TDM Reduction	Project With TDM Reduction
Project Generated Vehicle Miles Traveled (VMT) Rate	26.18	25.58
Screening Results	Yes (Pass)	Yes (Pass)



SGVCOG VMT Evaluation Tool Report

INDIVIDUAL MEASURE REDUCTION RESULTS	VMT REDUCTION
LAND USE	
T-01 Increase Residential Density (P/S)	Not Selected
Residential density of project development (du/acre)	-
T-02 Increase Job Density (P/S)	Not Selected
Job density of project development (jobs/acre)	-
T-03 Provide Transit-Oriented Development (P/S)	Not Selected
T-04 Integrate Affordable and Below Market Rate Housing (P/S)	Not Selected
Percent of multifamily units permanently dedicated as affordable (%)	-
T-17 Improve Street Connectivity (P/C)	Not Selected
Intersection density in project site with measure (int/sq mile)	-

SGVCOG VMT Evaluation Tool Report

INDIVIDUAL MEASURE REDUCTION RESULTS	VMT REDUCTION
TRIP REDUCTION PROGRAM	
T-05 Implement Commute Trip Reduction Program - voluntary (P/S)	Not Selected
Percent of employees eligible for program (%)	-
T-06 Implement Commute Trip Reduction Program - mandatory (P/S)	Not Selected
Percent of employees eligible for program (%)	-
T-07 Implement Commute Trip Reduction Marketing - Employment Project (P/S)	Not Selected
Percent of employees eligible for program (%)	-
T-08 Provide Ride-Sharing Program - Employment Project (P/S)	Not Selected
Percent of employees eligible for program (%)	-
T-09 Implement Subsidized or Discounted Transit Program - Employment Project (P/S)	Not Selected
Average transit fare without subsidy ($)	-
Subsidy amount ($)	-
Percent of employees eligible for subsidy (%)	-
Percent of project-generated VMT from employees (%)	-
T-10 Provide End-of-Trip Bicycle Facilities (P/S)	Not Selected
Project provides shower, lockers, and bike parking	-
T-11 Provide Employer-Sponsored Vanpool (P/S)	Not Selected
T-12 Price Workplace Parking (P/S)	Not Selected
Proposed parking price per day ($)	-
Baseline parking price per day ($)	-
Share of employees paying for parking (%)	-
T-13 Implement Employee Parking Cashout (P/S)	Not Selected
Pecent of employees eligible (%)	-
T-23 Provide Community-Based Travel Planning - Employment Project (P/S or P/C)	Not Selected
Scale of application	-
Employees in Project/Site or Plan/Community	-

Employees in Project/Site or Plan/Community targeted for CBTP	-
T-07 Implement Commute Trip Reduction Marketing - Residential Project (P/S)	Not Selected
Percent of residents eligible for program (%)	-
T-08 Provide Ride-Sharing Program - Residential Project (P/S)	Not Selected
Percent of residents eligible for program (%)	-
T-09 Implement Subsidized or Discounted Transit Program - Residential Project (P/S)	Not Selected
Average transit fare without subsidy ($)	-
Subsidy amount ($)	-
Percent of residents eligible for subsidy (%)	-
Percent of project-generated VMT from residents (%)	-
T-23 Provide Community-Based Travel Planning - Residential Project (P/S or P/C)	2.28%
Scale of application	Project/Site
Residences in Project/Site or Plan/Community	100
Residences in Project/Site or Plan/Community targeted for CBTP	100

SGVCOG VMT Evaluation Tool Report

INDIVIDUAL MEASURE REDUCTION RESULTS	VMT REDUCTION
PARKING OR ROAD PRICING MANAGEMENT	
T-15 Limit Residential Parking Supply (P/S)	Not Selected
Residential parking demand (parking space)	-
Project residential parking supply (parking space)	-
Percentage of project VMT generated by residents (%)	-
T-16 Unbundle Residential Parking Costs from Property Cost (P/S)	Not Selected
Annual Parking cost per space ($/year)	-
T-24 Implement Market Price Public Parking - On-Street (P/C)	Not Selected
VMT in priced area without measure (VMT/day)	-
VMT in plan/community without measure (VMT/day)	-
Proposed parking price ($)	-
Initial parking price ($)	-
Default percentage of trips parking on street (%)	-

SGVCOG VMT Evaluation Tool Report

INDIVIDUAL MEASURE REDUCTION RESULTS	VMT REDUCTION
NEIGHBORHOOD DESIGN	
T-18 Provide Pedestrian Network Improvement (P/S or P/C)	1.95%
Existing sidewalk length in study area (miles)	0.41
Sidewalk length in study area with measure (miles)	0.57
T-19A Construct or Improve Bike Facility (P/S or P/C)	Not Selected
Percent of Plan/Community VMT on parallel roadway (%)	-
Average Daily Traffic on parallel roadway (vehicle trips per day)	-
One-way facility length (mile)	-
Adjustment factor for population (Population greater or less than 250k, Identified as university town (UT) or non-university town (NUT)	-
Number of key destinations within 0.5 mile	-
Facility type	-
T-19B Construct or Improve Bike Boulevard (P/S or P/C)	Not Selected
Percent of plan/community vmt on roadway to have bicycle boulevard (%)	-
T-20 Expand Bikeway Network	Not Selected
Existing bikeway miles in plan/community (miles)	-
Bikeway miles in plan/community with measure (miles)	-
T-21A Implement Conventional Carshare Program (P/C)	Not Selected
Number of vehicles deployed in plan/community	-
VMT in plan/community without measure (VMT per day)	-
T-21B Implement Electric Carshare Program (P/C)	Not Selected
Number of vehicles deployed in plan/community	-
VMT in plan/community without measure (VMT per day)	-
T-22A Implement Pedal (Non-electric) Bikeshare Program (P/C)	Not Selected
Percent of residence with access to bikeshare without measure (%)	-
Percent of residence with access to bikeshare with measure (%)	-
T-22B Implement (Electric) Bikeshare Program (P/C)	Not Selected
Percent of residence with access to electric bikeshare without measure (%)	-

Percent of residence with access to electric bikeshare with measure (%)	-
T-22C Implement Scootershare Program (P/S)	Not Selected
Percent of residence with access to scootershare without measure (%))	-
Percent of residence with access to scootershare with measure (%)	-

SGVCOG VMT Evaluation Tool Report

INDIVIDUAL MEASURE REDUCTION RESULTS	VMT REDUCTION
TRANSIT	
T-25 Extend Transit Network Coverage or Hours (P/S)	Not Selected
Transit miles before expansion (miles)	-
Transit miles after expansion (miles)	-
T-26 Increase Transit Service Frequency (P/C)	Not Selected
Percent increase in transit frequency (%)	-
Total daily person trips in corridor (trips/day)	-
Vehicle trip length (miles/trip)	-
Bus frequency without measure (round trips/hour)	-
Bus frequency with measure (round trips/hour)	-
Bus hours of operation (hour)	-
Bus route one-way length (miles/route)	-
T-27 Implement Transit-Supportive Roadway Treatment (P/C)	Not Selected
Percent of plan/community transit routes that recieve treatment (%)	-
T-28 Provide Bus Rapid Transit (P/C)	Not Selected
Percent increase in transit frequency due to BRT (%)	-
Percent change in transit travel time due to BRT (%)	-
Total daily person trips in corridor (trips/day)	-
Vehicle trip length (miles/trip)	-
Bus frequency without measure (round trips/hour)	-
Bus frequency with measure (round trips/hour)	-
BRT hours of operation (hours/day)	-
BRT route one-way length (miles)	-
T-29 Reduce Transit Fare (P/C)	Not Selected
Percent reduction in transit fare with measure (%)	-
Percent of Plan/Community transit routes that recieve reduced fare (%)	-

Appendix J

SimTraffic Worksheets - Queuing Analysis

Intersection: 1: SR-57 NB Off-Ramp & Temple Avenue

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB
Directions Served	U	T	T	T	T	T	T	L	LR	R
Maximum Queue (ft)	48	128	113	133	263	265	247	194	188	132
Average Queue (ft)	12	55	48	64	82	110	116	103	92	28
95th Queue (ft)	38	109	97	114	206	219	208	166	161	79
Link Distance (ft)		1450	1450	1450	509	509	509	1005	1005	
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)	210									435
Storage Blk Time (%)										
Queuing Penalty (veh)										

Intersection: 7: SR-71 SB Ramps & Mission Blvd

Movement	EB	EB	EB	WB	WB	WB	WB	SB	SB	SB
Directions Served	T	T	TR	L	T	T	T	L	LT	R
Maximum Queue (ft)	76	212	254	145	158	131	93	119	249	56
Average Queue (ft)	16	82	113	52	49	34	21	13	121	20
95th Queue (ft)	52	180	226	110	125	96	66	61	205	45
Link Distance (ft)	921	921	921		362	362	362		728	
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)				300				265		650
Storage Blk Time (%)									0	
Queuing Penalty (veh)									0	

Intersection: 8: SR-71 NB Ramps & Mission Blvd

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB
Directions Served	L	T	T	T	T	T	T	R	L	LT	R
Maximum Queue (ft)	108	104	85	82	216	164	108	313	104	148	52
Average Queue (ft)	35	36	29	24	110	52	24	87	23	57	19
95th Queue (ft)	79	82	71	63	194	123	69	200	65	111	44
Link Distance (ft)	362	362	362	362	708	708	708			532	
Upstream Blk Time (%)											
Queuing Penalty (veh)											
Storage Bay Dist (ft)								525	250		250
Storage Blk Time (%)											
Queuing Penalty (veh)											

Intersection: 9: Shell Dwy/SR-57 SB Off-Ramp & Temple Avenue

Movement	EB	EB	EB	WB	WB	WB	WB	WB	NB	SB	SB	SB
Directions Served	T	T	TR	L	T	T	T	R	LTR	L	LTR	R
Maximum Queue (ft)	155	115	140	148	226	250	261	145	36	504	575	525
Average Queue (ft)	69	44	57	44	118	128	120	18	4	223	348	306
95th Queue (ft)	128	94	118	102	204	217	224	95	22	395	484	449
Link Distance (ft)	286	286	286		1450	1450	1450		149		1182	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)				135				120		1000		530
Storage Blk Time (%)				0	6		8	0			0	0
Queuing Penalty (veh)				0	4		5	0			4	0

Zone Summary

Zone wide Queuing Penalty: 13

Intersection: 1: SR-57 NB Off-Ramp & Temple Avenue

Movement	EB	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB
Directions Served	U	T	T	T	R	T	T	T	L	LR	R
Maximum Queue (ft)	43	205	211	233	93	159	155	167	76	160	110
Average Queue (ft)	16	86	78	98	6	42	54	70	28	85	27
95th Queue (ft)	41	166	155	178	69	112	126	131	63	142	72
Link Distance (ft)		1450	1450	1450		509	509	509	1005	1005	
Upstream Blk Time (%)											
Queuing Penalty (veh)											
Storage Bay Dist (ft)	210				210						435
Storage Blk Time (%)		0		0	0						
Queuing Penalty (veh)		0		1	0						

Intersection: 7: SR-71 SB Ramps & Mission Blvd

Movement	EB	EB	EB	WB	WB	WB	WB	SB	SB	SB	
Directions Served	T	T	TR	L	T	T	T	L	LT	R	
Maximum Queue (ft)	946	952	956	145	104	64	45	64	173	28	
Average Queue (ft)	672	761	792	42	38	11	3	9	103	8	
95th Queue (ft)	1136	1116	1122	95	91	42	20	39	162	26	
Link Distance (ft)	921	921	921		362	362	362		728		
Upstream Blk Time (%)	1	3	7								
Queuing Penalty (veh)	8	16	41								
Storage Bay Dist (ft)				300				265		650	
Storage Blk Time (%)											
Queuing Penalty (veh)											

Intersection: 8: SR-71 NB Ramps & Mission Blvd

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB
Directions Served	L	T	T	T	T	T	T	R	L	LT	R
Maximum Queue (ft)	93	151	133	105	171	78	26	75	85	78	65
Average Queue (ft)	31	56	59	28	68	12	3	22	26	31	27
95th Queue (ft)	70	120	121	77	134	48	16	54	62	67	53
Link Distance (ft)	362	362	362	362	708	708	708			532	
Upstream Blk Time (%)											
Queuing Penalty (veh)											
Storage Bay Dist (ft)								525	250		250
Storage Blk Time (%)											
Queuing Penalty (veh)											

Intersection: 9: Shell Dwy/SR-57 SB Off-Ramp & Temple Avenue

Movement	EB	EB	EB	WB	WB	WB	WB	WB	NB	SB	SB	SB
Directions Served	T	T	TR	L	T	T	T	R	LTR	L	LTR	R
Maximum Queue (ft)	301	301	324	92	117	141	167	145	22	513	558	510
Average Queue (ft)	219	223	253	32	45	60	65	5	2	281	369	284
95th Queue (ft)	317	324	350	71	92	113	124	49	15	437	511	441
Link Distance (ft)	286	286	286		1450	1450	1450		149		1182	
Upstream Blk Time (%)	3	4	13									
Queuing Penalty (veh)	0	0	0									
Storage Bay Dist (ft)				135				120		1000		530
Storage Blk Time (%)					0		1				0	0
Queuing Penalty (veh)					0		1				3	0

Zone Summary

Zone wide Queuing Penalty: 70

Intersection: 1: SR-57 NB Off-Ramp & Temple Avenue

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB
Directions Served	U	T	T	T	T	T	T	L	LR	R
Maximum Queue (ft)	30	141	122	127	290	284	280	175	192	120
Average Queue (ft)	8	59	49	60	86	109	119	97	89	29
95th Queue (ft)	28	113	94	110	217	229	223	151	151	77
Link Distance (ft)		1450	1450	1450	509	509	509	1005	1005	
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)	210									435
Storage Blk Time (%)										
Queuing Penalty (veh)										

Intersection: 7: SR-71 SB Ramps & Mission Blvd

Movement	EB	EB	EB	WB	WB	WB	WB	SB	SB	SB
Directions Served	T	T	TR	L	T	T	T	L	LT	R
Maximum Queue (ft)	81	208	411	156	156	137	90	162	263	58
Average Queue (ft)	15	87	131	53	55	38	24	23	128	19
95th Queue (ft)	51	183	288	109	133	100	70	103	229	43
Link Distance (ft)	921	921	921		362	362	362		728	
Upstream Blk Time (%)			0							
Queuing Penalty (veh)			0							
Storage Bay Dist (ft)				300				265		650
Storage Blk Time (%)								0	1	
Queuing Penalty (veh)								0	4	

Intersection: 8: SR-71 NB Ramps & Mission Blvd

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB
Directions Served	L	T	T	T	T	T	T	R	L	LT	R
Maximum Queue (ft)	122	95	102	78	220	154	104	315	94	122	54
Average Queue (ft)	48	34	29	22	116	54	27	100	28	59	22
95th Queue (ft)	100	78	73	59	194	126	75	237	71	108	47
Link Distance (ft)	362	362	362	362	708	708	708			532	
Upstream Blk Time (%)											
Queuing Penalty (veh)											
Storage Bay Dist (ft)								525	250		250
Storage Blk Time (%)											
Queuing Penalty (veh)											

Intersection: 9: Shell Dwy/SR-57 SB Off-Ramp & Temple Avenue

Movement	EB	EB	EB	WB	WB	WB	WB	WB	NB	SB	SB	SB
Directions Served	T	T	TR	L	T	T	T	R	LTR	L	LTR	R
Maximum Queue (ft)	176	144	187	153	231	239	245	145	34	415	531	500
Average Queue (ft)	77	49	67	48	112	125	117	17	5	216	342	297
95th Queue (ft)	142	109	140	111	200	215	225	93	23	372	465	425
Link Distance (ft)	286	286	286		1450	1450	1450		149		1182	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)				135				120		1000		530
Storage Blk Time (%)				0	5		6	0			0	0
Queuing Penalty (veh)				0	3		5	0			1	0

Zone Summary

Zone wide Queuing Penalty: 13

Intersection: 1: SR-57 NB Off-Ramp & Temple Avenue

Movement	EB	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB
Directions Served	U	T	T	T	R	T	T	T	L	LR	R
Maximum Queue (ft)	93	230	422	198	46	144	166	158	93	162	140
Average Queue (ft)	15	93	84	93	2	47	56	75	30	93	28
95th Queue (ft)	56	181	276	157	33	115	126	129	68	149	81
Link Distance (ft)		1450	1450	1450		509	509	509	1005	1005	
Upstream Blk Time (%)											
Queuing Penalty (veh)											
Storage Bay Dist (ft)	210				210						435
Storage Blk Time (%)		0		0							
Queuing Penalty (veh)		0		0							

Intersection: 7: SR-71 SB Ramps & Mission Blvd

Movement	EB	EB	EB	WB	WB	WB	WB	SB	SB	SB	
Directions Served	T	T	TR	L	T	T	T	L	LT	R	
Maximum Queue (ft)	800	848	851	110	123	95	45	53	204	39	
Average Queue (ft)	461	580	620	40	38	14	4	8	101	13	
95th Queue (ft)	958	980	1005	87	94	52	20	33	172	34	
Link Distance (ft)	921	921	921		362	362	362		728		
Upstream Blk Time (%)	0	1	2								
Queuing Penalty (veh)	2	5	13								
Storage Bay Dist (ft)				300				265		650	
Storage Blk Time (%)											
Queuing Penalty (veh)											

Intersection: 8: SR-71 NB Ramps & Mission Blvd

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB
Directions Served	L	T	T	T	T	T	T	R	L	LT	R
Maximum Queue (ft)	86	126	130	96	159	104	24	83	74	88	64
Average Queue (ft)	31	53	53	28	69	13	2	27	28	37	28
95th Queue (ft)	68	111	115	75	129	57	13	63	62	74	54
Link Distance (ft)	362	362	362	362	708	708	708			532	
Upstream Blk Time (%)											
Queuing Penalty (veh)											
Storage Bay Dist (ft)								525	250		250
Storage Blk Time (%)											
Queuing Penalty (veh)											

Intersection: 9: Shell Dwy/SR-57 SB Off-Ramp & Temple Avenue

Movement	EB	EB	EB	WB	WB	WB	WB	WB	NB	SB	SB	SB
Directions Served	T	T	TR	L	T	T	T	R	LTR	L	LTR	R
Maximum Queue (ft)	318	302	309	86	106	130	128	58	28	488	542	485
Average Queue (ft)	217	215	235	31	44	56	62	4	4	273	352	275
95th Queue (ft)	315	318	343	71	93	112	116	43	20	407	472	410
Link Distance (ft)	286	286	286		1450	1450	1450		149		1182	
Upstream Blk Time (%)	2	3	8									
Queuing Penalty (veh)	0	0	0									
Storage Bay Dist (ft)				135				120		1000		530
Storage Blk Time (%)					0		1	0			0	
Queuing Penalty (veh)					0		1	0			2	

Zone Summary

Zone wide Queuing Penalty: 23

Intersection: 1: SR-57 NB Off-Ramp & Temple Avenue

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB
Directions Served	U	T	T	T	T	T	T	L	LR	R
Maximum Queue (ft)	56	154	128	148	295	302	295	188	200	122
Average Queue (ft)	14	66	56	70	89	119	127	115	105	31
95th Queue (ft)	41	125	109	127	219	235	235	176	174	88
Link Distance (ft)		1450	1450	1450	509	509	509	1005	1005	
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)	210									435
Storage Blk Time (%)		0		0						
Queuing Penalty (veh)		0		0						

Intersection: 7: SR-71 SB Ramps & Mission Blvd

Movement	EB	EB	EB	WB	WB	WB	WB	SB	SB	SB
Directions Served	T	T	TR	L	T	T	T	L	LT	R
Maximum Queue (ft)	118	261	258	166	193	156	127	217	294	60
Average Queue (ft)	13	90	119	64	60	46	32	21	138	18
95th Queue (ft)	52	189	214	129	149	117	93	95	242	43
Link Distance (ft)	921	921	921		362	362	362		728	
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)				300				265		650
Storage Blk Time (%)									1	
Queuing Penalty (veh)									2	

Intersection: 8: SR-71 NB Ramps & Mission Blvd

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB
Directions Served	L	T	T	T	T	T	T	R	L	LT	R
Maximum Queue (ft)	124	138	109	97	264	318	374	368	75	118	59
Average Queue (ft)	44	44	38	32	141	80	59	138	22	54	23
95th Queue (ft)	97	103	88	74	237	212	275	327	54	100	49
Link Distance (ft)	362	362	362	362	708	708	708			532	
Upstream Blk Time (%)							1				
Queuing Penalty (veh)							0				
Storage Bay Dist (ft)								525	250		250
Storage Blk Time (%)							0	2			
Queuing Penalty (veh)							0	7			

Intersection: 9: Shell Dwy/SR-57 SB Off-Ramp & Temple Avenue

Movement	EB	EB	EB	WB	WB	WB	WB	WB	NB	SB	SB	SB
Directions Served	T	T	TR	L	T	T	T	R	LTR	L	LTR	R
Maximum Queue (ft)	177	143	167	159	236	262	260	145	28	537	766	554
Average Queue (ft)	84	51	72	49	131	142	128	19	5	293	439	385
95th Queue (ft)	151	114	137	105	217	234	237	99	22	482	641	555
Link Distance (ft)	286	286	286		1450	1450	1450		149		1182	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)				135				120		1000		530
Storage Blk Time (%)				0	7		7	0			2	0
Queuing Penalty (veh)				0	4		5	0			15	3

Zone Summary

Zone wide Queuing Penalty: 37

Intersection: 1: SR-57 NB Off-Ramp & Temple Avenue

Movement	EB	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB
Directions Served	U	T	T	T	R	T	T	T	L	LR	R
Maximum Queue (ft)	44	221	217	220	139	160	156	173	100	188	113
Average Queue (ft)	14	97	84	105	5	53	62	78	34	104	27
95th Queue (ft)	41	175	163	176	59	127	133	139	76	169	77
Link Distance (ft)		1450	1450	1450		509	509	509	1005	1005	
Upstream Blk Time (%)											
Queuing Penalty (veh)											
Storage Bay Dist (ft)	210				210						435
Storage Blk Time (%)		0		0	0						
Queuing Penalty (veh)		0		1	0						

Intersection: 7: SR-71 SB Ramps & Mission Blvd

Movement	EB	EB	EB	WB	WB	WB	WB	SB	SB	SB	
Directions Served	T	T	TR	L	T	T	T	L	LT	R	
Maximum Queue (ft)	969	966	965	98	214	113	46	75	193	39	
Average Queue (ft)	867	902	911	41	52	20	5	12	108	10	
95th Queue (ft)	1050	1043	1029	80	139	72	26	45	174	30	
Link Distance (ft)	921	921	921		362	362	362		728		
Upstream Blk Time (%)	4	9	15								
Queuing Penalty (veh)	22	54	92								
Storage Bay Dist (ft)				300				265		650	
Storage Blk Time (%)											
Queuing Penalty (veh)											

Intersection: 8: SR-71 NB Ramps & Mission Blvd

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB
Directions Served	L	T	T	T	T	T	T	R	L	LT	R
Maximum Queue (ft)	103	132	142	95	188	138	47	111	96	103	63
Average Queue (ft)	34	53	53	29	79	21	3	36	32	44	29
95th Queue (ft)	78	116	121	76	147	82	21	84	69	86	56
Link Distance (ft)	362	362	362	362	708	708	708			532	
Upstream Blk Time (%)											
Queuing Penalty (veh)											
Storage Bay Dist (ft)								525	250		250
Storage Blk Time (%)											
Queuing Penalty (veh)											

Intersection: 9: Shell Dwy/SR-57 SB Off-Ramp & Temple Avenue

Movement	EB	EB	EB	WB	WB	WB	WB	WB	NB	SB	SB	SB
Directions Served	T	T	TR	L	T	T	T	R	LTR	L	LTR	R
Maximum Queue (ft)	313	314	327	94	139	156	185	116	28	552	590	519
Average Queue (ft)	275	281	294	33	54	66	70	8	4	331	420	345
95th Queue (ft)	350	354	349	74	108	127	137	61	19	480	552	507
Link Distance (ft)	286	286	286		1450	1450	1450		149		1182	
Upstream Blk Time (%)	17	30	47									
Queuing Penalty (veh)	0	0	0									
Storage Bay Dist (ft)				135				120		1000		530
Storage Blk Time (%)					0		1	0			1	0
Queuing Penalty (veh)					0		1	0			10	1

Zone Summary

Zone wide Queuing Penalty: 181

Intersection: 1: SR-57 NB Off-Ramp & Temple Avenue

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB
Directions Served	U	T	T	T	T	T	T	L	LR	R
Maximum Queue (ft)	47	142	136	145	325	336	326	207	210	162
Average Queue (ft)	10	63	58	72	107	140	146	122	115	39
95th Queue (ft)	34	121	114	128	266	285	271	192	195	107
Link Distance (ft)		1450	1450	1450	509	509	509	1005	1005	
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)	210									435
Storage Blk Time (%)										
Queuing Penalty (veh)										

Intersection: 7: SR-71 SB Ramps & Mission Blvd

Movement	EB	EB	EB	WB	WB	WB	WB	SB	SB	SB
Directions Served	T	T	TR	L	T	T	T	L	LT	R
Maximum Queue (ft)	88	246	254	167	172	139	121	190	332	58
Average Queue (ft)	17	93	126	55	48	37	28	27	146	19
95th Queue (ft)	57	201	233	122	131	105	84	112	255	42
Link Distance (ft)	921	921	921		362	362	362		728	
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)				300				265		650
Storage Blk Time (%)									2	
Queuing Penalty (veh)									4	

Intersection: 8: SR-71 NB Ramps & Mission Blvd

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB
Directions Served	L	T	T	T	T	T	T	R	L	LT	R
Maximum Queue (ft)	124	124	114	94	254	214	360	481	90	119	55
Average Queue (ft)	47	49	43	30	128	77	42	167	25	60	23
95th Queue (ft)	99	108	99	76	212	163	211	388	63	104	50
Link Distance (ft)	362	362	362	362	708	708	708			532	
Upstream Blk Time (%)							0				
Queuing Penalty (veh)							0				
Storage Bay Dist (ft)								525	250		250
Storage Blk Time (%)								1			
Queuing Penalty (veh)								3			

Intersection: 9: Shell Dwy/SR-57 SB Off-Ramp & Temple Avenue

Movement	EB	EB	EB	WB	WB	WB	WB	WB	NB	SB	SB	SB
Directions Served	T	T	TR	L	T	T	T	R	LTR	L	LTR	R
Maximum Queue (ft)	186	140	195	154	251	264	516	145	28	550	641	539
Average Queue (ft)	90	54	69	54	126	136	139	27	3	305	424	373
95th Queue (ft)	155	118	151	123	222	232	353	119	16	484	614	535
Link Distance (ft)	286	286	286		1450	1450	1450		149		1182	
Upstream Blk Time (%)			0				0					
Queuing Penalty (veh)			0				0					
Storage Bay Dist (ft)				135				120		1000		530
Storage Blk Time (%)				0	6		8	0			2	0
Queuing Penalty (veh)				0	4		6	0			14	3

Zone Summary

Zone wide Queuing Penalty: 35

Intersection: 1: SR-57 NB Off-Ramp & Temple Avenue

Movement	EB	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB
Directions Served	U	T	T	T	R	T	T	T	L	LR	R
Maximum Queue (ft)	89	302	252	238	140	174	173	193	98	206	172
Average Queue (ft)	18	120	91	114	6	53	70	81	32	109	36
95th Queue (ft)	59	252	188	194	69	135	140	145	74	178	107
Link Distance (ft)		1450	1450	1450		509	509	509	1005	1005	
Upstream Blk Time (%)											
Queuing Penalty (veh)											
Storage Bay Dist (ft)	210				210						435
Storage Blk Time (%)		2		0	0						
Queuing Penalty (veh)		0		1	0						

Intersection: 7: SR-71 SB Ramps & Mission Blvd

Movement	EB	EB	EB	WB	WB	WB	WB	SB	SB	SB	
Directions Served	T	T	TR	L	T	T	T	L	LT	R	
Maximum Queue (ft)	957	962	953	112	211	98	42	56	205	54	
Average Queue (ft)	843	882	891	40	52	20	4	9	111	16	
95th Queue (ft)	1133	1096	1092	87	140	60	22	35	185	40	
Link Distance (ft)	921	921	921		362	362	362		728		
Upstream Blk Time (%)	4	7	14		0						
Queuing Penalty (veh)	23	45	86		0						
Storage Bay Dist (ft)				300				265		650	
Storage Blk Time (%)											
Queuing Penalty (veh)											

Intersection: 8: SR-71 NB Ramps & Mission Blvd

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB
Directions Served	L	T	T	T	T	T	T	R	L	LT	R
Maximum Queue (ft)	100	156	124	102	184	131	32	114	90	112	64
Average Queue (ft)	35	53	51	28	81	17	3	35	30	43	29
95th Queue (ft)	79	119	113	75	145	63	18	83	66	88	55
Link Distance (ft)	362	362	362	362	708	708	708			532	
Upstream Blk Time (%)											
Queuing Penalty (veh)											
Storage Bay Dist (ft)								525	250		250
Storage Blk Time (%)											
Queuing Penalty (veh)											

Intersection: 9: Shell Dwy/SR-57 SB Off-Ramp & Temple Avenue

Movement	EB	EB	EB	WB	WB	WB	WB	WB	NB	SB	SB	SB
Directions Served	T	T	TR	L	T	T	T	R	LTR	L	LTR	R
Maximum Queue (ft)	320	318	322	95	118	145	172	145	28	591	685	552
Average Queue (ft)	272	278	289	37	49	63	67	7	3	354	440	362
95th Queue (ft)	345	351	343	77	104	126	132	57	17	513	587	509
Link Distance (ft)	286	286	286		1450	1450	1450		149		1182	
Upstream Blk Time (%)	16	27	44									
Queuing Penalty (veh)	0	0	0									
Storage Bay Dist (ft)				135				120		1000		530
Storage Blk Time (%)					0		1	0			1	0
Queuing Penalty (veh)					0		1	0			12	1

Zone Summary

Zone wide Queuing Penalty: 169

Appendix K

Caltrans Signal Timing Sheets

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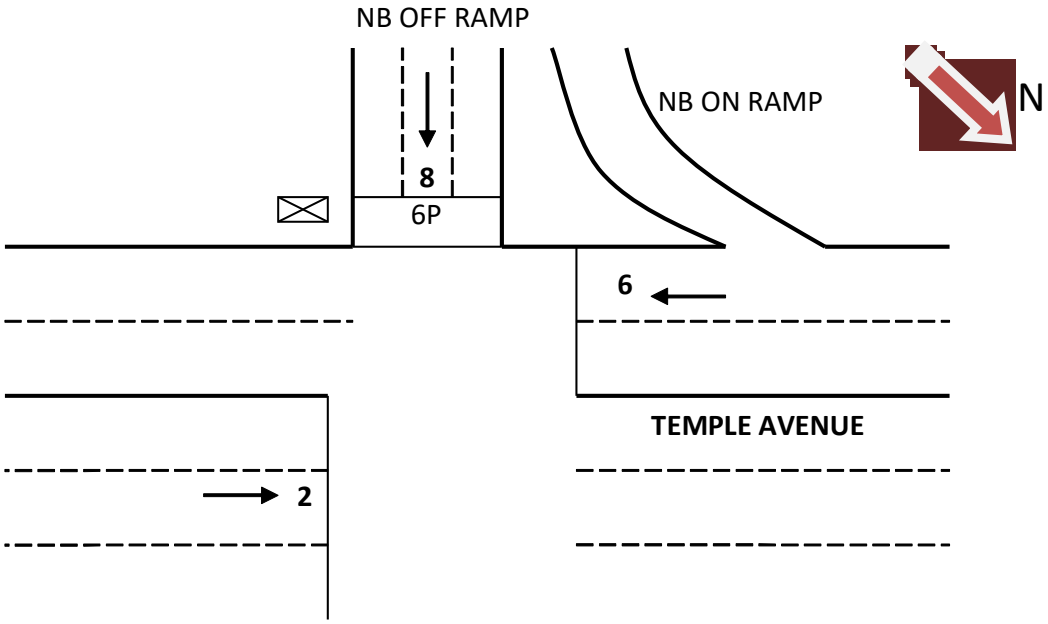
Location: Orange Fwy. NB Ramp @ Temple Ave.
System: Temple Ave. **District:** 07
Master At: S/B **I/C:**

Designed By: Mojtaba Razfara
Installed By: Mojtaba Razfar
Service Info: TSCP 3.10 Build 6

Timing Change:	Date Start:	Date End:	Designed:	Installed:
3/17/2020	11/9/2022			

			FLASH
PHASE	1)		[ ]
	2)	WB Temple Ave.	[ ]
	3)		[ ]
	4)		[ ]
	5)		[ ]
	6)	EB Temple Ave. & S/S Ped Xing	[ ]
	7)		[ ]
	8)	NB Off Ramp	[ ]
OVERLAP	A)		[ ]
	B)		[ ]
	C)		[ ]
	D)		[ ]
	E)		[ ]
	F)		[ ]

Intersection Layou



Comments and Notes:

05/11/2021 by Chao Wang
1. Update TSCP from Version 2.20 to Version 3.10 Build 6
2. Change the Plan for 20:00 from 14 to 255 on Menu 8-2-1 and 8-2-3, change the Plan for 07:00 from 14 to 255 on Menu 8-2-2.

06/16/2021 by Chao Wang
1. Removed the 170 TRFM at the Master location.

RAM Checksum

Page 2: 51EC	Page 8: 2A12
Page 3: 7D72	Page 9: E841
Page 4: 4C40	Page 10: 354A
Page 5: 191A	Page 11: C838
Page 6: 191A	Page 12: 1FB3
Page 7: 6CF6	Page 13: 86F7

Post Mile: 6.17

Printed: 11/14/2022

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CONFIGURATION PHASE FLAGS

Cabinet (9-3)
332
Configuration
CALTRANS

Phases (2-1-1-1)	
Permitted	. 2 . . . 6 . 8
Restricted	. . . . .

Phase Recalls (2-1-1-2)	
Vehicle Min	. 2 . . . 6 . .
Vehicle Max	. . . . .
Pedestrian	. . . . .
Bicycle	. . . . .

Phase Locks (2-1-1-3)	
Red	 8
Yellow	. 2 . . . 6 . .
Force/Max	. . . . .

Phase Features (2-1-1-4)	
Double Entry	. . . . .
Rest In Walk	. . . . .
Rest In Red	. . . . .
Walk 2	. . . . .
Max Green 2	. . . . .
Max Green 3	. . . . .

Startup (2-1-1-5)	
First Green Phases	. 2 . . . 6 . .
Yellow Start Phases	. . . . .
Vehicle Calls	. 2 . . . 6 . 8
Pedestrian Calls	. . . . . 6 . .
Yellow Start Overlaps	. . . . .
Startup All-Red	6.0

Call To Phase (2-1-2-1)		Omit On Green	
1	. . . . .	1	. . . . .
2	. . . . .	2	. . . . .
3	. . . . .	3	. . . . .
4	. . . . .	4	. . . . .
5	. . . . .	5	. . . . .
6	. . . . .	6	. . . . .
7	. . . . .	7	. . . . .
8	. . . . .	8	. . . . .

Flashing Colors (2-1-2-2)	
Yellow Flash Phases	. . . . .
Yellow Flash Overlaps	. . . . .
Flash In Red Phases	. . . . .
Flash In Red Overlaps	. . . . .

Special Operation (2-1-2-3)	
Single Exit Phase	. . . . .
Driveway Signal Phases	. . . . .
Driveway Signal Overlaps	. . . . .
Leading Ped Phases	. . . . .

Protected Permissive (2-1-2-4)	
Protected Permissive	. . . . .

Pedestrian (2-1-3)	
P1	. . . . .
P2	. . . . .
P3	. . . . .
P4	. . . . .
P5	. . . . .
P6	. . . . . 6 . .
P7	. . . . .
P8	. . . . .

Overlap (2-1-4)				
Overlap	Parent	Omit	No Start	Not
A	. . . . .	. . . . .	. . . . .	. . . . .
B	. . . . .	. . . . .	. . . . .	. . . . .
C	. . . . .	. . . . .	. . . . .	. . . . .
D	. . . . .	. . . . .	. . . . .	. . . . .
E	. . . . .	. . . . .	. . . . .	. . . . .
F	. . . . .	. . . . .	. . . . .	. . . . .

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PHASE TIMING

Phase (2-2)	-1-	-2-	-3-	-4-	-5-	-6-	-7-	-8-
--- Walk 1 ---	0	0	0	10	0	7	0	0
Flash Don't Walk	0	0	0	10	0	15	0	0
Minimum Green	10	10	10	10	10	10	10	9
Det Limit	10	0	10	10	10	0	10	0
Max Initial	10	20	10	10	10	20	10	0
Max Green 1	50	40	50	50	50	40	50	30
Max Green 2	50	50	50	50	50	50	50	50
Max Green 3	50	50	50	50	50	50	50	50
Extension	5.0	5.0	5.0	5.0	5.0	5.0	5.0	4.0
Maximum Gap	5.0	7.0	5.0	5.0	5.0	7.0	5.0	4.0
Minimum Gap	5.0	2.5	5.0	5.0	5.0	2.5	5.0	4.0
Add Per Vehicle	1.0	2.5	1.0	1.0	1.0	2.5	1.0	0.0
Reduce Gap By	0.0	0.2	0.0	0.0	0.0	0.2	0.0	0.0
Reduce Every	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.0
Yellow	5.0	4.8	5.0	5.0	5.0	4.8	5.0	4.4
All-Red	1.0	1.5	1.0	1.0	1.0	1.5	1.0	1.0
Ped/Bike (2-3)	**-1-**	**-2-**	**-3-**	**-4-**	**-5-**	**-6-**	**-7-**	**-8-**
--- Walk 2 ---	0	0	0	0	0	0	0	0
Delay/Early Walk	0	0	0	0	0	0	0	0
Solid Don't Walk	0	0	0	0	0	0	0	0
Bike Green	0	0	0	0	0	0	0	0
Bike All-Red	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

OVERLAP TIMING

Overlap (2-4)	A	B	C	D	E	F
Green	0.0	0.0	0.0	0.0	0.0	0.0
Yellow	5.0	5.0	5.0	5.0	5.0	5.0
Red	0.0	0.0	0.0	0.0	0.0	0.0

Red Revert

Red Revert (2-5)	
Time	5.0
All-Red Sec/Min (2-6)	
All-Red Sec/Min:	OFF

Max 2 Extension

Max/Gap Out (2-7)	
Max Cnt	0
Gap Cnt	0

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Local Plan 1...9 (7-1) TIMING DATA

COORDINATION

[Offsets] Green Factors or Press [F] to Select Force-Off

		Cycle	Multi	Lag Gap	A	B	C	-1-	-2-	-3-	-4-	-5-	-6-	-7-	-8-
Plan 1	Green Factor	100		.....					62				62		25
Plan 2	Green Factor	86		.....	4				48				48		25
Plan 3	Green Factor	92		.....	52				59				59		20
Plan 4	Green Factor	88		.....	64				50				50		25
Plan 5	Green Factor			.....											
Plan 6	Green Factor			.....											
Plan 7	Green Factor			.....											
Plan 8	Green Factor			.....											
Plan 9	Green Factor			.....											

Master Timer Sync (7-A)	
Enable in Plans	
1-9	.....
11-19	.....
21-29	.....

Master Sub Master	
Input	
Output	

FREE PLAN PHASE FLAGS

(7-E) Free	
Lag	Omit
.2.4.6.8	.....
Veh Min	Veh Max
.2...6..	.....
Ped	Bike
.....	.....
Cond	Cond Grn
.....	10

Local Plan 1...9 (7-1) PHASE FLAGS

	Lag	Sync	Hold	Omit	Veh Min	Veh Max	Ped	Bike
Plan 1	.2.4.6.8	.2...6..	.....	.....	.2...6..	.....	.....	.....
Plan 2	.2.4.6.8	.2...6..	.....	.....	.2...6..	.....	.....	.....
Plan 3	.2.4.6.8	.2...6..	.....	.....	.2...6..	.....	.....	.....
Plan 4	.2.4.6.8	.2...6..	.....	.....	.2...6..	.....	.....	.....
Plan 5	.....	.....	.....	.....	.....	.....	.....	.....
Plan 6	.....	.....	.....	.....	.....	.....	.....	.....
Plan 7	.....	.....	.....	.....	.....	.....	.....	.....
Plan 8	.....	.....	.....	.....	.....	.....	.....	.....
Plan 9	.....	.....	.....	.....	.....	.....	.....	.....

MANUAL COMMANDS

Manual Plan (4-1)	
Plan	OffSet
	A

Plan: 1-29
254 = Flash
255 = Free
Offset A, B, or C

Special Function Override (4-2)			
#	Control	#	Control
1	NORMAL	3	NORMAL
2	NORMAL	4	NORMAL

Detector Reset	(4-3)
Local Manual (4-4)	OFF

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Local Plan 11...19 (7-2) TIMING DATA

COORDINATION

[Offsets] Green Factors or Press [F] to Select Force-Off

		Cycle	Multi	Lag Gap	A	B	C	-1-	-2-	-3-	-4-	-5-	-6-	-7-	-8-
Plan 11	Green Factor			.....											
Plan 12	Green Factor			.....											
Plan 13	Green Factor			.....											
Plan 14	Green Factor			.....											
Plan 15	Green Factor			.....											
Plan 16	Green Factor			.....											
Plan 17	Green Factor			.....											
Plan 18	Green Factor			.....											
Plan 19	Green Factor			.....											

Local Plan 11...19 (7-2) PHASE FLAGS

	Lag	Sync	Hold	Omit	Veh Min	Veh Max	Ped	Bike
Plan 11	.....	.....	.....	.....	.....	.....	.....	.....
Plan 12	.....	.....	.....	.....	.....	.....	.....	.....
Plan 13	.....	.....	.....	.....	.....	.....	.....	.....
Plan 14	.....	.....	.....	.....	.....	.....	.....	.....
Plan 15	.....	.....	.....	.....	.....	.....	.....	.....
Plan 16	.....	.....	.....	.....	.....	.....	.....	.....
Plan 17	.....	.....	.....	.....	.....	.....	.....	.....
Plan 18	.....	.....	.....	.....	.....	.....	.....	.....
Plan 19	.....	.....	.....	.....	.....	.....	.....	.....

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Local Plan 21...29 (7-3) TIMING DATA

COORDINATION

[Offsets] Green Factors or Press [F] to Select Force-Off

		Cycle	Multi	Lag Gap	A	B	C	-1-	-2-	-3-	-4-	-5-	-6-	-7-	-8-
Plan 21	Green Factor			.....											
Plan 22	Green Factor			.....											
Plan 23	Green Factor			.....											
Plan 24	Green Factor			.....											
Plan 25	Green Factor			.....											
Plan 26	Green Factor			.....											
Plan 27	Green Factor			.....											
Plan 28	Green Factor			.....											
Plan 29	Green Factor			.....											

Local Plan 21...29 (7-3) PHASE FLAGS

	Lag	Sync	Hold	Omit	Veh Min	Veh Max	Ped	Bike
Plan 21	.....	.....	.....	.....	.....	.....	.....	.....
Plan 22	.....	.....	.....	.....	.....	.....	.....	.....
Plan 23	.....	.....	.....	.....	.....	.....	.....	.....
Plan 24	.....	.....	.....	.....	.....	.....	.....	.....
Plan 25	.....	.....	.....	.....	.....	.....	.....	.....
Plan 26	.....	.....	.....	.....	.....	.....	.....	.....
Plan 27	.....	.....	.....	.....	.....	.....	.....	.....
Plan 28	.....	.....	.....	.....	.....	.....	.....	.....
Plan 29	.....	.....	.....	.....	.....	.....	.....	.....

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DETECTORS

Detector Attributes (5-1)				Slot	Detector Configuration (5-2)				
Det	Type	Phases	Lock		Det	Delay	Extend	Recall	Port
1	COUNT+CALL+EXTEND	1	NO	I1U	1			10	3.2
2	COUNT+CALL+EXTEND	1	NO	I1L	2			10	7.2
3	COUNT+CALL+EXTEND	. 2	NO	I2U	3			10	1.1
4	COUNT+CALL+EXTEND	. 2	NO	I2L	4			10	1.5
5	COUNT+CALL+EXTEND	. 2	NO	I3U	5			10	4.5
6	CALL+EXTEND	. 2	NO	I3L	6			10	6.2
7	LIMITED	. 2	NO	I4U	7			10	2.1
8	COUNT+CALL+EXTEND	. 2	NO	I4L	8	7		10	7.4
9	COUNT+CALL+EXTEND	. . 3	NO	I5U	9			10	3.4
10	COUNT+CALL+EXTEND	. . 3	NO	I5L	10			10	7.6
11	COUNT+CALL+EXTEND	. . . 4 . . .	NO	I6U	11			10	1.3
12	COUNT+CALL+EXTEND	. . . 4 . . .	NO	I6L	12			10	1.7
13	COUNT+CALL+EXTEND	. . . 4 . . .	NO	I7U	13			10	4.7
14	CALL+EXTEND	. . . 4 . . .	NO	I7L	14			10	6.4
15	LIMITED	. . . 4 . . .	NO	I8U	15			10	2.3
16	COUNT+CALL+EXTEND	. . . 4 . . .	NO	I8L	16			10	7.8
17	COUNT+CALL+EXTEND	1	NO	I9U	17			10	3.6
18	COUNT+CALL+EXTEND	. . 3	NO	I9L	18			10	3.8
19	COUNT+CALL+EXTEND	. 2	NO	I10U	19			10	4.1
20	COUNT+CALL+EXTEND	. . . 4 . . .	NO	I10L	20			10	4.2
21	COUNT+CALL+EXTEND	. . . . 5 . . .	NO	J1U	21			10	3.1
22	COUNT+CALL+EXTEND	. . . . 5 . . .	NO	J1L	22			10	7.1
23	COUNT+CALL+EXTEND	. . . . . 6 . .	NO	J2U	23			10	1.2
24	COUNT+CALL+EXTEND	. . . . . 6 . .	NO	J2L	24			10	1.6
25	COUNT+CALL+EXTEND	. . . . . 6 . .	NO	J3U	25			10	4.6
26	CALL+EXTEND	. . . . . 6 . .	NO	J3L	26			10	6.3
27	LIMITED	. . . . . 6 . .	NO	J4U	27			10	2.2
28	COUNT+CALL+EXTEND	. . . . . 6 . .	NO	J4L	28			10	7.3
29	COUNT+CALL+EXTEND	. . . . . 7 .	NO	J5U	29			10	3.3
30	COUNT+CALL+EXTEND	. . . . . 7 .	NO	J5L	30			10	7.5
31	COUNT+CALL+EXTEND	 8	NO	J6U	31			10	1.4
32	COUNT+CALL+EXTEND	 8	NO	J6L	32			10	1.8
33	COUNT+CALL+EXTEND	 8	NO	J7U	33			10	4.8
34	CALL+EXTEND	 8	NO	J7L	34			10	6.5
35	LIMITED	 8	NO	J8U	35			10	2.4
36	COUNT+CALL+EXTEND	 8	NO	J8L	36			10	7.7
37	COUNT+CALL+EXTEND	. . . . 5 . . .	NO	J9U	37			10	3.5
38	COUNT+CALL+EXTEND	. . . . . 7 .	NO	J9L	38			10	3.7
39	COUNT+CALL+EXTEND	. . . . . 6 . .	NO	J10U	39			10	4.3
40	COUNT+CALL+EXTEND	 8	NO	J10L	40			10	4.4
41	PEDESTRIAN	. 2	NO	I12U	41			10	5.1
42	PEDESTRIAN	. . . 4 . . .	NO	I12L	42			10	5.3
43	PEDESTRIAN	. . . . . 6 . .	NO	I13U	43			10	5.2
44	PEDESTRIAN	 8	NO	I13L	44			10	5.4

Failure Times(5-3)	Minutes
Maximum On Time	
Fail Reset Time	

Failure Override (5-4)	
Detectors 1-8	. . . . .
Detectors 9-16	. . . . .
Detectors17-24	. . . . .
Detectors 25-32	. . . . .
Detectors 33-40	. . . . .
Detectors 41-44	. . . . .

System Detector Assignment (5-5)

Sys Det	1	2	3	4	5	6	7	8
Det Nu								
Sys Det	9	10	11	12	13	14	15	16
Det Nu								

CIC Operation (5-6-1)	
Enable in Plans	. . . . .

CIC Values (5-6-2)	Volume	Occupancy	Demand
Smoothing	0.66	0.66	0.66
Multiplier	4.0	0.33	
Exponent	0.50	1.00	

Detector-to-Phase Assignment (5-6-3)

Sys Det	1	2	3	4	5	6	7	8
Phase								
Sys Det	9	10	11	12	13	14	15	16
Phase								

Input File Port-Bit Assignments

332 Cabinet - For Reference Only

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
I-	3.2	1.1	4.5	2.1	3.4	1.3	4.7	2.3	3.6	4.1	6.6	5.1	5.2	6.7
	7.2	1.5	6.2	7.4	7.6	1.7	6.4	7.8	3.8	4.2	2.7	5.3	5.4	6.8
J-	3.1	1.2	4.6	2.2	3.3	1.4	4.8	2.4	3.5	4.3	2.8	5.5	5.6	2.5
	7.1	1.6	6.3	7.3	7.5	1.8	6.5	7.7	3.7	4.4	6.1	5.7	5.8	2.6

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TOD SCHEDULE

Table 1 (8-2-1)		
Time	Plan	OS
0700	1	A
0820	4	A
1000	2	A
1400	3	A
2000	255	A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A

Table 2 (8-2-2)		
Time	Plan	OS
0700	255	A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A

Table 3 (8-2-3)		
Time	Plan	OS
0700	4	A
1000	2	A
1400	3	A
2000	255	A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A

Table 4 (8-2-4)		
Time	Plan	OS
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A

Table 5 (8-2-5)		
Time	Plan	OS
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A

Table 6 (8-2-6)		
Time	Plan	OS
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A

WEEKDAY ASSIGNMENT

Weekday Table Assignments (8-2-7)						
Mon	Tue	Wed	Thu	Fri	Sat	Sun
1	1	1	1	3	2	2

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HOLIDAY TABLES

Floating Holiday Table (8-2-8)

#	Mnth	Week	DOW	Table
1			. . . . .	
2			. . . . .	
3			. . . . .	
4			. . . . .	
5			. . . . .	
6			. . . . .	
7			. . . . .	
8			. . . . .	
9			. . . . .	
10			. . . . .	
11			. . . . .	
12			. . . . .	
13			. . . . .	
14			. . . . .	
15			. . . . .	
16			. . . . .	

Fixed Holiday Table (8-2-9)

#	Mnth	Day	DOW	Table
1			. . . . .	
2			. . . . .	
3			. . . . .	
4			. . . . .	
5			. . . . .	
6			. . . . .	
7			. . . . .	
8			. . . . .	
9			. . . . .	
10			. . . . .	
11			. . . . .	
12			. . . . .	
13			. . . . .	
14			. . . . .	
15			. . . . .	
16			. . . . .	

Daylight Saving (8-1)

Enabled	YES	Month	Sunday
	Start	MAR	2nd
	End	NOV	1st

Solar Clock Data (8-4)

North Latitude	34
West Longitude	118
Local Time Zone	8

Sabbatical Clock (8-5)

Hebrew	Ped Recall
Sabbath	. . . . .
Holiday	. . . . .

TOD FUNCTIONS

TOD Functions (8-3)

#	Start	End	DOW	Action	Phases
1			. . . . .		. . . . .
2			. . . . .		. . . . .
3			. . . . .		. . . . .
4			. . . . .		. . . . .
5			. . . . .		. . . . .
6			. . . . .		. . . . .
7			. . . . .		. . . . .
8			. . . . .		. . . . .
9			. . . . .		. . . . .
10			. . . . .		. . . . .
11			. . . . .		. . . . .
12			. . . . .		. . . . .
13			. . . . .		. . . . .
14			. . . . .		. . . . .
15			. . . . .		. . . . .
16			. . . . .		. . . . .

Action Codes:

0. None
1. Permitted
2. Restricted
4. Veh Min Recall
5. Veh Max Recall
6. Ped Recall
7. Bike Recall
8. Red Lock
9. Yellow Lock
10. Force/Max Lock
11. Double Entry
12. Y-Coord C
13. Y-Coord D
14. Free
15. Flashing
16. Walk 2
17. Max Green 2
18. Max Green 3
19. Rest in Walk
20. Rest in Red
21. Free Lag Phases
22. Special Functions
23. Truck Preempt
24. Conditional Service
25. Conditional Service
26. Leading Ped
27. Traffic Actuated Max 2
41. Protected Permissive
42. Protected Permissive

Action Code = Phases added to normal setting

100+Action Code = Phases removed

200+Action Code = Phases replaced

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COMMUNICATIONS

	C2 (6-1-1)	C20 (6-1-2)	C21 (6-1-3)
Address	1		
Baud	9600	1200	1200
Protocol	AB3418	AB3418	AB3418
Data Bits	8	8	8
Parity	NONE	NONE	NONE
Stop Bits	1	1	1
RTS On Time	20	20	20
RTS Off Time	20	20	20
Handshaking	NORMAL	NORMAL	NORMAL
Access Level	0	0	0

CALLBACK NUMBERS

Callback Numbers (6-3...3)

Line Out			
Long Distance			
Local Toll			
Delay	10	10	10
Area Code			
Phone Number			

NETWORK

Network Parameters (6-4)

Address	
Protocol	AB3418
Port	27000
Type	STATIC
Central Access	
Field Access	
ATSPM	OFF

IP Address	0	.	0	.	0	.	0	
Netmask	255	.	255	.	255	.	0	
Broadcast	0	.	0	.	0	.	255	
Gateway	0	.	0	.	0	.	254	

Access Levels:

0-Full Access
1-Status Only
2-Status, Set Pattern, Time
3-Status, Set Pattern, Time, Manual Plan
4-Reserved
5-Full Access with No Set Pattern
6-Full Access with No Set Time
7-Full Access with No Set Pattern, Manual Plan
8-Full Access with No Set Time, Pattern, Manual Plan

SPAT Network (6-5)

SPAT	1	2
Protocol	NONE	NONE
UDP Port	0	0

IP Address	0	.	0	.	0	.	0	

SOFT LOGIC

Soft Logic (6-2)

#	Data	OP	Data	OP	Data	OP	Data
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							

*Refer to User's Manual for Data and OP Codes

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RAILROAD PREEMPTION

RR 1

Timing (3-1-1)	
Clear 1	15
Clear 2	5
Clear 3	
Hold	
Min Gr	
Delay	
Exit	
Ped Clr	

Phase Flags (3-1-2)			Pedestrian Flags (3-1-3)			Overlap Flags (3-1-4)		
Grn Hold	Yel Flash	Red Flash	Walk	Flash DW	Solid DW	Grn Hold	Yel Flash	Red Flash
. 2 . . 5 . . .	. . . .	. . . .	. . . .	. . . .	. 2 . 4 . 6 . 8	. . . . .	. . . . .	. . . . .
. 2 . . 5 . . .	. . . .	. . . .	. . . .	. . . .	. 2 . 4 . 6 . 8	. . . . .	. . . . .	. . . . .
. . . .	. . . .	. . . .	. . . .	. . . .	. . . .	. . . . .	. . . . .	. . . . .
1 . . 4 . . 7 8	. . . .	. . . .	. . . .	. . . 4 . . . 8	. 2 . . . 6 . .	. . . . .	. . . . .	. . . . .

Exit Parameters (3-1-5)

Phase Green	Ovrlap Green	Veh Permit/Call	Ped Permit/Call
. 2 . . . 6 . .	. . . . .	1 2 3 4 5 6 7 8	. 2 . 4 . 6 . 8

Configuration (3-1-6)

	PR	XR	Gate	Isld	APP	Sign	Sign	Max On	Latching
1								5	NO
2									

Valid Inputs: 1.x, 2.x, 3.x, 4.x, 5.x, 6.x, 7.x, 8.x x=1 to 8
Valid Outputs: 11.x, 12.x, 13.x, 14.x, 15.x, 16.x, 17.x, 18.x x=1 to 8

RR 2

Timing (3-2-1)	
Clear 1	15
Clear 2	5
Clear 3	
Hold	
Min Gr	
Delay	
Exit	
Ped Clr	

Phase Flags (3-2-2)			Pedestrian Flags (3-2-3)			Overlap Flags (3-2-4)		
Grn Hold	Yel Flash	Red Flash	Walk	Flash DW	Solid DW	Grn Hold	Yel Flash	Red Flash
. . . 4 . . 7 .	. . . .	. . . .	. . . .	. . . .	. 2 . 4 . 6 . 8	. . . . .	. . . . .	. . . . .
. . . 4 . . 7 .	. . . .	. . . .	. . . .	. . . .	. 2 . 4 . 6 . 8	. . . . .	. . . . .	. . . . .
. . . .	. . . .	. . . .	. . . .	. . . .	. . . .	. . . . .	. . . . .	. . . . .
1 2 3 . . 6 . .	. . . .	. . . .	. . . .	. 2 . . . 6 . .	. . . 4 . . . 8	. . . . .	. . . . .	. . . . .

Exit Parameters (3-2-5)

Phase Green	Ovrlap Green	Veh Permit/Call	Ped Permit/Call
. 2 . . . 6 . .	. . . . .	1 2 3 4 5 6 7 8	. 2 . 4 . 6 . 8

Configuration (3-2-6)

	PR	XR	Gate	Isld	APP	Sign	Sign	Max On	Latching
1								5	NO
2									

Valid Inputs: 1.x, 2.x, 3.x, 4.x, 5.x, 6.x, 7.x, 8.x x=1 to 8
Valid Outputs: 11.x, 12.x, 13.x, 14.x, 15.x, 16.x, 17.x, 18.x x=1 to 8

EMERGENCY VEHICLE PREEMPTION

EVA (3-A)

Preempt Timers			Phase Green	Overlap Green
Delay	Clear	Max		
	30	30	. 2 . . 5 . . .	. . . . .

Port	Latching	Phase Termination
	NO	ADVANCE

EVB (3-B)

Preempt Timers			Phase Green	Overlap Green
Delay	Clear	Max		
	30	30	. . . 4 . . 7 .	. . . . .

Port	Latching	Phase Termination
	NO	ADVANCE

EVC (3-C)

Preempt Timers			Phase Green	Overlap Green
Delay	Clear	Max		
	30	30	1 . . . . 6 . .	. . . . .

Port	Latching	Phase Termination
	NO	ADVANCE

EVD (3-D)

Preempt Timers			Phase Green	Overlap Green
Delay	Clear	Max		
	30	30	. . 3 8	. . . . .

Port	Latching	Phase Termination
	NO	ADVANCE

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INPUTS

		7 Wire I/C (2-1-5-1)			
		Input	Port	Input	Port
Enable	NO	RR1		Free	
Max ON		RR2		D2	
Max OFF		RR3		D3	

Manual Control (2-1-5-2)	
Input	Port
Manual Advance	
Advance Enable	

Cabinet Status (2-1-5-3)	
Input	Port
Flash Bus	
Door Ajar	
Flash Sense	6.7
Stop Time	6.8

Special Function (2-1-5-4)	
Input	Port
1	
2	
3	
4	

Battery Backup (2-1-5-5)	
Port	Operation
	NORMAL

Y-Coordination (2-1-5-6	
Port C	Port D

OUTPUTS

Loadswitch Assignments (2-1-6)							
A	1	2	22	3	4	24	9
B	5	6	26	7	8	28	10
X	13	14	0	11	12	0	0

Loadswitch Codes:

0 Unused (no output)
1-8 Vehicle 1-8
9-14 Overlap A-F
21-28 Ped 1-8
41-47 Special Functions
41 Protected Permissive Flashing Phase 1
43 Protected Permissive Flashing Phase 3
45 Protected Permissive Flashing Phase 5
47 Protected Permissive Flashing Phase 7
51-57 Special Functions
71-72 Seven Wire I/C

+ middle output of loadswitches 3 and 6 Channel 9 and 10

INTERVAL CONTROL

Interval Control (3-3-1)	
	Time
Step 1	
Step 2	
Step 3	
Step 4	
Step 5	
Step 6	
Step 7	
Step 8	

Phase Control (3-3-2)		
Hold	Force	Advance
.....	.....	.....
.....	.....	.....
.....	.....	.....
.....	.....	.....
.....	.....	.....
.....	.....	.....
.....	.....	.....
.....	.....	.....

Phase Recall (3-3-3)		
Veh Call	Ped Call	Int Call
.....	.....	.....
.....	.....	.....
.....	.....	.....
.....	.....	.....
.....	.....	.....
.....	.....	.....
.....	.....	.....
.....	.....	.....

Phase Permitted (3-3-4)		
Phs Permit	Ped Permit	Ovrlap Permit
.....	.....	.....
.....	.....	.....
.....	.....	.....
.....	.....	.....
.....	.....	.....
.....	.....	.....
.....	.....	.....
.....	.....	.....

Configuration (3-3-5)			
Input	Port	Delay	HRI Cross
1			
2			

HRI

HRI Configuration (3-4)	
RailRoad	51
Line	
Group	

	WAYSIDE	ATC
Subnode		
Device		

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TRANSIT PRIORITY

Local Plans (3-E) 1...9 11...19		Early Green	Green Extend	Inhibit Cycles	Phase 1 Minimum	Phase 2 Minimum	Phase 3 Minimum	Phase 4 Minimum	Phase 5 Minimum	Phase 6 Minimum	Phase 7 Minimum	Phase 8 Minimum
Plan 1	Green Factor											
Plan 2	Green Factor											
Plan 3	Green Factor											
Plan 4	Green Factor											
Plan 5	Green Factor											
Plan 6	Green Factor											
Plan 7	Green Factor											
Plan 8	Green Factor											
Plan 9	Green Factor											
Plan 11	Green Factor											
Plan 12	Green Factor											
Plan 13	Green Factor											
Plan 14	Green Factor											
Plan 15	Green Factor											
Plan 16	Green Factor											
Plan 17	Green Factor											
Plan 18	Green Factor											
Plan 19	Green Factor											

Enable in Local Plans (3-E-3)	
Plan 1-9	. . . . .
Plan 11-19	. . . . .

Queue Jump (3-E-4)	
Grn Hold	Hold Phase
	. . . . .
	. . . . .

Input	
Type	Port
NONE	0.0
NONE	0.0

Output	
Stop	Go
0	0
0	0

Free Plans (3-E-E)	
Max Grn Hold	Hold Phase
	. . . . .

Access Utilities (9-5)	
Password	***
Timeout	30

YELLOW YIELD COORDINATION

					Force-Offs											
Y-Coord Plans (7-C,D)	Long Grn	No Grn	Offset	Perm	-1-	-2-	-3-	-4-	-5-	-6-	-7-	-8-	Coord	Lag	Min Recall	Restricted
Plan C													. 2 . . . 6 . .	. 2 . 4 . 6 . 8	. . . . .	. . . . .
Plan D													. 2 . . . 6 . .	. 2 . 4 . 6 . 8	. . . . .	. . . . .

TRUCK PRIORITY

Truck Priority (3-F)	Passage	CarryOver	Clearance	Next Priority	Phase Green	Det 2 Port	Det 3 Port	Det 4 Port	Sign Output	Slave Input	Slave Output
					. . . . .	0.0	0.0	0.0	0	0.0	0

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Location: 71 SB @ MISSION BLVD
System:
Master At: 71 NB @ MISSION BLVD
District: 07
I/C:
Designed By: Anthony Thiem
Installed By: Anthony Thiem
Service Info: TSCP ver 3.10 Build 006

Timing Change:	Date Start:	Date End:	Designed:	Installed:
	5/4/2021		5/4/2021	5/4/2021

Intersection Layou

		FLASH
PHASE	1) WBLT MISSION BLVD	[ ]
	2) EB MISSION BLVD	[ ]
	3)	[ ]
	4) 71 SB OFF RAMP	[ ]
	5)	[ ]
	6) WB MISSION BLVD	[ ]
	7)	[ ]
	8)	[ ]
OVERLAP	A)	[ ]
	B)	[ ]
	C)	[ ]
	D)	[ ]
	E)	[ ]
	F)	[ ]

Comments and Notes:
05/04/2021 - Upgrade software to TSCP v3.10 Build 006 - AT

RAM Checksum

Page 2: DD6F	Page 8: CEAD
Page 3: CF61	Page 9: E841
Page 4: 63C3	Page 10: A8B7
Page 5: 191A	Page 11: C838
Page 6: 191A	Page 12: 1FB3
Page 7: 5608	Page 13: 86F7

Post Mile: PM 1.62

Printed: 4/29/2021

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CONFIGURATION PHASE FLAGS

Cabinet (9-3)
332
Configuration
CALTRANS

Phases (2-1-1-1)	
Permitted	1 2 . 4 . 6 . .
Restricted	. . . . .

Phase Recalls (2-1-1-2)	
Vehicle Min	. 2 . . . 6 . .
Vehicle Max	. . . . .
Pedestrian	. . . . .
Bicycle	. . . . .

Phase Locks (2-1-1-3)	
Red	. . . . .
Yellow	1 . . . . .
Force/Max	. . . . .

Phase Features (2-1-1-4)	
Double Entry	. . . . .
Rest In Walk	. . . . .
Rest In Red	. . . . .
Walk 2	. . . . .
Max Green 2	. . . . .
Max Green 3	. . . . .

Startup (2-1-1-5)	
First Green Phases	. 2 . . . 6 . .
Yellow Start Phases	. . . . .
Vehicle Calls	1 2 . 4 . 6 . .
Pedestrian Calls	. 2 . . . 6 . .
Yellow Start Overlaps	. . . . .
Startup All-Red	6.0

Call To Phase (2-1-2-1)		Omit On Green	
1	. . . . .	1	. . . . .
2	. . . . .	2	. . . . .
3	. . . . .	3	. . . . .
4	. . . . .	4	. . . . .
5	. . . . .	5	. . . . .
6	. . . . .	6	. . . . .
7	. . . . .	7	. . . . .
8	. . . . .	8	. . . . .

Flashing Colors (2-1-2-2)	
Yellow Flash Phases	. . . . .
Yellow Flash Overlaps	. . . . .
Flash In Red Phases	. . . . .
Flash In Red Overlaps	. . . . .

Special Operation (2-1-2-3)	
Single Exit Phase	. . . . .
Driveway Signal Phases	. . . . .
Driveway Signal Overlaps	. . . . .
Leading Ped Phases	. . . . .

Protected Permissive (2-1-2-4)	
Protected Permissive	. . . . .

Pedestrian (2-1-3)	
P1	. . . . .
P2	. 2 . . . . .
P3	. . . . .
P4	. . . . .
P5	. . . . .
P6	. . . . . 6 . .
P7	. . . . .
P8	. . . . .

Overlap (2-1-4)				
Overlap	Parent	Omit	No Start	Not
A	. . . . .	. . . . .	. . . . .	. . . . .
B	. . . . .	. . . . .	. . . . .	. . . . .
C	. . . . .	. . . . .	. . . . .	. . . . .
D	. . . . .	. . . . .	. . . . .	. . . . .
E	. . . . .	. . . . .	. . . . .	. . . . .
F	. . . . .	. . . . .	. . . . .	. . . . .

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PHASE TIMING

Phase (2-2)	-1-	-2-	-3-	-4-	-5-	-6-	-7-	-8-
--- Walk 1 ---	0	7	0	0	0	7	0	10
Flash Don't Walk	0	16	0	0	0	21	0	10
Minimum Green	12	12	10	12	10	12	10	10
Det Limit	0	0	10	0	10	0	10	10
Max Initial	0	10	10	0	10	10	10	10
Max Green 1	30	30	50	30	50	30	50	50
Max Green 2	0	0	50	0	50	0	50	50
Max Green 3	0	0	50	0	50	0	50	50
Extension	3.0	4.0	5.0	3.0	5.0	4.0	5.0	5.0
Maximum Gap	3.0	7.5	5.0	3.0	5.0	7.5	5.0	5.0
Minimum Gap	3.0	2.5	5.0	3.0	5.0	2.5	5.0	5.0
Add Per Vehicle	0.0	2.0	1.0	0.0	1.0	2.0	1.0	1.0
Reduce Gap By	0.0	0.2	0.0	0.0	0.0	0.2	0.0	0.0
Reduce Every	0.0	1.0	1.0	0.0	1.0	1.0	1.0	1.0
Yellow	3.7	4.8	5.0	4.4	5.0	4.8	5.0	5.0
All-Red	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0

Ped/Bike (2-3)	-1-	-2-	-3-	-4-	-5-	-6-	-7-	-8-
--- Walk 2 ---	0	0	0	0	0	0	0	0
Delay/Early Walk	0	0	0	0	0	0	0	0
Solid Don't Walk	0	0	0	0	0	0	0	0
Bike Green	0	0	0	0	0	0	0	0
Bike All-Red	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

OVERLAP TIMING

Overlap (2-4)	A	B	C	D	E	F
Green	0.0	0.0	0.0	0.0	0.0	0.0
Yellow	5.0	5.0	5.0	5.0	5.0	5.0
Red	0.0	0.0	0.0	0.0	0.0	0.0

Red Revert

Red Revert (2-5)	
Time	5.0
All-Red Sec/Min (2-6)	
All-Red Sec/Min:	OFF

Max 2 Extension

Max/Gap Out (2-7)	
Max Cnt	0
Gap Cnt	0

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Local Plan 1...9 (7-1) TIMING DATA

COORDINATION

[Offsets] Green Factors or Press [F] to Select Force-Off

		Cycle	Multi	Lag Gap	A	B	C	-1-	-2-	-3-	-4-	-5-	-6-	-7-	-8-
Plan 1	Green Factor	75		. . . . .				16	27		15		48		
Plan 2	Green Factor	75		. . . . .				18	24		16		47		
Plan 3	Green Factor	75		. . . . .				16	23		19		44		
Plan 4	Green Factor			. . . . .											
Plan 5	Green Factor			. . . . .											
Plan 6	Green Factor			. . . . .											
Plan 7	Green Factor			. . . . .											
Plan 8	Green Factor			. . . . .											
Plan 9	Green Factor			. . . . .											

Local Plan 1...9 (7-1) PHASE FLAGS

	Lag	Sync	Hold	Omit	Veh Min	Veh Max	Ped	Bike
Plan 1	. 2 . 4 . 6 . 8	. 2 . . . 6 . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .
Plan 2	. 2 . 4 . 6 . 8	. 2 . . . 6 . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .
Plan 3	. 2 . 4 . 6 . 8	. 2 . . . 6 . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .
Plan 4	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .
Plan 5	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .
Plan 6	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .
Plan 7	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .
Plan 8	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .
Plan 9	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .

Master Timer Sync (7-A)	
Enable in Plans	
1-9	. . . . .
11-19	. . . . .
21-29	. . . . .

Master Sub Master	
Input	
Output	

FREE PLAN PHASE FLAGS

(7-E) Free	
Lag	Omit
. 2 . 4 . 6 . 8	. . . . .
Veh Min	Veh Max
. 2 . . . 6 . .	. . . . .
Ped	Bike
. . . . .	. . . . .
Cond	Cond Grn
. . . . .	10

MANUAL COMMANDS

Manual Plan (4-1)	
Plan	OffSet
	A

Plan: 1-29
254 = Flash
255 = Free
Offset A, B, or C

Special Function Override (4-2)			
#	Control	#	Control
1	NORMAL	3	NORMAL
2	NORMAL	4	NORMAL

Detector Reset	(4-3)
Local Manual (4-4)	OFF

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Local Plan 11...19 (7-2) TIMING DATA

COORDINATION

[Offsets] Green Factors or Press [F] to Select Force-Off

		Cycle	Multi	Lag Gap	A	B	C	-1-	-2-	-3-	-4-	-5-	-6-	-7-	-8-
Plan 11	Green Factor			.....											
Plan 12	Green Factor			.....											
Plan 13	Green Factor			.....											
Plan 14	Green Factor			.....											
Plan 15	Green Factor			.....											
Plan 16	Green Factor			.....											
Plan 17	Green Factor			.....											
Plan 18	Green Factor			.....											
Plan 19	Green Factor			.....											

Local Plan 11...19 (7-2) PHASE FLAGS

	Lag	Sync	Hold	Omit	Veh Min	Veh Max	Ped	Bike
Plan 11	.....	.....	.....	.....	.....	.....	.....	.....
Plan 12	.....	.....	.....	.....	.....	.....	.....	.....
Plan 13	.....	.....	.....	.....	.....	.....	.....	.....
Plan 14	.....	.....	.....	.....	.....	.....	.....	.....
Plan 15	.....	.....	.....	.....	.....	.....	.....	.....
Plan 16	.....	.....	.....	.....	.....	.....	.....	.....
Plan 17	.....	.....	.....	.....	.....	.....	.....	.....
Plan 18	.....	.....	.....	.....	.....	.....	.....	.....
Plan 19	.....	.....	.....	.....	.....	.....	.....	.....

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Local Plan 21...29 (7-3) TIMING DATA

COORDINATION

[Offsets] Green Factors or Press [F] to Select Force-Off

		Cycle	Multi	Lag Gap	A	B	C	-1-	-2-	-3-	-4-	-5-	-6-	-7-	-8-
Plan 21	Green Factor			.....											
Plan 22	Green Factor			.....											
Plan 23	Green Factor			.....											
Plan 24	Green Factor			.....											
Plan 25	Green Factor			.....											
Plan 26	Green Factor			.....											
Plan 27	Green Factor			.....											
Plan 28	Green Factor			.....											
Plan 29	Green Factor			.....											

Local Plan 21...29 (7-3) PHASE FLAGS

	Lag	Sync	Hold	Omit	Veh Min	Veh Max	Ped	Bike
Plan 21	.....	.....	.....	.....	.....	.....	.....	.....
Plan 22	.....	.....	.....	.....	.....	.....	.....	.....
Plan 23	.....	.....	.....	.....	.....	.....	.....	.....
Plan 24	.....	.....	.....	.....	.....	.....	.....	.....
Plan 25	.....	.....	.....	.....	.....	.....	.....	.....
Plan 26	.....	.....	.....	.....	.....	.....	.....	.....
Plan 27	.....	.....	.....	.....	.....	.....	.....	.....
Plan 28	.....	.....	.....	.....	.....	.....	.....	.....
Plan 29	.....	.....	.....	.....	.....	.....	.....	.....

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DETECTORS

Detector Attributes (5-1)				Slot
Det	Type	Phases	Lock	
1	COUNT+CALL+EXTEND	1	NO	I1U
2	COUNT+CALL+EXTEND	1	NO	I1L
3	COUNT+CALL+EXTEND	. 2	NO	I2U
4	COUNT+CALL+EXTEND	. 2	NO	I2L
5	COUNT+CALL+EXTEND	. 2	NO	I3U
6	CALL+EXTEND	. 2	NO	I3L
7	CALL+EXTEND	. 2	NO	I4U
8	CALL+EXTEND	. 2	NO	I4L
9	COUNT+CALL+EXTEND	. . 3	NO	I5U
10	COUNT+CALL+EXTEND	. . 3	NO	I5L
11	COUNT+CALL+EXTEND	. . . 4 . . .	NO	I6U
12	COUNT+CALL+EXTEND	. . . 4 . . .	NO	I6L
13	COUNT+CALL+EXTEND	. . . 4 . . .	NO	I7U
14	CALL+EXTEND	. . . 4 . . .	NO	I7L
15	LIMITED	. . . 4 . . .	NO	I8U
16	COUNT+CALL+EXTEND	. . . 4 . . .	NO	I8L
17	COUNT+CALL+EXTEND	1	NO	I9U
18	COUNT+CALL+EXTEND	. . 3	NO	I9L
19	COUNT+CALL+EXTEND	. 2	NO	I10U
20	COUNT+CALL+EXTEND	. . . 4 . . .	NO	I10L
21	COUNT+CALL+EXTEND	. . . . 5 . . .	NO	J1U
22	COUNT+CALL+EXTEND	. . . . 5 . . .	NO	J1L
23	COUNT+CALL+EXTEND	. . . . . 6 . .	NO	J2U
24	COUNT+CALL+EXTEND	. . . . . 6 . .	NO	J2L
25	COUNT+CALL+EXTEND	. . . . . 6 . .	NO	J3U
26	CALL+EXTEND	. . . . . 6 . .	NO	J3L
27	CALL+EXTEND	. . . . . 6 . .	NO	J4U
28	CALL+EXTEND	. . . . . 6 . .	NO	J4L
29	COUNT+CALL+EXTEND	. . . . . 7 .	NO	J5U
30	COUNT+CALL+EXTEND	. . . . . 7 .	NO	J5L
31	COUNT+CALL+EXTEND	 8	NO	J6U
32	COUNT+CALL+EXTEND	 8	NO	J6L
33	COUNT+CALL+EXTEND	 8	NO	J7U
34	CALL+EXTEND	 8	NO	J7L
35	LIMITED	 8	NO	J8U
36	COUNT+CALL+EXTEND	 8	NO	J8L
37	COUNT+CALL+EXTEND	. . . . 5 . . .	NO	J9U
38	COUNT+CALL+EXTEND	. . . . . 7 .	NO	J9L
39	COUNT+CALL+EXTEND	. . . . . 6 . .	NO	J10U
40	COUNT+CALL+EXTEND	 8	NO	J10L
41	PEDESTRIAN	. 2	NO	I12U
42	PEDESTRIAN	. . . 4 . . .	NO	I12L
43	PEDESTRIAN	. . . . . 6 . .	NO	I13U
44	PEDESTRIAN	 8	NO	I13L

Detector Configuration (5-2)				
Det	Delay	Extend	Recall	Port
1			10	3.2
2			10	7.2
3			10	1.1
4			10	1.5
5			10	4.5
6			10	6.2
7			10	2.1
8			10	7.4
9			10	3.4
10			10	7.6
11			10	1.3
12			10	1.7
13			10	4.7
14			10	6.4
15			10	2.3
16			10	7.8
17			10	3.6
18			10	3.8
19			10	4.1
20			10	4.2
21			10	3.1
22			10	7.1
23			10	1.2
24			10	1.6
25			10	4.6
26			10	6.3
27			10	2.2
28			10	7.3
29			10	3.3
30			10	7.5
31			10	1.4
32			10	1.8
33			10	4.8
34			10	6.5
35			10	2.4
36			10	7.7
37			10	3.5
38			10	3.7
39			10	4.3
40			10	4.4
41			10	5.1
42			10	5.3
43			10	5.2
44			10	5.4

Failure Times(5-3)	Minutes
Maximum On Time	
Fail Reset Time	

Failure Override (5-4)	
Detectors 1-8	. . . . .
Detectors 9-16	. . . . .
Detectors17-24	. . . . .
Detectors 25-32	. . . . .
Detectors 33-40	. . . . .
Detectors 41-44	. . . . .

System Detector Assignment (5-5)

Sys Det	1	2	3	4	5	6	7	8
Det Nu								
Sys Det	9	10	11	12	13	14	15	16
Det Nu								

CIC Operation (5-6-1)	
Enable in Plans	. . . . .

CIC Values (5-6-2)	Volume	Occupancy	Demand
Smoothing	0.66	0.66	0.66
Multiplier	4.0	0.33	
Exponent	0.50	1.00	

Detector-to-Phase Assignment (5-6-3)

Sys Det	1	2	3	4	5	6	7	8
Phase								
Sys Det	9	10	11	12	13	14	15	16
Phase								

Input File Port-Bit Assignments

332 Cabinet - For Reference Only

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
I-	3.2	1.1	4.5	2.1	3.4	1.3	4.7	2.3	3.6	4.1	6.6	5.1	5.2	6.7
	7.2	1.5	6.2	7.4	7.6	1.7	6.4	7.8	3.8	4.2	2.7	5.3	5.4	6.8
J-	3.1	1.2	4.6	2.2	3.3	1.4	4.8	2.4	3.5	4.3	2.8	5.5	5.6	2.5
	7.1	1.6	6.3	7.3	7.5	1.8	6.5	7.7	3.7	4.4	6.1	5.7	5.8	2.6

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TOD SCHEDULE

Table 1 (8-2-1)		
Time	Plan	OS
0500	1	A
0900	2	A
1400	3	A
1930	2	A
2200	255	A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A

Table 2 (8-2-2)		
Time	Plan	OS
0700	2	A
2200	255	A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A

Table 3 (8-2-3)		
Time	Plan	OS
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A

Table 4 (8-2-4)		
Time	Plan	OS
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A

Table 5 (8-2-5)		
Time	Plan	OS
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A

Table 6 (8-2-6)		
Time	Plan	OS
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A

WEEKDAY ASSIGNMENT

Weekday Table Assignments (8-2-7)						
Mon	Tue	Wed	Thu	Fri	Sat	Sun
1	1	1	1	1	2	2

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HOLIDAY TABLES

Floating Holiday Table (8-2-8)

#	Mnth	Week	DOW	Table
1			. . . . .	
2			. . . . .	
3			. . . . .	
4			. . . . .	
5			. . . . .	
6			. . . . .	
7			. . . . .	
8			. . . . .	
9			. . . . .	
10			. . . . .	
11			. . . . .	
12			. . . . .	
13			. . . . .	
14			. . . . .	
15			. . . . .	
16			. . . . .	

Fixed Holiday Table (8-2-9)

#	Mnth	Day	DOW	Table
1			. . . . .	
2			. . . . .	
3			. . . . .	
4			. . . . .	
5			. . . . .	
6			. . . . .	
7			. . . . .	
8			. . . . .	
9			. . . . .	
10			. . . . .	
11			. . . . .	
12			. . . . .	
13			. . . . .	
14			. . . . .	
15			. . . . .	
16			. . . . .	

Daylight Saving (8-1)

Enable	YES		
		Month	Sunday
	Start	MAR	2nd
	End	NOV	1st

Solar Clock Data (8-4)

North Latitude	34
West Longitude	118
Local Time Zone	8

Sabbatical Clock (8-5)

Hebrew	Ped Recall
Sabbath	. . . . .
Holiday	. . . . .

TOD FUNCTIONS

TOD Functions (8-3)

#	Start	End	DOW	Action	Phases
1			. . . . .		. . . . .
2			. . . . .		. . . . .
3			. . . . .		. . . . .
4			. . . . .		. . . . .
5			. . . . .		. . . . .
6			. . . . .		. . . . .
7			. . . . .		. . . . .
8			. . . . .		. . . . .
9			. . . . .		. . . . .
10			. . . . .		. . . . .
11			. . . . .		. . . . .
12			. . . . .		. . . . .
13			. . . . .		. . . . .
14			. . . . .		. . . . .
15			. . . . .		. . . . .
16			. . . . .		. . . . .

Action Codes:

0. None
1. Permitted
2. Restricted
4. Veh Min Recall
5. Veh Max Recall
6. Ped Recall
7. Bike Recall
8. Red Lock
9. Yellow Lock
10. Force/Max Lock
11. Double Entry
12. Y-Coord C
13. Y-Coord D
14. Free
15. Flashing
16. Walk 2
17. Max Green 2
18. Max Green 3
19. Rest in Walk
20. Rest in Red
21. Free Lag Phases
22. Special Functions
23. Truck Preempt
24. Conditional Service
25. Conditional Service
26. Leading Ped
27. Traffic Actuated Max 2
41. Protected Permissive
42. Protected Permissive

Action Code = Phases added to normal setting

100+Action Code = Phases removed

200+Action Code = Phases replaced

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COMMUNICATIONS

	C2 (6-1-1)	C20 (6-1-2)	C21 (6-1-3)
Address	2		
Baud	9600	1200	1200
Protocol	AB3418	AB3418	AB3418
Data Bits	8	8	8
Parity	NONE	NONE	NONE
Stop Bits	1	1	1
RTS On Time	20	20	20
RTS Off Time	20	20	20
Handshaking	NORMAL	NORMAL	NORMAL
Access Level	0	0	0

CALLBACK NUMBERS

Callback Numbers (6-3...3)

Line Out			
Long Distance			
Local Toll			
Delay	10	10	10
Area Code			
Phone Number			

SOFT LOGIC

Soft Logic (6-2)

#	Data	OP	Data	OP	Data	OP	Data
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							

*Refer to User's Manual for Data and OP Codes

NETWORK

Network Parameters (6-4)

Address	
Protocol	AB3418
Port	27000
Type	STATIC
Central Acces	
Field Access	
ATSPM	OFF

IP Address	0	.	0	.	0	.	0
Netmask	255	.	255	.	255	.	0
Broadcast	0	.	0	.	0	.	255
Gateway	0	.	0	.	0	.	254

Access Levels:

0-Full Access
1-Status Only
2-Status, Set Pattern, Time
3-Status, Set Pattern, Time, Manual Plan
4-Reserved
5-Full Access with No Set Pattern
6-Full Access with No Set Time
7-Full Access with No Set Pattern, Manual Plan
8-Full Access with No Set Time, Pattern, Manual Plan

SPAT Network (6-5)

SPAT	1	2
Protocol	NONE	NONE
UDP Port	0	0

IP Address	0	.	0	.	0	.	0

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RAILROAD PREEMPTION

RR 1

Timing (3-1-1)	
Clear 1	15
Clear 2	5
Clear 3	
Hold	
Min Gr	
Delay	
Exit	
Ped Clr	

Phase Flags (3-1-2)			Pedestrian Flags (3-1-3)			Overlap Flags (3-1-4)		
Grn Hold	Yel Flash	Red Flash	Walk	Flash DW	Solid DW	Grn Hold	Yel Flash	Red Flash
. 2 . . 5 . . .	. . . .	. . . .	. . . .	. . . .	. 2 . 4 . 6 . 8	. . . . .	. . . . .	. . . . .
. 2 . . 5 . . .	. . . .	. . . .	. . . .	. . . .	. 2 . 4 . 6 . 8	. . . . .	. . . . .	. . . . .
. . . .	. . . .	. . . .	. . . .	. . . .	. . . .	. . . . .	. . . . .	. . . . .
1 . . 4 . . 7 8	. . . .	. . . .	. . . .	. . . 4 . . . 8	. 2 . . . 6 . .	. . . . .	. . . . .	. . . . .

Exit Parameters (3-1-5)			
Phase Green	Ovrlap Green	Veh Permit/Call	Ped Permit/Call
. 2 . . . 6 . .	. . . . .	1 2 3 4 5 6 7 8	. 2 . 4 . 6 . 8

Configuration (3-1-6)								
	PR	XR	Gate	Isld	APP	Sign	Sign	Max On	Latching
1								5	NO
2									

Valid Inputs: 1.x, 2.x, 3.x, 4.x, 5.x, 6.x, 7.x, 8.x x=1 to 8
Valid Outputs: 11.x, 12.x, 13.x, 14.x, 15.x, 16.x, 17.x, 18.x x=1 to 8

RR 2

Timing (3-2-1)	
Clear 1	15
Clear 2	5
Clear 3	
Hold	
Min Gr	
Delay	
Exit	
Ped Clr	

Phase Flags (3-2-2)			Pedestrian Flags (3-2-3)			Overlap Flags (3-2-4)		
Grn Hold	Yel Flash	Red Flash	Walk	Flash DW	Solid DW	Grn Hold	Yel Flash	Red Flash
. . . 4 . . 7 .	. . . .	. . . .	. . . .	. . . .	. 2 . 4 . 6 . 8	. . . . .	. . . . .	. . . . .
. . . 4 . . 7 .	. . . .	. . . .	. . . .	. . . .	. 2 . 4 . 6 . 8	. . . . .	. . . . .	. . . . .
. . . .	. . . .	. . . .	. . . .	. . . .	. . . .	. . . . .	. . . . .	. . . . .
1 2 3 . . 6 . .	. . . .	. . . .	. . . .	. 2 . . . 6 . .	. . . 4 . . . 8	. . . . .	. . . . .	. . . . .

Exit Parameters (3-2-5)			
Phase Green	Ovrlap Green	Veh Permit/Call	Ped Permit/Call
. 2 . . . 6 . .	. . . . .	1 2 3 4 5 6 7 8	. 2 . 4 . 6 . 8

Configuration (3-2-6)								
	PR	XR	Gate	Isld	APP	Sign	Sign	Max On	Latching
1								5	NO
2									

Valid Inputs: 1.x, 2.x, 3.x, 4.x, 5.x, 6.x, 7.x, 8.x x=1 to 8
Valid Outputs: 11.x, 12.x, 13.x, 14.x, 15.x, 16.x, 17.x, 18.x x=1 to 8

EMERGENCY VEHICLE PREEMPTION

EVA (3-A)

Preempt Timers			Phase Green	Overlap Green
Delay	Clear	Max		
	30	30	. 2 . . 5 . . .	. . . . .

Port	Latching	Phase Termination
	NO	ADVANCE

EVB (3-B)

Preempt Timers			Phase Green	Overlap Green
Delay	Clear	Max		
	30	30	. . . 4 . . 7 .	. . . . .

Port	Latching	Phase Termination
	NO	ADVANCE

EVC (3-C)

Preempt Timers			Phase Green	Overlap Green
Delay	Clear	Max		
	30	30	1 . . . . 6 . .	. . . . .

Port	Latching	Phase Termination
	NO	ADVANCE

EVD (3-D)

Preempt Timers			Phase Green	Overlap Green
Delay	Clear	Max		
	30	30	. . 3 8	. . . . .

Port	Latching	Phase Termination
	NO	ADVANCE

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INPUTS

		7 Wire I/C (2-1-5-1)			
		Input	Port	Input	Port
Enable	NO	RR1		Free	
Max ON		RR2		D2	
Max OFF		RR3		D3	

Manual Control (2-1-5-2)	
Input	Port
Manual Advance	
Advance Enable	

Cabinet Status (2-1-5-3)	
Input	Port
Flash Bus	
Door Ajar	
Flash Sense	6.7
Stop Time	6.8

Special Function (2-1-5-4)	
Input	Port
1	
2	
3	
4	

Battery Backup (2-1-5-5)	
Port	Operation
	NORMAL

Y-Coordination (2-1-5-6	
Port C	Port D

OUTPUTS

Loadswitch Assignments (2-1-6)							
A	1	2	22	3	4	24	9
B	5	6	26	7	8	28	10
X	13	14	0	11	12	0	0

Loadswitch Codes:
- 0 Unused (no output)
- 1-8 Vehicle 1-8
- 9-14 Overlap A-F
- 21-28 Ped 1-8
- 41-47 Special Functions
- 41 Protected Permissive Flashing Phase 1
- 43 Protected Permissive Flashing Phase 3
- 45 Protected Permissive Flashing Phase 5
- 47 Protected Permissive Flashing Phase 7
- 51-57 Special Functions
- 71-72 Seven Wire I/C

+ middle output of loadswitches 3 and 6 Channel 9 and 10

INTERVAL CONTROL

Interval Control (3-3-1)	
	Time
Step 1	
Step 2	
Step 3	
Step 4	
Step 5	
Step 6	
Step 7	
Step 8	

Phase Control (3-3-2)		
Hold	Force	Advance
.....	.....	.....
.....	.....	.....
.....	.....	.....
.....	.....	.....
.....	.....	.....
.....	.....	.....
.....	.....	.....
.....	.....	.....

Phase Recall (3-3-3)		
Veh Call	Ped Call	Int Call
.....	.....	.....
.....	.....	.....
.....	.....	.....
.....	.....	.....
.....	.....	.....
.....	.....	.....
.....	.....	.....
.....	.....	.....

Phase Permitted (3-3-4)		
Phs Permit	Ped Permit	Ovrlap Permit
.....	.....	.....
.....	.....	.....
.....	.....	.....
.....	.....	.....
.....	.....	.....
.....	.....	.....
.....	.....	.....
.....	.....	.....

Configuration (3-3-5)			
Input	Port	Delay	HRI Cross
1			
2			

HRI

HRI Configuration (3-4)	
RailRoad	51
Line	
Group	

	WAYSIDE	ATC
Subnode		
Device		

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TRANSIT PRIORITY

Local Plans (3-E) 1...9 11...19		Early Green	Green Extend	Inhibit Cycles	Phase 1 Minimum	Phase 2 Minimum	Phase 3 Minimum	Phase 4 Minimum	Phase 5 Minimum	Phase 6 Minimum	Phase 7 Minimum	Phase 8 Minimum
Plan 1	Green Factor											
Plan 2	Green Factor											
Plan 3	Green Factor											
Plan 4	Green Factor											
Plan 5	Green Factor											
Plan 6	Green Factor											
Plan 7	Green Factor											
Plan 8	Green Factor											
Plan 9	Green Factor											
Plan 11	Green Factor											
Plan 12	Green Factor											
Plan 13	Green Factor											
Plan 14	Green Factor											
Plan 15	Green Factor											
Plan 16	Green Factor											
Plan 17	Green Factor											
Plan 18	Green Factor											
Plan 19	Green Factor											

Enable in Local Plans (3-E-3)	
Plan 1-9	. . . . .
Plan 11-19	. . . . .

Queue Jump (3-E-4)	
Grn Hold	Hold Phase
	. . . . .
	. . . . .

Input	
Type	Port
NONE	0.0
NONE	0.0

Output	
Stop	Go
0	0
0	0

Free Plans (3-E-E)	
Max Grn Hold	Hold Phase
	. . . . .

Access Utilities (9-5)	
Password	***
Timeout	30

YELLOW YIELD COORDINATION

					Force-Offs											
Y-Coord Plans (7-C,D)	Long Grn	No Grn	Offset	Perm	-1-	-2-	-3-	-4-	-5-	-6-	-7-	-8-	Coord	Lag	Min Recall	Restricted
Plan C													. 2 . . . 6 . .	. 2 . 4 . 6 . 8	. . . . .	. . . . .
Plan D													. 2 . . . 6 . .	. 2 . 4 . 6 . 8	. . . . .	. . . . .

TRUCK PRIORITY

Truck Priority (3-F)	Passage	CarryOver	Clearance	Next Priority	Phase Green	Det 2 Port	Det 3 Port	Det 4 Port	Sign Output	Slave Input	Slave Output
					. . . . .	0.0	0.0	0.0	0	0.0	0

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Location: 71 NB @ MISSION BLVD
System: Mission Blvd
District: 07
Master At: Here
I/C:
Designed By: Anthony Thiem
Installed By: Anthony Thiem
Service Info: TSCP ver 3.10 Build 006

Timing Change:	Date Start:	Date End:	Designed:	Installed:
	5/4/2021		5/4/2021	5/4/2021

Intersection Layou

		FLASH
PHASE	1)	[ ]
	2) EB MISSION BLVD	[ ]
	3)	[ ]
	4)	[ ]
	5) EBLT MISSION BLVD	[ ]
	6) WB MISSION BLVD	[ ]
	7)	[ ]
	8) 71 NB OFF RAMP	[ ]
OVERLAP	A)	[ ]
	B)	[ ]
	C)	[ ]
	D)	[ ]
	E)	[ ]
	F)	[ ]

Comments and Notes:
05/04/2021 - Upgrade software to TSCP v3.10 Build 006 - AT

RAM Checksum

Page 2: FCB1	Page 8: CEAD
Page 3: 3A6E	Page 9: E841
Page 4: C8C5	Page 10: 60B3
Page 5: 191A	Page 11: C838
Page 6: 191A	Page 12: 1FB3
Page 7: 5608	Page 13: 86F7

Post Mile: PM 1.62

Printed: 4/29/2021

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CONFIGURATION PHASE FLAGS

Cabinet (9-3)
332
Configuration
CALTRANS

Phases (2-1-1-1)	
Permitted	. 2 . . 5 6 . 8
Restricted	. . . . .

Phase Recalls (2-1-1-2)	
Vehicle Min	. 2 . . . 6 . .
Vehicle Max	. . . . .
Pedestrian	. . . . .
Bicycle	. . . . .

Phase Locks (2-1-1-3)	
Red	. . . . .
Yellow	. . . . 5 . . .
Force/Max	. . . . .

Phase Features (2-1-1-4)	
Double Entry	. . . . .
Rest In Walk	. . . . .
Rest In Red	. . . . .
Walk 2	. . . . .
Max Green 2	. . . . .
Max Green 3	. . . . .

Startup (2-1-1-5)	
First Green Phases	. 2 . . . 6 . .
Yellow Start Phases	. . . . .
Vehicle Calls	. 2 . . 5 6 . 8
Pedestrian Calls	. 2 . . . 6 . .
Yellow Start Overlaps	. . . . .
Startup All-Red	6.0

Call To Phase (2-1-2-1)		Omit On Green	
1	. . . . .	1	. . . . .
2	. . . . .	2	. . . . .
3	. . . . .	3	. . . . .
4	. . . . .	4	. . . . .
5	. . . . .	5	. . . . .
6	. . . . .	6	. . . . .
7	. . . . .	7	. . . . .
8	. . . . .	8	. . . . .

Flashing Colors (2-1-2-2)	
Yellow Flash Phases	. . . . .
Yellow Flash Overlaps	. . . . .
Flash In Red Phases	. . . . .
Flash In Red Overlaps	. . . . .

Special Operation (2-1-2-3)	
Single Exit Phase	. . . . .
Driveway Signal Phases	. . . . .
Driveway Signal Overlaps	. . . . .
Leading Ped Phases	. . . . .

Protected Permissive (2-1-2-4)	
Protected Permissive	. . . . .

Pedestrian (2-1-3)	
P1	. . . . .
P2	. 2 . . . . .
P3	. . . . .
P4	. . . . .
P5	. . . . .
P6	. . . . . 6 . .
P7	. . . . .
P8	. . . . .

Overlap (2-1-4)				
Overlap	Parent	Omit	No Start	Not
A	. . . . .	. . . . .	. . . . .	. . . . .
B	. . . . .	. . . . .	. . . . .	. . . . .
C	. . . . .	. . . . .	. . . . .	. . . . .
D	. . . . .	. . . . .	. . . . .	. . . . .
E	. . . . .	. . . . .	. . . . .	. . . . .
F	. . . . .	. . . . .	. . . . .	. . . . .

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PHASE TIMING

Phase (2-2)	-1-	-2-	-3-	-4-	-5-	-6-	-7-	-8-
--- Walk 1 ---	0	7	0	10	0	7	0	0
Flash Don't Walk	0	21	0	10	0	16	0	0
Minimum Green	10	12	10	10	12	12	10	12
Det Limit	10	0	10	10	0	0	10	0
Max Initial	10	20	10	10	0	20	10	0
Max Green 1	50	30	50	50	30	30	50	30
Max Green 2	50	0	50	50	0	0	50	0
Max Green 3	50	0	50	50	0	0	50	0
Extension	5.0	4.0	5.0	5.0	3.0	4.0	5.0	3.0
Maximum Gap	5.0	7.5	5.0	5.0	3.0	7.5	5.0	3.0
Minimum Gap	5.0	2.5	5.0	5.0	3.0	2.5	5.0	3.0
Add Per Vehicle	1.0	2.0	1.0	1.0	0.0	2.0	1.0	0.0
Reduce Gap By	0.0	0.2	0.0	0.0	0.0	0.2	0.0	0.0
Reduce Every	1.0	1.0	1.0	1.0	0.0	1.0	1.0	0.0
Yellow	5.0	4.8	5.0	5.0	3.7	4.8	5.0	4.4
All-Red	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0

Ped/Bike (2-3)	-1-	-2-	-3-	-4-	-5-	-6-	-7-	-8-
--- Walk 2 ---	0	0	0	0	0	0	0	0
Delay/Early Walk	0	0	0	0	0	0	0	0
Solid Don't Walk	0	0	0	0	0	0	0	0
Bike Green	0	0	0	0	0	0	0	0
Bike All-Red	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

OVERLAP TIMING

Overlap (2-4)	A	B	C	D	E	F
Green	0.0	0.0	0.0	0.0	0.0	0.0
Yellow	5.0	5.0	5.0	5.0	5.0	5.0
Red	0.0	0.0	0.0	0.0	0.0	0.0

Red Revert

Red Revert (2-5)	
Time	5.0
All-Red Sec/Min (2-6)	
All-Red Sec/Min:	OFF

Max 2 Extension

Max/Gap Out (2-7)	
Max Cnt	0
Gap Cnt	0

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Local Plan 1...9 (7-1) TIMING DATA

COORDINATION

[Offsets] Green Factors or Press [F] to Select Force-Off

		Cycle	Multi	Lag Gap	A	B	C	-1-	-2-	-3-	-4-	-5-	-6-	-7-	-8-
Plan 1	Green Factor	75		. . . . .					47			16	26		16
Plan 2	Green Factor	75		. . . . .					48			18	25		15
Plan 3	Green Factor	75		. . . . .					43			15	23		20
Plan 4	Green Factor			. . . . .											
Plan 5	Green Factor			. . . . .											
Plan 6	Green Factor			. . . . .											
Plan 7	Green Factor			. . . . .											
Plan 8	Green Factor			. . . . .											
Plan 9	Green Factor			. . . . .											

Master Timer Sync (7-A)	
Enable in Plans	
1-9	. . . . .
11-19	. . . . .
21-29	. . . . .

Master Sub Master	
Input	
Output	

FREE PLAN PHASE FLAGS

(7-E) Free	
Lag	Omit
. 2 . 4 . 6 . 8	. . . . .
Veh Min	Veh Max
. 2 . . . 6 . .	. . . . .
Ped	Bike
. . . . .	. . . . .
Cond	Cond Grn
. . . . .	10

Local Plan 1...9 (7-1) PHASE FLAGS

	Lag	Sync	Hold	Omit	Veh Min	Veh Max	Ped	Bike
Plan 1	. 2 . 4 . 6 . 8	. 2 . . . 6 . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .
Plan 2	. 2 . 4 . 6 . 8	. 2 . . . 6 . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .
Plan 3	. 2 . 4 . 6 . 8	. 2 . . . 6 . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .
Plan 4	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .
Plan 5	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .
Plan 6	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .
Plan 7	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .
Plan 8	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .
Plan 9	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .

MANUAL COMMANDS

Manual Plan (4-1)	
Plan	OffSet
	A

Plan: 1-29
254 = Flash
255 = Free
Offset A, B, or C

Special Function Override (4-2)			
#	Control	#	Control
1	NORMAL	3	NORMAL
2	NORMAL	4	NORMAL

Detector Reset	(4-3)
Local Manual (4-4)	OFF

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Local Plan 11...19 (7-2) TIMING DATA

COORDINATION

[Offsets] Green Factors or Press [F] to Select Force-Off

		Cycle	Multi	Lag Gap	A	B	C	-1-	-2-	-3-	-4-	-5-	-6-	-7-	-8-
Plan 11	Green Factor			.....											
Plan 12	Green Factor			.....											
Plan 13	Green Factor			.....											
Plan 14	Green Factor			.....											
Plan 15	Green Factor			.....											
Plan 16	Green Factor			.....											
Plan 17	Green Factor			.....											
Plan 18	Green Factor			.....											
Plan 19	Green Factor			.....											

Local Plan 11...19 (7-2) PHASE FLAGS

	Lag	Sync	Hold	Omit	Veh Min	Veh Max	Ped	Bike
Plan 11	.....	.....	.....	.....	.....	.....	.....	.....
Plan 12	.....	.....	.....	.....	.....	.....	.....	.....
Plan 13	.....	.....	.....	.....	.....	.....	.....	.....
Plan 14	.....	.....	.....	.....	.....	.....	.....	.....
Plan 15	.....	.....	.....	.....	.....	.....	.....	.....
Plan 16	.....	.....	.....	.....	.....	.....	.....	.....
Plan 17	.....	.....	.....	.....	.....	.....	.....	.....
Plan 18	.....	.....	.....	.....	.....	.....	.....	.....
Plan 19	.....	.....	.....	.....	.....	.....	.....	.....

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Local Plan 21...29 (7-3) TIMING DATA

COORDINATION

[Offsets] Green Factors or Press [F] to Select Force-Off

		Cycle	Multi	Lag Gap	A	B	C	-1-	-2-	-3-	-4-	-5-	-6-	-7-	-8-
Plan 21	Green Factor			. . . . .											
Plan 22	Green Factor			. . . . .											
Plan 23	Green Factor			. . . . .											
Plan 24	Green Factor			. . . . .											
Plan 25	Green Factor			. . . . .											
Plan 26	Green Factor			. . . . .											
Plan 27	Green Factor			. . . . .											
Plan 28	Green Factor			. . . . .											
Plan 29	Green Factor			. . . . .											

Local Plan 21...29 (7-3) PHASE FLAGS

	Lag	Sync	Hold	Omit	Veh Min	Veh Max	Ped	Bike
Plan 21	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .
Plan 22	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .
Plan 23	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .
Plan 24	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .
Plan 25	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .
Plan 26	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .
Plan 27	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .
Plan 28	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .
Plan 29	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .

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DETECTORS

Detector Attributes (5-1)				Slot
Det	Type	Phases	Lock	
1	COUNT+CALL+EXTEND	1	NO	I1U
2	COUNT+CALL+EXTEND	1	NO	I1L
3	COUNT+CALL+EXTEND	. 2	NO	I2U
4	COUNT+CALL+EXTEND	. 2	NO	I2L
5	COUNT+CALL+EXTEND	. 2	NO	I3U
6	CALL+EXTEND	. 2	NO	I3L
7	CALL+EXTEND	. 2	NO	I4U
8	CALL+EXTEND	. 2	NO	I4L
9	COUNT+CALL+EXTEND	. . 3	NO	I5U
10	COUNT+CALL+EXTEND	. . 3	NO	I5L
11	COUNT+CALL+EXTEND	. . . 4 . . .	NO	I6U
12	COUNT+CALL+EXTEND	. . . 4 . . .	NO	I6L
13	COUNT+CALL+EXTEND	. . . 4 . . .	NO	I7U
14	CALL+EXTEND	. . . 4 . . .	NO	I7L
15	LIMITED	. . . 4 . . .	NO	I8U
16	COUNT+CALL+EXTEND	. . . 4 . . .	NO	I8L
17	COUNT+CALL+EXTEND	1	NO	I9U
18	COUNT+CALL+EXTEND	. . 3	NO	I9L
19	COUNT+CALL+EXTEND	. 2	NO	I10U
20	COUNT+CALL+EXTEND	. . . 4 . . .	NO	I10L
21	COUNT+CALL+EXTEND	. . . . 5 . . .	NO	J1U
22	COUNT+CALL+EXTEND	. . . . 5 . . .	NO	J1L
23	COUNT+CALL+EXTEND	. . . . . 6 . .	NO	J2U
24	COUNT+CALL+EXTEND	. . . . . 6 . .	NO	J2L
25	COUNT+CALL+EXTEND	. . . . . 6 . .	NO	J3U
26	CALL+EXTEND	. . . . . 6 . .	NO	J3L
27	CALL+EXTEND	. . . . . 6 . .	NO	J4U
28	CALL+EXTEND	. . . . . 6 . .	NO	J4L
29	COUNT+CALL+EXTEND	. . . . . 7 .	NO	J5U
30	COUNT+CALL+EXTEND	. . . . . 7 .	NO	J5L
31	COUNT+CALL+EXTEND	 8	NO	J6U
32	COUNT+CALL+EXTEND	 8	NO	J6L
33	COUNT+CALL+EXTEND	 8	NO	J7U
34	CALL+EXTEND	 8	NO	J7L
35	LIMITED	 8	NO	J8U
36	COUNT+CALL+EXTEND	 8	NO	J8L
37	COUNT+CALL+EXTEND	. . . . 5 . . .	NO	J9U
38	COUNT+CALL+EXTEND	. . . . . 7 .	NO	J9L
39	COUNT+CALL+EXTEND	. . . . . 6 . .	NO	J10U
40	COUNT+CALL+EXTEND	 8	NO	J10L
41	PEDESTRIAN	. 2	NO	I12U
42	PEDESTRIAN	. . . 4 . . .	NO	I12L
43	PEDESTRIAN	. . . . . 6 . .	NO	I13U
44	PEDESTRIAN	 8	NO	I13L

Detector Configuration (5-2)				
Det	Delay	Extend	Recall	Port
1			10	3.2
2			10	7.2
3			10	1.1
4			10	1.5
5			10	4.5
6			10	6.2
7			10	2.1
8			10	7.4
9			10	3.4
10			10	7.6
11			10	1.3
12			10	1.7
13			10	4.7
14			10	6.4
15			10	2.3
16			10	7.8
17			10	3.6
18			10	3.8
19			10	4.1
20			10	4.2
21			10	3.1
22			10	7.1
23			10	1.2
24			10	1.6
25			10	4.6
26			10	6.3
27			10	2.2
28			10	7.3
29			10	3.3
30			10	7.5
31			10	1.4
32			10	1.8
33			10	4.8
34			10	6.5
35			10	2.4
36			10	7.7
37			10	3.5
38			10	3.7
39			10	4.3
40			10	4.4
41			10	5.1
42			10	5.3
43			10	5.2
44			10	5.4

Failure Times(5-3)	Minutes
Maximum On Time	
Fail Reset Time	

Failure Override (5-4)	
Detectors 1-8	. . . . .
Detectors 9-16	. . . . .
Detectors17-24	. . . . .
Detectors 25-32	. . . . .
Detectors 33-40	. . . . .
Detectors 41-44	. . . . .

System Detector Assignment (5-5)

Sys Det	1	2	3	4	5	6	7	8
Det Nu								
Sys Det	9	10	11	12	13	14	15	16
Det Nu								

CIC Operation (5-6-1)	
Enable in Plans	. . . . .

CIC Values (5-6-2)	Volume	Occupancy	Demand
Smoothing	0.66	0.66	0.66
Multiplier	4.0	0.33	
Exponent	0.50	1.00	

Detector-to-Phase Assignment (5-6-3)

Sys Det	1	2	3	4	5	6	7	8
Phase								
Sys Det	9	10	11	12	13	14	15	16
Phase								

Input File Port-Bit Assignments

332 Cabinet - For Reference Only

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
I-	3.2	1.1	4.5	2.1	3.4	1.3	4.7	2.3	3.6	4.1	6.6	5.1	5.2	6.7
	7.2	1.5	6.2	7.4	7.6	1.7	6.4	7.8	3.8	4.2	2.7	5.3	5.4	6.8
J-	3.1	1.2	4.6	2.2	3.3	1.4	4.8	2.4	3.5	4.3	2.8	5.5	5.6	2.5
	7.1	1.6	6.3	7.3	7.5	1.8	6.5	7.7	3.7	4.4	6.1	5.7	5.8	2.6

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TOD SCHEDULE

Table 1 (8-2-1)		
Time	Plan	OS
0500	1	A
0900	2	A
1400	3	A
1930	2	A
2200	255	A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A

Table 2 (8-2-2)		
Time	Plan	OS
0700	2	A
2200	255	A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A

Table 3 (8-2-3)		
Time	Plan	OS
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A

Table 4 (8-2-4)		
Time	Plan	OS
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A

Table 5 (8-2-5)		
Time	Plan	OS
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A

Table 6 (8-2-6)		
Time	Plan	OS
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A

WEEKDAY ASSIGNMENT

Weekday Table Assignments (8-2-7)						
Mon	Tue	Wed	Thu	Fri	Sat	Sun
1	1	1	1	1	2	2

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HOLIDAY TABLES

Floating Holiday Table (8-2-8)

#	Mnth	Week	DOW	Table
1			. . . . .	
2			. . . . .	
3			. . . . .	
4			. . . . .	
5			. . . . .	
6			. . . . .	
7			. . . . .	
8			. . . . .	
9			. . . . .	
10			. . . . .	
11			. . . . .	
12			. . . . .	
13			. . . . .	
14			. . . . .	
15			. . . . .	
16			. . . . .	

Fixed Holiday Table (8-2-9)

#	Mnth	Day	DOW	Table
1			. . . . .	
2			. . . . .	
3			. . . . .	
4			. . . . .	
5			. . . . .	
6			. . . . .	
7			. . . . .	
8			. . . . .	
9			. . . . .	
10			. . . . .	
11			. . . . .	
12			. . . . .	
13			. . . . .	
14			. . . . .	
15			. . . . .	
16			. . . . .	

Daylight Saving (8-1)

Enabled	YES		
		Month	Sunday
	Start	MAR	2nd
	End	NOV	1st

Solar Clock Data (8-4)

North Latitude	34
West Longitude	118
Local Time Zone	8

Sabbatical Clock (8-5)

Hebrew	Ped Recall
Sabbath	. . . . .
Holiday	. . . . .

TOD FUNCTIONS

TOD Functions (8-3)

#	Start	End	DOW	Action	Phases
1			. . . . .		. . . . .
2			. . . . .		. . . . .
3			. . . . .		. . . . .
4			. . . . .		. . . . .
5			. . . . .		. . . . .
6			. . . . .		. . . . .
7			. . . . .		. . . . .
8			. . . . .		. . . . .
9			. . . . .		. . . . .
10			. . . . .		. . . . .
11			. . . . .		. . . . .
12			. . . . .		. . . . .
13			. . . . .		. . . . .
14			. . . . .		. . . . .
15			. . . . .		. . . . .
16			. . . . .		. . . . .

Action Codes:

0. None
1. Permitted
2. Restricted
4. Veh Min Recall
5. Veh Max Recall
6. Ped Recall
7. Bike Recall
8. Red Lock
9. Yellow Lock
10. Force/Max Lock
11. Double Entry
12. Y-Coord C
13. Y-Coord D
14. Free
15. Flashing
16. Walk 2
17. Max Green 2
18. Max Green 3
19. Rest in Walk
20. Rest in Red
21. Free Lag Phases
22. Special Functions
23. Truck Preempt
24. Conditional Service
25. Conditional Service
26. Leading Ped
27. Traffic Actuated Max 2
41. Protected Permissive
42. Protected Permissive

Action Code = Phases added to normal setting

100+Action Code = Phases removed

200+Action Code = Phases replaced

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COMMUNICATIONS

	C2 (6-1-1)	C20 (6-1-2)	C21 (6-1-3)
Address			
Baud	9600	1200	1200
Protocol	MASTER	AB3418	UTB
Data Bits	8	8	8
Parity	NONE	NONE	NONE
Stop Bits	1	1	1
RTS On Time	20	20	20
RTS Off Time	20	20	20
Handshaking	NORMAL	NORMAL	NORMAL
Access Level	0	0	0

CALLBACK NUMBERS

Callback Numbers (6-3...3)

Line Out			
Long Distance			
Local Toll			
Delay	10	10	10
Area Code			
Phone Number			

SOFT LOGIC

Soft Logic (6-2)

#	Data	OP	Data	OP	Data	OP	Data
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							

*Refer to User's Manual for Data and OP Codes

NETWORK

Network Parameters (6-4)

Address	
Protocol	AB3418
Port	27000
Type	STATIC
Central Access	
Field Access	
ATSPM	OFF

IP Address	0	.	0	.	0	.	0
Netmask	255	.	255	.	255	.	0
Broadcast	0	.	0	.	0	.	255
Gateway	0	.	0	.	0	.	254

Access Levels:

0-Full Access
1-Status Only
2-Status, Set Pattern, Time
3-Status, Set Pattern, Time, Manual Plan
4-Reserved
5-Full Access with No Set Pattern
6-Full Access with No Set Time
7-Full Access with No Set Pattern, Manual Plan
8-Full Access with No Set Time, Pattern, Manual Plan

SPAT Network (6-5)

SPAT	1	2
Protocol	NONE	NONE
UDP Port	0	0

IP Address	0	.	0	.	0	.	0

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RAILROAD PREEMPTION

RR 1

Timing (3-1-1)	
Clear 1	15
Clear 2	5
Clear 3	
Hold	
Min Gr	
Delay	
Exit	
Ped Clr	

Phase Flags (3-1-2)			Pedestrian Flags (3-1-3)			Overlap Flags (3-1-4)		
Grn Hold	Yel Flash	Red Flash	Walk	Flash DW	Solid DW	Grn Hold	Yel Flash	Red Flash
. 2 . . 5 . . .	. . . .	. . . .	. . . .	. . . .	. 2 . 4 . 6 . 8	. . . . .	. . . . .	. . . . .
. 2 . . 5 . . .	. . . .	. . . .	. . . .	. . . .	. 2 . 4 . 6 . 8	. . . . .	. . . . .	. . . . .
. . . .	. . . .	. . . .	. . . .	. . . .	. . . .	. . . . .	. . . . .	. . . . .
1 . . 4 . . 7 8	. . . .	. . . .	. . . .	. . . 4 . . . 8	. 2 . . . 6 . .	. . . . .	. . . . .	. . . . .

Exit Parameters (3-1-5)			
Phase Green	Ovrlap Green	Veh Permit/Call	Ped Permit/Call
. 2 . . . 6 . .	. . . . .	1 2 3 4 5 6 7 8	. 2 . 4 . 6 . 8

Configuration (3-1-6)								
	PR	XR	Gate	Isld	APP	Sign	Sign	Max On	Latching
1								5	NO
2									

Valid Inputs: 1.x, 2.x, 3.x, 4.x, 5.x, 6.x, 7.x, 8.x x=1 to 8
Valid Outputs: 11.x, 12.x, 13.x, 14.x, 15.x, 16.x, 17.x, 18.x x=1 to 8

RR 2

Timing (3-2-1)	
Clear 1	15
Clear 2	5
Clear 3	
Hold	
Min Gr	
Delay	
Exit	
Ped Clr	

Phase Flags (3-2-2)			Pedestrian Flags (3-2-3)			Overlap Flags (3-2-4)		
Grn Hold	Yel Flash	Red Flash	Walk	Flash DW	Solid DW	Grn Hold	Yel Flash	Red Flash
. . . 4 . . 7 .	. . . .	. . . .	. . . .	. . . .	. 2 . 4 . 6 . 8	. . . . .	. . . . .	. . . . .
. . . 4 . . 7 .	. . . .	. . . .	. . . .	. . . .	. 2 . 4 . 6 . 8	. . . . .	. . . . .	. . . . .
. . . .	. . . .	. . . .	. . . .	. . . .	. . . .	. . . . .	. . . . .	. . . . .
1 2 3 . . 6 . .	. . . .	. . . .	. . . .	. 2 . . . 6 . .	. . . 4 . . . 8	. . . . .	. . . . .	. . . . .

Exit Parameters (3-2-5)			
Phase Green	Ovrlap Green	Veh Permit/Call	Ped Permit/Call
. 2 . . . 6 . .	. . . . .	1 2 3 4 5 6 7 8	. 2 . 4 . 6 . 8

Configuration (3-2-6)								
	PR	XR	Gate	Isld	APP	Sign	Sign	Max On	Latching
1								5	NO
2									

Valid Inputs: 1.x, 2.x, 3.x, 4.x, 5.x, 6.x, 7.x, 8.x x=1 to 8
Valid Outputs: 11.x, 12.x, 13.x, 14.x, 15.x, 16.x, 17.x, 18.x x=1 to 8

EMERGENCY VEHICLE PREEMPTION

EVA (3-A)

Preempt Timers			Phase Green	Overlap Green
Delay	Clear	Max		
	30	30	. 2 . . 5 . . .	. . . . .

Port	Latching	Phase Termination
	NO	ADVANCE

EVB (3-B)

Preempt Timers			Phase Green	Overlap Green
Delay	Clear	Max		
	30	30	. . . 4 . . 7 .	. . . . .

Port	Latching	Phase Termination
	NO	ADVANCE

EVC (3-C)

Preempt Timers			Phase Green	Overlap Green
Delay	Clear	Max		
	30	30	1 . . . . 6 . .	. . . . .

Port	Latching	Phase Termination
	NO	ADVANCE

EVD (3-D)

Preempt Timers			Phase Green	Overlap Green
Delay	Clear	Max		
	30	30	. . 3 8	. . . . .

Port	Latching	Phase Termination
	NO	ADVANCE

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INPUTS

		7 Wire I/C (2-1-5-1)			
		Input	Port	Input	Port
Enable	NO	RR1		Free	
Max ON		RR2		D2	
Max OFF		RR3		D3	

Manual Control (2-1-5-2)	
Input	Port
Manual Advance	
Advance Enable	

Cabinet Status (2-1-5-3)	
Input	Port
Flash Bus	
Door Ajar	
Flash Sense	6.7
Stop Time	6.8

Special Function (2-1-5-4)	
Input	Port
1	
2	
3	
4	

Battery Backup (2-1-5-5)	
Port	Operation
	NORMAL

Y-Coordination (2-1-5-6	
Port C	Port D

OUTPUTS

Loadswitch Assignments (2-1-6)							
A	1	2	22	3	4	24	9
B	5	6	26	7	8	28	10
X	13	14	0	11	12	0	0

Loadswitch Codes:
- 0 Unused (no output)
- 1-8 Vehicle 1-8
- 9-14 Overlap A-F
- 21-28 Ped 1-8
- 41-47 Special Functions
- 41 Protected Permissive Flashing Phase 1
- 43 Protected Permissive Flashing Phase 3
- 45 Protected Permissive Flashing Phase 5
- 47 Protected Permissive Flashing Phase 7
- 51-57 Special Functions
- 71-72 Seven Wire I/C

+ middle output of loadswitches 3 and 6 Channel 9 and 10

INTERVAL CONTROL

Interval Control (3-3-1)	
	Time
Step 1	
Step 2	
Step 3	
Step 4	
Step 5	
Step 6	
Step 7	
Step 8	

Phase Control (3-3-2)		
Hold	Force	Advance
.....	.....	.....
.....	.....	.....
.....	.....	.....
.....	.....	.....
.....	.....	.....
.....	.....	.....
.....	.....	.....
.....	.....	.....

Phase Recall (3-3-3)		
Veh Call	Ped Call	Int Call
.....	.....	.....
.....	.....	.....
.....	.....	.....
.....	.....	.....
.....	.....	.....
.....	.....	.....
.....	.....	.....
.....	.....	.....

Phase Permitted (3-3-4)		
Phs Permit	Ped Permit	Ovrlap Permit
.....	.....	.....
.....	.....	.....
.....	.....	.....
.....	.....	.....
.....	.....	.....
.....	.....	.....
.....	.....	.....
.....	.....	.....

Configuration (3-3-5)			
Input	Port	Delay	HRI Cross
1			
2			

HRI

HRI Configuration (3-4)	
RailRoad	51
Line	
Group	

	WAYSIDE	ATC
Subnode		
Device		

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TRANSIT PRIORITY

Local Plans (3-E) 1...9 11...19		Early Green	Green Extend	Inhibit Cycles	Phase 1 Minimum	Phase 2 Minimum	Phase 3 Minimum	Phase 4 Minimum	Phase 5 Minimum	Phase 6 Minimum	Phase 7 Minimum	Phase 8 Minimum
Plan 1	Green Factor											
Plan 2	Green Factor											
Plan 3	Green Factor											
Plan 4	Green Factor											
Plan 5	Green Factor											
Plan 6	Green Factor											
Plan 7	Green Factor											
Plan 8	Green Factor											
Plan 9	Green Factor											
Plan 11	Green Factor											
Plan 12	Green Factor											
Plan 13	Green Factor											
Plan 14	Green Factor											
Plan 15	Green Factor											
Plan 16	Green Factor											
Plan 17	Green Factor											
Plan 18	Green Factor											
Plan 19	Green Factor											

Enable in Local Plans (3-E-3)	
Plan 1-9	. . . . .
Plan 11-19	. . . . .

Queue Jump (3-E-4)	
Grn Hold	Hold Phase
	. . . . .
	. . . . .

Input	
Type	Port
NONE	0.0
NONE	0.0

Output	
Stop	Go
0	0
0	0

Free Plans (3-E-E)	
Max Grn Hold	Hold Phase
	. . . . .

Access Utilities (9-5)	
Password	***
Timeout	30

YELLOW YIELD COORDINATION

					Force-Offs											
Y-Coord Plans (7-C,D)	Long Grn	No Grn	Offset	Perm	-1-	-2-	-3-	-4-	-5-	-6-	-7-	-8-	Coord	Lag	Min Recall	Restricted
Plan C													. 2 . . . 6 . .	. 2 . 4 . 6 . 8	. . . . .	. . . . .
Plan D													. 2 . . . 6 . .	. 2 . 4 . 6 . 8	. . . . .	. . . . .

TRUCK PRIORITY

Truck Priority (3-F)	Passage	CarryOver	Clearance	Next Priority	Phase Green	Det 2 Port	Det 3 Port	Det 4 Port	Sign Output	Slave Input	Slave Output
					. . . . .	0.0	0.0	0.0	0	0.0	0

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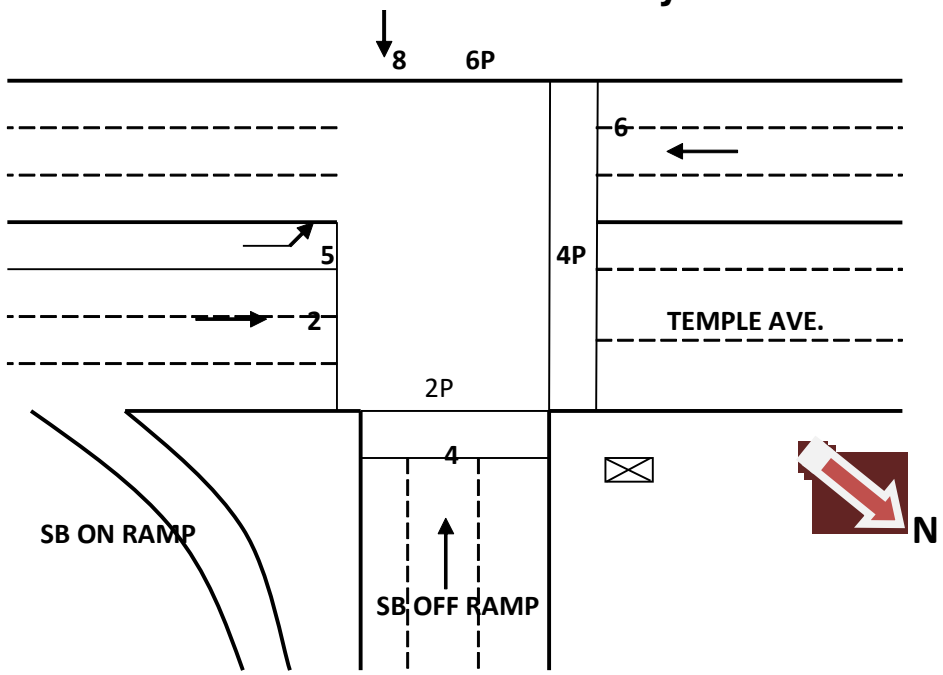
Location: Orange Fwy. SB Ramp @ Temple Ave.
System: Temple Ave. **District:** 07
Master At: Here **I/C:**

Designed By: Mojtaba Razfar
Installed By: Mojtaba Razfar
Service Info: TSCP 3.10 Build 6

Timing Change:	Date Start:	Date End:	Designed:	Installed:
9/27/2022	9/27/2022			

			FLASH
PHASE	1)		[ ]
	2)	WB Temple Ave. & NS Ped Xing	[ ]
	3)		[ ]
	4)	SB Off Ramp & WS Ped Xing	[ ]
	5)	WBLT Temple Ave.	[ ]
	6)	EB Temple Ave. & SS Ped Xing	[ ]
	7)		[ ]
	8)	NB Driveway - Flashing Red	[ ]
OVERLAP	A)		[ ]
	B)		[ ]
	C)		[ ]
	D)		[ ]
	E)		[ ]
	F)		[ ]

Intersection Layout



Comments and Notes:
Added 3 seconds lead walk time to Phases 4P and 6P.

RAM Checksum

Page 2: DB11	Page 8: 2A12
Page 3: 1E18	Page 9: E841
Page 4: E3C9	Page 10: 7DE8
Page 5: 191A	Page 11: C838
Page 6: 191A	Page 12: 1FB3
Page 7: 12D9	Page 13: 86F7

Post Mile: 6.18

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CONFIGURATION PHASE FLAGS

Cabinet (9-3)
332
Configuration
CALTRANS

Phases (2-1-1-1)	
Permitted	. 2 . 4 5 6 . 8
Restricted	. . . . .

Phase Recalls (2-1-1-2)	
Vehicle Min	. 2 . . . 6 . .
Vehicle Max	. . . . .
Pedestrian	. . . . .
Bicycle	. . . . .

Phase Locks (2-1-1-3)	
Red	. . . 4 . . . .
Yellow	. 2 . . . 6 . .
Force/Max	. . . . .

Phase Features (2-1-1-4)	
Double Entry	. . . 4 . . . 8
Rest In Walk	. . . . .
Rest In Red	. . . . .
Walk 2	. . . . .
Max Green 2	. . . . .
Max Green 3	. . . . .

Startup (2-1-1-5)	
First Green Phases	. 2 . . . 6 . .
Yellow Start Phases	. . . . .
Vehicle Calls	. 2 . 4 5 6 . 8
Pedestrian Calls	. 2 . 4 . 6 . .
Yellow Start Overlaps	. . . . .
Startup All-Red	6.0

Call To Phase (2-1-2-1)		Omit On Green	
1	. . . . .	1	. . . . .
2	. . . . .	2	. . . . .
3	. . . . .	3	. . . . .
4	. . . . .	4	. . . . .
5	. . . . .	5	. . . . .
6	. . . . .	6	. . . . .
7	. . . . .	7	. . . . .
8	. . . . .	8	. . . . .

Flashing Colors (2-1-2-2)	
Yellow Flash Phases	. . . . .
Yellow Flash Overlaps	. . . . .
Flash In Red Phases	. . . . .
Flash In Red Overlaps	. . . . .

Special Operation (2-1-2-3)	
Single Exit Phase	. . . . .
Driveway Signal Phases	. . . . .
Driveway Signal Overlaps	. . . . .
Leading Ped Phases	. . . 4 . 6 . .

Protected Permissive (2-1-2-4)	
Protected Permissive	. . . . .

Pedestrian (2-1-3)	
P1	. . . . .
P2	. 2 . . . . .
P3	. . . . .
P4	. . . 4 . . . .
P5	. . . . .
P6	. . . . . 6 . .
P7	. . . . .
P8	. . . . .

Overlap (2-1-4)

Overlap	Parent	Omit	No Start	Not
A	. . . . .	. . . . .	. . . . .	. . . . .
B	. . . . .	. . . . .	. . . . .	. . . . .
C	. . . . .	. . . . .	. . . . .	. . . . .
D	. . . . .	. . . . .	. . . . .	. . . . .
E	. . . . .	. . . . .	. . . . .	. . . . .
F	. . . . .	. . . . .	. . . . .	. . . . .

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PHASE TIMING

Phase (2-2)	-1-	-2-	-3-	-4-	-5-	-6-	-7-	-8-
--- Walk 1 ---	0	7	0	4	0	7	0	0
Flash Don't Walk	0	13	0	23	0	16	0	0
Minimum Green	0	10	0	9	9	10	0	9
Det Limit	0	0	0	0	0	0	0	0
Max Initial	0	20	0	0	0	20	0	0
Max Green 1	0	40	0	40	15	40	0	40
Max Green 2	0	50	0	50	50	50	0	50
Max Green 3	0	50	0	50	50	50	0	50
Extension	0.0	5.0	0.0	3.0	2.0	5.0	0.0	3.0
Maximum Gap	0.0	7.0	0.0	3.0	2.0	7.0	0.0	3.0
Minimum Gap	0.0	2.5	0.0	3.0	2.0	2.5	0.0	3.0
Add Per Vehicle	0.0	2.5	0.0	0.0	0.0	2.5	0.0	0.0
Reduce Gap By	0.0	0.2	0.0	0.0	0.0	0.2	0.0	0.0
Reduce Every	0.0	1.0	0.0	0.0	0.0	1.0	0.0	0.0
Yellow	5.0	4.8	5.0	4.4	3.7	4.8	5.0	4.4
All-Red	0.0	1.0	0.0	1.0	1.0	1.0	0.0	1.0

Ped/Bike (2-3)	-1-	-2-	-3-	-4-	-5-	-6-	-7-	-8-
--- Walk 2 ---	0	0	0	0	0	0	0	0
Delay/Early Walk	0	0	0	3	0	3	0	0
Solid Don't Walk	0	0	0	0	0	0	0	0
Bike Green	0	0	0	0	0	0	0	0
Bike All-Red	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

OVERLAP TIMING

Overlap (2-4)	A	B	C	D	E	F
Green	0.0	0.0	0.0	0.0	0.0	0.0
Yellow	5.0	5.0	5.0	5.0	5.0	5.0
Red	0.0	0.0	0.0	0.0	0.0	0.0

Red Revert

Red Revert (2-5)	
Time	5.0
All-Red Sec/Min (2-6)	
All-Red Sec/Min:	OFF

Max 2 Extension

Max/Gap Out (2-7)	
Max Cnt	0
Gap Cnt	0

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Local Plan 1...9 (7-1) TIMING DATA

COORDINATION

[Offsets] Green Factors or Press [F] to Select Force-Off

		Cycle	Multi	Lag Gap	A	B	C	-1-	-2-	-3-	-4-	-5-	-6-	-7-	-8-
Plan 1	Green Factor	100		. . . . .					48		40	10	33		40
Plan 2	Green Factor	86		. . . . .					43		31	10	28		31
Plan 3	Green Factor	92		. . . . .					47		33	10	32		33
Plan 4	Green Factor	88		. . . . .	63				45		31	10	30		31
Plan 5	Green Factor			. . . . .											
Plan 6	Green Factor			. . . . .											
Plan 7	Green Factor			. . . . .											
Plan 8	Green Factor			. . . . .											
Plan 9	Green Factor			. . . . .											

Local Plan 1...9 (7-1) PHASE FLAGS

	Lag	Sync	Hold	Omit	Veh Min	Veh Max	Ped	Bike
Plan 1	. 2 . 4 . 6 . 8	. 2 . . . 6 . .	. . . . .	. . . . .	. 2 . . . 6 . .	. . . . .	. . . . .	. . . . .
Plan 2	. 2 . 4 . 6 . 8	. 2 . . . 6 . .	. . . . .	. . . . .	. 2 . . . 6 . .	. . . . .	. . . . .	. . . . .
Plan 3	. 2 . 4 . 6 . 8	. 2 . . . 6 . .	. . . . .	. . . . .	. 2 . . . 6 . .	. . . . .	. . . . .	. . . . .
Plan 4	. 2 . 4 . 6 . 8	. 2 . . . 6 . .	. . . . .	. . . . .	. 2 . . . 6 . .	. . . . .	. . . . .	. . . . .
Plan 5	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .
Plan 6	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .
Plan 7	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .
Plan 8	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .
Plan 9	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .

Master Timer Sync (7-A)	
Enable in Plans	
1-9	. . . . .
11-19	. . . . .
21-29	. . . . .

Master Sub Master	
Input	
Output	

FREE PLAN PHASE FLAGS

(7-E) Free	
Lag	Omit
. 2 . 4 . 6 . 8	. . . . .
Veh Min	Veh Max
. 2 . . . 6 . .	. . . . .
Ped	Bike
. . . . .	. . . . .
Cond	Cond Grn
. . . . .	10

MANUAL COMMANDS

Manual Plan (4-1)	
Plan	OffSet
	A

Plan: 1-29
254 = Flash
255 = Free
Offset A, B, or C

Special Function Override (4-2)			
#	Control	#	Control
1	NORMAL	3	NORMAL
2	NORMAL	4	NORMAL

Detector Reset	(4-3)
Local Manual (4-4)	OFF

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Local Plan 11...19 (7-2) TIMING DATA

COORDINATION

[Offsets] Green Factors or Press [F] to Select Force-Off

		Cycle	Multi	Lag Gap	A	B	C	-1-	-2-	-3-	-4-	-5-	-6-	-7-	-8-
Plan 11	Green Factor			.....											
Plan 12	Green Factor			.....											
Plan 13	Green Factor			.....											
Plan 14	Green Factor			.....											
Plan 15	Green Factor			.....											
Plan 16	Green Factor			.....											
Plan 17	Green Factor			.....											
Plan 18	Green Factor			.....											
Plan 19	Green Factor			.....											

Local Plan 11...19 (7-2) PHASE FLAGS

	Lag	Sync	Hold	Omit	Veh Min	Veh Max	Ped	Bike
Plan 11	.....	.....	.....	.....	.....	.....	.....	.....
Plan 12	.....	.....	.....	.....	.....	.....	.....	.....
Plan 13	.....	.....	.....	.....	.....	.....	.....	.....
Plan 14	.....	.....	.....	.....	.....	.....	.....	.....
Plan 15	.....	.....	.....	.....	.....	.....	.....	.....
Plan 16	.....	.....	.....	.....	.....	.....	.....	.....
Plan 17	.....	.....	.....	.....	.....	.....	.....	.....
Plan 18	.....	.....	.....	.....	.....	.....	.....	.....
Plan 19	.....	.....	.....	.....	.....	.....	.....	.....

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Local Plan 21...29 (7-3) TIMING DATA

COORDINATION

[Offsets] Green Factors or Press [F] to Select Force-Off

		Cycle	Multi	Lag Gap	A	B	C	-1-	-2-	-3-	-4-	-5-	-6-	-7-	-8-
Plan 21	Green Factor			.....											
Plan 22	Green Factor			.....											
Plan 23	Green Factor			.....											
Plan 24	Green Factor			.....											
Plan 25	Green Factor			.....											
Plan 26	Green Factor			.....											
Plan 27	Green Factor			.....											
Plan 28	Green Factor			.....											
Plan 29	Green Factor			.....											

Local Plan 21...29 (7-3) PHASE FLAGS

	Lag	Sync	Hold	Omit	Veh Min	Veh Max	Ped	Bike
Plan 21	.....	.....	.....	.....	.....	.....	.....	.....
Plan 22	.....	.....	.....	.....	.....	.....	.....	.....
Plan 23	.....	.....	.....	.....	.....	.....	.....	.....
Plan 24	.....	.....	.....	.....	.....	.....	.....	.....
Plan 25	.....	.....	.....	.....	.....	.....	.....	.....
Plan 26	.....	.....	.....	.....	.....	.....	.....	.....
Plan 27	.....	.....	.....	.....	.....	.....	.....	.....
Plan 28	.....	.....	.....	.....	.....	.....	.....	.....
Plan 29	.....	.....	.....	.....	.....	.....	.....	.....

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DETECTORS

Detector Attributes (5-1)

Det	Type	Phases	Lock	Slot
1	COUNT+CALL+EXTEND	1	NO	I1U
2	COUNT+CALL+EXTEND	1	NO	I1L
3	COUNT+CALL+EXTEND	. 2	NO	I2U
4	COUNT+CALL+EXTEND	. 2	NO	I2L
5	COUNT+CALL+EXTEND	. 2	NO	I3U
6	CALL+EXTEND	. 2	NO	I3L
7	LIMITED	. 2	NO	I4U
8	COUNT+CALL+EXTEND	. 2	NO	I4L
9	COUNT+CALL+EXTEND	. . 3	NO	I5U
10	COUNT+CALL+EXTEND	. . 3	NO	I5L
11	COUNT+CALL+EXTEND	. . . 4 . . .	NO	I6U
12	COUNT+CALL+EXTEND	. . . 4 . . .	NO	I6L
13	COUNT+CALL+EXTEND	. . . 4 . . .	NO	I7U
14	CALL+EXTEND	. . . 4 . . .	NO	I7L
15	LIMITED	. . . 4 . . .	NO	I8U
16	COUNT+CALL+EXTEND	. . . 4 . . .	NO	I8L
17	COUNT+CALL+EXTEND	1	NO	I9U
18	COUNT+CALL+EXTEND	. . 3	NO	I9L
19	COUNT+CALL+EXTEND	. 2	NO	I10U
20	COUNT+CALL+EXTEND	. . . 4 . . .	NO	I10L
21	COUNT+CALL+EXTEND	. . . . 5 . . .	NO	J1U
22	COUNT+CALL+EXTEND	. . . . 5 . . .	NO	J1L
23	COUNT+CALL+EXTEND	. . . . . 6 . .	NO	J2U
24	COUNT+CALL+EXTEND	. . . . . 6 . .	NO	J2L
25	COUNT+CALL+EXTEND	. . . . . 6 . .	NO	J3U
26	CALL+EXTEND	. . . . . 6 . .	NO	J3L
27	LIMITED	. . . . . 6 . .	NO	J4U
28	COUNT+CALL+EXTEND	. . . . . 6 . .	NO	J4L
29	COUNT+CALL+EXTEND	. . . . . 7 .	NO	J5U
30	COUNT+CALL+EXTEND	. . . . . 7 .	NO	J5L
31	COUNT+CALL+EXTEND	 8	NO	J6U
32	COUNT+CALL+EXTEND	 8	NO	J6L
33	COUNT+CALL+EXTEND	 8	NO	J7U
34	CALL+EXTEND	 8	NO	J7L
35	LIMITED	 8	NO	J8U
36	COUNT+CALL+EXTEND	 8	NO	J8L
37	COUNT+CALL+EXTEND	. . . . 5 . . .	NO	J9U
38	COUNT+CALL+EXTEND	. . . . . 7 .	NO	J9L
39	COUNT+CALL+EXTEND	. . . . . 6 . .	NO	J10U
40	COUNT+CALL+EXTEND	 8	NO	J10L
41	PEDESTRIAN	. 2	NO	I12U
42	PEDESTRIAN	. . . 4 . . .	NO	I12L
43	PEDESTRIAN	. . . . . 6 . .	NO	I13U
44	PEDESTRIAN	 8	NO	I13L

Detector Configuration (5-2)

Det	Delay	Extend	Recall	Port
1			10	3.2
2			10	7.2
3			10	1.1
4			10	1.5
5			10	4.5
6			10	6.2
7			10	2.1
8			10	7.4
9			10	3.4
10			10	7.6
11			10	1.3
12			10	1.7
13			10	4.7
14			10	6.4
15			10	2.3
16			10	7.8
17			10	3.6
18			10	3.8
19			10	4.1
20			10	4.2
21			10	3.1
22			10	7.1
23			10	1.2
24			10	1.6
25			10	4.6
26			10	6.3
27			10	2.2
28			10	7.3
29			10	3.3
30			10	7.5
31			10	1.4
32			10	1.8
33			10	4.8
34			10	6.5
35			10	2.4
36			10	7.7
37			10	3.5
38			10	3.7
39			10	4.3
40			10	4.4
41			10	5.1
42			10	5.3
43			10	5.2
44			10	5.4

Failure Times(5-3)	Minutes
Maximum On Time	
Fail Reset Time	

Failure Override (5-4)	
Detectors 1-8	. . . . .
Detectors 9-16	. . . . .
Detectors17-24	. . . . .
Detectors 25-32	. . . . .
Detectors 33-40	. . . . .
Detectors 41-44	. . . . .

System Detector Assignment (5-5)

Sys Det	1	2	3	4	5	6	7	8
Det Num								
Sys Det	9	10	11	12	13	14	15	16
Det Num								

CIC Operation (5-6-1)

Enable in Plans	. . . . .

CIC Values (5-6-2)	Volume	Occupancy	Demand
Smoothing	0.66	0.66	0.66
Multiplier	4.0	0.33	
Exponent	0.50	1.00	

Detector-to-Phase Assignment (5-6-3)

Sys Det	1	2	3	4	5	6	7	8
Phase								
Sys Det	9	10	11	12	13	14	15	16
Phase								

Input File Port-Bit Assignments

332 Cabinet - For Reference Only

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
I-	3.2	1.1	4.5	2.1	3.4	1.3	4.7	2.3	3.6	4.1	6.6	5.1	5.2	6.7
	7.2	1.5	6.2	7.4	7.6	1.7	6.4	7.8	3.8	4.2	2.7	5.3	5.4	6.8
J-	3.1	1.2	4.6	2.2	3.3	1.4	4.8	2.4	3.5	4.3	2.8	5.5	5.6	2.5
	7.1	1.6	6.3	7.3	7.5	1.8	6.5	7.7	3.7	4.4	6.1	5.7	5.8	2.6

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TOD SCHEDULE

Table 1 (8-2-1)		
Time	Plan	OS
0700	1	A
0820	4	A
1000	2	A
1400	3	A
2000	255	A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A

Table 2 (8-2-2)		
Time	Plan	OS
0700	255	A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A

Table 3 (8-2-3)		
Time	Plan	OS
0700	4	A
1000	2	A
1400	3	A
2000	255	A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A

Table 4 (8-2-4)		
Time	Plan	OS
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A

Table 5 (8-2-5)		
Time	Plan	OS
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A

Table 6 (8-2-6)		
Time	Plan	OS
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A

WEEKDAY ASSIGNMENT

Weekday Table Assignments (8-2-7)						
Mon	Tue	Wed	Thu	Fri	Sat	Sun
1	1	1	1	3	2	2

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HOLIDAY TABLES

Floating Holiday Table (8-2-8)

#	Mnth	Week	DOW	Table
1			. . . . .	
2			. . . . .	
3			. . . . .	
4			. . . . .	
5			. . . . .	
6			. . . . .	
7			. . . . .	
8			. . . . .	
9			. . . . .	
10			. . . . .	
11			. . . . .	
12			. . . . .	
13			. . . . .	
14			. . . . .	
15			. . . . .	
16			. . . . .	

Fixed Holiday Table (8-2-9)

#	Mnth	Day	DOW	Table
1			. . . . .	
2			. . . . .	
3			. . . . .	
4			. . . . .	
5			. . . . .	
6			. . . . .	
7			. . . . .	
8			. . . . .	
9			. . . . .	
10			. . . . .	
11			. . . . .	
12			. . . . .	
13			. . . . .	
14			. . . . .	
15			. . . . .	
16			. . . . .	

Daylight Saving (8-1)

Enabled	YES	Month	Sunday
	Start	MAR	2nd
	End	NOV	1st

Solar Clock Data (8-4)

North Latitude	34
West Longitude	118
Local Time Zone	8

Sabbatical Clock (8-5)

Hebrew	Ped Recall
Sabbath	. . . . .
Holiday	. . . . .

TOD FUNCTIONS

TOD Functions (8-3)

#	Start	End	DOW	Action	Phases
1			. . . . .		. . . . .
2			. . . . .		. . . . .
3			. . . . .		. . . . .
4			. . . . .		. . . . .
5			. . . . .		. . . . .
6			. . . . .		. . . . .
7			. . . . .		. . . . .
8			. . . . .		. . . . .
9			. . . . .		. . . . .
10			. . . . .		. . . . .
11			. . . . .		. . . . .
12			. . . . .		. . . . .
13			. . . . .		. . . . .
14			. . . . .		. . . . .
15			. . . . .		. . . . .
16			. . . . .		. . . . .

Action Codes:

0. None
1. Permitted
2. Restricted
4. Veh Min Recall
5. Veh Max Recall
6. Ped Recall
7. Bike Recall
8. Red Lock
9. Yellow Lock
10. Force/Max Lock
11. Double Entry
12. Y-Coord C
13. Y-Coord D
14. Free
15. Flashing
16. Walk 2
17. Max Green 2
18. Max Green 3
19. Rest in Walk
20. Rest in Red
21. Free Lag Phases
22. Special Functions
23. Truck Preempt
24. Conditional Service
25. Conditional Service
26. Leading Ped
27. Traffic Actuated Max 2
41. Protected Permissive
42. Protected Permissive

Action Code = Phases added to normal setting

100+Action Code = Phases removed

200+Action Code = Phases replaced

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COMMUNICATIONS

	C2 (6-1-1)	C20 (6-1-2)	C21 (6-1-3)
Address			
Baud	9600	1200	1200
Protocol	MASTER	AB3418	AB3418
Data Bits	8	8	8
Parity	NONE	NONE	NONE
Stop Bits	1	1	1
RTS On Time	20	20	20
RTS Off Time	20	20	20
Handshaking	NORMAL	NORMAL	NORMAL
Access Level	0	0	0

SOFT LOGIC

Soft Logic (6-2)

#	Data	OP	Data	OP	Data	OP	Data
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							

*Refer to User's Manual for Data and OP Codes

CALLBACK NUMBERS

Callback Numbers (6-3...3)

Line Out			
Long Distance			
Local Toll			
Delay	10	10	10
Area Code			
Phone Number			

NETWORK

Network Parameters (6-4)

Address	
Protocol	AB3418
Port	27000
Type	STATIC
Central Access	
Field Access	
ATSPM	OFF

IP Address	0	.	0	.	0	.	0
Netmask	255	.	255	.	255	.	0
Broadcast	0	.	0	.	0	.	255
Gateway	0	.	0	.	0	.	254

SPAT Network (6-5)

SPAT	1	2
Protocol	NONE	NONE
UDP Port	0	0

IP Address	0	.	0	.	0	.	0

Access Levels:

0-Full Access
1-Status Only
2-Status, Set Pattern, Time
3-Status, Set Pattern, Time, Manual Plan
4-Reserved
5-Full Access with No Set Pattern
6-Full Access with No Set Time
7-Full Access with No Set Pattern, Manual Plan
8-Full Access with No Set Time, Pattern, Manual Plan

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RAILROAD PREEMPTION

RR 1

Timing (3-1-1)	
Clear 1	15
Clear 2	5
Clear 3	
Hold	
Min Grn	
Delay	
Exit	
Ped Clr	

Phase Flags (3-1-2)			Pedestrian Flags (3-1-3)			Overlap Flags (3-1-4)		
Grn Hold	Yel Flash	Red Flash	Walk	Flash DW	Solid DW	Grn Hold	Yel Flash	Red Flash
. 2 . . 5 . . .	. . . .	. . . .	. . . .	. . . .	. 2 . 4 . 6 . 8	. . . . .	. . . . .	. . . . .
. 2 . . 5 . . .	. . . .	. . . .	. . . .	. . . .	. 2 . 4 . 6 . 8	. . . . .	. . . . .	. . . . .
. . . .	. . . .	. . . .	. . . .	. . . .	. . . .	. . . . .	. . . . .	. . . . .
1 . . 4 . . 7 8	. . . .	. . . .	. . . .	. . . 4 . . . 8	. 2 . . . 6 . .	. . . . .	. . . . .	. . . . .

Exit Parameters (3-1-5)

Phase Green	Ovrlap Green	Veh Permit/Call	Ped Permit/Call
. 2 . . . 6 . .	. . . . .	1 2 3 4 5 6 7 8	. 2 . 4 . 6 . 8

Configuration (3-1-6)

	PR	XR	Gate	Isld	APP	Sign	Sign	Max On	Latching
1								5	NO
2									

Valid Inputs: 1.x, 2.x, 3.x, 4.x, 5.x, 6.x, 7.x, 8.x x=1 to 8
Valid Outputs: 11.x, 12.x, 13.x, 14.x, 15.x, 16.x, 17.x, 18.x x=1 to 8

RR 2

Timing (3-2-1)	
Clear 1	15
Clear 2	5
Clear 3	
Hold	
Min Grn	
Delay	
Exit	
Ped Clr	

Phase Flags (3-2-2)			Pedestrian Flags (3-2-3)			Overlap Flags (3-2-4)		
Grn Hold	Yel Flash	Red Flash	Walk	Flash DW	Solid DW	Grn Hold	Yel Flash	Red Flash
. . . 4 . . 7 .	. . . .	. . . .	. . . .	. . . .	. 2 . 4 . 6 . 8	. . . . .	. . . . .	. . . . .
. . . 4 . . 7 .	. . . .	. . . .	. . . .	. . . .	. 2 . 4 . 6 . 8	. . . . .	. . . . .	. . . . .
. . . .	. . . .	. . . .	. . . .	. . . .	. . . .	. . . . .	. . . . .	. . . . .
1 2 3 . . 6 . .	. . . .	. . . .	. . . .	. 2 . . . 6 . .	. . . 4 . . . 8	. . . . .	. . . . .	. . . . .

Exit Parameters (3-2-5)

Phase Green	Ovrlap Green	Veh Permit/Call	Ped Permit/Call
. 2 . . . 6 . .	. . . . .	1 2 3 4 5 6 7 8	. 2 . 4 . 6 . 8

Configuration (3-2-6)

	PR	XR	Gate	Isld	APP	Sign	Sign	Max On	Latching
1								5	NO
2									

Valid Inputs: 1.x, 2.x, 3.x, 4.x, 5.x, 6.x, 7.x, 8.x x=1 to 8
Valid Outputs: 11.x, 12.x, 13.x, 14.x, 15.x, 16.x, 17.x, 18.x x=1 to 8

EMERGENCY VEHICLE PREEMPTION

EVA (3-A)

Preempt Timers			Phase Green	Overlap Green
Delay	Clear	Max		
	30	30	. 2 . . 5 . . .	. . . . .

Port	Latching	Phase Termination
	NO	ADVANCE

EVB (3-B)

Preempt Timers			Phase Green	Overlap Green
Delay	Clear	Max		
	30	30	. . . 4 . . 7 .	. . . . .

Port	Latching	Phase Termination
	NO	ADVANCE

EVC (3-C)

Preempt Timers			Phase Green	Overlap Green
Delay	Clear	Max		
	30	30	1 . . . . 6 . .	. . . . .

Port	Latching	Phase Termination
	NO	ADVANCE

EVD (3-D)

Preempt Timers			Phase Green	Overlap Green
Delay	Clear	Max		
	30	30	. . 3 8	. . . . .

Port	Latching	Phase Termination
	NO	ADVANCE

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INPUTS

		7 Wire I/C (2-1-5-1)			
		Input	Port	Input	Port
Enable	NO	RR1		Free	
Max ON		RR2		D2	
Max OFF		RR3		D3	

Manual Control (2-1-5-2)	
Input	Port
Manual Advance	
Advance Enable	

Cabinet Status (2-1-5-3)	
Input	Port
Flash Bus	
Door Ajar	
Flash Sense	6.7
Stop Time	6.8

Special Function (2-1-5-4)	
Input	Port
1	
2	
3	
4	

Battery Backup (2-1-5-5)	
Port	Operation
	NORMAL

Y-Coordination (2-1-5-6	
Port C	Port D

OUTPUTS

Loadswitch Assignments (2-1-6) +							
A	1	2	22	3	4	24	9
B	5	6	26	7	8	28	10
X	13	14	0	11	12	0	0

Loadswitch Codes:
- 0 Unused (no output)
- 1-8 Vehicle 1-8
- 9-14 Overlap A-F
- 21-28 Ped 1-8
- 41-47 Special Functions
- 41 Protected Permissive Flashing Phase 1
- 43 Protected Permissive Flashing Phase 3
- 45 Protected Permissive Flashing Phase 5
- 47 Protected Permissive Flashing Phase 7
- 51-57 Special Functions
- 71-72 Seven Wire I/C

+ middle output of loadswitches 3 and 6 Channel 9 and 10

INTERVAL CONTROL

Interval Control (3-3-1)	
	Time
Step 1	
Step 2	
Step 3	
Step 4	
Step 5	
Step 6	
Step 7	
Step 8	

Phase Control (3-3-2)		
Hold	Force	Advance
.....	.....	.....
.....	.....	.....
.....	.....	.....
.....	.....	.....
.....	.....	.....
.....	.....	.....
.....	.....	.....
.....	.....	.....

Phase Recall (3-3-3)		
Veh Call	Ped Call	Int Call
.....	.....	.....
.....	.....	.....
.....	.....	.....
.....	.....	.....
.....	.....	.....
.....	.....	.....
.....	.....	.....
.....	.....	.....

Phase Permitted (3-3-4)		
Phs Permit	Ped Permit	Ovrlap Permit
.....	.....	.....
.....	.....	.....
.....	.....	.....
.....	.....	.....
.....	.....	.....
.....	.....	.....
.....	.....	.....
.....	.....	.....

Configuration (3-3-5)			
Input	Port	Delay	HRI Cross
1			
2			

HRI

HRI Configuration (3-4)	
RailRoad	51
Line	
Group	

	WAYSIDE	ATC
Subnode		
Device		

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TRANSIT PRIORITY

Local Plans (3-E) 1...9 11...19		Early Green	Green Extend	Inhibit Cycles	Phase 1 Minimum	Phase 2 Minimum	Phase 3 Minimum	Phase 4 Minimum	Phase 5 Minimum	Phase 6 Minimum	Phase 7 Minimum	Phase 8 Minimum
Plan 1	Green Factor											
Plan 2	Green Factor											
Plan 3	Green Factor											
Plan 4	Green Factor											
Plan 5	Green Factor											
Plan 6	Green Factor											
Plan 7	Green Factor											
Plan 8	Green Factor											
Plan 9	Green Factor											
Plan 11	Green Factor											
Plan 12	Green Factor											
Plan 13	Green Factor											
Plan 14	Green Factor											
Plan 15	Green Factor											
Plan 16	Green Factor											
Plan 17	Green Factor											
Plan 18	Green Factor											
Plan 19	Green Factor											

Enable in Local Plans (3-E-3)	
Plan 1-9	. . . . .
Plan 11-19	. . . . .

Queue Jump (3-E-4)	
Grn Hold	Hold Phase
	. . . . .
	. . . . .

Input		Output	
Type	Port	Stop	Go
NONE	0.0	0	0
NONE	0.0	0	0

Free Plans (3-E-E)	
Max Grn Hold	Hold Phase
	. . . . .

Access Utilities (9-5)	
Password	***
Timeout	30

YELLOW YIELD COORDINATION

					Force-Offs											
Y-Coord Plans (7-C,D)	Long Grn	No Grn	Offset	Perm	-1-	-2-	-3-	-4-	-5-	-6-	-7-	-8-	Coord	Lag	Min Recall	Restricted
Plan C													. 2 . . . 6 . .	. 2 . 4 . 6 . 8	. . . . .	. . . . .
Plan D													. 2 . . . 6 . .	. 2 . 4 . 6 . 8	. . . . .	. . . . .

TRUCK PRIORITY

Truck Priority (3-F)	Passage	CarryOver	Clearance	Next Priority	Phase Green	Det 2 Port	Det 3 Port	Det 4 Port	Sign Output	Slave Input	Slave Output
					. . . . .	0.0	0.0	0.0	0	0.0	0